# Developing and Administering Web-based Surveys: A Tool-Kit for Assessment Professionals

Presentation to the IPMA-HR Assessment Council

June 12, 2007

llene Gast

Personnel Research and Assessment Division Office of Human Resources Management



# Before we begin . . . Why do a survey??

# Surveys have advantages over other means of data collection. They are:

- Anonymous
- Systematic
- Cost Effective



# Before we begin . . . Why do a survey??

# Surveys provide an efficient means of examining a broad range of organizational issues . . .

- Customer Satisfaction
  - Satisfaction with products or services
- Organizational Effectiveness
  - Effectiveness of broad policies or procedures
  - Effectiveness of organization-wide communication
- Organizational Climate
  - Employees' values, attitudes, perceptions
- Program Evaluation
  - Effectiveness of specific program (e.g.,Recruitment, Selection, Training)



# Before we begin . . . Why do a survey??

### But, they must be used with care!

- Surveys require resources
  - Surveys take time to design, administer, and analyze
  - Employees complete them on work time
- Surveys raise expectations
  - Is your sponsor committed to action?
- Surveys can be "too much of a good thing"
  - Coordination is critical



### A New Tool . . .



#### Give a kid a hammer, and everything becomes a nail . . .

#### Avoid the Temptation to Oversurvey!

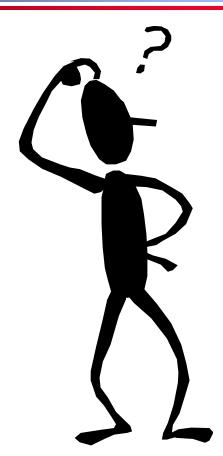
- Increased cost
- Employee irritation
  - Reduced response rate
  - Reduced quality of data

#### Guidelines

- Limit to 3-5 surveys per employee per year
  - Communicate the value of the survey to the organization
- Carefully time surveys
  - Avoid overlap in administration
  - Avoid peak workload periods, holidays
- Minimize survey length
  - 20-40 multiple choice questions, 1-3 open-ended questions
  - 30-minute completion time



# What do **YOU** have in your tool kit?









### **Experience**

Job Analysis

Assessment Design

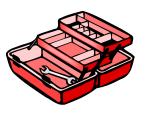
#### Tool

- Ability to work with SMEs
- Ability to write clearly & concisely
- Ability to format a survey
- Knowledge of descriptive statistics
- Ability to operationally define constructs
- Ability to develop or select appropriate measures



### **Experience**

Assessment Development



#### Tool

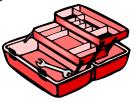
- Ability to write directions to participants
- Ability to write multiple-choice item stems
- Ability to write multiple-choice response options
- Ability to sequence assessment content logically



### **Experience**

Test Validation

Analyzing Test Results



#### Tool

- Knowledge of research design
- Ability to coordinate largescale research projects
- Knowledge of sampling issues and procedures
- Ability to draw appropriate conclusions from statistical data
- Knowledge of descriptive statistics



### **Experience**

Reporting Test Results



#### Tool

- Ability to write complex, technical reports
- Ability to brief higher-level officials on critical issues or problems requiring resolution
- Ability to provide constructive feedback to individuals who have been assessed

Any others?



## Some subtle (and not so subtle) differences

#### Your Role

- Necessary client involvement affects your role
  - Expert vs. Internal Consultant
  - Director vs. Developer
  - Analyst vs. Communicator
- Implications
  - Good news: Clients have ownership from the outset
  - Bad news: Everyone knows how to ask questions; therefore, everyone is an expert





A camel is like a horse designed by a committee.

A survey is like a test designed by a committee.

If you remain flexible, the end product might not look like what you expected, but it will do the job!

# Some subtle (and not so subtle) differences

#### The Stakeholders

- Some <u>stakeholders</u> are the same, but their <u>concerns</u> are not
  - External Policy & Decision-makers
    - Organizational Trustees
    - Government Officials
    - Oversight Agencies (e.g., GAO, OPM. OMB)
  - Internal Policy & Decision-makers
    - Executives, Managers, and Supervisors
    - Union(s)
  - Respondents
    - Applicants
    - Current employees



## Some subtle (and not so subtle) differences

#### The Stakes

- Tests have high stakes for the individual
  - Who gets the job?
  - Who gets promoted?

#### Individuals are highly motivated to complete tests

- Surveys have high stakes for the organization
  - What intervention is plausible?
  - What gets funded?
  - What gets scrutinized?
    - Is the agency green, red, or yellow?
    - Did we make the top fold of the Washington Post?

