Guidelines for Formative and Evaluative Research in Public Affairs

A Report for the Department of Energy Office of Science

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PURPOSES OF THE WHITE PAPER

This white paper is designed to serve several main purposes. It should:

- 1. Lead to the improvement of public affairs practice within the Department of Energy.
- 2. Serve as a tool for peer reviewers, showing them what to look for in public affairs operations of the DOE labs.
- 3. Address staff qualifications in public affairs, helping labs track the professional development of their staff.
- 4. Institutionalize the importance of professional standards and peer-professional interaction in DOE public affairs.
- 5. Provide a yardstick against which public affairs in the labs could be measured in times of contract renewal.
- 6. Facilitate discussion about metrics between public affairs at the lab level and in field offices.
- 7. Facilitate discussion about the nature of public affairs between public affairs personnel and lab management.

As a public document, this report also should prove useful for discussion of the current and ideal states of public affairs metrics in the DOE. We envision the enhancement of public affairs there as an iterative process, one that undoubtedly began long before we attended the workshop on Public Affairs Metrics for Energy Research Nov. 15-16 in Batavia, IL. At that session, we determined that the state of metrics in DOE public affairs at this time is inadequate. In a few cases, we found no formalized system of research for planning or evaluating public affairs efforts. However, we were impressed with the candor of participants willing to share their best and worst examples of how public affairs is measured in their operations. Their disclosure indicates an impressive level of trust among workshop participants and—most significantly—an impressive willingness to enhance their performance.

We were further impressed that most workshop participants genuinely welcome peer review of their work. We agreed that the standards we develop should be relevant and helpful to the public affairs function and the labs more generally. Finally, we determined that these metrics should serve a role in self-assessment by professional public affairs officers.

WHAT READERS WILL FIND IN THIS REPORT

What follows is a narrative description of what the best public affairs programs within and beyond the DOE are doing to *formulate* and *assess* their operations. We have tried to develop the

narrative with our admittedly limited understanding of the constraints of the DOE system. In other words, we consider our recommendations *feasible* in this context. Further, we focus on appropriate procedures for formative and evaluative research rather than suggesting specific outcomes. Finally, we organize our white paper along the levels suggested by theoretical literature in the field: program, function, organization, and society. The entire report is grounded in the scholarly body of knowledge in public relations and public affairs. ¹

We concentrate on the three publics or stakeholder groups that emerged as most significant in the discussion at the Batavia workshop. Thus our remarks emphasize employee communication, community relations, and media relations. We highlight the need for public affairs people to reach beyond the press to other key constituencies; the internal audience, for example, is always primary. *Public affairs personnel must go beyond media placement as a measure of their effectiveness.*

Despite the commonality of strategic publics among many of the labs, we were struck with the rich diversity of facilities in which DOE public affairs officers work. Their goals and even their key constituencies differ markedly in some cases as well. As a result, we acknowledge that what works at one site may not be effective in another. Our intention is not to box in any PAO.

Instead, we hope to develop standards that are helpful for all public affairs people concerned with doing their jobs better. Developing those criteria often begins with a determination of what the organization's goals truly are. Too often, public affairs people are uncle ar on any goals beyond those of their own department. In any case, we also hope that through increased reliance on appropriate research methods, public affairs professionals might become part of the organizational team that actually determines the organization's mission and goals.

In formulating appropriate metrics for the DOE context, we have tried to de-emphasize scores and percentages. We are determined to go beyond numbers and scores to help public affairs staffers focus on the establishment and enhancement of the communal relationships so important with their strategic constituencies. We suggest a triangulation of methods here as a way of studying relationships.

Our recommendations are designed to help public affairs people understand those stakeholders and thus understand how to work with them. Formative research also can help management of the entire laboratory understand its environment—both external and internal—so that the entire operation works more effectively. We believe in the value of the peer review process, in particular, because of its ability to help lab directors and other top-level decision makers understand the potential and the limitations of public affairs practice.

¹ Throughout this paper, we will use the terms "public affairs" and "public relations" interchangeably. Both terms refer to the communication management function of an organization. We understand that the term public affairs is the preferred term in government agencies. Among academic scholars and most other communication professionals, however, the term public relations is the preferred umbrella term for the broad communication management function in organizations. "Public relations" contains two key terms that describe the essence of communication programs — "public" and "relations." The purpose of public relations is to develop an organization's relationships with its publics—those groups that affect an organization or are affected by it or depend on it for services. The term public relations should not be confused with publicity, promotion, or media relations, which are common lay understandings of its meaning. In this report, then, we generally will use the term public affairs to refer to DOE communication programs and public relations to refer to the broader body of knowledge related to communication management.

IMPEDIMENTS TO PUBLIC AFFAIRS METRICS

Much of the inappropriate evaluation research conducted in DOE labs is *historicist* in nature. That is, measurement is done as it is because it always has been done that way. Public affairs practitioners relying on this inadequate approach realize that it is not a serious attempt to improve their performance or to add value to their organization. Instead, it meets the minimal standard of having a "performance-based contract." It serves merely as a way to work with the Department of Energy and make sure that core tasks are accomplished.

This kind of historicist research typically emphasizes *products* (such as press releases generated) over *processes* (such as relationship-building) and *outcomes* (such as the quality of relationships). When product count is the only or even the primary metric attached to public affairs, PAOs are understandably frustrated. Such measures ignore their real successes in terms of quality and relationships.

Another problem in existing public affairs research is the fact that evaluative criteria, developed historically and seemingly arbitrarily, reflect too many labs' *perceptions* of what the DOE expects. In some cases, the evaluation of public affairs grew out of the Malcolm Baldridge criteria. These standards, of course, were not designed to measure performance specifically in public relations or communication. In other cases, standards were developed by physicists who may be equally ignorant of public affairs. Their formulae for calculating effectiveness in public affairs are neither understood nor appreciated by the PAOs we talked with. We suggest, instead, a set of *generic principles of excellence developed specifically for public relations* and based not on historical or anecdotal evidence but on rigorous empirical testing.

A third complicating factor for DOE public affairs is the fact that several individuals or groups typically are responsible for communication within the labs. No one person or office may have oversight, which leads to both lack of accountability and lack of professionalism across the board.

Legal constraints further hamper the efforts of even the most professional of PAOs to integrate research throughout their practice. The paperwork reduction act has limited the amount of survey research allowed by law. On the one hand, the labs are expected to have a baseline understanding of their publics. On the other hand, legislation has precluded them from surveying their communities adequately. Finally, the legal question of who pays for research—the DOE or the contractor or both?—may inhibit PAOs from proposing even fundamental studies.

Still another problem is the ubiquitous matter of *cost*. Most programs are constrained by budgets inadequate for appropriate formative and evaluative research. However, we argue that doing research—especially formative research—saves money in the end. Inappropriate programs are not developed in the first place. This represents a saving both in cost and in staff time. (Time, of course, is another resource that is always in short supply.)

How, then, does one measure something that does not occur—such as a crisis averted or money not spent on a program doomed to failure? As one workshop participant put it, "How do you measure the contribution of public affairs when bad things don't happen?" Perhaps both insiders and outsiders can best answer these questions through a triangulation of approaches that include self-assessment, peer review, long interviews with lab management, and direct observation. Although

there may be no one best method, we do know that planning for—and measuring the contribution of—public affairs must go beyond surveys and other approaches PAOs consider mere feedback mechanisms.

Self-assessment, whose potential for learning and improving public affairs practice is immense, is at the same time not a panacea. We learned that because of the nature of the reward system within DOE public affairs, self-assessment might result in a constant indication of "outstanding" rather than true introspection and honest appraisal.

This difficulty leads to the related problem of PAOs who are penalized for failing and thus *fail to innovate* in their communication practices. Metrics may lead to lessons learned; but when measurement does not lead, in turn, to high scores on established criteria public affairs people are unlikely to try new approaches to communication practice or research.

In a second related problem, *cynicism* has resulted from years of discouraging experience with the DOE and previous attempts to develop public affairs metrics that everyone—DOE as well as the labs—could live with. Any change, such as in approach to measurement, tends to be slow because of the nature of government bureaucracy. At the same time, the shifting political scene has meant almost constant shifts in policy. The outcome has been much inertia, competing agendas, and survey research coupled with peer review as the only mutually acceptable default. Although most workshop participants saw this white paper as an opportunity to raise their level of professionalism, one characterized their stance as "optimistic skepticism."

A final complication for DOE or, in fact, any public affairs function is the long-term nature of relationship building. One public affairs officer considered this "the cruelest aspect" of the problem—the realization that relationships take time and money to cultivate and nurture. Resources for measuring relationships over time are tight and unlikely to increase at least in the near future. How, then, does one develop an affordable and systematic, ongoing measure of relationships established, invigorated, or merely maintained? Research for any long-term goal is difficult at best. It requires establishing a baseline and then conducing tracking or trend studies over time. In many cases, metrics for long-term projects become more qualitative than quantitative.

So, again, we suggest both qualitative and quantitative methods in this white paper. In the next section, we identify ways of establishing baseline measures that account for both process and outcomes, that encompass a host of strategic constituencies, that grow out of both strong and weak examples within the DOE labs, and that should be flexible or generic enough to accommodate labs with different environments and different goals. Recommendations are not meant to be cast in stone. Instead, they represent a starting point for what could become an ongoing dialogue among members of the DOE public affairs community, between public affairs and lab management, between PAOs in the labs and their field offices, and among the labs and their external publics.

COPING WITH LIMITED RESOURCES

Before we outline appropriate metrics for public affairs, we need to emphasize the feasibility of conducting research even when time, expertise, and money are scarce. Research done on a shoestring does not have to mean that that research is less valid or useful than big-budget studies.

In fact, keeping costs under control always is important. Rather than committing a large sum on an occasional basis, it is important to do research on a regular, on-going basis. Better to earmark small amounts of money to plan for or measure the effects of communication programs annually or even more often than to wait until a lab can fund a comprehensive audit. Why? Strategic constituencies are not static; they change constantly, so PAOs need information that is immediately relevant.

Here are five main approaches to trimming a research budget:

- 1. *Use secondary analysis rather than conducting primary research*. Look at data collected initially for some other organization or purpose rather than doing your own, original study. Remember that the main cost for research is gathering the data, rather than analyzing them. To find relevant information for your secondary analysis, start with the newspaper: The mass media constantly publish public opinion polls and other research results. Search the LEXIS-NEXIS database. Consult the data archives available from the Yankelovich, Gallup, Harris, and Roper polls. Peruse the census bureau data. Don't ignore university libraries, where archived data are never proprietary.
- 2. Piggyback onto someone else's original research. Research firms offer omnibus or caravan surveys that spread the fee out over multiple sponsors. Tack your questions onto the larger survey instrument, which represents a combination of queries of interest to all parties. Also consider the in-house piggyback option: inviting other departments to cooperate on a single, large-scale study whose costs can be shared among those units.
- 3. Learn to do research yourself. Despite a lack of time or empirical expertise, you can teach yourself the "hows" of the process. Hiring an outside firm is a smart choice under many circumstances (such as when the study requires perceived objectivity of the commercial vendor as a key to cooperation of participants or credibility of the findings), but even then you need to know enough to decide on the role you want consultants to play and to explain exactly how you intend to use their research results.

You can gain this expertise in several ways. Professional associations typically offer workshops on research; even commercial research firms provide occasional how-to sessions. Finally, consider short courses or professional development programs such as the San Francisco Academy or the Executive Forum sponsored by the Institute for Public Relations.

