How these guidelines were developed

These Guidelines are the product of many people's efforts. After assessing the state of customer satisfaction survey work across the agency and coordinating a 3-year plan for surveys across the country, customer service staff determined that more people needed to understand how to obtain actionable feedback from customers. As a first step, in December 1997, the Customer Service Steering Committee (CSSC) formed the Feedback and Measurement Work Group to help plan the best way to accomplish the goal. In February 1998, the Customer Service Program (CSP) sponsored a workshop attended by nearly 20 people from program offices and regions. At that workshop, the CSP contractor (Macro International Inc.) facilitated a process designed to explain and exemplify what customer satisfaction measurement entailed and to produce an outline of the Guidelines contents.

Members of the Work Group reviewed two drafts. Representatives of several Federal and State agencies and with an internal expert panel commented on the third draft. The Work Group accepted and approved the next draft, prepared by customer service staff, for publication by the Customer Service Steering Committee in Octob er 1998. Everyone who actively participated made this document possible.

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PREFACE

Serving the public, stakeholders, and partners is nothing new to the Environmental Protection Agency (EPA). Communicating with them and listening to their ideas is part of the way that everyone at the agency does the job of protecting public health and the natural environment. What is new to many is the term "customer." But when you think about it, we all have customers, including one another.

Our customer base is very large and varied, so it is necessary for us to use many ways and every opportunity we recognize to hear the voices of our customers. We have forums, workshops, conferences, training sessions, and meetings of all sizes (from one-on-one interviews with CEOs, mayors, tribal leaders, governors, etc., to Federal Advisory Committee Act group sessions and communitywide exchanges around a Superfund problem or an environmental protection opportunity). We use informal sessions, focus groups, surveys, comment cards, Internet feedback screens, and more to hear what customers think of our services. Speakers answer questions and listen to comments following speeches, and officials use interactive media opportunities such as radio and television talk shows to reach the public. Hotlines, dockets, visitor centers, and libraries seek customer comments. We work with partners in pollution prevention and our coregulators in State, tribal, local, and other Federal agencies collaboratively to plan activities. We actively seek input to our rules, regulations, and decisions. Top officials meet regularly with industry sector, environmental, and other constituency groups.

What is different since President Clinton signed Executive Order 12682 in September 1993 is that we hold ourselves accountable for providing service that rivals the best in the private sector. We have a set of standards against which we measure ourselves, the Six Principles of Customer Service:

1. Be helpful! Listen to your customers.
2. Respond to all phone calls by the end of the next business day.
3. Respond to all correspondence within 10 business days.
4. Make clear, timely, accurate information accessible.
5. Work collaboratively with partners to improve all products and services.
6. Involve customers and use their ideas and input.

They apply to the work of anyone at the EPA, whether a manager making billion-dollar decisions or a brand-new summer hire. We also have sets of process standards for permitting; pesticides regulation; partnership programs; public access; State, tribal, and local grants; enforcement inspections and compliance assistance; research grants; and rule making. Cross-agency groups under the national Customer Service Program (CSP) developed all of the standards.

Hearing the Voice of the Customer is designed to help individuals and organizations decide whether and how to gather customer feedback. All of us have a need to hear that we are doing the right things right, and we also need constructive criticism so we can do an even better job. We need to learn from customers what their expectations are and how well we are satisfying them (meeting or exceeding those expectations). Formal and informal feedback from our customers can also provide some sound ideas for transforming an organization.

Gathering feedback may take only a minute or two of listening to an unsolicited comment, or it may require an extensive nationwide survey. This document is not a cookbook on how to do feedback and customer satisfaction measurement, but it does provide an array of techniques to help you to effectively seek and then use what you hear from your customers. The process and tools presented in this document will help to bring the voice of the customer further into EPA's work, enabling us to improve processes, products, and services in ways that customer will recognize and value.

To simplify the processes required of Federal agencies for doing voluntary customer feedback activities and formal surveys, the CSP obtained a generic Information Collection Request (ICR) from the Office of Management and Budget (OMB). A Factsheet to help you navigate the process is part of the Guidelines. The CSP also has software to assist those who wish to construct questionnaires and analyze results from respondents.

To further enhance everyone's ability at EPA to provide outstanding customer service, the Customer Service Program, with help from many regional and headquarters staff members and a contractor, has developed an introductory customer service workshop called Forging the Links. Its purpose is to clarify the links between providing great service and achieving our mission, and the links between those of us who are direct service providers and our external customers. The workshop also underscores the important links between people within the agency as customers and suppliers for each other. A series of highly interactive followup skills courses are also available through a network of EPA trainers, and the CSP also has video programs to lend.

In trying to find better ways to provide world-class customer service, the CSP has benchmarked with other Federal agencies and with several corporations. Findings have been helpful in developing and implementing the overall CSP. Benchmarking against the best in the Federal Government and listening to the voice of the customer were a large part of the EPA's first National Customer Service Conference, hosted by Region 6 from April 14 through 16, 1998. Proceedings of the event are available from the Customer Service Program and on the program website at www.epa.gov/customerservice/conference.htm.

This Guidelines document is an important piece of the new picture that is being drawn each day as EPA gets prepared for the next century. Using the suggestions and steps outlined in this document will help you to hear the voice of the customer and work to implement the kinds of changes in products, processes and services that will enable EPA to be an agency that provides world-class customer service.

> Don't assume you know....continuously ask what your customers want. Skip this step and you'll get it wrong.
>
> Al Gore

INTRODUCTION

Customer feedback is not fluff, and customer satisfaction measurement is not mystifying. These Guidelines were developed so more people across the agency will understand the value of customer feedback. We hope this document will help you feel comfortable with the concept, the processes, and with your capacity to perform or manage customer feedback activities and measure customer satisfaction.

This document provides information about collecting and receiving feedback from EPA's customers. Using these Guidelines will improve the agency's ability to effectively collect, receive, and use feedback from EPA's customers, both within and outside the agency.

What's in these Guidelines for managers?

How many times have you discovered you were missing a critical piece of information so you could not

- Figure out why service-delivery was inefficient?
- Understand why customers seemed dissatisfied?
- Answer an inquiry about your program's accomplishments or weak spots?
- Make a strong case for additional budget dollars?
- Be sure you made the right decision about which action would make the most significant program improvement?

You may have missed an opportunity because you lacked timely and reliable information. Armed with the right information, you could have made more informed decisions, eliminated a bottleneck, understood your customers' problems, documented your resources, protected the program from profiteers, or known which changes would produce the biggest payoff.

As a program manager, you are probably inundated with data and statistics, and may not even recognize a customer-focused information deficit. Yet you may find you don't have data-based answers to policy and operational questions when you need them, despite huge investments in data collection and reporting.

These Guidelines are about getting the customer-generated information you need quickly and at a relatively modest cost. This information is something more than the data typically produced by management information systems. This is a collection of facts and logical conclusions which answer the types of questions like those above. By learning and using a variety of strategies for obtaining customer satisfaction information, you can better address specific problems, gain insight into what's happening in your program, and determine what directions you should be taking.

WHY IS CUSTOMER FEEDBACK NECESSARY?

Learning how we can better serve our customers can help all of us to provide better environmental and public health protection. Feedback—which refers to input on needs, expectations, and experiences—from EPA's customers enables us to measure whether the agency is increasing its ability to satisfy customers. The bottom line is that finding out what customers think about what we do and how we do it will help us to make improvements in our products and services, the kinds of changes that customers will notice and value.

Finally, all Federal agencies are required by the Government Performance and Results Act (GPRA) to measure customer satisfaction and make changes to improve service and satisfaction.

WHO CAN USE THE GUIDELINES?

The Guidelines focus on obtaining feedback from EPA customers on their needs and experiences with EPA products, processes, and services.

The Guidelines are intended for

- Policy makers as they determine improvements for EPA's products and services and program managers who seek information from EPA's customers

- States, tribes, local entities, and other EPA partners interested in assessing customers' satisfaction with services and products they provide

- Project officers who monitor Government contractors conducting customer feedback projects for EPA.

WHY HAVE GUIDELINES FOR CUSTOMER FEEDBACK?

These Guidelines are designed to help you perform your work. By following them, you will have a clear road map. The Guidelines will enable you to conduct customer feedback with less labor intensity, trouble, and personal concern. By having a set of Guidelines that everyone can follow, EPA will have a consistent approach to customer feedback.

The Guidelines can *benefit staff* responsible for planning and conducting customer feedback activities by helping them lead or do the work; understand the importance of obtaining management and employee buy-in for conducting customer feedback inquiries; act on lessons learned; and respond to staff concerns such as fears about extra work, change, or how to begin customer feedback.

The Guidelines can *benefit managers* because they outline what is necessary to obtain and use feedback that can help them to improve decisions about changing products, processes, and services. The Guidelines can *benefit the agency* because following a uniform set of principles and procedures will help EPA institute a consistent approach to customer feedback; build a repository of information about customers to track developments and improvements in customer service; and establish information about who has been contacted, which will help in subsequent customer feedback activities.

HOW ARE THE GUIDELINES ORGANIZED?

The Guidelines begin with an introduction and progress through a five-step model which can be successfully applied for obtaining customer feedback that constitute a model and can be applied successfully. The Guidelines contain discussion and checklists at the back of each section to help you organize and facilitate your customer feedback projects.

The five steps are

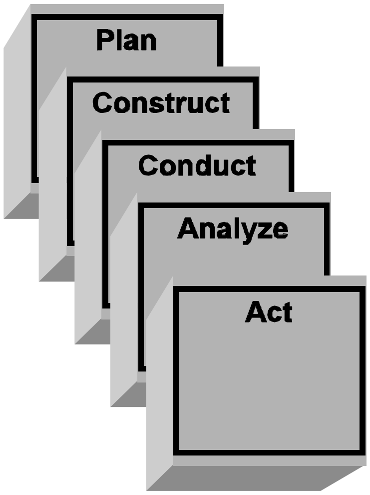
✔ **PLAN** the customer feedback project

✔ **CONSTRUCT** the data collection procedures

✔ **CONDUCT** data collection

✔ **ANALYZE** the data

✔ **ACT** on the results.



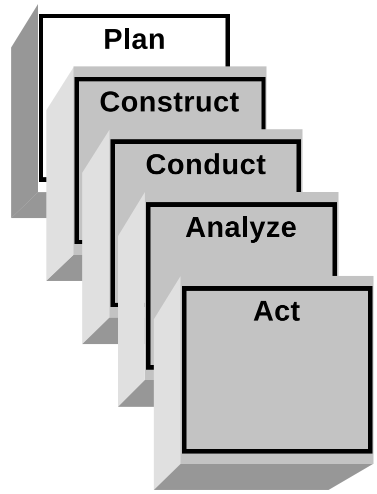
At the end of the Guidelines are several **Factsheets** that provide additional help. They are referenced throughout the text.

A note about conducting customer feedback activities

The purpose of these Guidelines is to help EPA staff conduct customer feedback activities in a systematic, scientific manner. The principles and practices in this document are sound, but there are many other informal ways to listen to your customers. Some of them may provide you with more valuable information than you will ever get from a statistically solid formal survey.

The most obvious way to get feedback is to *talk to your customers.* It may be a casual conversation while you are providing a service or product, attending a meeting, or sharing information. You might find valuable feedback in a complaint that provides good information about what needs fixing. You may hear a small or large suggestion about how to make things easier for the customer or the agency. Much of this kind of feedback is unsolicited, so you have to be sensitive to it. You need to know when to stop and listen; recognize the chances to learn from your customers, use them, and remember to take notes! You have opportunities every day—every time a customer contacts you—to get feedback. This "gut-level" customer reaction can be the strongest indicator of satisfaction. When you pay attention to their comments, customers will notice that you are listening to them and that you care about what they say. That builds trust between you, and trust in EPA.

PLAN THE CUSTOMER FEEDBACK PROJECT



WHO SHOULD CONDUCT A CUSTOMER FEEDBACK INITIATIVE?

Customer feedback is valuable for everyone, and everyone can easily ask his or her customer for direct feedback about their needs and how things are going. In fact, EPA staff and managers have many opportunities to interact with customers. Among the most common are face-to-face meetings, telephone calls, public meetings and other events, and written correspondence. You can find perspectives containing feedback in newsletters and other informational materials, videos, Web site messages or electronic mail, newspapers, and interactive radio and television talk shows and news. Many customer interactions provide an immediate opportunity to hear from customers how well EPA is satisfying their needs.