### Individuals are less motivated to complete surveys



## Some subtle (and not so subtle) differences

### The Design & Development Process

#### Tests

- Determine what to measure
- Select/develop the most appropriate measure
- Evaluate consequences as part of your final validation report

### Surveys

- Determine what your client wants to know
- Consider the consequences of having that information
  - If you don't ask, you won't find out
  - If you do ask, you can't put it back
- Select/develop the most appropriate measure



# Some subtle (and not so subtle) differences

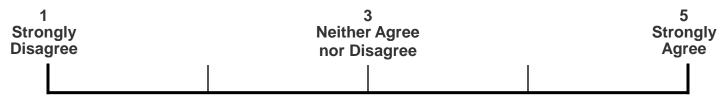
#### **Function and Form**

#### Test Items

- Address job related abilities and attributes
- There are correct or best answers
- Response options are tailored to each item

### Survey Items

- Address attitudes and preferences
- There are no correct answers
- Response options may use a common scale





## Some subtle (and not so subtle) differences

#### The Results

#### Tests

- Results go to the individual
  - Individuals may become sensitive
- "Bad news" becomes personal
- Litigation is possible

#### Surveys

- Results go to your sponsor(s)
  - Results can be politically sensitive
- You may have to deliver "bad news" to influential people
- Public scrutiny is possible
  - The "top fold" factor: Would you want to see this on the top fold of the Washington Post?



Some subtle (and not so subtle) differences

#### **Administration**

### Security and Confidentiality

- For tests, both security and confidentiality are critical
- For surveys, security is not an issue, but anonymity and confidentiality of results are critical

#### Conditions of Administration

- Surveys can be easily administered over the internet because compromise is not an issue
- Assessments of ability typically require proctoring or verification



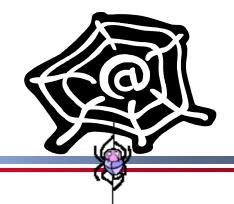


# Web-based Surveys: Advantages

- Software facilitates survey design
  - Libraries provide examples of questions, scales, and instructions to participants
- Electronic surveys link easily to other databases
  - E-mail addresses
  - Demographic data
    - No need to ask job series, tenure, geographic location
- Questionnaire and questions can be customized
  - Survey can be branded for each organizational unit
  - Branching questions appear only when relevant
- Publication is automatic
  - Errors can be corrected "on the fly"



# Web-based Surveys: Advantages



- Electronic distribution and return save time and resources
  - Internal e-mail system handles delivery; respondents click on "submit" to return surveys
    - Use a third-party host to minimize anonymity concerns
  - Reminders are easy to send out
- Responses can be monitored in "real time"
  - Response rate
  - Question functioning
- Data are handled efficiently and with precision
  - Responses are automatically collected, scored, and stored
  - Survey software analyzes data and generates reports



# Web-based Surveys: Some Cautions

#### It's not as easy as it looks!

- Wetware (Personnel)
  - Ability to develop or modify survey software application
  - Ability to write/select appropriate survey questions

#### Hardware

- Not everyone has access to a computer
  - Consider alternate arrangements (hard copy, phone response)
- Multiple hardware configurations abound

#### Software

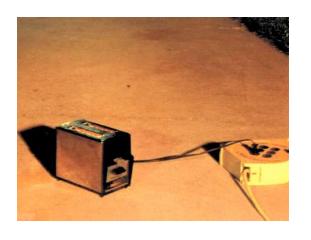
- It must meet your needs
- It must run on your system
- Be prepared for "glitches"
- Data analysis capabilities may be too limited for your needs

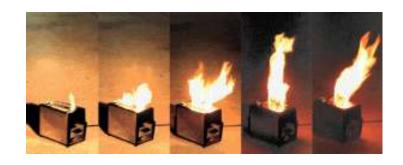




# Don't Try This at Home







An article by newspaper columnist *Dave Barry* noted that *Kellogg's Strawberry Pop Tarts* (SPTs) could be made to emit flames "like a blow torch" if left in a toaster too long.