- 4. Rely on scholars of public relations—either students or professors. You can save on the cost of research by hiring graduate students, who are supervised by their faculty advisers. Often, these scholars are on the cutting edge of knowledge about conducting ethical, effective research. They may be looking for projects to increase their familiarity with the process and thus are willing to charge less and do more.
- 5. Work with smaller samples. Although accuracy increases with sample size, the rate of improved accuracy does not increase significantly after an N of 400. Public affairs can live with a reasonable margin of error, because the stakes are not life and death. Also, smaller can be better: Smaller samples may result in having more time and money to spend on data analysis, rather than data collection. What the small sample sacrifices in terms of breadth, it can make up for in depth. This is especially true for qualitative research, such as focus groups and long interviews. When measuring relationships, the

aim may be to mine the opinions of a few key people rather than skimming the superficial view of many.

So, with the understanding that research often can and should be accomplished with minimal financial investment, we are left to conclude that public affairs practice should be based on sound formative and evaluative research. Because we also know that PAOs in the DOE too often are not basing their practice on appropriate metrics, we now turn to an explanation of the best ways of doing so.

AN OVERVIEW OF RESEARCH IN THE SCIENTIFIC MANAGEMENT OF PUBLIC AFFAIRS

In their book, *Using Research in Public Relations*, Broom and Dozier listed five approaches to the use of research in public relations programs.² Three of these approaches do not include research as an integral part of the ongoing management of such programs. The first of these approaches is to use no research, which is all too common in government agencies. A second is the use of informal research, such as talking to members of the public or the media, reading reports, or listening to unsolicited feedback from superiors or members of a public without systematically planning the research or analyzing the results. This is another common, but limited, approach.

A third is "media-event" research, with which organizations typically conduct a poll, for example, to determine how satisfied participants are with an organization or the extent to which they favor an organization's policies. The organization then publicizes the results if they are favorable in order to marshal support for the organization or policy. We heard of one example at the Batavia meeting of what was perceived to be media-event research, a case in which a lab released the results of a poll to the media showing that members of the community rated the lab highly. The research then was criticized for being self-serving.

Organizations typically conduct the fourth type of research, evaluation-only research, to show funding agencies or clients that programs have been effective. If the research shows that a program has not been effective, the organization typically downplays the results or is forced to discontinue a program. However, the research plays no role in planning or improving communication programs. Evaluation-only research seems to have been typical for DOE labs, resulting in punishment if the research shows little or no effect. At a minimum, evaluation-only research in the past has caused public affairs personnel to fear that the research would be used only to make a decision to continue or discontinue a program and not to improve it.

In contrast to these typical approaches to research in public relations, Broom and Dozier recommended what they called the scientific management of public relations. Just as research in science is used to develop, test, and revise theories, so research in scientifically managed public relations is used to develop, test, and revise communication programs. With the scientific management of public relations, research also is a part of the communication process itself. A DOE lab, for example, would conduct research on publics to gather information to communicate to management as well as to determine how best to serve their communication needs. The lab also would use evaluative research to pretest communication programs as they are developed and to determine how programs can be improved after they are implemented. Our major purpose in this

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² G. M. Broom and D. M. Dozier, *Using Research in Public Relations: Applications to Program Management*, Englewood Cliffs, NJ, Prentice-Hall, 1990, pp. 14-20.

paper, therefore, is to outline how public affairs departments in DOE laboratories can use ongoing research to scientifically manage their communication programs.

To develop an understanding of the use of research to manage public affairs programs scientifically, we will first introduce important distinctions in the levels of analysis at which public affairs research can be used and in the types of research that is done at each of these levels. We then will use this terminology to explain research at each level and to provide examples of how DOE laboratories have used or could use such research.

Levels of Analysis in Public Affairs Programming

Public relations practitioners and scholars have strived for many years to explain the value of communication programs to the organizations that employ them as well as to society, which funds public relations programs in direct or indirect ways. Until recently, they have focused most of their efforts on the evaluation of individual communication programs, such as media relations, community relations, or employee relations. In fact, the root of "evaluation" is "value." We believe that focusing only on the evaluation of individual programs is too narrow, although we also believe that evaluation should be an ongoing part of the scientific management of all communication programs.

In a major research project on Excellence in Public Relations and Communication Management, which we and colleagues David Dozier, William Ehling, Jon White, and Fred Repper conducted for the IABC (International Association for Business Communication) Research Foundation, we searched the literature on organizational effectiveness for ideas that could explain the value of public relations beyond the effects of individual communication programs. We believed it was necessary to understand first what it means for an organization to be effective before we could explain how public relations makes it more effective. We learned that effective organizations achieve their goals, but that there is much conflict within the organization and with outside constituencies about which goals are most important. Effective organizations are able to achieve their goals because they choose goals that are valued by their strategic constituencies both inside and outside the organization and also because they successfully manage programs designed to achieve those goals.

Effective organizations choose and achieve appropriate goals because they develop relationships with their constituencies, which we in public relations call "publics." Ineffective organizations cannot achieve their goals, at least in part, because their publics do not support and typically oppose management efforts to achieve what publics consider illegitimate goals. In a

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³We have published two books thus far on the Excellence project, and a third book is in press. The first book was a comprehensive literature review of previous research in public relations and related subjects that we used to develop a study of the value of public relations and the organization of the communication function in approximately 300 organizations (including government agencies, corporations, associations, and nonprofit organizations) in the United States, Canada, and the United Kingdom (J. E. Grunig [Ed.], *Excellence in Public Relations and Communication Management*, Hillsdale, NJ, Lawrence Erlbaum Associates, 1992). The second book was written primarily for communication practitioners and managers who employ them. It summarized the theory developed in the first book and reported highlights of the research results (D. M. Dozier with L. A. Grunig and J. E. Grunig, *Manager's Guide to Excellence in Public Relations and Communication Management*, Mahwah, NJ, Lawrence Erlbaum Associates, 1995). The third book will provide a detailed quantitative analysis of the survey of 300 organizations and a qualitative analysis of 24 follow-up case studies of the most and least excellent organizations found in the survey (L. A. Grunig, J. E. Grunig, and D. M. Dozier, *Excellent Public Relations and Effective Organizations: A Study of Communication Management in Three Countries*, Mahwah, NJ, Lawrence Erlbaum Associates, in press).

government agency, in addition, effective organizations serve their publics more effectively when they choose and achieve goals that are important to those publics. Public relations makes an organization more effective, therefore, when it identifies the most strategic publics as part of strategic management processes and conducts communication programs to develop effective long-term relationships with those publics. As a result, we should be able to determine the value of public relations by measuring the quality of relationships with strategic publics. And, we should be able to evaluate individual communication programs by measuring their effects on indicators of a good relationship.

Organizations must be effective at four increasingly higher levels of analysis—1) the program level, 2) the functional level, 3) the organizational level, and 4) the societal level. Effectiveness at a lower level contributes to effectiveness at higher levels, but organizations cannot be said to be truly effective unless they have value at the highest of these levels. Research in public affairs can be conducted to systematically plan how to increase effectiveness at each level and to evaluate the extent to which a public affairs program has contributed to organizational effectiveness.

Public affairs research at the program level. By the program level, we mean individual communication programs such as media relations, community relations, or employee relations that are components of the overall public affairs function of an organization. Communication programs generally are effective when they meet specific objectives such as affecting the cognitions, attitudes, and behaviors of both publics and members of the organization—i.e., the cognitive, attitudinal, and behavioral relationships between organizations and their publics.

Public affairs research at the functional level. Even though individual communication programs successfully accomplish their objectives, the overall public affairs function might not be effective unless it is integrated into the overall management processes of an organization and has chosen appropriate publics and objectives for individual programs. The public affairs function as a whole can be audited by comparing its structure and processes with those of similar departments in other organizations or with theoretical principles derived from scholarly research—a process called benchmarking. These audits can be conducted through self review or peer review.

Public affairs research at the organizational level. Public relations contributes to organizational effectiveness when it helps align the organization's goals and behavior with the expectations and needs of its strategic publics. This contribution adds value—sometimes monetary value—to the organization. Public relations adds value by building good, long-term relationships with strategic publics; and research can be used to monitor and evaluate the quality of these strategic relationships.

Public affairs research at the societal level. Organizations have an impact beyond their own boundaries. They also serve and affect individuals, publics, and other organizations in society. As a result, organizations cannot be said to be effective unless they are socially responsible; and public relations adds value to society by contributing to the ethical behavior and the social responsibility of organizations. In the case of a scientific organization, public affairs contributes to society by developing understanding and support of science and by helping to align science with the needs of society. The value of public affairs at the societal level is the cumulative impact of good relationships at the organizational level, so that research on the quality of relationships also can be used to evaluate the contribution of public affairs to society.

Formative and Evaluative Research

Scientists conduct research both to formulate theories and, after theories are specified, to evaluate and improve those theories. The same procedures should be used in the scientific management of public affairs programs. Both formative and evaluative research should be used at the program, functional, organizational, and societal levels of analysis. Public affairs departments in government agencies typically are asked to provide evidence of value at the societal or organizational level. Too often, however, they respond by conducting evaluation-only research, such as media monitoring, at the program level.

Public affairs departments, therefore, should conduct *formative research* to identify strategic publics, to determine how the organization can communicate best to develop quality relationships with those publics, to develop departmental structures that facilitate communication with strategic publics, and to determine how the organization can align its behavior with the needs of its publics. Public affairs departments should conduct *evaluative research* both to pretest and to posttest those programs, structures, and organizational policies and behaviors.

Quantitative and Qualitative Research

Research in public affairs too often has been confined to the extremes of quantitative and qualitative research—large-scale, highly quantified, expensive, and intrusive public-opinion surveys of the general population or undisciplined informal research of poorly chosen research participants. Neither is very useful in formulating or evaluating programs for specific publics or in developing, maintaining, and evaluating relationships with the publics that both need or are affected by an agency.

In contrast, public affairs professionals should choose from a full menu of quantitative and qualitative methods, each of which might be appropriate in different situations and each of which is equally scientific. *Quantitative methods* include surveys of and experiments with members of scientifically segmented publics. *Qualitative methods* include focus groups; structured, semi-structured; or unstructured interviews with key participants; or participant or nonparticipant observations of the behaviors of members of publics or of public affairs professionals or other managers conducting their work.

Quantitative and qualitative methods do not work equally well at different levels of analysis or for both formative and evaluative research. For example, qualitative research (especially focus groups) is ideal for formative research at the program level—although it also can be used for evaluation at that level. Quantitative research can be especially valuable for segmenting publics and for evaluating outcomes at the program level. In many cases, both types of research can be used to provide complementary perspectives in both formative and evaluative research—an approach known as *triangulation*.

Process and Outcomes Evaluation

Public affairs programs can be evaluated by measuring both the processes of communication programs and the outcomes of those programs. At the program level, *measures of processes* indicate how often and in what ways someone is communicating or his or her success in placing messages in a medium where *it is possible but not assured* that members of a public can attend to them. Program-level processes can be measured by counting whether messages are being sent, placed, or received—

such as counts of press releases or publications issued, media placement and monitoring, exposure to or readership of publications, and attendance at meetings. At the functional level, auditors often measure processes by observing and counting what programs have been conducted, what personnel have been hired, and the amount of effort expended by program personnel.