For EPA offices that wish to track and analyze customer feedback over time, organizing your efforts is important. A critical question to ask yourself is whether you, as the initiator of a customer measurement project, have the ability to act on the data yourself, or whether others (potentially States, tribes, or local agencies with delegated programs; other external partners; or other offices and regions) will be critical to the process. For an EPA unit or branch to seek feedback, the decision to proceed may be made within the group. For larger, more complex, more resource-intensive customer studies that have broader impact, more coordination may be needed at the Division, Office, or even regional or assistant administrator level.

If other EPA staff or managers will be involved or affected, you should include them in the planning stages as early as possible. It is important that all interested or potentially affected individuals support the decision to obtain feedback and are

Establish the purposes of customer feedback

Define the feedback objectives

- What do I want to accomplish with this feedback?
- Why am I conducting this feedback activity?

Determine how the findings will be used

- What will we do with the findings?
- Will they be used
  - As a key business performance indicator?
  - To revise, correct, or improve a process?
  - To identify customer needs and expectations?
  - As a management tool for customer relationships?
  - To inform planning, decision making, and resource allocation?
  - To reward, recognize, or compensate employees?
  - To help validate standards, specifications, and measures?

Determine who will use the findings

- Who else is interested in the findings?
- How much time are they able to give to learning about the findings?
- How would they prefer to learn about the findings–in briefings, written reports, graphics, action plans?

willing and able to act on the feedback they receive. They may have their own very constructive ideas about what the research objectives and methodology might need to be. So that you can be responsive and act on the feedback you get, work things out early. Front-end coordination can avoid potential roadblocks such as fear of extra work that may develop from customer suggestions, fear of possible negative management reactions or reprisals based on customer criticisms, politically incorrect results, or unrealistic customer expectations about EPA capabilities.

HOW READY IS YOUR ORGANIZATION FOR CUSTOMER FEEDBACK?

Do staff members understand why the organization needs customer feedback? As you begin to plan customer feedback activities, consider how ready your organization is for customer feedback by asking these questions:

- Do staff members and managers sincerely intend to pay attention to customer feedback and act on it?
- Are key managers committed to taking action based on customers' input?
- Have staff members directly participated in defining the need for customer feedback and in identifying the approaches to use for obtaining customer feedback?
- Have managers, employees, and other users of customer feedback information expressed their needs, issues, concerns, and objectives?
- Is there managerial and employee buy-in and ownership?
- Are there any possible barriers—such as concerns about change, extra work, and adverse findings—to using customer feedback successfully?
- If there are barriers, are there identified methods to overcome them?

If you answered these questions "yes," your organization is clearly ready for customer feedback. If you answered "no" to some questions, you might consider what you can do to prepare your organization to obtain and use customer feedback. Simply put, the more ready your organization is for customer feedback, the more meaningful and successful the activity will be, which in turn means that EPA will be more responsive to customers' needs and preferences.

If your organization is not fully ready for customer feedback, you should not necessarily halt your customer feedback activities. Instead, just understand that you will probably face some challenges in getting the work done, getting managers to pay attention to findings, and assuring customers that your organization is committed to implementing the changes they may want. You may need to start slowly, collecting and documenting unsolicited feedback and informal opportunities to gather customer input. You can make some positive changes based on that feedback, and build a case for performing broader and more formal information collections to verify and expand the anecdotal information you gathered.

WHAT KINDS OF CUSTOMER FEEDBACK ARE ALREADY OCCURRING?

Before proceeding with a new customer feedback activity, check with EPA's Customer Program in the Office of Policy to see what recent work has been conducted. You should also check with delegated program representatives (for certain customer feedback functions). This will enable you to see if anyone else has collected the same or similar information that you can use, possibly avoiding unnecessary duplication, saving time and money, and making best use of previously gathered data.

WHAT ARE THE CORE QUESTIONS TO ASK FOR CUSTOMER FEEDBACK?

It is important to have some core questions that are always used by those doing customer feedback. Core questions represent broad levels of understanding and impressions about expectations, EPA responsiveness, and customer satisfaction. By using core questions, EPA can compare and aggregate customer feedback information, both across the agency and over time. When using the questions provided below, individual programs, regions or labs may find it useful to substitute their own organization's name for "EPA." For example, one question might be, "How courteously did the Hotline staff treat you?"

The following are core questions that customer feedback should incorporate:

Overall, how satisfied are you with the services and products you have received from EPA?

1 2 3 4 5 6 Don't know/Not Applicable
Very dissatisfied *Satisfied*

How courteously did EPA staff treat you?

1 2 3 4 5 6 Don't know/Not Applicable
Very dissatisfied *Satisfied*

How satisfied are you with the communications you have received from EPA?

1 2 3 4 5 6 Don't know/Not Applicable
Very dissatisfied *Satisfied*

How fully did EPA respond to your needs?

1 2 3 4 5 6 Don't know/Not Applicable
Very dissatisfied *Satisfied*

HOW OFTEN SHOULD WE ASK CUSTOMERS FOR FEEDBACK?

Many organizations find it useful to contact their customers once a year to get an overall measure of satisfaction. Other types of feedback, such as follow-up telephone calls or comment cards, provide immediate information at the point of contact with customers. When organizations need targeted customer information, most find it useful to conduct multiple studies each year.

As a rule, EPA does not want to overburden our customers, so take care to

- Avoid feedback activities that duplicate work already conducted
- Organize customer feedback projects to avoid contacting the same customer repeatedly
- Seek consent from customers to participate in feedback projects, especially those that are lengthy or where customers have been contacted previously.

So, there is no standard answer to the question about how often to ask for feedback. The frequency of customer feedback will depend on several factors:

- Were the findings of previous customer feedback studies positive or negative? If EPA took action in response to concerns customers raised, has there been enough time to see whether those actions have been effective in improving customer satisfaction?
- Considering the issue(s) involved in the feedback activity, how often does it make sense to ask customers' opinions?
- Can we distinguish annual versus ongoing information needs and obtain feedback accordingly?
- Is there a way to match feedback with EPA-to-customer transactions? Can we ask customers at the end of a call if the information provided was useful? Is there any follow-up with them later to see if they used the product provided?
- Has some critical event occurred for which customer feedback would be important? (e.g., was the office reorganized to speed customer service or product delivery?)
- Are any changes in programs anticipated that call for surveying customers both before and after the change?

HOW LONG SHOULD FEEDBACK ACTIVITY TAKE?

Obviously, many variables can affect the time it takes to complete a feedback effort. A few of these variables might include the type and method of feedback selected, the number of respondents, and the extent to which those responsible for the survey project are prepared to plan and act on the results. It is likely that many individuals, including the customer, will have expectations about how long the effort will last, and when results may become available. Therefore, it is important to carefully plan the schedule of a feedback effort. On the following page is an example of the timetable of one feedback survey.

Customer Feedback Survey—project timetable

Deliverable	Time frame
Project Planning and Design	Weeks 1–2 (2–3 meetings)
Design Survey Instrument - Focus groups - Internal draft of questionnaire - 1st draft to survey team - Markup meeting - 2nd draft to survey team - Revised draft sent to field - Final version sent for approval - Final approval from agency	 Weeks 4–5 Week 6 Week 7 Week 7 Week 8 Week 9 Week 10 Week 12

Deliverable	Time frame
Data Collection - Field testing - Revisions (if necessary) - Phoning	 Week 13 Week 14 Weeks 14–16
Analysis and Report - Analysis - Report - Briefing charts	 Weeks 17–21 Week 21 Week 23
Process Improvement Workshops - Coordinating committee - Executive board - Notes to coordinating committee - Notes to executive board	 Week 23 Week 24 Week 25 Week 26
Performance Standards and Process Improvement Implementation - Action teams	 Week 29

WHO ARE OUR CUSTOMERS AND WITH WHAT SERVICES AND PRODUCTS DO WE SUPPLY THEM?

A *customer* is someone who directly relies on a provider for a product or service. Customers are defined based on the service or product they receive. Customers

- Have a *direct relationship* with EPA, including through interactions through a contractor that represents the agency.
- Receive one or more *services or products* from EPA.
- *Rely* on EPA for a work product or for specialized expertise.
- Are *directly affected* by the actions of EPA.
- May receive *financial assistance*, such as grants.
- Include those for whom we carry out a *mandate* or *mission*, such as Congress and the Office of Management and Budget.
- Include EPA employees as *internal customers* of each other. Relationships and transactions among EPA staff are essential for delivering consistent, excellent service to external customers.

Customer service and permitting

While identifying many customer groups interested in the permitting process is possible, there are only two major groups: interested and impacted parties, and permit applicants. Interested and impacted parties are those individuals, interest groups, communities, States, or tribes that raise a concern or have comments regarding the permit action. Permit applicants are the entities that are seeking approval from EPA or a delegated authority to conduct a regulated activity. In addition, relationships between the governmental entities involved in the permitting process (EPA Headquarters, Regional Offices, and delegated authorities) are also important.

In permitting programs, receiving and effectively using feedback from customers results in actions that are more acceptable and supported by interested and impacted parties, permit applicants, and regulators. Interested and impacted parties are individuals or groups that raise a concern or have comments regarding a permit action. When the permitting authority effectively listens and responds, the interested and impacted parties and permit applicants generally feel better served by Government. Also, through the information from the feedback, permitting agencies can more effectively plan and allocate resources to address issues that, in turn, more directly relate to customer concerns. Experience has shown that permitting actions often benefit from customer input, particularly about site-specific conditions that technical staff alone cannot provide. Effective customer service in the long run saves resources by promoting more efficient permitting decisions.

The Customer Service in Permitting (CSiP) Workgroup is a continuation of the agency's efforts to improve the permitting processes. Early efforts in customer service focused on setting standards and developing surveys to obtain feedback from permitting customers. CSiP members recognized that since most permitting occurring at State, tribal and local levels, efforts to encourage customer service at those levels are also needed. The CSiP provides an opportunity for Headquarters and Regional staff to work with State representatives in developing the necessary tools to receive effective feedback and to deliver customer service in permitting. The CSiP's mission is to promote high quality customer service in EPA permitting. This includes permits issued by EPA or by delegated authorities at State, tribal, and local levels. To accomplish this mission, the Workgroup uses customer feedback to improve permitting activities by using the feedback to:

- Measure standards of customer service
- Increase the skills and abilities of individuals involved in the permitting process
- Create a culture that values customer service.

- *Stakeholders* are individuals whose primary relationship with EPA is characterized by having an interest in our work and policies; someone who may interact with the agency for another person or group; or someone who influences our future direction (including financial resources). *Clients* are individuals and organizations with a dependent relationship to the agency.

Feedback from stakeholders and clients is also necessary and valuable for specific activities of the organization. However, it is important to know when the individual who is giving feedback is trying to influence your decisions or is very dependent upon you and maintaining goodwill in your relationship.

Before beginning a customer measurement project, it is important to be clear about which customers and which products and services are the focus.

OARM

The Office the Administration and Resources Management (OARM) is responsible for providing a wide range of services to internal EPA customers. Just a few of these many services include telephone, voice mail, and e-mail services; personnel transactions and retirement counseling; contracts and grants management; shuttle bus and parking services; printing and mail delivery; office moves; and safety and health services.

Improving customer service is one OARM's highest priorities. Senior managers and all of OARM staff members are charged with improving the quality and timeliness of services and service delivery so EPA employees can accomplish the business of the agency efficiently and effectively.

To measure progress in improving service, OARM began measuring customer satisfaction through service-specific transaction surveys and through an annual OARM-wide customer satisfaction survey. Results of these surveys provide managers with current and detailed information on how well OARM is meeting customer needs, what is most important to customers, and where making changes and improvements is most critical. Feedback enables OARM to respond directly to customer needs and suggestions when "quick fixes" are possible, to target long-range improvements through Customer Service Improvement Plans, and to track customer satisfaction over time.

WHY ESTABLISH QUALITY CONTROL PROCEDURES IN CUSTOMER FEEDBACK ACTIVITIES?

Developing and applying good internal control procedures is a sound business practice and helps assure the quality, reliability, and integrity of information used for decision making. The standards and techniques of quality control should apply to data collection, administration of data collection activities, analysis, and reporting of results from customer feedback.

"If you don't care where you're going, then it does not matter which way you go."