# Seven Simple Steps for Survey Design

- 1. Identify the Objective
- 2. Develop an Action Plan
- 3. Design the Data Collection Strategy
- 4. Develop the Survey Materials
- 5. Conduct the Survey
- 6. Analyze the Responses
- 7. Report the Results



# 1. Identify the Objective

### Why do a survey?

- Pinpoint areas of concern
- Observe long-term trends
- Monitor program impacts
- Gain input for for future decisions
- Add a communications channel
  - Strategic communications
  - Feedback
- Conduct research on organizational behavior
- Monitor organizational change or improvement



# 1. Identify the Objective

### Clearly defined survey objectives will help you determine:

- Who should be on the "steering committee"
  - Management
  - Unions
  - External Experts
  - In-house Staff
- What will be assessed
  - Constructs
  - Key indicators
- Who should complete the survey



# 1. Identify the Objective

### Clarify expectations

- What are the costs and benefits of the survey?
- What will be measured?
- What data will be reported, and to whom?
- How will data be reported?
- How will results be used?
- What is YOUR role?

### Put them in writing

Prepare a written proposal



# 2. Develop an Action Plan

#### **Considerations**

- How much information do you have about the issues to be investigated?
- Who needs to review the plan, the survey, and the survey results?
- Does your organization have the hardware and software needed for a web-based survey?
- Who will participate on the survey team?
  - Does your staff have all of the required skills?



# 2. Develop an Action Plan

U.S. Customs and Border Protection

Project Steps	Timeframe
Develop timeline	June 22
Identify dimensions	July 6
Identify sample for survey	July 6
Prepare correspondence to participants	July 13
Develop questionnaire	July 13
Secure review of survey package (e.g., management, LER, unions)	July 27
Send notice of survey to participants	July 30
Launch/conduct survey	Aug. 6-24
Prepare data and analyze results	Aug. 27- Sept. 14
Report preliminary findings and recommendations	Sept. 28

#### Who

Population/Sample



#### What

- Survey Dimensions
- Demographic Variables

#### When

- Timing of Launch
- Extensions



#### How

Delivery System



### **Census or Sample?**

#### Census

- More resource intensive
- More accurate
  - Greater precision; lower "margin of error"
- Risks over-surveying
- Necessary for some purposes
  - Organizational communication
  - Feedback to smaller groups

#### **Sample**

- Less resource intensive
- Accuracy may questioned
  - Judicious sampling overcomes objections
- Avoids over-surveying
- Sufficient for many purposes
  - estimating employee attitudes
  - Following up on prior survey



### **Selecting the Sample: Some Considerations**

- Margin of Error
  - Determines sample size for a specified level of precision
  - Greater precision requires larger samples
- Level of Confidence
  - Likelihood that population value is within the specified margin of error
  - Higher confidence levels require larger samples
- Occurrence of the Characteristic or Attitude
  - Frequency with which the characteristic (e.g., occupation, gender) is observed or attitude (e.g., support/disapproval) is expressed
  - Uneven splits (e.g., 90/10) are harder to detect and require larger samples



## **Selecting the Sample: Some Considerations**

#### Stratification

- Specifying subgroups and selecting from them requires larger samples
- Check for balanced representation if not stratifying

### Population Size

Larger populations require proportionately smaller samples

### Expected Response Rate

Higher response rates require smaller samples



## **Example of a Sampling Plan**

Group	Original Population	Returns Needed for +/- 3 Margin of Error	Number to Send Assuming 40% Response Rate	Extra 5% for Oversample	
HQ	1146	560	n/a	n/a	All
Region 1	12403	980	2450	122	2572
Region 2	24706	1020	2550	128	2678

Simple Web-based sample size calculator:

http://www.surveysystem.com/sscalc.htm



## Identify the Dimensions to be Measured

- Research the issue
  - Consult existing research and best practices
  - Collect questionnaires on similar topics
- Propose dimensions
- Coordinate with your sponsor, steering committee



### Task: Establish a baseline for a major organizational change

### **Proposed Dimensions**

- Mission and Strategy
- Leadership
- Change Management
- Information Sharing
- Shared Values
- Expertise Retention and Development
- Commitment to the Organization

### **Final Dimensions**

Mission and Goal Clarity

- Communication of Changes
- Training and Development
- Your Job and Career



### Demographic information is sensitive!

- Plan your final report: Anticipate important breakouts or comparisons
  - If you don't collect it you can't analyze it!
- Only collect information that you plan to use
  - If you don't need it, don't collect it!
- When possible, rely on the organization's database
  - More accurate
  - Less threatening



# 3. Design the Data Collection Strategy

### **Demographic Information: Some Examples**

- Organizational Unit
- Location
  - Headquarters vs. Field
  - Geographic Region
- Organizational Level
  - Executive, Manager, Supervisor, Team Lead
- Occupational Series
  - Office Automation Clerk
  - Personnel Research Psychologist
  - IT Specialist
- Years of Service



# 3. Design the Data Collection Strategy

(Group Exercise: Evaluate these demographic questions.)