It is important to point out that measures of communication *processes* must go beyond measures of *products*. Too often communication products (such as numbers of press releases or publications) are counted without understanding how those products fit into a strategic process for communicating with a particular public. The process must be the result of a strategic plan for communicating with a public. Sometimes, counting products might provide a good indicator that a process is being implemented. Too often, however, products are produced for historicist reasons—because the agency has always produced them—and not because they are part of a consistent strategy.

Measuring process indicators can be very useful in evaluating public affairs programs but they must be preceded by research that demonstrates that the processes being measured or counted have had demonstrable and valuable **outcomes**—both in the short term and the long term. At the program level, we must demonstrate, first, that the processes have had short-term effects on the cognitions, attitudes, and behaviors of both publics and management—what people think, feel, and do. In addition, we need to determine whether those short-term effects continue over a longer period—i.e., whether they have effects on the long-term cognitive, attitudinal, and behavioral relationships among organizations and publics. At the functional, organizational, and societal levels, broad measures of effects of a public affairs department on the long-term quality of relationships between the organization and its publics are essential. Short-term effects are not sufficient. These outcomes can be measured through quantitative survey methods or qualitative questions asked in interviews, focus groups, or similar methods.

A public affairs department of a DOE lab could validate process measures either by conducting outcomes research itself (or contracting with an outside firm), by using secondary research conducted by another lab or a related public relations department of a different organization, or by analyzing research published by academic researchers.

A lab itself could conduct pretest or posttest research to demonstrate that particular processes regularly have desired effects. For example, an educational relations program could be tested by measuring how much students who participated in the program learned (a cognitive effect) in a pretest of the program or posttest of an ongoing program. If the students consistently learned from the program, then we could infer that students who participate in the program in the future also will learn; and we could evaluate the program by counting how many programs are held and the number of students who attend. In a community relations program, we might determine whether residents who attend a lab open house become less likely to call to complain about the lab or are more likely to say they support lab objectives. If that outcome occurs, then we could measure the effect of the program by counting how many community residents attend open houses each year. This kind of research to confirm the effects of processes must be repeated from time to time, however—such as every three to five years to demonstrate that the processes remain effective.

DOE labs that conduct such validation research could help each other by sharing the results of their research or by collaborating in conducting the research. They might also share or collaborate with other organizations with similar programs even though they are not DOE labs.

Perhaps most importantly, public affairs departments often can find research to validate communication processes in the academic literature, published in such journals as the *Journal of Public Relations Research* or *Public Relations Review* and sometimes in trade publications such as *pr reporter* or *Communication World*. When we make suggestions for peer review at the functional level below, for example, we will recommend that labs base those reviews on the criteria for effectiveness in communication departments that we identified in the IABC Excellence study.

We now will use these distinctions between research needed at the program, functional, organizational, and societal levels; formative and evaluative research; quantitative and qualitative research; and process and outcomes evaluation to provide suggestions and examples of how DOE laboratories might conduct research to scientifically manage their public affairs programs. We will organize these suggestions and examples around the four levels of analysis.

PUBLIC AFFAIRS RESEARCH AT THE PROGRAM LEVEL

We begin this discussion of metrics for DOE labs at the program level because this is the level that most public relations professionals think of when they are asked to do research to demonstrate their effectiveness. However, keep in mind that a senior public affairs officer should begin planning of public affairs programs at the organizational and societal levels so that specific communication programs relate to organizational goals and decisions and to stakeholders who affect or are affected by organizational goals and decisions. As we discuss research at the program level, therefore, we also will explain how specific communications programs can be connected to the organizational and societal levels.

When most public relations professionals think of research, they think of research directly related to specific communication programs. For example, when they think of media relations, they think of monitoring the content of media. When they think of community relations, they think of a survey to determine the level of satisfaction that community residents have with an organization. When they think of employee relations, they think of an audit of employees' satisfaction with the organization, their jobs, or the quality of communication in an organization.

It is important to remember three things about these kinds of programmatic research, however. First, they are evaluation-only studies, which generally have not been preceded by formative research to help plan the program. Second, the studies typically do not measure carefully constructed objectives based on formative research or theoretical guidelines that categorize logical and measurable communication objectives. Third, the measures cannot be used directly to conclude whether public affairs programs contribute to the effectiveness of the organization at the organizational or societal levels. Measures of processes and outcomes at the program level can be used to infer effectiveness at higher levels only if they are logically and empirically connected to broader organizational goals—most notably to developing quality long-term relationships with strategic publics—and the publics affected by the program are strategic to the organization.

We will say more about connecting program objectives to organizational goals and strategic publics when we discuss effectiveness at the organizational level. However, at this point we will explain the role of public affairs in strategic decision-making at the organizational level to show how the strategic management of public affairs programs is connected to organizational goals and behaviors.

The Role of Public Affairs in Strategic Management and the Strategic Management of Public Affairs Programs

In the IABC Excellence study, we found that the most effective public relations departments participated in the making of overall strategic decisions in organizations. Less-effective departments generally had the less-central role of disseminating messages about strategic decisions made by others in the organization. By participating in organizational decisions, excellent public relations departments were in a position to identify the stakeholders who would be affected by organizational decisions or who would affect those decisions. Once they had identified stakeholders, excellent public relations departments strategically developed programs to communicate with them. They conducted formative research to identify potential issues and define objectives for programs to communicate with the stakeholders, they specified measurable objectives for the communication programs, and they used both formal and informal methods to evaluate whether the objectives had been accomplished. Less-excellent departments conducted no formative or evaluative research and generally had only vague objectives that were difficult to measure.

An example of this continuous process of participating in organizational decisions and aligning communication programs with strategy can be found in the "System Map: Office of Public Affairs" of Fermilab. It states, first, that "Planning starts with the Laboratory's strategic plan, which the Office of Public Affairs helps to develop, and which it supports" and continues, "As an ongoing process, through weekly meetings, the Public Affairs staff plans how to use available resources to achieve goals and support the Laboratory's evolving strategic plan." Another example can be found in the stated mission of the Communications and Public Affairs Division of the National Energy Technology Laboratory: "Mission: To provide world-class communications counsel, campaign development, and project execution in support of NETL business and institutional goals."

Figure 1 displays this role of an excellent public relations department in the overall strategic management process of an organization and the nature of strategic management of public relations programs. The process is similar to the guidelines that Brookhaven National Laboratory has developed for its managers. The guidelines can be found in the Brookhaven publication, *Community Involvement and Laboratory Decision-Making: A Handbook for Managers*. The central concepts in Figure 1 are Management Decisions at the top, Stakeholders and Publics on the right, and Relationship Outcomes on the left. Connecting management and publics are the consequences that the behavior of each has on the other—the interdependence between an organization and its environment that creates the need for public relations.

The double arrows between management decisions and stakeholders at the upper right of Figure 1 show that strategic decision-makers of an organization should interact with stakeholders through the public relations function because their decisions have consequences on publics or because the organization needs supportive relationships with stakeholders in order to implement decisions and achieve organizational goals. Stakeholders also might seek a relationship with an organization in order to seek a consequence from the organization to solve a problem it recognizes—such as an environmental group that seeks a reduction in pollution from a DOE laboratory. Thus the consequences of organizational decisions (and behaviors resulting from those decisions) define who the stakeholders of an organization are and, therefore, the stakeholders with whom the organization needs a relationship.

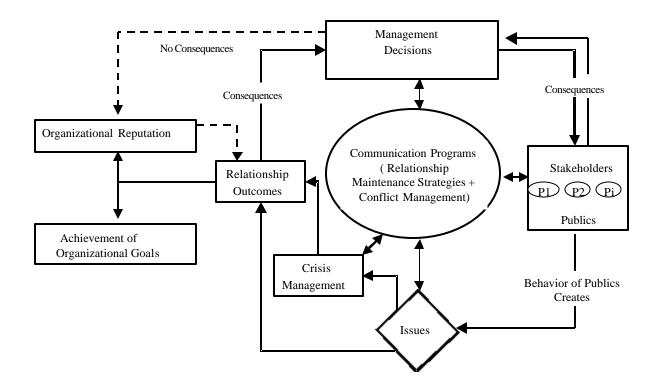


Figure 1. Model of Strategic Management of Public Relations

We define stakeholders as broad categories of people who might be affected by management decisions or affect those decisions—such as employees or community residents. When a strategic public relations manager scans the environment, therefore, his or her first step should be to think broadly in terms of stakeholder categories. Then he or she should use a theory of publics⁴ to identify and segment active, passive, and latent publics from the nonpublics that might also be present in the stakeholder category.⁵

It is important to segment active publics, because active publics typically make issues out of the consequences of organizational decisions. This behavior may be individual or it may be collective—when members of publics organize into activist groups. Sometimes publics react negatively to harmful consequences of an organization's behaviors—such as pollution or discrimination. At other times, they act positively to try to secure a behavior from an organization

⁴ J. Grunig has developed such a theory, which he calls a situational theory of publics. For basic information on the theory, see J. E. Grunig and T. Hunt, *Managing Public Relations*, Ft. Worth: Holt, Rinehart & Winston, 1984, Chapter 7. For more advanced information, see J. E. Grunig, "A Situational Theory of Publics: Conceptual History, Recent Challenges and New Research," in D. Moss, T. MacManus, and D. Vercic (Eds.), *Public Relations Research: An International Perspective*, London: International Thomson Business Press, 1997, pp. 3-46.
⁵ The DOE and its laboratories use the term "customer" in much the same way that we use the term "public." We prefer to use the term "public" because it is more of a public relations term than "customer," which is more of a marketing term. We restrict the use of the term customer to someone who buys an organization's products or services. "Publics" are *participants* in organizations that affect them, whereas "customers" *consume* the outputs of an organization.

that has useful consequences for them—such as a community public that wants cleaner stream. At still other times, publics collaborate with organizations to secure consequences of benefit to both. In the case of a scientific organization such as a DOE lab, supportive active publics often consist of people who believe that science has relevance to their everyday lives or who have an intellectual interest in science. Figure 1 then shows that publics that cannot stop the consequences that harm them or secure the consequences that benefit them generally make issues out of the consequences.

Issues, in turn, can become crises if they are not handled well. When issues or potential issues are discussed and negotiated with publics, the result is improved relationships with publics. An example of this integration of issues management into the ongoing role of public affairs in the strategic decision process can be found in a Performance Expectation of Sandia Laboratory's public affairs department: "Develop a new integrated approach that connects the issues management process with community outreach efforts—enhancing communication and collaboration among Sandia organizations and the community."

At the center of the strategic processes described in Figure 1 is an oval representing communication programs—programs to build and maintain relationships with publics and to manage conflict with publics. Communication with potential publics is needed before decisions are made by strategic decision-makers, when publics have formed but have not created issues or crises, and during the issue and crisis stages. Communication programs at the latter two stages are generally termed "issues management" and "crisis communication" by public relations practitioners. What Figure 1 illustrates, however, is that communication with publics before decisions are made is most effective in resolving issues and crises because it helps managers to make decisions that are less likely to produce consequences that publics make into issues and crises. If a public relations staff does not communicate with publics until an issue or crisis occurs, the chance of resolving the conflict is slim.

The center oval in Figure 1 depicts the strategic management of public relations programs themselves—as opposed to the participation of public relations in the overall strategic management of the organization. Communication programs should begin with formative research, then develop achievable and measurable objectives, implement the program, and end with evaluation of whether the objectives have been met.