Lewis Carroll

or

"If you don't know where you're going, you won't know when you get there."

Yogi Berra

Controls vary and may be as simple as merely limiting access to raw, customer-specific data; separating the data collection, administrative, and presentation duties from the affected action officials; or as thorough as performing independent quality assurance reviews. The purpose of internal controls is to provide reasonable assurance that the objectives of customer feedback will be accomplished in a reliable and cost-effective way. For a description of specific control standards and techniques, see **Factsheet IX**.

"Before we start talking, let us decide what we are talking about."

Socrates

OIG—Serving many customers

Customers of the Office of the Inspector General (OIG) cut across EPA programs and their customers. The OIG is unique by its statutory mandate (the Inspector General Act of 1978) requiring it to be organizationally independent to ensure its objectivity, impartiality, and to prevent interference in the conduct of its work. The President appoints the Inspector General, without regard to political affiliation, and the Inspector General reports directly to Congress.

To prevent and detect possible fraud, waste, and mismanagement and to promote economy, efficiency, and effectiveness in EPA's programs and operations, the OIG conducts audits and investigations. The OIG also performs evaluative, consulting and advisory services to reduce risks, improve accountability, and ensure financial integrity. Although organizationally independent, the OIG is part of the EPA management team, dedicated to the agency's environmental mission.

While the OIG is the agency's fiscal and operational watchdog, it is also the agency's consulting partner for collaborative problem solving and recommending sound business practices. The OIG is in the management and enforcement service business, but this role creates unique customer relationships, often with disparate expectations from a variety of customers with frequently different points of view.

The OIG is both independent and collaborative, part of the EPA team, yet independently reports to Congress. So how does the OIG know how well it is serving its customers when different customers value different things? By working very hard to improve modes and means of communications.

The OIG maintains frequent two-way communications through personal contact and correspondence with both key agency managers and key staff members of Congressional Committees. The OIG also works directly with other Federal, State, and public auditing and law enforcement organizations.

We understand that while the critical nature of our work may provoke other than positive responses, we want our customers to realize that ultimately we share the same objectives that they do. We act as agents of change and strive for constructive solutions. Our challenge is to use customer surveys to tell us what is important to our customers in the context of our mission, and measure how well we are achieving the attributes of our mission. Hearing the Voice of the Customer will give us the process to obtain the most relevant information possible that can influence the OIG success as valued agents of change.

Specifically, we will begin seeking customer feedback from several sources following each major audit, investigation, and assistance project. We will be measuring attributes of OIG products/services and staff. Agency officials may not like all of our findings, but they can still strongly agree that our work is relevant and accurate, and that our staff is professional and encourages constructive

Develop a written plan for the customer survey ✔ checklist

___Purposes of the activity

___Quality control procedures

___Ways findings will be used

___Identify the target group

___Methods of data collection

___Timing for data collection

___Analysis plan

___Tools for carrying out feedback activity
 Discussion topics
 Survey instrument
 Database

_Anticipated products
 Tables and graphs
 Text that interprets findings
 Slides
 Specific conclusions
 Recommended actions

Plan ✔ *checklist*

___Get ready

___See what feedback you already have

___Decide which core questions to ask

___Decide frequency for customer feedback

___Define the target customer population

___Identify services supplied to customers

___Establish purposes of customer feedback (see next checklist)

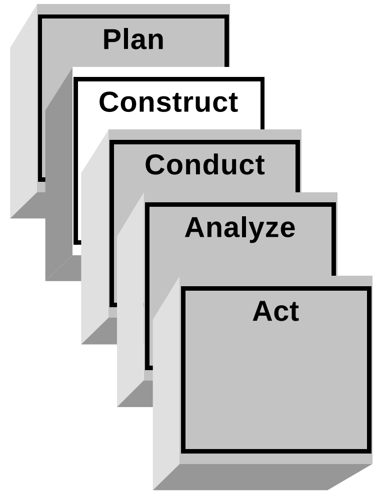
___Decide whether to do the activity or contract out

___Develop written plan

___Determine resources needed

___Obtain agreement to proceed (if needed)

CONSTRUCT DATA COLLECTION PROCEDURES



WHAT IS THE "BEST" APPROACH FOR ASSESSING CUSTOMER SATISFACTION?

There is no one best approach for assessing customer satisfaction. What will work best for any particular EPA program area will depend on the kind of product or service provided, the kinds of customers served, how many customers are served, the longevity and frequency of customer/supplier interactions, and what you intend to do with the results. Two very different approaches both produce meaningful and useful findings:

- Continuous assessment methods—Methods to obtain feedback from *the individual customer* at the time of product or service delivery (or shortly afterwards).

- Periodic survey approaches—Methods that obtain feedback from *groups of customers* at periodic intervals after service or product delivery They provide an occasional snapshot of customer experiences and expectations.

Understanding customers' expectations and satisfaction requires multiple inputs from customers. It is like peeling away layers of an onion—each layer reveals yet another deeper layer, closer to the core. Both method types are helpful methods to obtain customer feedback for assessing EPA's overall accomplishments, degree of success, and areas for improvement.

Continuous assessment

These Guidelines focus on methods for obtaining customer feedback periodically, but it is very important to remember that you can adopt continuous assessment as a standard method for obtaining customer satisfaction information. Some ways to include continuous assessment in your work include

- Inserting a feedback card in every copy (or every *nth* copy) of any published report sent out

- Making a followup phone call to every customer (or to every fifth, or twelfth, or *n*th customer) within 1 or 2 days of interacting with that customer.

The information you obtain from continuous assessment can provide valuable and timely insight into the experiences that your customers have had with EPA.

Decide on data collection method

Before considering systematic methods for collecting data, remember that informal methods for obtaining information from customers clearly produce information that is valuable. Everyone at EPA needs to recognize and use these everyday opportunities for customer feedback. Use this information to complement the more systematic forms of gathering feedback discussed here (See previous discussion, page 4.)

Many different, more formal methods can be used to collect customer feedback data. Methods frequently used to gather customer feedback include focus groups, a mail-back postcard that is included among materials sent to EPA customers, a mail survey, a telephone survey, a publication evaluation form included at the back of every copy, and a printed or in-person survey (which might include computer-assisted personal interviews or an intercept survey when you ask every *n*th customer attending a function or visiting a facility to participate). Electronic mail will become an increasingly more important means for collecting customer feedback as more people gain access to the Internet.

When you decide which method to use, you should consider several factors, such as the types and number of questions to ask. The decision will also be affected by available resources to gather customer feedback, how fast decision makers need to have the information, and how representative the findings need to be. The *response rate*—the number of customers who actually answer questions divided by the number contacted for information—is also an important consideration because it will affect the way you can use findings. A summary of different methods appears in the table on the next page.

When selecting a method for obtaining customer feedback, recognize that you need different kinds of information for different methods of obtaining customer feedback. If, for example, you choose a mail or phone survey, you will need an accurate name, address, and/or telephone number. At times it may also be critical to know which EPA programs or services the customer sought or received, as well as any demographic information available.

Note that several different practices can affect the ratings of various data collection methods:

- Focus groups and telephone and in-person surveys require trained staff to conduct proper interviews and prevent interviewer bias.

- Focus groups and telephone and in-person surveys provide EPA with the opportunity to show through direct personal contact that the agency takes customer feedback seriously.

- Telephone surveys can more readily accommodate differences in language and literacy levels than can mail surveys, but they cannot accommodate lengthy questionnaires or visuals.

- Some people are difficult to reach by or do not have a telephone, and many who do are reluctant to or simply will not participate in telephone interviews.

Comparison of feedback methods

Factor	Focus groups	Mail-back form*	Mail-out survey	Telephone survey	In-person survey	Continuous (every *n*th customer) **	Electronic via Internet
Cost	moderate	low	moderate	moderate	high	moderate	
Convenience for customer to complete	moderate	high	high	moderate	moderate	moderate	high
Length of survey	up to 2 hours	very short	up to 12 pages	12-15 minutes	up to 1-1/2 hours	mixed	very short
Size of recommended sample	n/a	large	moderate	small	small	moderate	large
Ability to encourage customer to participate	high	low	moderate	high	high	mixed	low
Ability to provide instructions or explanation to customer	high	low	low	high	high	mixed	low
Requires customer to initiate	no	yes	no	no	no	mixed	yes
Respondent's perception of anonymity	moderate	high	moderate	moderate	moderate	moderate	not anonymous
Types of questions	closed- and open-ended	yes/no	mostly closed-ended	closed- and open-ended	closed- and open-ended	most closed-ended	can be both
Opportunity to probe and ask "why" questions	very high	limited	limited	moderate to high	high	limited	limited
Need for accurate list of telephone numbers or addresses	no	no	yes	yes	yes	yes	no
Allows "branching" and skip patterns***	yes	no	some	yes	some	some	no
Ability to get quick response	moderate	no	moderate	yes	moderate	moderate	high
Response rates	high	low	moderate to high	high	high	moderate	low
Extent of likely bias between customers who choose to participate and those who decline	high	high	some	low	low	mixed	
Ease of data entry	moderate	moderate	moderate	high	moderate	mixed	high
Extent of data clean-up	low	some	moderate	low	moderate	mixed	low
Ability to generalize results	low	low	high	high	moderate to high		low

* Refers to feedback forms or postcards distributed at a point of contact with the customers or included among materials sent to a customer.

** Every *n*th customer would be contacted using telephone, feedback card or survey form; therefore "mixed" appears frequently in the table.

*** "Branching" is when a particular answer to one question leads to a series of related questions. For example, if a customer cited a product as especially helpful, a series of questions might try to ascertain what, exactly, about that product led to the customer's opinion; if another customer finds a product especially irrelevant, a different series of questions might be posed. "Skip patterns" refer to instructions about which questions to answer and which to skip, depending on the particular answer given to one question.

- Mail surveys can be longer, since respondents can work at their own pace, but they have the longest response time and may not reach the intended target.

- Mail surveys allow no interviewer bias to enter in, but they offer little ability to probe or ask complex questions, and should there be any ambiguity in questions, it cannot be clarified.

- The amount of followup can dramatically influence costs, timeliness, and the ability to generalize results. Mail surveys, for example, may have several followup mailings to customers who do not initially respond. Customers who initially decline to participate in a telephone survey may be assigned to a special staff member who is charged with trying to convince the customer to answer the questions. An advance letter can increase participation and response rates for mail and telephone surveys. It can also allay customers' concerns about such matters as how they were selected, why they have been selected to participate again (if applicable), anonymity, how long it will take them to answer the questions, and how findings will be used. (See sample advance letter following.)

Sample letter
[on EPA letterhead]

Mr John Doe
Alpha, Beta, and Gamma Co., Inc.
555 Main Street
Anywhere, USA 12345

Dear Mr Doe:

I am writing to let you know that your name has been selected at random to participate in a survey about business owners' experiences with EPA. You are one of a small group of people we are contacting. Your feedback about your experiences can help shape our future direction.

We at EPA will take findings from the survey into consideration as we develop our plans for the next decade. We are committed to incorporating customer viewpoints and recommendations into our strategic planning, budgeting, and decision making while recognizing the need for balancing sometimes competing and conflicting interests.

I realize that we may have contacted you before to answer similar questions. We are tracking our efforts to respond to customer concerns, so it is very important to hear from you again. Your responses will be reported only in aggregate form.

You should receive the survey in the next few days. It will take less than 10 minutes for you to complete. I urge you to consider the questions carefully and let us know how we can better serve you. In the meantime, if you have any questions, please call 1-800-xxx-xxxx to speak with a staff member on EPA's survey team (or someone at YYY Consulting, the firm conducting the survey for EPA).

I thank you in advance for your time and consideration.

Sincerely,

Name and Title of highest possible EPA person

The sample

If the number of customers of interest is relatively small, not more than 50, each could be contacted to obtain feedback This is the *census* approach In many cases, EPA services or products are provided to a large group of customers, one too large for a census approach In such cases, a *sampling* approach is needed, and two options are possible: 1) a *judgment* *sample*, in which you consciously select the customers that you will contact from the entire group of customers served, and 2) a *probabilistic sample*, in which customers you will contact are picked randomly from the entire group of customers served during the period of interest (i.e., the past year).