The final path in Figure 1 can be found in the dotted lines from "Management Decisions" to "Organizational Reputation" to "Relationship Outcomes"—a path labeled "No Consequences." This path captures the approach practiced by public relations practitioners who believe that positive messages about management decisions—mostly disseminated through the mass media—can by themselves create a positive organizational reputation. Such a path would produce what we call a "reputational relationship." We believe that publicity about management decisions can create such a reputational relationship between an organization and the audience exposed to the messages, but only to a limited extent. We have labeled the dotted line "No Consequences" because we believe that organizations have reputational relationships only with people for whom the organization has no consequences. We describe such people as "audiences" because they are not truly "publics." As such, these audiences have little importance to an organization. As soon as an organization or public has consequences on the other, it begins to develop an involving behavioral relationship rather than a low-involvement reputational relationship. It is at that point that a group of people becomes an active and strategic public rather than a passive audience.

This background on the logical connection between communication programs and the role of public affairs in strategic decision-making at the organizational level provides the context for

understanding the following recommendations for research at the program level of public affairs. In the next three subsections, we provide suggestions and examples for formative research, process and outcome objectives, and evaluative research at that level.

Formative Research at the Program Level

In its initial stages, formative research at the program level cannot be separated easily from environmental scanning research at the organizational level. If a public affairs department is to be effective, it must engage in continuous scanning of stakeholders and potential stakeholders so that the department builds up a base of knowledge about stakeholders that makes it possible to provide valuable information to strategic decision-makers about the consequences of organizational decisions and the consequences sought by stakeholders. Continuous formative research makes it possible for the public affairs department to understand and predict the likely emergence of publics and issues.

Public affairs programs should begin when formative research identifies a new or existing strategic public with which the organization needs a relationship. The strategic communicator then should do additional formative research to identify problems that publics want solved or that the organization creates for publics, issues that might result from these problems, and strategies that will help to build a successful relationship with these publics. Strategic public affairs programs follow these four steps:

- 1. Develop short-term objectives specified as communication effects and long-term objectives specified as relationship indicators.
- 2. Plan a communication program to accomplish these objectives.
- 3. Implement the program.
- 4. Evaluate the program by measuring the extent to which the objectives have been accomplished.

In a scientifically managed public affairs program, formative research should be an integral part of the first two steps, as well as serving the function of identifying publics, problems, and issues.

In two-way communication programs, many strategies designed to listen to publics or to seek information from publics can be described as informal research. That informal research can be made more scientific by using qualitative methods to structure these information-seeking activities and by using qualitative methods to analyze and interpret the information.

DOE labs have used, or could use, the following types of formative research for these purposes:

Observations. Public affairs or other lab personnel can attend meetings of community groups, scientific organizations, or other bodies in which publics might be represented to observe what they are saying and doing about the lab or their discussion of problems that might affect the lab even though the members of the groups do not specifically connect these problems to the lab. Several labs do this in their envoy and ambassador programs. Observers can be either participants in the organizations (as in an ambassador program) or nonparticipants (as in an envoy program). Observers should systematically gather data from their observations and analyze them for presentation to managers and public affairs officers.

Advisory groups. Several DOE labs have developed community advisory panels both as a means of seeking information from individual members of publics in the community or the organizations that represent them and for engaging publics in the solving of community problems

and issues. A good example is the Community Advisory Council of Brookhaven Laboratory, which was formed to help the lab decide whether to restart its High Flux Beam Reactor. Brookhaven and the DOE also have held a community workshop to explore options for the clean-up of the Peconic River, which originates on the lab site.

Interviews. Public affairs professionals and other lab personnel often interview community leaders, activists, and other key stakeholders formally or interact with them informally. Principles of rigorous qualitative interviewing can be used to plan and analyze these interviews.

Focus groups. Increasingly, public relations professionals are using these small groups to gain insights from publics and serve as a basis for program planning and policy making. Focus groups consist of 6-12 participants who discuss a topic in depth, guided by a trained facilitator. Discussion builds from the general to the specific—gradually focusing on the issue of concern. Focus groups are perhaps the most useful form of formative research, because they help public affairs professionals grasp what motivates people and explain what people think and do in their own terms.

Questionnaires and survey research. Quantitative surveys of a population have been used for many years in public relations. As we mentioned previously, survey methods can be used to segment publics. They also are good for measuring attitudes and opinions. Surveys, however, are expensive and intrusive when administered to a large number of people. Quantitative questionnaires generally are more useful for evaluative research than formative research because they generally ask people to respond to previously identified problems, issues, or programs. A questionnaire can be used to identify new problems or issues if open-end questions are used, although open-end questions are more difficult to administer and analyze than are closed-end questions.

Content analysis of media. The content of media coverage of a laboratory can be analyzed systematically to detect themes, problems, issues, and publics. Content analysis can be conducted quantitatively by developing categories and placing stories into those categories. It also can be conducted qualitatively by looking for patterns and impressions within the clippings.

Cyber analysis. A public affairs staff can follow and analyze (qualitatively or quantitatively) the content of chat rooms, discussion groups, and listservs related to the interests of a laboratory and problems and issues that might occur. It also can analyze the web sites of community, scientific, and activist groups that intersect the interests of the laboratory.

Naturally occurring information. Members of publics often provide information to an organization without any effort by public affairs professionals or researchers. They make telephone calls, write letters, send e-mail messages, and talk to employees. A public affairs department can develop a system to capture and analyze this information to identify problems, consequences, publics, and issues.

Databases. Databases are tools for analyzing, collecting, and using information gathered through the formal and informal research methods we have described in this section. Information should be classified by problems, publics, and issues and then used for input into strategic decision processes. Brookhaven Laboratory, for example, has developed such a database.

Evaluative Research at the Program Level: Developing Objectives and Measuring Them

After formative research has identified the publics with which a lab needs relationships and the problems and issues that exist or might exist, a public affairs staff should formulate objectives for programs to communicate with these strategic publics. Since the value of public relations to an organization and society exists in the relationships developed with strategic publics, objectives should consist of *strategies to develop and maintain relationships* and the *relationship outcomes* that the lab strives to achieve with these strategies. Strategies to develop and maintain relationships can be specified as *process objectives*. Relationship outcomes can be specified as *outcome objectives*. A public affairs staff can monitor both process and outcome objectives to evaluate its communication programs—as long as research has established that the process objectives do indeed lead to the outcome objectives.

Process objectives and measures. Most of the knowledge that public relations professionals possess has something to do with how to communicate with publics to develop and maintain a relationship with those publics. Not all strategies for developing and maintaining relationships are equally effective, however. Therefore, we must recognize that not all public relations strategies, techniques, and programs are equally likely to produce quality relationship outcomes. Public relations researchers have identified and classified the strategies that research has shown to be most effective. Maintenance strategies that are symmetrical in nature generally are more effective than asymmetrical strategies. To be symmetrical means that the public affairs staff communicates in a way that helps to balance the interests of both organizations and publics. To be asymmetrical means that the public affairs staff strives for a relationship that benefits the organization but that it is less concerned about the interests of the public. The Communication and Public Affairs Division of the National Energy Technology Laboratory described symmetrical communication well in its vision statement: "CPD will become the 'dialogue center' for NETL, not just a 'product push' department with communication going primarily in one direction."

DOE labs may have identified additional symmetrical communication processes that have produced desirable relationship outcomes that can be added to the following list. Here is a list derived from academic studies of relationships and conflict resolution:

Access. Members of publics or community or activist leaders provide access to public
relations people. Public relations representatives or senior managers provide representatives
of publics similar access to organizational decision-making processes. Either party will
answer telephone calls or read letters or e-mail messages from the other. Either party is
willing to go to the other when it has complaints or queries, rather than taking negative
reactions to third parties. For example, the public affairs office at Fermilab describes the
access it provides in this way:

The Public Affairs Office is a major communication channel for complaints and concerns about the entire Laboratory. We resolve complaints and respond to concerns every day; it's in our job description. The Office of Public Affairs responds directly and promptly to customer complaints by phone, letter, email, and in person. We record formal complaints, forward them to appropriate people in the Laboratory, and follow up on the response.

A performance criterion for the Stanford Linear Accelerator Center also describes the access objective:

SLAC Communications and Public Affairs provide access to the lab through information sharing, publicizing lab activities, hosting public events and leading tours, and participating in public and community activities as appropriate.

- Disclosure or openness. Both organizations and members of publics are open and frank with each other, willing to disclose their thoughts, concerns, and problems as well as their satisfaction or dissatisfaction with each other. For example, the Argonne National Laboratory has the performance objective: "Internal and external communications are open, timely, and of high quality." Fermilab says that it will "work with customers, stakeholders, and neighbors in an open, frank, and constructive manner." The Idaho National Engineering and Environmental Laboratory contract specifies that it "engage in comprehensive and well-conceived efforts to facilitate open, honest communication among all parties internal to the INEEL." The Lawrence Livermore National Laboratory includes among it core values a commitment to "assuring honest, open interactions with all customers and team members within the Laboratory, the community it serves, and with its partners."
- Assurances of legitimacy. Each party in the relationship attempts to assure the other that it
 and its concerns are legitimate and to demonstrate that it is committed to maintaining the
 relationship.
- **Networking.** Organizations build networks or coalitions with the same groups that their publics do, such as environmentalists, unions, or community groups.
- Sharing of tasks. Organizations and publics share in solving joint or separate problems. Examples of such tasks are managing community issues, providing employment, conducting high-quality research, and maintaining funding, which are in the interest of the organization, the public, or both.
- Integrative strategies of conflict resolution. These approaches are symmetrical because all parties in a relationship benefit by searching out common or complementary interests and solving problems together through open discussion and joint decision-making. The goal is a win-win solution that values the integrity of a long-term relationship between an organization and its publics. Integrative strategies are more effective than distributive strategies, which are asymmetrical because one party benefits at the expense of another by seeking to maximize gains and minimize losses within a win-lose or self-gain perspective. Tactics include trying to control through domination, argument, insistence on a position, or showing anger. Other forcing strategies are faulting the other party, hostile questioning, presumptive attribution, demands, or threats. Distributive strategies impose one's position onto that of an adversary without concern for the adversary's position.

A public affairs staff can measure these process objectives to provide meaningful information in the short term that their communication programs are leading to desired long-term effects. For example, public affairs managers can measure disclosure by publics to the organization by counting suggestions, complaints, inquiries, and other contacts that members of publics, the media, government, or leaders of activist groups make with the organization, rather than to regulatory bodies, legislators, or the media.

Public affairs practitioners can measure process objectives from the management side of the organization-public relationship by keeping a count of the times management seeks them out for advice or is willing to disclose its intentions, decisions, and behaviors to outside publics or the media through the public relations function. Other process indicators of effective maintenance strategies include counts of what management has done to show publics that their interests are legitimate, of contacts with networks of activist groups, or in social responsibility reports showing the extent to which management has worked on problems of interest to publics.

Outcome objectives and measures. The ultimate goal of communication programs such as community relations, media relations, or employee relations—and even of specific communication activities such as an open house, a media interview, an employee publication, or a visit to a museum by students—is a quality relationship with a strategic public. Relationships develop slowly, however, and a particular communication activity or short-term program can be expected only to have an incremental effect on the quality of a relationship. In most cases, that incremental effect will be too small to measure.

There are five short-term objectives that communication research has shown can be attained through discrete activities and programs. Each can be measured either quantitatively or qualitatively, depending on the nature of the evidence desired to show the effect of the programs. Sometimes qualitative evidence is sufficient; at other times management or a contractor demands quantitative evidence. In most of the communication literature, these objectives are defined as one-way effects—as effects on the public. These one-way effects also can be measured on management, however, to determine effects of symmetrical programs. When we think of two-way effects, different terminology makes the objectives more meaningful.

The one-way effects are the following, with examples and measures included:

- Exposure. Members of a strategic public or of management receive a message. Stories are placed in the media and members of publics read them. Members of a public see an advertisement, attend a special event, go to a web site, or read a brochure. Managers meet with public leaders, read the results of a public opinion survey, or view a videotape of a focus group. Exposure can be measured through such methods as readership surveys, attendance counts, web hits, or management attendance at meetings. Note that media monitoring alone usually is not a sufficient measure even of exposure because it cannot tell you if anyone has read or seen a news story.
- Retention of messages. Members of the public not only are exposed to a message; they also remember the message. Recipients of the message do not necessarily agree with the message or plan to do anything about it. They simply remember what you said. This objective can be measured through questions about the recall of messages. For example, a survey of the neighborhood or the scientific community could ask, "Do you remember hearing anything about the dedication of a device called RHIC at the Brookhaven National Laboratory?" Or, management could be asked, "Do you recall hearing about any community concerns as a result of our envoy program?"
- Cognition. Recipients of messages not only remember messages but they understand them and develop new knowledge. To measure a cognitive effect, for example, survey participants could be asked a multiple-choice question with choices explaining what RHIC is; or they

could be asked to explain RHIC in an open-end question. Managers, similarly, could be asked to explain community concerns. Students could be given a set of questions about a scientific topic they had heard about in a museum or lecture.

- **Attitude.** Members of a public or of management not only receive and understand a message; they also evaluate its implications favorably and intend to behave in a way that is consistent with a message. Attitudes can be measured through conventional evaluative questions.
- **Behavior.** Members of a public or of management behave in a new or different way—changing the behavioral relationship of an organization and public and the consequences that each has on the other. Behaviors can be measured by asking what publics have done that affect the organization or that management has done that affects a public.

The conventional wisdom in communication research has been that these five effects constitute a hierarchy of effects—that changes in behavior, for example, must be preceded by changes in exposure, message retention, cognition, and attitude. However, these effects can occur independently of each other or in a different order. For example, people often hold attitudes that are based on limited or no knowledge. Or, behavior sometimes changes before attitudes or cognition changes. Therefore, a public affairs manager should decide which objectives are most likely for each communication process that he or she wants to evaluate. The objectives become more difficult to attain as we move from exposure to behavior. He or she also must decide what kind of relationship is desired with a public. Behavioral relationships require an effect on behavior—or at least on behavioral intent (i.e., attitudes). Reputational relationships, however, as defined in Figure 1, can be based on no more than exposure, message retention, or cognition. Generally, a reputational relationship is inadequate with a public that is truly strategic to an organization.

When a public affairs department thinks of its objectives in two-way terms, it should use somewhat different terminology for the above five effects. Two-way objectives envision the effect of communication activities on management and publics simultaneously. Ideally both change, although sometimes one must change more or less than the other. Based on the communication theory of coorientation (meaning the simultaneous orientation of management and publics), we can use these five terms to describe short-term objectives.

- Exposure becomes **mutual awareness.** Both management and public are aware of the effect they have on the other.
- Message retention becomes accuracy. Both can accurately remember and repeat what the
 other said.
- Cognitive effect becomes **understanding.** Both have similar cognitions about a problem or issue or purpose of the organization.
- Effect on attitude becomes **agreement.** Both have similar evaluations of the what the organization or public wants and intend to behave in a way that enhances their relationship.
- Effect on behavior becomes **symbiotic behavior**. Both behave in a way that serves the interests of the other and leads to a beneficial relationship.

DOE laboratories have used measures of many of these objectives—such as content analyses of media; employee and community attitude surveys; evaluations by managers of community concerns; or their participation in envoy, ambassador, or stakeholder programs. Jefferson Laboratory, in addition, has developed highly quantified indices of public participation, media visibility, and customer satisfaction. Although there is nothing inherently wrong with such highly quantified instruments, they generally are unnecessary and may hide the information that is needed for making changes to improve communication programs.

What is most necessary is the development of a logical connection between the objectives of short-term communication activities and programs and the nature of the relationship desired with a truly strategic public. Too often, labs measure objectives without beginning with the strategic thinking necessary for identifying strategic publics. Too often, also, they develop excessively quantified measures of objectives that can be measured more simply through qualitative observations and interviews as well as by simple quantitative scales.

Finally, both the DOE and the labs should recognize that the main reason to measure short-term objectives is not so much to reward or punish individual communication managers or the entire public affairs function for success or failure as it is learn from the research whether a program should be continued as is, revised, or dropped in favor of another approach. If pretesting is conducted of programs, rather than just posttesting, such decisions can be made before large expenditures of time and money are made on a program.

Over the long term, successful short-term communication activities and programs should contribute to the development and maintenance of quality long-term relationships with strategic publics. These relationships have value at the organizational level. To understand the nature of relationships and how to evaluate them, we will turn next to the organizational level of analysis because of its logical relationship to the program level. Then, we will return to the functional level to suggest ways of auditing the public affairs department.

PUBLIC AFFAIRS RESEARCH AT THE ORGANIZATIONAL LEVEL

At the organizational level, the central concept for planning and evaluating public affairs programs is the *relationship* between the organization and its publics. The concept is inherent in the term "public relations"—which means managing communication to build *relationships* with *publics*. As we explained previously, our research in the IABC Excellence study isolated the value of relationships as the primary value that public relations adds to an organization. The term "relationships" also can be found throughout the contractual agreements of DOE with its national laboratories as well as in the public affairs plans of the labs.

At the organizational level, the public affairs staff contributes to strategic decision-making by using formative research as a means of environmental scanning to identify publics with which a laboratory needs relationships. The staff also can do formative research to assess the quality of relationships with these publics before it develops specific communication programs to establish, maintain, or improve relationships with publics. Finally, the staff should conduct regular evaluative research to assess the effects of its communication programs on these relationships with strategic publics.

Formative Research at the Organizational Level

At the organizational level, the public relations staff should do formative research as an integral part of the environmental scanning that provides essential information for the public affairs staff to participate in the strategic -planning and decision-making processes of the organization—a role we introduced in the discussion of public relations and strategic management and its connection to research at the program level and as depicted in Figure 1.

Traditionally, public relations managers have scanned the environment by monitoring the media and political processes. These sources still are useful, although they are not the best for environmental scanning. By the time the consequences of a management decision hit the media and become political, it is too late to affect a decision. Then issues management becomes reactive—damage control. In a book on environmental scanning, John Stoffels put it this way: "The most productive sources ...are those that can reliably signal what will happen. ...the executive who uses The Wall Street Journal or The New York Times... learns more about what has happened and what is happening, categories of strategic intelligence of high immediacy but low value for learning about the future. The real value of such instantaneous sources is in confirming the resolution of strategic issues the organization should already have identified and tracked."

After scanning the media and political processes, public relations professionals most often use large-scale public opinion polls. They, too, typically identify issues too late. What is better? Sources of scanning information can be internal or external—from sources inside the organization as well as from external publics. They also can be personal or impersonal—from published sources or directly from personal contacts. Senior public relations executives in a Delphi study for a master's thesis at the University of Maryland rated personal sources as more useful overall than impersonal sources and external sources as more useful than internal sources—a finding consistent with research on environmental scanning by managers other than public relations people.⁷ In order, the public relations executives ranked external personal, internal personal, external impersonal, and internal impersonal as most useful. They said the most useful external personal contacts were customers, activist groups, journalists, and government officials. The most useful internal personal sources were supervisors, cross-division staff, and employees.

Here is what we recommend as a process of environmental scanning for public affairs managers:⁸

1. Begin environmental scanning by monitoring strategic management decision-making. Ask what stakeholders might be affected and what issues they might raise if certain decisions are made.

⁶J. D. Stoffels, *Strategic Issues Management: A Comprehensive Guide to Environmental Scanning*, Tarrytown, NY, Elsevier, 1994, p. 114.

⁷Y. C. Chang, *A Normative Exploration into Environmental Scanning in Public Relations*, M.A. thesis, University of Maryland, College Park, 2000.

⁸A similar process for all involving managers throughout the laboratory in environmental scanning and issues management can be found in the booklet published by Brookhaven National Laboratory, *Community Involvement and Laboratory Decision-Making: A Handbook for Managers*.

- 2. Do qualitative research on activists and personal contacts. Set up advisory boards and send employee envoys to meetings of key stakeholders. Systematically monitor and classify problems, publics, and issues identified through these personal sources.
- 3. Monitor discussion groups, chat rooms, listservs, and web sites on the Internet related to problems and issues of concern to your organization. Set up your own interactive forum on the web to allow publics to bring problems and issues to your attention.
- 4. Systematically interview boundary spanners in your own organization—managers with frequent contact outside the organization, other employees with community contacts, and people in divisions or functions with frequent contact with stakeholders.
- 5. Identify the stakeholders and publics most likely to be affected by and to actively do something about the problems and issues identified in the previous analysis.
- 6. Systematically content analyze and categorize all of the information and put it in a database—classified by type of management decision, problem, public, and issue. Use this database as research evidence to present to management during strategic deliberations and decisions.
- 7. Monitor the media and printed sources to track your effectiveness in dealing with publics and issues. In addition, do research systematically to assess and evaluate your relationships with publics. This takes us to research on the nature and quality of good relationships with publics.

Evaluative Research at the Organizational Level

Recently, we and other public relations researchers have studied the literature on relationships in related disciplines such as interpersonal communication, the social psychology of relationships, and organization-to-organization relationships to identify key characteristics of relationships and to develop measures of the quality of long-term organization-public relationships. In our discussion of the program level, we described several process indicators that research shows are likely to lead to quality long-term relationships.

To demonstrate that a public affairs function has value to the overall organization, however, we believe it also is necessary to develop and use long-term outcome indicators of the quality of relationships. We have identified two types of relationships and four relationship outcomes that we believe define the quality of long-term relationships. These indicators can be measured periodically to monitor the overall effect of public affairs programs on each strategic public and, therefore, the value that the public affairs function has to a laboratory.

Types of relationships. Psychologists have identified two types of interpersonal relationships that also help explain the desired nature of the relationship between an organization and a public. A communal relationship, one of these types of relationships, describes the kind of relationship cultivated by a public relations program, in comparison with the exchange type of relationship produced by other fields such as marketing.

In an **exchange relationship**, one party gives benefits to the other only because the other has provided benefits in the past or is expected to do so in the future. In an exchange relationship, a party

is willing to give benefits to the other because it expects to receive benefits of comparable value to the other. In essence, a party that receives benefits incurs an obligation or debt to return the favor. Exchange is the essence of marketing relationships between organizations and customers and is the central concept of marketing theory. However, an exchange relationship usually is not enough for a public. Publics expect organizations to do things for the community and its stakeholders for which organizations sometimes get little or nothing in return—at least in the short run.