In most cases, it is better to rely on a probabilistic sample than a judgment sample. Judgment samples may be biased because of the way customers are selected for the study. If a sample is biased, it is impossible to draw inferences about the entire group of customers served. As long as the response rate is high enough, probabilistic samples are not biased, so inferences can be made about the entire group of customers that the selected ones represent.

Determining the sample size

If you choose to conduct a mail, telephone, or in-person survey, you will need to decide the number of people who will be selected to participate. To determine this number—the *sample size*—several factors should be considered, such as the total number of customers served, the intended use of the results, available resources, and time.

- The larger the percentage sampled, the more certain you can be that the feedback obtained will be representative of the results that you would have obtained if you had contacted and gotten feedback from every customer.

- The smaller the percentage sampled, the greater the likelihood that feedback from those in the sample will differ significantly from those in the full list of customers.

The relationship between sample size and accuracy of findings is due to *sampling error*, a measurement that indicates the extent to which the sample of customers is different from the entire group of customers under study. In a news article that reports a politician's approval rating as 62 percent, plus or minus 5 percent, the "plus-or-minus" value is the sampling error.

To decide the size of the sample, you can either

- Determine the largest sample size that you can afford and calculate the associated sampling error

- Or determine the maximum sampling error that is acceptable and then select the sample size that will produce that level of error.

The sampling error can be estimated through a *confidence interval*. A confidence interval specifies a range of values within which the true measure is found. Typically, survey results rely on a 95 percent confidence interval, but lower levels are acceptable, depending on how you plan to use the findings. Popular media reports rarely stipulate confidence intervals, but they are implied. Using a politician's popularity rating as an example, the unstated premise is that the analyst is 95 percent certain that the politician's popularity is between 57 and 67 percent; that is, 62 percent, plus or minus 5 percentage points, the likely error.

One last point to consider in determining the sample size is the kinds of comparisons that you will want to make with survey findings. Many times, analysts are interested in comparing ways that different customers react to various services. These comparisons may involve large- versus small-sized businesses, the general public versus educators, and so forth. If these comparisons are a critical portion of the analysis, you must plan for them in the sample design so that enough of each customer type is surveyed to make the findings meaningful See **Factsheets III, IV,** and **V** for further information on sampling.

Develop the questions

In deciding the questions to ask customers, it is a good idea to keep two principles in mind: 1) make sure that the questions and answers address your objectives, and 2) set limits on the length of the survey instrument.

Many sources are available to help develop questions for surveys. These include software packages such as Corporate Pulse (which is available to EPA staff through the Customer Service Program), prior surveys sponsored by EPA and other agencies, journal articles, and item banks maintained by some universities and survey organizations. When possible, it is better to use a previously tested and validated question rather than one newly created for the current survey.

Yes/no

In the past 6 months, have you contacted the XYZ office?

1 Yes 2 No

Categories

In what kind of community is your business located? Would you say it's…

1 Urban 2 Suburban 3 Rural

Rank order

Of the following items, which three are most important to you? Please indicate with a "1" for the most important, a "2" for the next most important, and a "3" for the third most important.

__ Clean air
__ Clean water
__ Hazardous waste disposal
__ A minimum level of Government regulation
__ Lower taxes

Scale

Please rate your satisfaction with the service you received, using a scale of 1 to 6 "6" means you are very satisfied, and "1" means you are very dissatisfied.

1 2 3 4 5 6

Survey questions are generally of two types: open-ended and closed-ended. In open-ended questions, the customer creates his or her own answers. The following are examples of open-ended questions:

- Do you have any suggestions for improving service? [IF YES], What are they?
- How could EPA be more responsive to your concerns?
- Could you please describe the most satisfying experience you've had with EPA?

Closed-ended questions limit the responses a customer can provide. They may include yes/no answers, categories of responses, rank-ordered responses, or scales. The following are examples of each type:

With closed-ended questions, it is relatively easy to record and analyze responses, and you will not receive irrelevant or unintelligible responses. However, you risk "missing the boat." To illustrate, suppose you ask the closed-ended questions, "What was the main reason for your visit?" giving several possible answers, and 30 percent of your respondents mark "other." Drawing valid conclusions about why customers visited would be hard. If you decide to use closed-ended questions, pretest them to identify all the likeliest responses to your questions.

In developing questions and answers for closed-ended items, the advisability of including response options such as "don't know" and "no opinion" should be carefully considered. While customers should not be forced into providing responses when they really do not have answers, it is better to find ways to encourage a response than to let customers default to a neutral position In mail surveys, this encouragement can be accomplished through

On developing questions

Whatever type of feedback method you choose, allow plenty of time and resources for developing your questions This process involves several cycles of writing, testing (using actual customers served), and rewriting Remember, what you are looking for is actionable information for managers, so ask yourself, "What action could I take with this kind of answer?"

Questions that are too vague can mean different things to different people The best thing to do is be specific For example, you may have identified an issue such as, "What do our customers think of our new application form?" That's pretty bland Go on to questions like

- What do our customers like or dislike about our new application form?
- Do our customers find the instructions on the new application form helpful or confusing?
- Is the new form easier or harder to understand than the old form?
- Do customers spend less time filling out the application?
- Do front line staff spend less time answering questions about the form?

Specific questions will be more likely to give you information you can act on to improve your program And asking front line staff for their input is always a good thing to do, as well.

instructions; in telephone and in-person surveys, it can be fostered by *not* offering “don’t know” and “no opinion” as response options. On the other hand, including “not applicable” as a response is important in mail surveys, so that customers are able to indicate this when they have not had a particular experience. In asking questions about a past event, consider giving a “don’t remember” option. Keep the survey to a reasonable length by asking only the questions you need to address the issues of concern that prompted your survey; leave out the “nice-to-know” questions.

Recognize that open-ended questions will provide a richness of data that can complicate analysis. Reducing responses to a few categories that can be coded, entered into a database, and analyzed can be difficult. It is probably best to use a mix of questions, both closed and open, in most customer feedback questionnaires.

If you are planning an ongoing or periodically repeated survey, identify a few key program goals that are unlikely to change very soon, and focus your questions on them. Develop questions that will indicate how well customers think the goals are being met. These key questions need not be elaborate or profound, but should be very basic to your program. To effectively compare results over time, you need to use essentially the same core questions in your survey upon each iteration You will need to avoid making any major changes to these key questions, whether in wording, scaling, or placement, so be sure to ask the right questions from the beginning.

Questions that are relevant to customers should be developed to fulfill the purposes and the objectives of the specific customer feedback activity being conducted. Although this may seem obvious, it is important to remember throughout the development of questions. Be particularly wary of questions that may be interesting to ask, but may only add time and cost while not producing useful information. These questions could be

- Extraneous questions that do not address the stipulated purposes and objectives of the feedback activity.

- Questions that are subject to misinterpretation These may have vague words, use unfamiliar jargon, or could be understood differently by different types of customers.

- Double-barreled questions that embed more than one item, such as “On a scale of 1 to 6, please indicate how *clear and useful* the materials are.” The customer may have one opinion about clarity and another about usefulness, but is not given an opportunity to distinguish between them in his or her response.

- Questions that may upset some respondents Some that customers may perceive to be intrusive, such as household income, are best when worded neutrally (such as by asking whether the customer’s household income falls above or below a certain level) and placed at the end of the survey.

- Questions on matters that customer may consider to be sensitive or offensive, especially about cultural, ethnic, gender, and socioeconomic considerations.

- Questions that do not elicit responses that point to specific remedying actions.

If you do not ask the right questions in the right way relatively soon after the service experience, feedback will not be as useful as it might have been. Also, remember that to effectively compare results over time you will need to avoid making major changes to key questions, whether in wording, scale, or order in the questionnaire.

There is no single correct scale to use. However, there are several important issues to consider:

- Whenever possible, the same scale should be used throughout a given questionnaire to help ensure that different responses within a questionnaire can be validly compared.

- Different survey efforts within an organization should use the same scale To this end, we recommend that when using the core questions described above, you consistently use the same scale of one to six (1–6).

Construct the questionnaire

No matter what method you use to collect data, all questionnaires follow a similar format:

- Introduction—sets forth the purpose of the survey and guides the customer through the questions

- Customer experience—establishes the customer's level of knowledge regarding various parts of the questionnaire

- Measurement— asks the person surveyed to characterize his or her experiences, needs, and desires as an EPA customer

- Customer information—gathers data that will be used to classify respondents.

Mail surveys. The mail survey has to do everything you would do if you were with the customer. It has to the visually appealing, have a pleasant tone, and be clear. The survey instrument is under the direct control of the customer. Its physical look will affect the customer's willingness to respond; the clarity of the instructions and questions will affect the customer's ability to interpret their meaning correctly.

Single-page questionnaires and comment cards should be attractive and easy to read. Longer questionnaires should be printed in booklet form, on 11" x 17" paper that is folded in half and

stapled in the middle to produce a standard 8 ½" x 11" page. The cover should be visually appealing and use a logo or other graphic design to interest the customer, and no questions should appear on the cover. Use of color ink and high-quality paper will add only minor costs to the survey, but can substantially improve response rates and reduce the cost of followup correspondence and telephone work by staff or contractors. The cover should give the title of the survey activity and indicate who is conducting the work. For its surveys, the Social Security Administration uses brightly colored paper, desktop publishing to allow more flexibility in design, and larger print to accommodate the needs of its elderly and disabled customers.
The methods used to construct the questionnaire are different, depending on the mode of data collection that will be used to obtain customer feedback In the next section we present methods for constructing questionnaires for focus groups, mail surveys, and telephone surveys—the most frequently used forms of data collection in periodic surveys to obtain customer feedback.

Focus groups. As knowledge about customer surveys has expanded and entered the public domain, more people claim to be conducting focus groups. It is important to distinguish between focus groups—which are based on scientific procedures and understanding of human interactions—and more casual discussions among people who share a common interest or concern. Both approaches provide potentially useful information, but analysts should recognize the difference between data from focus groups and data from more informal gatherings (See pages 27-28.)

The key instrument for a focus group is the moderator's guide. This is a series of questions, probes, and discussion topics that are arrayed in a logical order. The moderator uses the guide to elicit opinions and experiences from participants, and to ensure that discussions stay focused as much as possible on the critical issues around which the group was formed. A sample moderator's guide appears on the next page.

Survey questions should be presented in a logical sequence. Many survey experts believe that

Typically, a moderator's guide is organized as follows:

- Introductions by moderator and participants
- Review of ground rules, such as
  1. You have been asked here to offer your views and opinions; everyone's participation is important; the conversation does not need to flow through the moderator, although the moderator will manage the group
  2. Speak one at a time (avoid side conversations)
  3. Note videotaping, audiotaping, and observers (as applicable)
  4. There are no right or wrong answers; consensus is not required
  5. Okay to be critical; if you don't like something, say so
  6. All answers are confidential, so feel free to speak your mind
- Brief explanation of the focus group purpose and introduction of the topic
- Definitions
- Questions, probes, discussion topics
- Closing and thanks.

the first question on the survey, more than any other, will determine whether your customer completes or discards the questionnaire. Starting with a fairly simple question is a good idea because it suggests to the customer that completing the survey will be neither difficult nor time-consuming It is also advisable to ask a fairly interesting question to gain the customer's interest.

The next set of questions should focus on matters that the customer is most likely to judge as useful or salient. This continues the process of drawing the customer in so that he or she becomes engaged with thinking about the questions being asked and becomes invested in completing the survey. Grouping questions together that share common themes makes sense because the customer then focuses on that particular area of inquiry. To the extent practical, group questions together that have similar types of response options. For example, questions that have yes/no responses should be together and questions that have scale responses should be together.

The order of questions should also mirror the thought processes that customers are likely to follow. For example, questions about particular experiences with onsite inspections should precede questions about suggestions to improve those inspections.

The final set of questions should center on those most likely to be sensitive or offensive. These may include questions about personal characteristics (e.g., race, age, income) and unsuitable behaviors.

The final page of the booklet should not have any survey questions Instead, it should invite the customer's comments or suggestions about anything raised in the survey or other issues and concerns important to the respondent It should also indicate the address for returning the questionnaire (in case the survey gets separated from the reply envelope) and, when possible, a toll-free number set up exclusively to receive inquiries about the survey.

Telephone surveys. Because customers have no questionnaire in front of them during a telephone survey, concerns about visual appeal are not applicable for this form of data collection. Issues regarding ordering and clarity of questions are important, and the same principles apply as with mail surveys.