In a **communal relationship**, both parties provide benefits to the other because they are concerned for the welfare of the other—even when they get nothing in return. The role of public relations is to convince management that it also needs communal relationships with publics such as employees, the community, and the media. Public relations professionals add value to an organization when they develop communal relationships with all publics affected by organizational behaviors—not just those who give the organization something in return. Communal relationships are important if organizations are to be socially responsible and to add value to society as well as to client organizations.

This is not to say, however, that exchange relationships are bad for an organization or that public relations professionals do not attempt to develop them. Relationships often begin as exchanges and then develop into communal relationships as they mature. At other times, public relations professionals may need to build a communal relationship with a public before an exchange can occur. Nevertheless, a measure of the degree to which a public perceives that it has a communal relationship with an organization is perhaps the purest indicator of the success of the public relations management function.

Relationship outcomes. Researchers have identified many characteristics that define the quality of a relationship. We think that four of these are especially important for measuring the quality of organization-public relationships. Of the four, however, our research suggests that indicators at the top of the following list are most important and that the importance of the characteristics declines as we move down the list:

- **Control mutuality**—the degree to which parties agree on who has rightful power to influence one another. Although some degree of power imbalance is natural in organization-public relationships, the most stable, positive relationships exist when organizations and publics have some degree of control over the other.
- **Trust**—one party's level of confidence in and willingness to open oneself to the other party. Trust is a complicated concept, which has several underlying dimensions. One of these is integrity, the belief that an organization is fair and just. A second is dependability, the belief that an organization will do what it says it will do. A third is competence, the belief that an organization has the ability to do what it says it will do.
- **Commitment**—the extent to which one party believes and feels that the relationship is worth spending energy on to maintain and promote.
- Satisfaction—the extent to which one party feels favorably toward the other because positive expectations about the relationship are reinforced. A satisfying relationship is one in which the benefits outweigh the costs. Satisfaction also can occur when one party believes that the other party is engaging in positive steps to maintain the relationship.

Examples of the relationship variables. It is possible to measure these six indicators of the type and quality of long-term relationships of an organization with a general sample of the population—i.e., through an opinion poll of the general population. However, a survey of the general population generally will produce a measure of the reputational relationship with an organization, as described in the Figure 1 and the discussion of it, rather than of the behavioral relationship with an actual public. These indicators of quality long-term relationships will be most useful, therefore, if they are measured for publics within specific stakeholder categories.

To illustrate the relevance of the relationship indicators of three common stakeholders of DOE laboratories, we provide these illustrative examples.

• Community relations. The story is very familiar for DOE laboratories. Radioactive waste from the nuclear reactor leaks into the ground water. Laboratory officials say nothing. Pollution is spotted in a stream. Local media report the leakage. Community activists are enraged. They feel they have no control over their own health. The laboratory has said little about the problem, so residents do not trust what it says in the future. The exchange of jobs for health is insufficient for the activists. Obviously, residents feel dissatisfied with the relationship and believe that the laboratory has no commitment to the welfare of its neighbors.

Lab officials, at the same time, believe they cannot accomplish their mission to conduct research in the national interest if they lose **control** to activists whom they believe have "a hidden agenda." The other indicators of poor relationships fall logically into place.

Active involvement of the community and complete openness to the media, however, begin to repair the relationships. The laboratory needs to do its research; the community wants to preserve its health and safety. Working with a citizen advisory panel and local leaders, **trusting**, **communal**, and mutually **satisfactory** relationships are developing between the lab and its neighbors. Both feel they have some **control** over the situation; both feel the other is **committed** to the relationship.

• Media relations. The relationship indicators can be applied to the everyday contacts of public affairs professionals and reporters as well as to the more dramatic problems already discussed. Reporters typically claim that they have poor relationships with public relations people. "Flacks," their term for practitioners, want to control what journalists write. Many journalists do not believe that practitioners are trustworthy news sources and do not feel practitioners are committed to a relationship of helping journalists cover organizations. Journalists believe that they have a communal relationship with community groups and citizens; they would like the organizations that hire public relations services to value a similar relationship.

Public affairs people, at the same time, often do not trust journalists. They are **dissatisfied** with the relationship. They believe that the media are out to get their organizations and have no **commitment** to the interests of organizations they attack. They only want to file a story based on wrongdoing and conflict. Practitioners would like to have a more **communal** relationship with journalists because public affairs

people often have been journalists themselves and want to be valued and respected by their former colleagues. Often, however, practitioners believe they have to **exchange** favors to buy off journalistic attacks. Most importantly, public affairs people and their bosses think they have lost **control** of what publics hear about the organization; they have lost control of their reputation.

Savvy media relations experts know, however, that good relationships with reporters are ones in which both feel they have **mutuality of control** over the reporting of the organization—neither party is in control to the exclusion of the other. Both parties **trust** each other to help them do their job; indeed they have a **communal** relationship so each helps the other even though they may get nothing in return. They are **committed** to making the relationship between the organization and the media work. The bottom line is that they are **satisfied** with the relationship.

• Employee relations. The implications of these relationship indicators for employees also are clear and fall well into line with much of what is known about employee relations. To be most productive, employees must trust the organizations for which they work. Management wants committed employees; often the synonyms used are "loyalty" and "identification" with the organization. Job satisfaction is one of the most heavily researched areas of organizational psychology and communication. Employees want a communal relationship with their employers; they want to go beyond the exchange of work for pay. Perhaps most importantly, employee empowerment is the buzzword of modern employee relations: Employees want some mutuality of control with senior management.

The reverse of these indicators again applies to top management. They do not want to cede all **control** to employees, they want a **communal** relationship, they want employees to be **committed** to excellence even when they are not paid for it, and they want to **trust** unions or employee groups. They, too, want a **satisfactory** relationship with their employees.

Measures of relationship indicators. J. Grunig and his students have conducted research to develop valid and reliable measures of the six indicators of the quality of long-term relations—the two types of relationships and the four relationship outcomes. Details of the research can be found in a report published by the Institute for Public Relations. In addition to quantitative measures that can be used in survey research, we also have developed qualitative measures for the indicators that can be used both in formative and evaluative research on the quality of relationships. The quantitative measures can be found in Appendix A of this paper. The qualitative measures can be found in Appendix B.

We recommend that public affairs managers of DOE laboratories consider using these measures as indicators of the quality of their relationships with strategic publics—such as community members, journalists, and employees. Although we would not expect individual communication programs to produce a short-term change in these indicators, we believe that communication

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⁹ L. C. Hon and J. E. Grunig, *Guidelines for Measuring Relationships in Public Relations*. Gainesville, FL, The Institute for Public Relations, Commission on Public Relations Measurement and Evaluation. The report is available online at http://www.instituteforpr.com/measeval/rel_p1.htm.

programs will have a cumulative effect on the indicators over time. Therefore, we recommend that labs measure these indicators periodically to monitor the value of the relationships they have developed with each of their publics and, therefore, the value that the public affairs function has contributed to the laboratory. Ideally relationships should be measured yearly. Minimally, they should be measured every three years. A compromise would be to measure them every two years.

PUBLIC AFFAIRS RESEARCH AT THE FUNCTIONAL LEVEL

At the functional level of analysis, a public affairs department should conduct research that allows it to look at itself—how it is organized and what it does. Then it should ask whether that organization and behavior make it possible to contribute maximally to organizational and societal effectiveness. Most of the peer and self reviews of the public affairs function now mandated by DOE in its contracts with the laboratories fall into the category of research at the functional level. Most of these reviews have been useful; but they would benefit from a standard set of criteria, based on research, that could be used both in organizing the public affairs function and evaluating its effectiveness.

Research at the functional level also can be called "benchmarking" research. Typically, benchmarking studies identify organizations that are believed to be leaders in an area of practice and then describe how these organizations practice public relations or some other management function. Such benchmarking studies are useful, but they would be even more useful if they were based on a foundation of scientific research that provides a theoretical rationale explaining *why* the practices of the benchmarked departments contribute to organizational and societal effectiveness.

Our study of excellent public relations departments conducted for the IABC Research Foundation provides such a theoretical profile, a theoretical benchmark, of critical success factors and best practices in public relations. It is a profile that we initially constructed from past research and by theoretical logic. In addition, we gathered empirical evidence from more than 300 organizations in three countries to confirm that this theoretical profile explains best actual practice as well as best practice in theory. In most benchmarking studies, communication units compare themselves with similar units in their industry or with similar functional units inside the organization. The Excellence study, in contrast, is an example of what Craig Fleisher called "generic benchmarking" in his book on public affairs benchmarking—identifying critical success factors across different types of organizations. ¹⁰ Generic benchmarking is most valuable theoretically, because it is unlikely that one organization will be, in Fleisher's words, "a world-class performer across the board." In the Excellence study, a few organizations exemplified all of the best practices, many organizations exemplified some of them, and others exemplified few of the practices—i.e., the theoretical benchmark was normally distributed in the population of organizations.

A theoretical benchmark does not provide an exact formula or detailed description of practices that a public relations unit can copy in order to be excellent. Rather, it provides a generic set of principles that such units can use to generate ideas for specific practices in their own organizations. In *Excellence in Public Relations and Communication Management*, Fred Repper, the practitioner member of the Excellence team, explained how the theory of Excellence can be used to audit communication programs: "One thing communicators never have been able to do is to compare

¹⁰C. S. Fleisher, *Public Affairs Benchmarking*, Washington, Public Affairs Council, 1995.

our communication programs with a program that is considered the best and most effective. However, the normative theory provided in the book gives us an opportunity to measure the effectiveness of our communication programs against that of an ideal program. This comparison is the how to part of the book that each practitioner can use in planning his or her next communication program" (p. 112).

We have examined the criteria that DOE has specified for benchmarking studies of all its laboratories—measured either through self or peer reviews. There is some consistency across criteria specified for different labs, but different labs do not always seem to be held to the same criteria. Some criteria apply to the functional level and others to the program level. Some mandate specific programs at the program level, such as a community advisory panel, a media relations program, or an envoy or ambassador program.

We believe that the DOE should develop a consistent set of criteria for an excellent public affairs function in its laboratories. Most of these criteria should apply to the functional level. We believe that labs should be allowed to decide which programs they need as a result of their strategic management processes, although we also believe that labs should demonstrate that their communication programs are planned strategically and that they are effective both in the short and long term.

We offer the criteria we developed and tested in the Excellence study as a starting point. Most of these criteria apply to the functional level of analysis, to how the public affairs function is organized and to how it behaves. However, two of the criteria specify that communication programs should be planned, managed, and evaluated strategically and that they should be conducted according to the principles of symmetrical communication. The Excellence criteria require knowledge and professionalism by the public affairs unit. They also require understanding of and support for public affairs by senior management. They can be used both for formative and evaluative analysis of the public affairs function for a particular lab—as prior research that can be used to plan and organize the function and as a standard for reviewing the past structure and performance of the function.

Finally, we encourage DOE and its laboratories to jointly review these criteria to develop means of applying them to specific laboratory situations and to add other criteria that are unique to national energy laboratories. We examined the performance contracts and planning documents submitted by public affairs staffs of the laboratories to search for examples of practice that illustrate the principles of the Excellence study. None of the planning and evaluation documents included all of the Excellence criteria, although most of them contained some of the criteria. We will compare two of these documents with the Excellence criteria at the end of this section.

The characteristics of an excellent public relations function can be placed into four categories, each containing several characteristics that can be audited in a DOE laboratory.