The difference between mail and telephone surveys is that spoken language is very different from written language, and customers must be able to respond to questions based only on the information they hear. So it is critical that you ensure that your interviewers speak clearly and are well trained. Additionally, the interviewer acts as an intermediary between the customer and the questions posed. With this in mind, the following principles apply to telephone surveys:

- The introduction the customer hears will probably determine whether the interview is conducted or the customer hangs up. The introduction should be concise, state the purpose of the call, estimate the length of the call, and assure confidentiality. This is a sample:

Hello, my name is [fill in], and I'm with the Environmental Protection Agency [or XXX Consulting]. We're conducting a survey of people who have received materials from the EPA to learn about their experiences and opinions. Let me assure you that this is <u>not</u> a sales call, and that we will keep all information about you and your responses private. We will use the information you provide <u>only</u> to help improve EPA's services. The survey will take less than 15 minutes to complete and is purely voluntary. Is this a convenient time, or would you like to set up a better time for me to call you back?

- Because customers will rely on verbal cues and instructions, rather than written ones, questions should have a limited number of responses (about three or four).

- Because customers will rely on verbal questions, each question should be relatively short.

- Avoid questions that ask the customer to look up information or check with others.

- In constructing the questionnaire, be sure to read the questions aloud to others to see if they sound clear and are understandable. Remember, what works for the written word does not always work for the spoken word.

- Complex *skip patterns* and *branching* are easily accommodated through computer-assisted telephone interviewing (CATI) systems. *Skip patterns* occur when a particular answer to one question means the respondent is *not* asked certain questions that would otherwise follow; *branching* occurs when a particular answer to one question leads to a series of questions that are customized to that particular answer.

- Rank-order questions are subject to error in telephone interviews in a way that they are not for mail or in-person surveys. Rather than asking a customer to rank-order a list of, say, eight items, it is better to ask that person questions in a series of pairs ("Which is more important to you, X or Y?") or break up the list into a series of separate scaled items ("On a scale of 1 to 6, where 1 is extremely important and 6 is not at all important, how do you feel about X? On a scale of 1 to 6, how do you feel about Y? How about Z?").

- When changing subjects, telephone surveys should cue the customer with transitional language Statements such as, "Now, I'd like to turn to your experiences with…" accomplish this shift.

- Instructions for the interviewer must be perfectly clear, and the same format should be used throughout the survey. For example, interviewer instructions are typically written inside brackets, in all capital letters.

- For a sizable telephone survey (of say, more than 50 people), use of CATI should be considered. For large studies, CATI will be more cost-effective and produce more reliable information.

Other methods for obtaining feedback. While many customer feedback activities at EPA are likely to rely on focus groups, mail surveys, and telephone surveys, remember there are other methods for obtaining customer feedback. These include prepaid postcards attached to materials EPA distributes, asking recipients to complete a couple of questions and return the card. They also include questions asked of Internet users; in-person interviews that make use of a semistructured list of questions; continuous feedback obtained by calling every fifth, tenth, or *n*th customer a few days after product or service delivery; and any other formal or informal opportunity for listening to customers.

Pretest

A pretest is a small-scale trial of the instrument and data collection methods. Conducting a pretest is extremely important because the results will provide opportunities for refining the instrument and methods before the comprehensive data collection activity begins.

It may seem that a pretest is unnecessary if a survey has been carefully researched and designed. However, even the best plans cannot anticipate all real-world circumstances.

Results from a pretest can tell the analyst

- Whether the flow of questions is logical and orderly
- Whether questions seem relevant and appropriate to the customers
- If customers were able to easily understand and respond to questions
- If response categories are adequate
- Whether questions truly reflect the issue that is intended to be measured.

One of the best ways to conduct a pretest is to randomly select individuals from the target group of customers served, have them complete the survey according to the method planned for the overall effort, and then participate in a focus group session to review their opinions. If, for example, you intend to conduct a telephone survey, customers should be recruited, come to a central location where they can be interviewed by telephone, then meet as a group to go over the draft questionnaire and their experiences in answering the questions. Those who are involved in the pretest should not be included in the sample selected for the actual survey

A pretest is helpful for cost projections, and also provides information about actual burden (that is, the amount of time to complete the survey), which is essential for Office of Management and Budget clearance (required for Federal agencies, their contractors, and cooperative agreement partners performing surveys of direct benefit to the sponsoring agency). A pretest that involves more than nine people who are not Federal employees also requires OMB clearance.

OMB clearance

Under the Paperwork Reduction Act of 1995, the U.S. Office of Management and Budget must approve any federally-sponsored collection of information that asks the same question of more than 9 nonfederal respondents. Typically referred to as OMB Clearance, the process is an exacting one and demands strict adherence to OMB requirements. For example, if a customer feedback activity is subject to OMB clearance, the cover of the data collection instrument must contain standard language and the date on which the clearance expires.

EPA has obtained OMB approval of a generic Information Collection Request (ICR) to conduct customer satisfaction work. Under this authority, the clearance process is streamlined and the time for clearance is reduced from as long as 6 months to between 10 and 15 days. This generic ICR is available only for strictly voluntary collections of opinions from customers who have experience with the existing product or service that is the subject of each particular feedback instrument

Factsheet VI explains the streamlined process and provides several examples of cleared survey instruments. You may request the factsheet as a separate electronic document from Patricia Bonner, Director of EPA's Customer Service Program (Mail Code 2161). You may also send her survey instruments for quick review to ensure that questions are worded to address customer satisfaction issues, not focused on program or outreach effectiveness In some cases, another information collection request may be more appropriate to use than the customer service generic clearance mechanism.

Proposed EPA survey packages should be sent for final review to Barbara Willis of the Regulatory Information Division (2137), at Headquarters. She will check the package for compliance with OMB regulations regarding use of the generic clearance for customer satisfaction surveys and review the burden placed on the public, State officials, tribes, and other nonfederal government customers. She will forward to OMB all survey instruments and the required clearance package.

See **Factsheet VI** for more information about specific procedures to follow, forms to complete, and general information about EPA Customer Feedback OMB Clearance. EPA personnel listed below may be able to provide additional information:

Barbara Willis
202-260-9453
202-260-9322 (fax)
Barbara Willis (EPA internal e-mail)
willis.barbara@epamail.epa.gov

Pat Bonner
202-260-0599
202-260-4968 (fax)
Patricia Bonner (EPA internal e-mail)
bonner.patricia@epamial.epa.gov

Additional resources

The EPA Customer Service Program collects copies of survey instruments, reports, and resulting plans. These materials are a resource for other EPA offices and staff who want to learn more about their customers.

Contingency for nonresponse

Occasionally, regardless of planning, there will be times when response rates are simply too low for you to make inferences and recommend action. In these cases, it is important to have a contingency plan for nonresponse. The plan will need to include the potential additional steps you will take to increase the level of participant response. Some potential steps include

Effective questions *checklist*

__Use short statements or questions
__Use simple words
__Avoid jargon
__Be clear and easy to understand
__Arrange questions in logical order
__Use appropriate response choices (include all possible answers and minimize overlap among the answers)
__Do not use double negatives
__Be upbeat and interesting
__Write to the appropriate reading level (9th grade or less for general public; several word-processing software packages incorporate a feature that determines reading level)
__ Use questions pretested in other surveys whenever possible
__Leave out the questions that are "nice to know" but not vital to the success of the program /product/service

- ***Reminder calls or postcards.*** If these steps were not included in the original survey plan, they should be considered if the response is low. If they were included in the original plan, it may be advantageous for you to repeat them.

- ***Followup contact with nonrespondents.*** You may need to make telephone calls or other types of personal contact to nonrespondents to identify the reasons for their nonresponse. You may want to learn if they understood the intent of the survey and the questions, if the questions were relevant to them, and if there were specific factors that caused their reluctance to respond.

- ***Improve contact information.*** It may be that many addresses or phone numbers of the target group are incorrect or out-of-date. Improving this information would very likely improve the response rate. Places to check include the Internet, credit bureaus, and business directories.

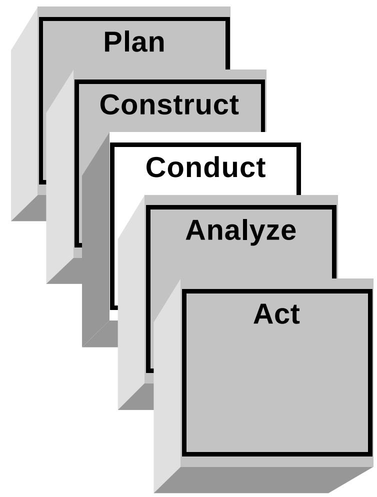
- ***Revision of survey instrument.*** In some instances, some of the survey questions may make respondents feel uncomfortable or unable to respond, so you may need to revise the instrument. NOTE: If you change the survey instrument significantly, you may not be able to compare the results received before the change with those received after the change. You will need to carefully consider the tradeoff of response rate versus data validity.

Some of these steps may require a great deal of effort, time, and money. The group or individual in charge of the survey will need to carefully consider the various options. If the response rate remains too low, you may need to wait for a better time and a different customer base, or may wish to rely on direct conversations with customers.

Construct ***checklist***

__Design the sample
__Decide method for collecting data
__Choose an approach
__Develop the questions
__Construct the questionnaire
__Pretest
__Prepare OMB clearance package

CONDUCT DATA COLLECTION



Whatever methods you choose for collecting data, adequate planning, training, quality control, and supervisory practices are essential to ensure that the data collected meet certain standards, namely that the information is

- Timely
- Accurate
- Efficient
- Useful
- Reliable
- Valid.

FOCUS GROUPS

A focus group project typically involves several steps, as discussed below.

To recruit participants, you will need to compose *an effective recruitment script*. Use this tool to create dialogue between the person recruiting participants and the candidate and to qualify potential participants considering factors such as age, socioeconomic status, and race/ethnicity. Then you will invite individuals who meet requirements to participate in the group. You should recruit about twelve *qualified participants* for each focus group; allowing for last-minute change of plans and illness, the moderator should expect that about nine will attend.

Several practices can maximize the efficiency of the recruitment process:

- Well before the group meets, mail a letter to participants that confirms the date, time, and location of the group and states whether the respondents will be paid for participating. The letter thanks the participants, gives directions to the focus group facility, and repeats the general objectives of the focus group.

- Additionally, you may decide to provide *transportation* to the focus group facility for those participants who need this service.

- On the day of the focus group (or the previous day, if the group is scheduled for the morning), make a *follow-up telephone call* to the participants to remind them to attend.

Running a successful focus group also requires arranging logistical matters, such as

- Arranging for focus group facilities
- Providing videotaping and audio taping equipment or people assigned as recorders
- Providing a video hookup between the room where the focus group will meet and the room where you (or others) will observe the focus group (if this is part of the design)
- Coordinating participants' schedules.

During the focus group, it is a good idea to use both a moderator and an assistant to conduct the session. The moderator will pose questions to elicit candid opinions from the participants, keep the discussion moving, cover all topics in the discussion guide, recognize when participants bring up valuable new information, and steer the discussion in that direction if warranted. The assistant supports the moderator as needed, takes notes, and handles logistics.

MAIL SURVEYS

In setting up data collection procedures for a mail survey, a good database is important. The database should contain, for each customer, a unique identification number, the customer's characteristics relevant for the sample selection (such as geographic location, size of business, or date of last contact with EPA), name and address, mailout date(s), and the date the response is received. This database is a tracking system.

A mail survey typically involves several separate mailings, each of which they call a "wave." Send out each wave of a mail survey on the same date:

- If you use an advance letter, mail all advance letters to customers on the same day.
- About a week later, mail the first questionnaire to all customers. Attach a label with the unique identification number to each questionnaire. Include a letter in the package that refers to the advance letter, asks for cooperation, and (when possible) provides a toll-free number for customers to call if they have questions. The package should also contain a prepaid, pre-addressed envelope for the customer to use to return the completed survey.
- As completed questionnaires come in, record their return in the tracking system. Similarly, as undeliverable questionnaires come back (e.g., the customer has moved and left no forwarding address or the address is incorrect), note that they were undeliverable in the tracking system.
- About 3 weeks after mailing the first questionnaire, send out the second copy to all those who have not yet responded. The letter in this packet should note the importance of the study and

ask customers to respond. The second copy of the questionnaire should be a different color from the first version. This distinguishes between the two copies, sends a signal to customers, and aids efforts to track responses.