1. Empowerment of the Public Relations Function

For public relations to contribute to organizational effectiveness, the organization must empower communication management as a critical management function. Empowerment of the public relations function subsumes four characteristics of excellent public relations. The first three consider the relationship of public relations to the overall management of the organization:

- The senior public relations executive is involved with the strategic management processes of the organization, and communication programs are developed for strategic publics identified as a part of this strategic management process. Public relations contributes to strategic management by scanning the environment to identify publics affected by the consequences of decisions or who might affect the outcome of decisions. An excellent public relations department communicates with these publics to bring their voices into strategic management, thus making it possible for stakeholder publics to participate in organizational decisions that affect them.
- Communication programs organized by excellent departments to communicate with strategic publics also are managed strategically. To be managed strategically means that these programs are based on formative research, that they have concrete and measurable objectives, that varying rather than routine techniques are used when they are implemented, and that they are evaluated either formally or informally. In addition, the public affairs staff can provide evidence to show that these programs achieved their short-term objectives and improved the long-term relationships between the organization and its publics.
- The senior public relations executive is a member of the dominant coalition of the organization or has a direct reporting relationship to senior managers who are part of the dominant coalition. The public relations function seldom will be involved in strategic management nor will public relations have the power to affect key organizational decisions unless the senior public relations executive is part of or has access to the group of senior managers with the greatest power in the organization: the dominant coalition.

The fourth characteristic of empowerment defines the extent to which practitioners who are not white males are empowered in the public relations function:

Diversity is embodied in all public relations roles. The principle of requisite variety suggests
that organizations need as much diversity inside as in their environment if they are to interact
successfully with all strategic elements of their environment. Excellent public relations
departments empower both men and women in all roles as well as practitioners of diverse
racial, ethnic, and cultural backgrounds.

2. Communicator Roles

Public relations researchers have conducted extensive research on four major roles that communicators play in organizations—the manager, senior adviser, technician, and media relations roles. The manager and technician roles are the most common of the four. Communication technicians are essential to carry out most of the day-to-day communication activities of public relations departments, and many practitioners play both manager and technician roles. In less-excellent departments, however, all of the communication practitioners—including the senior practitioner—are technicians. If the senior communicator is not a manager, it is not possible for public relations to be empowered as a management function because there are no managers in the department. Three characteristics of excellence in public relations are related to the managerial role:

The public relations unit is headed by a strategic manager rather than a technician or an administrative manager. Excellent public relations units must have at least one senior communication manager who conceptualizes and directs public relations programs, or other

members of the dominant coalition who have little knowledge of communication management or of relationship building will supply this direction. In addition, the results of the Excellence study distinguished between two types of senior managers: a strategic manager and an administrative manager. Administrative managers typically manage day-to-day operations of the communication function, manage personnel, and manage the budget. They generally are supervisors of technicians rather than strategic managers. If the senior public affairs officer is an administrative manager rather than a strategic manager, the department usually will not be excellent.

- The senior public relations executive or others in the public relations unit must have the knowledge needed for the manager role or the communication function will not have the potential to become a managerial function. Excellent public relations programs are staffed by professionals—practitioners who have gained the knowledge needed to carry out the manager role through university education, continuing education, or self study.
- Both men and women must have equal opportunity to occupy the managerial role in an excellent department. The majority of public relations professionals are women. Research also has established that female practitioners are the best educated in this field and most likely to take advantage of professional development opportunities. If women are excluded from the managerial role, the communication function may be diminished because the majority of the most-knowledgeable practitioners will be excluded from that role. When that is the case, the senior position in the public relations department typically is filled by a technician or by a practitioner from another managerial function who has little knowledge of public relations.

3. Organization of the Communication Function and Its Relationship to Other Management Functions

Many organizations have a single department devoted to all communication functions. Others have separate departments for programs aimed at different publics such as journalists, employees, the local community, or the scientific community. Still others place communication under another managerial function such as marketing, human resources, legal, or finance. Many organizations also contract with or consult with outside firms for all or some of their communication programs or for such communication techniques as annual reports or newsletters. Two characteristics are related to the organization of the function:

- Public relations should be an integrated communication function. An excellent public
 relations function integrates all public affairs programs into a single department or provides a
 mechanism for coordinating programs managed by different departments. Only in an
 integrated system is it possible for public relations to develop new communication programs
 for changing strategic publics and to move resources from outdated programs designed for
 formerly strategic publics to the new programs.
- **Public relations should be a management function separate from other functions.** Even though the public relations function is integrated in an excellent organization, the function should not be placed in another department whose primary responsibility is a management function other than communication. Many organizations splinter the public relations function by making communication a supporting tool for other departments such as human resources.

When the public relations function is sublimated to other functions, it cannot be managed strategically because it cannot move communication resources from one strategic public to another—as an integrated public relations function can.

4. Models of Public Relations

Public relations scholars have conducted extensive research on the extent to which organizations practice four models of public relations—four typical ways of conceptualizing and conducting the communication function—and to identify which of these models provides a normative framework for effective and ethical public relations. This research suggests that excellent departments design more of their communication programs on the two-way symmetrical model of collaboration and public participation than on three other typical models: press agentry (emphasizing only favorable publicity), public information (disclosing accurate information but engaging in no research or other form of two-way communication), or two-way asymmetrical (emphasizing only the interests of the organization and not the interests of the publics).

Two-way symmetrical public relations is based on research and uses communication to enhance public participation and to manage conflict with strategic publics. As a result, two-way symmetrical communication produces better long-term relationships with publics than do the other models of public relations. Symmetrical programs generally are conducted more ethically than are other models and, as a result, produce effects that balance the interests of organizations and the publics in society. Four characteristics of Excellence are related to models of public relations:

- The public relations department and the dominant coalition share the worldview that the communication department should base its goals and its communication activities on the two-way symmetrical model of public relations.
- Communication programs developed for specific publics are based on the two-way symmetrical strategies for building and maintaining relationships described in the section on the program level above.
- The senior public relations executive or others in the public relations unit must have the professional knowledge needed to practice the two-way symmetrical model.
- The organization should have a symmetrical system of internal communication. A symmetrical system of internal communication is based on the principles of employee empowerment and participation in decision-making. Managers and other employees engage in dialogue and listen to each other. Internal publications disclose relevant information needed by employees to understand their role in the organization and to provide employees a voice to management. Symmetrical communication within an organization fosters a participative rather than an authoritarian culture as well as improved relationships with employees—greater employee satisfaction, control mutuality, commitment, and trust.

Comparison of the Excellence Criteria with Contract Expectations for Brookhaven National Laboratory

To illustrate the relevance of the Excellence criteria for a DOE laboratory, we compared these criteria with the objectives and performance measures in DOE's contract with Brookhaven

National Laboratory for fiscal year 2000. BNL has one of the most developed evaluation programs of DOE laboratories

In that fiscal year, DOE specified that Brookhaven National Laboratory should achieve the critical outcome of being "recognized as a community asset, a good neighbor, and a valued employer." This outcome can be interpreted as achieving a good relationship with the local community and its employees. To achieve the outcome, Brookhaven was expected to meet three performance objectives:

- Responsiveness: "Enhance the responsiveness and effectiveness of Laboratory communications with internal and external stakeholders." The performance measure for this objective was the quality of a strategic communication plan, as evaluated by a peer review panel. Achieving this objective, at least in part, demonstrated that the laboratory had met the first criterion of excellence in public relations: The senior public relations executive is involved with the strategic management processes of the organization, and communication programs are developed for strategic publics identified as a part of this strategic management process.
- Stakeholder involvement: "Create opportunities for stakeholder involvement and participation in Laboratory decision-making processes." There were two performance measures for this objective: 1) a lab-wide process to involve employees, especially managers, in interaction with the community and 2) maintenance of a Community Advisory Council. Survey research was conducted to evaluate the satisfaction of managers with their participation in the community and the satisfaction of members of the Community Advisory Council with the laboratory—both of which assessed the satisfaction dimension of a relationship. This objective provides a good example of developing and assessing symmetrical processes for building and maintaining relationships with publics and for developing means for publics to participate in the strategic decision processes of the laboratory.
- Understanding: "Achieve a better understanding between internal and external stakeholders." This objective was assessed with two performance measures. The first was the development of a stakeholder relations program in which 15 Brookhaven staff members routinely contacted targeted stakeholders and reported on the contact through a database. Feedback from the envoy and ambassador programs, the speakers' bureau, and other outreach programs also were to be included in the database. The peer review panel evaluated the staff's performance on this objective, aided by a telephone survey of interested publics to measure awareness of lab activities, confidence in the laboratory, and supportive behaviors. This performance objective is another example of a symmetrical communication process, which the review team assessed by determining whether the processes had been carried out. The survey measured outcomes of the processes: message retention, attitudes, and behaviors—although the method used was only inferential; it could not establish a causal relationship between the processes and the outcomes. The second performance measure was for the speakers' bureau to increase the number of speeches given to selected groups—measured by the objective of exposure, the number of speeches given to the selected groups.

In addition to these three performance objectives, the peer review team also evaluated four other contract expectations after hearing information presented by the staff. These expectations were

for national recognition achieved through media relations, the ambassador program, the envoy program, and community education programs for teachers, students, and other members of the community. Both the staff and the review team based their evaluation largely on the short-term program objectives of counting communication processes and measuring exposure.

In a broad sense, DOE expected the public affairs staff at BNL to participate in strategic decision processes; to plan, conduct, and evaluate its communication programs strategically; and to engage in symmetrical communication processes to improve its relationships with strategic community publics. The public affairs staff conducted some evaluation research, and a peer review team evaluated the program by comparing the processes and outcomes with its own experiences—a rudimentary form of benchmarking. The review covered at least three of the Excellence criteria. However, the BNL staff was not asked to examine the managerial roles of the communication staff; the empowerment of the public affairs function; the support for public affairs by senior managers; the organization of the function; the knowledge, professionalism, and diversity of the public affairs staff; or the nature and outcomes of internal communication programs—all criteria found to be important in the Excellence study.

The review and evaluation process established for Brookhaven Laboratory, therefore, provides an example of a good first step toward a complete audit of a public affairs function for a DOE laboratory. We also reviewed DOE's contract expectations for the other laboratories and the research they have done to meet the expectations. Most were similar but not so extensive as those at Brookhaven. We believe that the process of setting goals and objectives for laboratory public affairs functions and establishing criteria for reviews of performance would be enhanced by using the Excellence criteria and by gradually adapting them to laboratory situations.

PUBLIC AFFAIRS RESEARCH AT THE SOCIETAL LEVEL

The value of public affairs at the societal level results from the cumulative impact of what it does at the program, functional, and organizational levels. A national energy laboratory serves and affects individuals, publics, and other organizations in society. The importance of the societal level was stated well in the fiscal year 2000 statement of contract measures for Jefferson Laboratory, under the criterion of corporate citizenship: "As a taxpayer-funded institution, Jefferson Lab should serve the public and the national interest in important areas where it has special competencies which are mission related." For a national scientific laboratory, public affairs contributes to society by developing understanding of and support for science and by helping to align science with the needs of society. Without the support and acceptance of its stakeholders, a laboratory cannot accomplish its mission and, therefore, cannot serve the national interest. Likewise, a laboratory must be concerned about the social responsibility of it behavior—i.e., it must be concerned about the consequences of its policies, research, and actions on its neighbors, employees, and other interests as well as on the scientific community.