The following often help improve response rates:

- The advance letter (if used) should be on official letterhead, with a signature or title that is meaningful to the customer
- Any signed correspondence should use a real signature rather than a rubber stamp (scanning in the signature can work well for many letters)
- Use a “live” stamp (if possible), rather than metered or prepaid postage, to send out the survey
- Use “address correction requested” to get information on customers whose surveys cannot be delivered, then use the corrected information in the next mailout
- Use a large enough envelope so that the survey booklet does not have to be folded
- Establish, when possible, a toll-free number for the duration of the data collection period, and encourage customers to call with questions or comments
- Allow respondents to fax back the completed survey
- If the budget permits, send out a third mailing via certified mail or using an overnight delivery service (this is a last resort and may produce only minimal results).

Data from mail surveys must be key-entered or scanned. It is usually most cost-efficient to wait until you have a sizable batch of completed surveys before beginning data entry procedures. Be sure to do a periodic quality check to uncover data-entry errors.

TELEPHONE SURVEYS

Whether using computer-assisted telephone interviewing technology (CATI) or a traditional paper-based technique, you must train telephone interviewers specifically on the study’s questionnaire and data collection procedures. The following are topics to cover during interviewer training sessions:

- ***Background and scope of the survey.*** A project leader gives interviewers general information about the background and scope of the project. She/he explains the types of information to be collected and the ways in which that information will be used.

- ***Review of the questionnaire.*** A person responsible for data collection goes through the questionnaire and leads an item-by-item discussion.

- ***Dealing with uncooperative respondents.*** Experienced staff lead discussions about ways to start off the interview right, enlist cooperation, build rapport, and minimize breakoffs and nonresponses. The interviewers will also review strategies for ways to manage challenging situations.

- ***Answering customers' questions.*** Some frequent questions are

  - How was I selected?
  - What is the survey about?
  - Who is conducting the survey?
  - Who wants to know these answers?
  - How will the information be used?
  - How long will this take?
  - Will I be identified?
  - How do I know you are who you say you are?

- ***Quality control procedures***. Project leaders monitor matters such as posing questions accurately, tone, courteousness, and responsiveness to customers' concerns throughout the survey, and they review these procedures with interviewers. Telephone interviews for any sizable study are usually conducted using CATI technology. CATI systems use computers to facilitate the interviews, which is a vast improvement over traditional paper-based systems because CATI

  - Greatly reduces the possibility of mistakes
  - Ensures accurate recording of the survey response
  - Instantly establishes a tracking system and a record of each call
  - Provides significant improvements in quality control and efficiency
  - Allows complex branching and skip patterns.

When using CATI, the computer automatically handles tasks such as controlling pace, organizing which questions are to be asked and which are to be skipped, rejecting invalid or unlikely responses, and recording closed-ended and open-ended responses. This enables the interviewer to focus on smooth delivery and good interviewing skills. It also eliminates the need to enter data after the survey is completed. The net result is a higher-quality interview and more reliable information.

ELECTRONIC FEEDBACK

Internet surveys use a web-based form that the user completes online at a designated web address. The survey manager should only consider this method of data collection if the potential respondents have access to the Internet.

To administer an Internet survey, the survey manager must have a method of contacting the people selected for the sample, preferably via e-mail addresses. After compiling the sample list, the survey manager then sends an e-mail alert that will lead potential respondents to the survey website. Upon entering the website, respondents can then log-in and take the survey. Internet surveys have several advantages:

- The Internet survey is interactive, like a telephone survey, allowing programmed skip patterns and links to more detailed survey instructions. Unlike a telephone survey, respondents can see what they are answering.
- Respondents can complete the questionnaire at a time convenient to them.
- There are no calling or mailing costs associated with Internet surveys.

E-mail surveys are one of the fastest and least intrusive means for gathering customer feedback. Up to 50 percent of the responses are received within 24 hours. They are also cheaper to conduct since you pay no interviewers or printing and distribution costs. In addition, the survey will definitely get to the right individual; they will usually not be intercepted and routed to another person. However, there are also some disadvantages. For example, it is difficult to format an e-mail message to be clear and concise. It is also likely that respondents will have no perception of anonymity. Finally, as e-mail use increases, people are becoming less patient with the many messages that can be received.

Online Focus Groups

Online focus group research is an exciting new potential of online conferencing. Traditional focus groups require:

- The rental of a physical facility, transportation for participants, snacks, recording facilities for transcription purposes, and time spent in setup and cleanup
- The recruitment of participants from the immediate local area
- Travel costs for moderators who must be located at the same site as the participants

Online focus groups overcome many of these limitations. Features of online focus groups include:

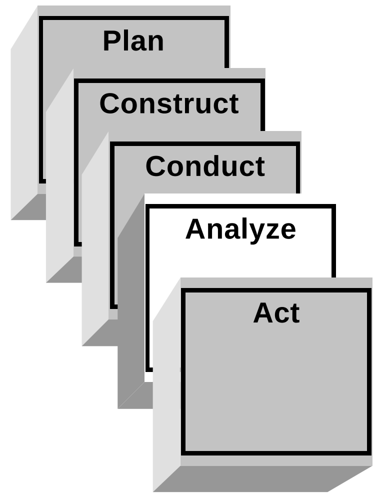
- The ability to restrict access to pre-authorized participants
- Automatic production of instant word-for-word transcripts
- Use of online fill-in survey forms without leaving the focus group
- Use of online participant profiles filled out in advance (reduces the need for “get acquainted” activities)
- Elaborate electronic moderator discussion controls
- Display (with no action needed by participants) of discussion materials such as PowerPoint slides, Excel charts and spreadsheets, concept papers and other text materials, photographs and other visuals, live websites and their contents, live pictures from web cameras, and even streaming audio and video
- The ability to continue discussion on a split screen while viewing materials such as those described above.

Conduct ✓ Checklist

___Choose an approach
___Design the sample
___Decide method for collecting the data
___Develop the questions
___Construct the questionnaire
___Conduct a pretest
___Prepare OMB Clearance package

“Statistics are no substitute for judgment.”
Henry Clay

ANALYZE THE DATA



Throughout the customer feedback activity, the framework for analyzing findings should be established and modified. An *analysis plan* is a useful tool for organizing the data analysis. The analysis plan should specify how your organization will analyze the survey responses to produce the desired products. The plan is helpful for making sure that the data you collect will answer the overarching questions being posed, for ensuring that you do not gather extraneous data, and for setting forth expectations about the kinds of information that will result from the customer feedback activity.

You should include two important items in the analysis plan: 1) the designation of dependent and independent variables, and 2) the stipulation of the unit of analysis. A *dependent* variable is the phenomenon you are investigating. For EPA's feedback activities, the dependent variable will likely be the degree of customer satisfaction with a specific product or service. *Independent* variables help explain the observed level of the dependent variable, and may include factors such as differences in the nature of the product or service (e.g., customers were consistently more satisfied with one service than with another), frequency and type of interaction, and customer differences (e.g., educators, students, local planners, and small business owners using the same service). The *unit of analysis* is what you are studying. In customer feedback *surveys* at EPA, the unit of analysis will, in most cases, be the individual *person served*. When you use *continuous feedback* methods, the unit of analysis will generally be the individual *customer transaction*. For further discussion of unit of analysis, see **Factsheet VII**.

DATA CLEANUP

Once you have set up the database and entered all data, you must review the data and prepare data for analysis. This may entail a broad set of activities, such as deleting cases that left all answers blank on a mail survey and coding open-ended responses into categories. Generally, this is the time to a run a set of frequencies to show the number of responses of each kind to each question (the number of yeses and noes to a yes/no question) and the total number of responses of all kinds to each question. This quick analysis gives you a rough check on the completeness and accuracy of your data (the total number of responses to any one question cannot exceed the total number of respondents and rarely will differ greatly from the total number of responses for each of the other questions). Frequencies flag out-of-range values (i.e., responses to one question that are so different from responses to similar questions that you doubt their accuracy).

TYPES OF DATA AND ANALYSES

Data from focus groups tend to be qualitative in nature. Analysts may tabulate data from focus groups, such as "*x* percent of the participants expressed satisfaction." You should treat these numbers cautiously and not generalize them to the full set of customers because 1) focus groups usually have only a relatively small number of participants, and 2) participants may have been recruited because they had specific experiences or characteristics. You may review transcripts from focus groups to detect patterns and inconsistencies or you may apply more rigorous content analysis.

For quantitative you can produce a variety of statistics:

- Descriptions of central tendencies, such as the mean, median, or mode (i.e., the average value, the middle value (half are larger and half are smaller), or the most frequently occurring value).
- Other descriptive statistics, such as frequencies, percentiles, and percentages. In customer satisfaction surveys, the most commonly reported result is of this kind: the percentage of respondents who expressed satisfaction with a specific aspect of their interaction with EPA.
- Cross-tabulations that array independent variables against the dependent variable (for example, type of customer displayed against a summary measure of customer satisfaction, like the percentage of customers of each type who reported being satisfied with the product or service they received).
- Multivariate statistics—such as factor analysis, analysis of variance, and regression analysis—to determine the relationship between and among selected variables.
- Chi-square, z scores, t-tests, and other statistics to determine statistical significance.
- Time-series and trend analyses to determine long-term changes and seasonal and cyclical patterns in the data.

The following table contains information about the statistical techniques that will most likely meet all the needs and expectations of the EPA program or project conducting feedback:

Statistical Technique	Use	Example
Mean	To determine the average response	The mean rating for overall satisfaction is an 8.4. (Sum of all scores divided by number of respondents)
Median	To identify the middle response	The median score for overall satisfaction is a 9. (When responses are listed in numerical order, the middle response [if odd number of respondents] or the average of the two middle responses [if even number of respondents]
Frequencies	The summarize the distribution of responses	67% of respondents rate overall satisfaction a 9 or a 10.
Cross-tabulations	To summarize the distribution of responses by another variable	78% of Maryland respondents rate overall satisfaction a 9 or a 10, compared to 60% of Virginia respondents.
T-Test	To test for statistically significant differences between *two* independent groups	Maryland respondents are significantly more satisfied overall than Virginia respondents.
ANOVA (analysis of variance)	To test for statistically significant differences between *three or more* independent groups	Overall satisfaction differs significantly among Maryland respondents, Virginia respondents, and D.C. respondents.
Correlation	To determine how much responses to one question predict responses to another question (Measures the strength of relationship between variables)	Of all aspects of the office, satisfaction with the cleanliness best predicts overall satisfaction. (Respondents who are satisfied with cleanliness tend to be satisfied overall, and respondents who are dissatisfied with cleanliness tend to be dissatisfied overall)
Regression	To analyze the effects of a relationship among responses to two or more questions (Measures the effects of one or more variables on another variable)	As satisfaction with cleanliness decreases, overall satisfaction decreases.

ANALYSIS: AN EXAMPLE

The following is a simple example of how you might analyze data from customer feedback. Suppose an EPA group has distributed several thousand copies of the ABC Booklet, and because you want to know how satisfied customers are with the booklet, you asked 450 respondents to a survey which included:

> *On a scale of 1 to 6 where 1 represents "highly dissatisfied" and 6 represents "highly satisfied," how would you rate your satisfaction with the ABC booklet you received from EPA?*

If one were to tabulate the all the scores, the average score would be 3. 5. Although an average score is a very important piece of information, there is a lot more you can do with the data from your customers. It is often useful to begin with a frequency distribution where you determine the number and percentage of respondents who gave each score between 1 and 6. Here is one way to present that distribution:

Customer satisfaction with the ABC Booklet (n = 450)		
Score	**Number**	**Percent of those expressing an opinion**
1—Highly dissatisfied	42	11
2	27	7
3	122	31
4	132	34
5	38	10
6 —Highly satisfied	32	8
Don't Remember	22	5
Don't Know	35	8
Total:	393	100

This example points out several items you need to consider. ***First***, of the 450 customers responding to a survey this question, 22 did not remember receiving the booklet and 35 said they had no opinion or did not know how they would rate their satisfaction with the booklet. In the example provided above, the information about those who do not remember or have no opinion is presented outside the table because the analyst decided that it was more important to focus attention on those who did have opinions to express. Thus, the percentages of those with opinions is based on the 393 respondents who expressed opinions. If it is important to determine the percentage of customers who don't remember or who have no opinion about the booklet, you would calculate those figures using 450—the total number who were asked the question—as the denominator. By including the sample size in the table (the information that n = 450), readers can do these calculations, should they be interested.