The value of public affairs at the societal level is the long-term impact of good relationships identified at the organizational level and cultivated at the program level. As a result, research on the quality of relationships also can be used to establish the contribution of public affairs to society. In addition, we believe that the public affairs function should evaluate the ethics and social responsibility of the organization and serve as an ethics counselor to management as part of its role in strategic management. As a result, we would add **ethical and socially responsible behavior** to the list of Excellence criteria in the previous section.

The extent to which a public affairs function performs in an ethical and socially responsible manner can be determined by comparing its behavior with two principles of ethics that we have derived from the principal branches of ethical theory: teleological, or consequentialist, ethics and deontological, or rules-based, approaches. Public affairs programs should assessed according to the extent to which they have considered two questions in their role in the management of a laboratory:

- The teleological question: To what extent has the public affairs staff helped management address the consequences the laboratory has had on publics and addressed the needs of publics?
- The deontological question: To what extent has the public affairs staff carried out its moral obligation to communicate with and disclose the organization's behavior to publics when it has consequences on them or the public expects consequences from the organization?

IN CONCLUSION

We believe that public affairs is an integral part of the management of a national energy laboratory. The public affairs function helps the laboratory interact with the stakeholders in its environment both to accomplish its scientific mission and to behave in a socially responsible manner. An excellent public affairs staff cannot serve this role, however, unless metrics are an integral part of the function. Formative research is necessary to identify strategic publics with which an organization needs a relationship and to determine how to develop and maintain relationships with those publics. Evaluative research is necessary to establish the effectiveness of public affairs programs and their contribution to organizational effectiveness. Public affairs programs can be audited by comparing them to a theoretical benchmark of excellent public affairs programs and to their contribution to the ethical and socially responsible behavior of the organization. This white paper should provide a roadmap for designing and evaluating an excellent public affairs function.

APPENDIX A QUANTITATIVE MEASURES OF RELATIONSHIPS

We and other researchers at the University of Maryland have developed reliable quantitative scales to measure the dimensions of relationships: trust, control mutuality, satisfaction, commitment, and communal and exchange relationships. We reviewed the literature in interpersonal communication and psychology to find indicators others had used. Then, we rewrote the questionnaire items we found to make them applicable to an organization-public relationship. We then tested the reliability of the indicators. Reliability means that if you observe a phenomenon, such as dimensions of a relationship, more than once or in different ways you will get a similar response from the different measures. Practically speaking, this means that if you ask different questions to measure the same relationship indicator the responses will be correlated highly—i.e., respondents will give similar responses to the related questions. Ideally, we would like to have an index for each indicator that consists of at least four questions. The more questions one asks, the more reliable the index usually is. However, if a researcher asks too many questions, respondents get bored or tired and drop out of the survey before finishing the questionnaire.

In our research, we asked participants in a survey 52 questions about their perceptions of the relationship indicators—12 for trust to include the dimensions of integrity, competence, and dependability and eight each for the other five indicators. We had to eliminate one of the trust items, one of the communal relationship items, and four of the exchange relationship items because they reduced the reliability of the scales. Measuring exchange relationships was most difficult, but the four items that remained had a good level of reliability. For the other indicators, we measured the reliability for the full set of items and then took the five and then four most reliable items to see if a shorter scale would be as reliable as a longer one. For trust, the shortened scale contained six items, two each for the three dimensions.

Measures of reliability usually are expressed by a statistic known as Cronbach's Alpha. Alpha is an overall measure of how well the items measuring the same characteristic correlate with each other. There is no set level of Alpha that indicates acceptable reliability, but generally a scale below an Alpha of .60 is not very reliable and an Alpha that approaches .90 is excellent. The longer the scale, the higher Alpha generally is, so a shorter scale cannot be expected to have as high an Alpha as a longer one. Our research produced highly reliable scales for all of the relationship indicators. With the exception of exchange relationships, all Alphas were above .80 and most approached .90. The four-item scale for an exchange relationship was still .70, an acceptable level. For every indicator, the four- and five-item scales were almost as reliable as the full scale.

The items developed for the six relationship outcomes follow. The first four items represent the four-item scale and the fifth item, when added, the five-item scale. For trust, however, we developed only a six-item scale as a shorter scale for trust, so that there would be at least two items for each of the three dimensions of trust. We produced only a single four-item scale for exchange relationships because the other four items were not sufficiently reliable. The research results showed these scales to be good measures of public perceptions of relationships with organizations, strong enough so that the public affairs staffs of DOE laboratories can use these questions to measure the quality of relationships. They can choose the number of items that best fit their research needs. But, in most cases, using the shorter index is likely to increase the completion rate.

The public affairs staffs also should consider administering these items formally or informally to senior managers to get their perceptions of a relationship with a specific public. The wording of the items would have to be adjusted slightly for managers to apply them to relationships. Putting both perspectives together would provide a more complete picture of a relationship. Or public affairs managers might observe a relationship between, for example, management and employees and an activist group, and use the items to rate the relationship.

In our research, we asked respondents to choose a number from one to nine to indicate the extent to which they agreed that each item described their relationship with an organization. The items in the scales are as follows (**boldface indicates the shortest scales**, **boldface and italic indicates a shorter scale with one additional item**):

Trust

Dimensions Integrity, competence, dependability

- 1. This organization treats people like me fairly and justly. (Integrity)
- 2. Whenever this organization makes an important decision, I know it will be concerned about people like me. (Integrity; original dimension: faith)
- 3. This organization can be relied on to keep its promises. (Dependability)
- 4. I believe that this organization takes the opinions of people like me into account when making decisions. (Dependability)
- 5. I feel very confident about this organization's skills. (Competence)
- 6. This organization has the ability to accomplish what it says it will do. (Competence)
- 7. Sound principles seem to guide this organization's behavior. (Integrity)
- 8. This organization does not mislead people like me. (Integrity)
- 9. I am very willing to let this organization make decisions for people like me. (Dependability)
- 10. I think it is important to watch this organization closely so that it does not take advantage of people like me. (Dependability) (Reversed)
- 11. This organization is known to be successful at the things it tries to do. (Competence)

Control Mutuality

- 1. This organization and people like me are attentive to what each other say.
- 2. This organization believes the opinions of people like me are legitimate.
- 3. In dealing with people like me, this organization has a tendency to throw its weight around. (Reversed)
- 4. This organization really listens to what people like me have to say.
- 5. The management of this organization gives people like me enough say in the decision-making process.
- 6. When I have an opportunity to interact with this organization, I feel that I have some sense of control over the situation.
- 7. This organization won't cooperate with people like me. (Reversed)
- 8. I believe people like me have influence on the decision-makers of this organization.

Commitment

- 1. I feel that this organization is trying to maintain a long-term commitment to people like me.
- 2. I can see that this organization wants to maintain a relationship with people like me.
- 3. There is a long-lasting bond between this organization and people like me.

- 4. Compared to other organizations, I value my relationship with this organization more.
- 5. I would rather work together with this organization than not.
- 6. I have no desire to have a relationship with this organization. (Reversed)
- 7. I feel a sense of loyalty to this organization.
- 8. I could not care less about this organization. (Reversed)

Satisfaction:

- 1. I am happy with this organization.
- 2. Both the organization and people like me be nefit from the relationship.
- 3. Most people like me are happy in their interactions with this organization.
- 4. Generally speaking, I am pleased with the relationship this organization has established with people like me.
- 5. Most people enjoy dealing with this organization
- 6. The organization fails to satisfy the needs of people like me. (Reversed)
- 7. I feel people like me are important to this organization.
- 8. In general, I believe that nothing of value has been accomplished between this organization and people like me. (Reversed)

Communal Relationships

- 1. This organization does not especially enjoy giving others aid. (Reversed)
- 2. This organization is very concerned about the welfare of people like me.
- 3. I feel that this organization takes advantage of people who are vulnerable. (Reversed)
- 4. I think that this organization succeeds by stepping on other people. (Reversed)
- 5. This organization helps people like me without expecting anything in return.
- 6. I don't consider this to be a particularly helpful organization. (Reversed)
- 7. I feel that this organization tries to get the upper hand. (Reversed)

Exchange Relationships

- 1. Whenever this organization gives or offers something to people like me, it generally expects something in return.
- 2. Even though people like me have had a relationship with this organization for a long time, it still expects something in return whenever it offers us a favor.
- 3. This organization will compromise with people like me when it knows that it will gain something.
- 4. This organization takes care of people who are likely to reward the organization.

APPENDIX B QUALITATATIVE MEASURES OF RELATIONSHIPS

In addition to the qualitative measures of relationships presented in Appendix A, we and other researchers at the University of Maryland have developed procedures and questions to measure the type and quality of relationships using qualitative methods such as depth interviews and focus groups. The qualitative questions reflect the same dimensions and operational definitions of the relationship indicators as the quantitative questions.

For qualitative research, we recommend beginning an interview or focus group with what researchers call "grand-tour" questions. These are broad questions that ask a research participant to talk about a relationship. We recommend starting with two questions:

- Do you feel that you have a relationship with (organization)(public)? Why or why not?
- Please describe your relationship with (organization)(public)?

The responses to these questions can be analyzed using the dimensions of relationships or any new characteristics that emerge.

The researcher then should probe research participants about the six specific dimensions of relationships, unless the participants already have discussed them in responding to the grand-tour questions. The following specific questions can be asked to probe for the dimensions:

Trust

- Would you describe any things that (organization) (public) has done to treat (organization)(public) fairly and justly, or unfairly and unjustly? (*integrity*)
- Would you describe things that (organization)(public) has done that indicate it can be relied on to keep its promises, or that it does not keep its promises? (*dependability*)
- How confident are you that (organization)(public) has the ability to accomplish what it says it will do? Can you give me examples of why you feel that way? (*competence*)

Control Mutuality

• Do you believe that (organization)(public) is attentive to what (organization) (public) says? Why? Are you satisfied with the extent to which (organization)(public) actually has taken (organization)(public)'s interests into account in its decisions and behaviors? Please provide any examples.

Commitment

• Can you provide me any examples that suggest that (organization)(public) wants to maintain a long-term commitment to a relationship with (organization)(public) or does not want to maintain such a relationship?

Satisfaction

• How satisfied are you with the relationship that (organization)(public) has had with (organization)(public). Please explain why you are satisfied or not satisfied.

Communal Relationship

• Do you feel that (organization)(public) is concerned about the welfare of (organization) (public) even if it gets nothing in return? What evidence can you cite to support your conclusion? How about (public)(organization)? Is it concerned about the welfare of (public)(organization)? What has it done?

Exchange Relationship

• Do you feel that (organization)(public) gives or offers something to (organization) (public) because it expects something in return? Can you provide any examples that show why you reached this conclusion? How about (public) (organization)? Does (public)(organization) only want a relationship with (public)(organization) if it gets something in return? Can you provide examples of how this has happened in the relationship before?

In addition to questions about the kind and quality of relationships, it also is useful to ask a probing question about how the public or member of the organization perceives the strategies that the other party has used to develop and maintain the relationship. The following question can be used for that purpose.

• Let's talk about things that (organization)(public) has done to maintain a long-term relationship with (organization)(public). These strategies to develop and maintain a relationship could be communication strategies, attempts to resolve conflict, or attempts to show concern for the interests of (organization) (public). Please provide as many examples as you can. Can you provide other examples of strategies that (organization)(public) or (public)(organization) has used that damaged the relationship.

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