Second, the information presented may be at too great a level of detail for many audience members. The difference between a 2 and a 3 rating, for example, may not be meaningful for them. Thus, you may find it useful to *collapse* the information into some smaller number of categories. One possibility is to create three categories: dissatisfied, neutral, and satisfied.

Scores of 1 to 2, 3 to 4, and 5 to 6 might be collapsed to create three categories and then report:

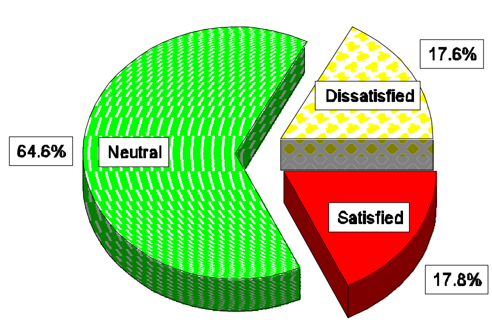
Customer satisfaction with the ABC Booklet (n =450)		
Rating	Number	Percent of those expressing an opinion
Dissatisfied	69	18
Neutral	254	65
Satisfied	70	18
Total:	393	101*

* Total is greater than 100 due to rounding

Don't remember receiving the ABC Booklet:	22 (5 percent of 450)
Don't know/no opinion	35 (8 percent of 450)

Note that the information can now be grasped much more immediately. It is reasonable to ask: If you will eventually collapse responses, why does the question posed to customers have six possible answers? Research has shown that people answering survey questions prefer to have a fairly wide range of responses because they don't like to feel forced into a limited set of options. In addition, analysts may have different approaches to collapsing categories.

Customer satisfaction with the ABC Booklet



The responsibility for reducing information to a manageable amount falls to the analyst. It is the analyst's task to identify sensible ways to collapse categories and to present these decisions to the audience (often as a footnote or technical appendix).

Third, as discussed in the next section, you should consider how to present the data. Although these tables are simple and easy to interpret, compare them to a chart that summarizes the information instantly.

Fourth, the analysis you anticipated during the planning phase of the customer feedback activity should guide you whether you need to do subgroup analysis. Subgroup analysis examines whether different kinds of customers have different kinds of responses. Suppose you want to examine whether educators and representatives of advocacy organizations have the same or different opinions about the ABC Booklet. You could collapse categories and sort respondents by their status as educators or advocates (to be sure, some respondents may be both educators and advocates, but for simplicity, let us assume you had customers indicate their primary role), then present the findings:

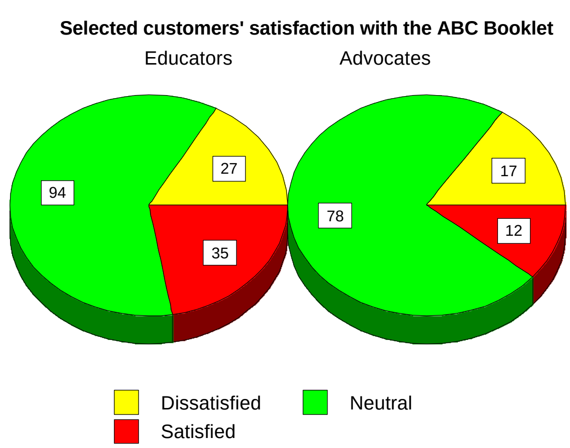
Selected customers' satisfaction with the ABC Booklet (n = 450)

Rating	Educators		Advocates	
	Number	Percent	Number	Percent
Dissatisfied	27	17	17	16
Neutral	94	60	78	73
Satisfied	35	22	12	11
Total:	156	99*	107	100

* Total is less than 100 due to rounding.

This table provides important information to the audience, but you might want to present it using charts for the two separate groups. You could also perform a statistical test to see if the two groups differ statistically in their satisfaction with the ABC Booklet.

The ***fifth*** item to consider is the adequacy of your findings. Be sure how strong your findings are before formulating recommendations. Many factors affect adequacy, such as the sample size, response rate, and objectivity of questions posed—plus the way you will use the findings. With a sufficient sample size, a good response rate (more than 75 percent for mail and telephone surveys, for example), and questions that are not biased, you can use the information with confidence. OMB requires an 80 percent response rate for survey results to be considered statistically valid. However, when less than 80 percent of those sampled return questionnaires in a customer



feedback and satisfaction measurement activity, the information gathered should still be used to improve customer service. Do not ignore the findings.

Let's say that in the above example, there was an additional group of people — small business owners — who were your customers, and that a total of 17 small-business owners responded to your survey. This is a small enough number that the sampling error for this one group of customers may be quite high. Nevertheless, pay attention to the results.

One final comment on this example: EPA has a large number of programs and offices, some of which may have customer bases much smaller than the thousands used in the example. If your customer base is quite small, you first must decide whether a statistical sample and quantitative survey is still viable because other techniques may be more suited for your purposes. If you decide to go ahead with a quantitative survey, recognize that the analyses you conduct should be carefully considered and constructed. If, for instance, you have 500 customers and survey 100 of them, you can perform the same analyses as in the example above, but you should examine the frequency distribution first.

Even if they do not adequately represent the larger group of small-business owners who were your customers, you can still

- Decide whether the findings are suggestive (rather than definitive). Should your office pay attention to the concerns suggested by these findings?
- Compare the findings to other similar data. Are small-business owners generally pleased or displeased with other EPA products?
- Compare the findings to information EPA gets from continuous feedback methods. If you call small-business owners after providing a service or product, what do they have to say in those conversations?
- How do the continuous feedback findings compare with the results of this survey?
- Discuss the findings with colleagues. Have they gotten similar reports? Is there a pattern emerging about small-business owners' level of satisfaction with EPA products?
- Raise the findings with program managers, being careful to note that this *might* be an area that requires attention to improve customers' satisfaction with EPA.
- Investigate the findings further. Should you use this as a starting point for more in-depth discussions with small-business owners? Conduct focus groups to see how products could produce higher levels of satisfaction?

In an extreme case, let's assume that 10 of your 100 respondents gave a score of 0, 60 gave a score of 3, and 30 gave a score of 6. Although the average score of 3. 0 may be close to the average of 3. 5 in the example, the distribution of responses is very different.

"A reasonable probability is the only certainty. "

E. W. Howe

Sixth, you need to consider how past responses compare with the new responses, and to ensure that you can compare the most current results with those you expect to from future questionnaires. This is time series or trends analysis and is vital to being able to measure change.

DRIVER ANALYSIS

An analytical approach that is very useful in customer research is *driver analysis*. Driver analysis identifies the service or services that most significantly affect respondents' satisfaction. This type of analysis provides decision makers with a tool to prioritize findings, which is important because customer feedback efforts often yield more information than an organization can deal with. Also, managers often do not have enough resources to adequately address all aspects of customer service that receive low satisfaction ratings. Driver analysis enables the study team to identify which areas deserve the highest levels of attention.

As an example, let us assume that an EPA program is assessing three ways of providing information: by telephone, by mail, and through published materials. Analysis of customer feedback can identify which of these methods results in the highest level of respondent satisfaction. This is the delivery system that most strongly drives satisfaction with the program's products and services. When you identify the method that significantly affects satisfaction, additional analysis can determine which factor within that method most significantly affects satisfaction. Continuing with the example, let us assume that you identify information received by telephone as the method producing highest satisfaction. You can also use driver analysis to identify the factor that most affects the respondent's opinion. Such factors may include one or more of the following: the accuracy of the information, the courtesy shown by the employee, or the accessibility of the correct person to answer the question. Identifying the driver in this way greatly enhances a manager's ability to set priorities for improvement efforts.

Two primary analytical techniques, *stated importance* and *derived importance,* are used in driver analysis:

Stated importance uses respondents' answers to specific questions regarding the importance of the services. Simply ask the respondent to rank or rate items on a prescribed scale (such as a scale from 1 to 6) according to their importance.

Derived importance uses multivariate analysis to identify the most important factors affecting satisfaction. In short, the overall level of satisfaction with the organization is compared to the levels of satisfaction with particular products or services received. Driver analysis will identify the degree to which variation in the overall level of satisfaction is explained by the variation in the product or service received. Those individual products or services that most adequately explain the variation in overall satisfaction are the drivers.

The following table relates a useful method of comparing importance data, such as from driver analysis, and satisfaction data. When the results from a question is plotted according to the levels of importance and satisfaction, some helpful inferences can be drawn.

IMPORTANCE	Low Satisfaction	High Satisfaction
High	**2** • Important to customers • Worse performance • Failing to meet customer expectations	**1** • Important to customers • Better performance • Customer expectations being addressed/met B
Low	**3** • Less important to customers • Worse performance • Low customer expectations matched well to poor performance • If importance increases performance will become an issue	A **4** • Less important to customers • Better performance • Clearly exceeding customer expectations • Efforts may be unrecognized, priorities misplaced – two options: A: Redirect efforts at issues in quadrant 2, allow these to move to quadrant 3 B: Make these issues Important to customers to leverage unrecognized performance, move to quadrant 1

Low Satisfaction High

PRESENTING THE DATA

One critical activity is to remove all identifying information from the data. To ensure credibility and confidentiality, your should never present findings that could be used to identify a specific customer. A typical practice is to strip names, addresses, and telephone numbers from the analytical database and keep them in a separate file that includes the unique identification number assigned during the data collection activity. If ever warranted, you can link the file with identifying information with customer feedback through the identification numbers.

Most people are interested in the “bottom line,” presented as succinctly and clearly as possible. Therefore, it may be best to present the data reflecting survey results in simple, straightforward ways to most EPA audiences and save the mathematical details for an appendix or supplementary briefing. Many audience members want a brief summary of the study’s findings. Two pages of text, with key findings presented as bullets, are usually sufficient.

Graphic representations of data are powerful displays of findings. It is very easy for audiences to grasp information presented in bar graphs, pie charts, and similar designs. The rapid growth of low-cost color printers means that these displays can be easily produced in color, adding to their ease of understanding. Examples of graphs are presented in **Factsheet VIII**.

FORMULATING RECOMMENDATIONS BASED ON THE DATA

Customer feedback may suggest many potential improvements or enhancements to consider. Narrowing down the list to those that will have the most direct effects on overall customer satisfaction is the ideal. Most organizations will have limited staff and other resources, so practical considerations must guide their choices. Usually, three to five targeted improvements are sufficient. Sometimes, a single improvement can present a significant challenge, and focusing on it can have a major impact.

Each organization will consider its own capacity for action. However, it is important to do something or customers may feel that their input was not valued and the effort they expended to respond was wasted. They may place even less trust in the surveying agency.

Recognize too that not everyone will be ready for the feedback results. Presenting them can raise sensitive issues for some individuals. Some people may feel threatened by anything but glowing results, or become defensive or emotional. Some may question the credibility of the findings, especially if they build logically to recommendations for changes that affect them.

To get buy-in and use the results to influence change, results must be honest, and presented in a constructive way that emphasizes the positives. Results, findings, and recommendations should be presented as opportunities for improvement. If the survey cannot be used to influence change or improvement, it did not meet its objective, no matter how carefully the whole feedback activity was conducted.

PRESENTING RECOMMENDATIONS—USING GRAPHICS

First, remember, at least 70 percent of the message is visual, so take advantage of how people take in information. Use the right visuals to communicate your message. You can

- Emphasize main numerical facts
- Uncover facts, trends, comparisons and relationships that might be overlooked in text or table
- Summarize, group or segment (stratify) data
- Add variety and interest to text, tables, and briefings.

It's best to use *pie* charts to display components or parts of a whole. Use *line* charts when you want to show independent or cumulative values when

- Your data cover a long period of time several series are compared on one chart
- You want to show change, not quantity
- To exhibit trends
- To show relationships
- The plot or the series fluctuates sharply.

Do not use column charts for comparing several data sets, for showing data with many plots, or to show many components. Finally, use picture graphs to demonstrate concepts or ideas. (See **Factsheet VII** for examples of graphics.)

ON DEVELOPING RECOMMENDATIONS

Whether you should develop recommendations depends on the purpose of the feedback activity, the significance of the issues, the quality and significance of the findings, and your audience. Your original purpose should be action-oriented; answers to your issue questions should naturally lead to ideas for actions that would improve program effectiveness.

If you develop and make recommendations, they should be feasible, supported by the findings (which are in turn supported by the data), and stated unambiguously. Providing a list of options for achieving a recommended improvement can increase the likelihood that it will be implemented. Another critical, although sometimes subtle, consideration in developing recommendations is the political climate. It's a fact of life that some

> ***"Measuring fuzzy conclusions to three decimal places is akin to putting a caliper on a dust bunny. "***
>
> **Kerry Patterson**
> **The Balancing Act**

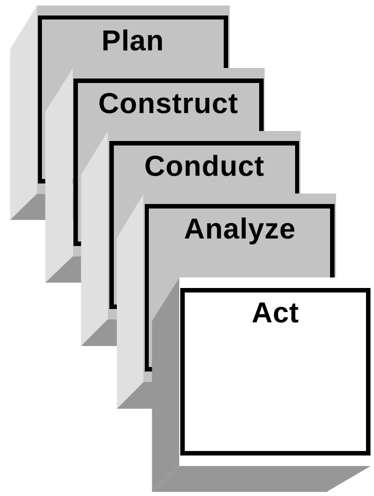
recommendations, no matter how well you support them, will not be accepted by those in authority due to factors beyond your control. Just be aware of these factors so that you can develop an alternative recommendation or recognize that your recommendation may not be implemented until the climate changes or until others have helped tip the scale (from *Practical Evaluation for Public Managers,* Office of the Inspector General, Department of Health and Human Services, November 1994).

Analyze ✓ Checklist

__Clean up data
__Determine the appropriate types of analysis
__Perform analyses
__Present data
__Formulate conclusions and recommendations based on the data
__Present the recommendations

ACT ON THE RESULTS

IS THIS THE BEGINNING OR THE END OF THE PROCESS?



When the efforts to collect customer data appear to be coming to a close, your real work may just be starting! If this is the first time your organization has collected and analyzed customer data in a systematic way, you are probably discovering a whole new world of information. Depending on the feedback method you have chosen, you have probably created a *baseline* of information that characterizes how your customers evaluate your products and services. You may wish to repeat the same process again in a year, or in whatever period of time makes sense in your situation.

Customers who respond to you expect for you not only to act on their feedback, but also to tell them what you have done. Whenever possible, you should build in some way to let them know. To be cost-effective, the EPA program that did the feedback activity wants to make best use of the information. Therefore, this next stage of the process is vitally important to the success of the final phase—action planning and implementation.

HOW DO YOU DECIDE WHAT TO DO WITH THE FEEDBACK YOU RECEIVE?

Once you receive and analyze the feedback, most people will be anxious to know the results. *How did we do? What's the bottom line?* Work hard to avoid giving answers that oversimplify the feedback you have received. Depending on the methodology you have used, you may have an average score or rating to report, but chances are that you will have far more information that can provide a wealth of insights about how your customers view the products and services they have received from your organization.

HOW GOOD IS GOOD ENOUGH?

That is a very hard question to answer. In fact, the only real way to answer it is to say that it depends. For example, is an average score of 4.9 on a 6-point scale a good score? If last year's average score was 2.5, indeed you may have reason to celebrate—and for more than one reason! For one thing, your score nearly doubled. Even better, it leaped from the dissatisfied range to the middle of the satisfied range. However, you may want to look deeper: How does the customer rate other service providers who provide similar services? Is that organization getting ratings above or below the 4.9? And what about the distribution of ratings—are some customers still rating you below a 3.0 while some are rating you above a 5.5? If so, are the more positive ratings obscuring the negative ones? If so, you still may have customers out there who are sharply critical of the products and services you provide.

Setting acceptable goals for customer satisfaction ratings is a decision that each EPA organization must make for itself. Keep in mind, however, that leading service organizations tend to

- Target overall satisfaction scores at the upper end of the scale. On a 6 point scale, that should be a 5.0, and in very competitive situations it may even be at the 5.5 level or higher.

- View any less-than-satisfied ratings as being unacceptable because they indicate an opportunity for dissatisfied customers to quickly convey their dissatisfaction to others by word of mouth. In the long run, that can undermine your efforts to achieve a reputation for service and product excellence.

HOW DO WE KNOW WHAT TO WORK ON FIRST?

Many organizations are overwhelmed with the amount of information they receive from customers. This is especially true if a survey instrument is lengthy, or if there is a large volume of open-ended comments and ideas. Decision makers, particularly at senior executive levels, are likely to ask these questions: What do we do first? What improvements will yield the best improvement in overall customer satisfaction? What improvement or enhancement investments are worth making?

During the planning phase, you, your colleagues, and managers will have identified potential methods and procedures for acting on the results of customer feedback activities. The following are some ideas to consider.

Recover. Be prepared to hear from customers who report a negative experience with EPA. Set up a quick alert and response mechanism to respond in any case such as this. (That may require a special question that asks if the respondent is willing to be identified and contacted for follow up). A quick response is a very positive way to convert a negative impression into a positive one for the customer.

Report. Even if the primary means for action is an oral briefing, having written documentation for others to read and refer to is a good idea. It also creates a historical record for tracking changes over time.

Most people who will review information about customer feedback want to see graphics and summary tables. Reports may include an executive summary, a description of the study objectives and data collection methods, a comprehensive investigation of findings (illustrated with graphs and tables), and conclusions and recommendations. To keep the report a reasonable length, supplementary material can be presented in appendices.

Brief. Action planning workshops get management's attention. Gather decision makers together and go over the findings with a verbal presentation. Software graphics packages can help make the briefing interesting and informative. Conducting a dry run before your presentation helps with timing, pacing, and finding out how well you can verbally communicate your written findings. Hard-copy handouts give participants a tangible reminder of the information conveyed.

Prioritize. It is likely that customer feedback will provide a wealth of information. Try to package the information so that it leads the audience or reader to a series of practical action steps that fit logically together. Acting on results may be more successful if several smaller action plans are developed that contain three to five next steps, rather than one large plan that may appear overwhelming.

Communicate. In addition to briefing management, it is a good idea to communicate results to others. Sending a thank-you letter to focus group participants and customers who completed the survey is important. The letter should note what EPA learned and what will be done with the findings. EPA employees are often eager to learn what customers have said, so results should be summarized and distributed widely.

Improve. There is no reason to elicit customer feedback unless you will use the information to improve EPA's processes, services, or products. Recognize that some employees may be excited about possible changes, but others may feel threatened and be highly resistant. The best way to use customer feedback may be to develop and define action plans. Action plans are most likely to be successful when owners of each issue

- Are identified and included
- Help assess their activities and customers' feedback
- Participate in review and strategy sessions
- Have an opportunity to discuss concerns and shortcomings in a nonthreatening, nonconfrontational environment.

Enhance. Sometimes, customers are satisfied, but want the agency to expand or further improve what it offers. This is an opportunity to enhance products or services.

Reward. Conducting customer feedback activities can be exciting and worthwhile; the process can also be exhausting and threatening. Be certain that you recognize the efforts of staff and customers who made the activity possible and reward them for their involvement. Rewards can take the form of public acknowledgment, mention in performance reviews, and attention to findings.

Plan. Use the immediacy of the customer feedback activity to see what worked well and what could be improved for the next similar activity. Identify aspects that facilitated or impeded achieving the project's objectives, including features of processes followed for planning, data collection, analysis, and development of findings.

Feed results into the strategic plan and GPRA goals and planning activities. In addition to EPA's performance metrics, recent management initiatives, including the President's directives on strategic planning, reinvention, and customer service improvement, and the Government Performance and Results Act (GPRA), suggest that customer data be included in performance data. To address these needs, quantitative data from surveys and trend data accumulated from ongoing feedback mechanisms may be most useful. Focus group and other qualitative data can be used to clarify customers' views.

As Government agencies go about reinventing programs to meet customers' needs and expectations and to comply with the requirements of GPRA, managers will need to develop customer-based performance goals and indicators to assess progress. The basic way to do this is to get input directly from customers.

Act ✓ Checklist

__Recover
__Report
__Brief
__Prioritize
__Communicate conclusions and recommendations
__Improve
__Enhance
__Reward
__Plan
__Feed results into the Strategic Plan, GPRA goals and annual planning activities

"It ain't so much the things we don't know that gets us in trouble. It's the things we know that ain't so."
Artemus Ward

SUGGESTED READING

Alreck, Pamela L., and Robert B. Settle. *The Survey Research Handbook: Guidelines and Strategies for Conducting a Survey*. Irwin Professional Publishers, 1994. *Description:* Without technical buzzwords or statistical jargon, this book provides the methods and guidelines for conducting practical, economical surveys from start to finish.

Dutka, Alan. *AMA Handbook for Customer Satisfaction: A Complete Guide to Research, Planning, & Implementations.* NTC Publishing Group, 1995. *Description:* Covers planning customer satisfaction activities, designing questionnaires, conducting surveys, analyzing the results, applying the results, and maintaining customer satisfaction (*Booknews, Inc.*, 2/1/96).

Environmental Protection Agency, *Survey Management Handbook,* Volumes I (November 1983) and II (December 1984). *Description:* Volume I focuses on survey design principles and ways to productively apply them in planning and managing a contract survey related to regulatory decision making. Volume II focuses on the conduct and management of EPA-sponsored surveys. Contains good lists of recommended additional reading.

Gerson, Richard F., Ph.D. *Measuring Customer Satisfaction.* Crisp Publications, 1993. *Description:* Provides a definition of customer satisfaction and warns of the dangers associated with poor service or quality. The author describes research methods and includes sample forms and questions. The book also explains analysis techniques and notes the importance of measuring employees' satisfaction.

Green, Samuel B., Neil J. Salkind, Theresa M. Akey, Theresa M. Jones, and Sam Green. *Using SPSS for Windows: Analyzing and Understanding Data.* Prentice Hall, 1997. *Description:* Offers both the beginning and advanced individual a complete introduction to SPSS. In two parts, coverage proceeds from an introduction to how to use the program to advanced information on the specific SPSS techniques that are available. Special features of this book include a high level of readability and a class-tested text, examples using screen shots and step-by-step procedures for successful completion of data analysis, tips to help the user in both learning SPSS and making it even easier to use, sidebars featuring material that is particularly interesting and important to understanding the analytic technique under discussion, and guidance in the selection and application of statistical techniques and interpretation, as well as documenting and communicating results.

Hayes, Bob E. *Measuring Customer Satisfaction: Survey Design, Use, and Statistical Methods.* ASQC Quality Press, 1998. *Description:* Provides detailed information about how to construct, evaluate, and use questionnaires. Clearly presents the scientific methodology used to construct questionnaires utilizing the author's systematic approach. Important scientific principles are presented in simple, understandable terms. Both the qualitative and quantitative aspects of questionnaire design and evaluation are included.

Hill, Nigel. *Handbook of Customer Satisfaction Measurement.* Gower Publishing, 1996. *Description:* This book was written for customer service professionals, not statisticians. Using work examples and real-life case studies, this guide takes the reader step by step through the entire process, from formulating objectives at the outset to implementing any necessary action at the end. Among the topics covered are questionnaire design, sampling, interviewing skills, data analysis, and reporting.

Hurlburt, Russell T. *Comprehending Behavioral Statistics.* Brooks/Cole Publishing Company, 1994. *Description:* A textbook that provides the same material found in most introductory statistics texts, but goes beyond the standard by teaching students how to estimate statistics before computations are performed. The optional ESTAT software helps students build this skill by allowing them to learn to make accurate "eyeball-estimates." These estimation techniques are provided for both descriptive and inferential statistics. Alternatively, students can learn estimation from information in the book alone. Annotation: Book New, Inc. Portland, Or.

Kessler, Sheila. *Measuring and Managing Customer Satisfaction: Going for the Gold.* American Society for Quality, 1996. *Description:* Includes chapters on topics such as Problems and Opportunities with Current Customer Satisfaction Measurement, Selecting Your Tools; CSS Data Analysis; Tools for Gathering Data; and Tools for Designing, Analyzing, and Synthesizing Data.

McDaniel, Carl. *Marketing Research Essentials.* South-Western College Publishing, 1998. *Description:* Provides key chapters on the concept of measurement and attitude scales; questionnaire design; data processing, basic data analysis, and statistical testing of differences; and correlation and regression analysis.