Wh	nich of these would <u>you</u> ask?
1.	What is your age?
2.	What is your gender? ☐ Yes ☐ No
3.	Do you have children living at home? ☐ Yes ☐ No
4.	Do you have elderly parents living at home? ☐ Yes ☐ No
<b>5</b> .	Are you a full-time employee? □ Yes □ No
6.	How long have you worked for the Federal Government?
<b>7</b> .	How long have you worked for this agency?
8.	How long have you worked in your current position?
9.	What is your marital status? (check one)
	<ul> <li>Married/Living with partner □</li> </ul>
	• Single
	<ul> <li>Separated/Divorced</li> </ul>
	• Widow/Widower



# 3. Design the Data Collection Strategy

### **Determine When to Administer the Survey**

- Coordinate survey administration
  - Other surveys
  - Holidays, seasonal events
    - Peak vacation times
  - Major organizational changes
    - RIFs, reorganizations

#### Establish the timeframe

- Initial period
- Extensions
  - Reminders increase participation





### **Develop the Survey**

- Write or select questions
- Write instructions
- Prepare official correspondence
- Pre-test the survey



### **The Survey Questions**

- Write or select the questions
  - Sources of survey questions
    - Public domain (OPM, GAO, MSPB)
    - Software libraries
    - Researchers
    - Colleagues
- Review the questions
  - By assessment staff
  - By sponsor



### **Guidelines for Good Survey Questions**

- Word items as clearly as possible
  - Use simple, direct, familiar language
  - Provide a frame of reference
  - Use unambiguous terms
- Use negatives sparingly; avoid double negatives
- Keep the questions short
  - If it doesn't fit on one line—it may be too long
- Include only one issue per question
  - Tip-offs: and, but, because
  - Absolutely no "double-barreled" questions i.e., (questions that address two contradictory issues)
- Avoid "loaded" questions
- Don't ask respondents to "tell more than they know"



### **Guidelines for Good Response Options**

- The response should fit the question
- Response options should be on the same continuum
- Don't make it easy to select the most desirable response
  - For example, begin the response options with "1-Strongly Disagree" rather than "5-Strongly Agree"
- Make the most positive or negative response viable
  - If possible, avoid universals -- all, always, none, never
  - Use "almost always" or "rarely or never"
- Give respondents an escape hatch
  - Does not apply; neither agree nor disagree
- Think carefully about how many options you will include



### **Some Examples of Response Scales**

#### **Satisfaction**

- Very dissatisfied
- 2. Dissatisfied
- 3. Neither satisfied nor dissatisfied
- 4. Satisfied
- 5. Very satisfied

#### Adequacy

- 1. Very poor
- 2. Poor
- 3. Adequate
- 4. Very good
- 5. Excellent

#### Agreement

- 1. Strongly disagree
- 2. Disagree
- 3. Neither agree nor disagree
- 4. Agree
- 5. Strongly agree

#### Frequency

- 1. Very infrequently
- 2. Infrequently
- 3. As often as not
- Frequently
- 5. Very frequently



### **Some Examples of Response Scales**

- Use **0** as the lowest/worst score.
- Use 10 as the highest/best score.
- Select N/A if a question does not apply.

Not at all			Neutral			Extremely				
0	1	2	3	4	5	6	7	8	9	10

Note: Web version had "N/A" box to the left of "Not at All"



#### Other Kinds of Questions

- Dichotomous questions (Yes/No)
- Branching questions—a special case

```
If you answered "yes" the the previous question, . . . If you are a supervisor, . . .
```

- Open-ended questions
  - Types
    - Specific, targeted questions
      What recommendations do you have for improving the quality of future surveys?
    - General questions
       Is there anything else that we should know about . . .
  - Web facilitates responding and analysis of responses



(Group Exercise—Evaluate the following 10 sample items.)

- 1. Work delays are uncommon in this organization.
  - 1) Strongly Disagree
  - 2) Disagree
  - 3) Neither Agree nor Disagree
  - 4) Agree
  - 5) Strongly Agree



Would you include this question on YOUR survey?

2. Little feedback, mostly negative vs. Timely feedback, both good and bad.

Now: 1 2 3 4 5 6 7 8 9 10

Want: 1 2 3 4 5 6 7 8 9 10



- 3. Do you believe that there was fair and open competition for the vacancies for which you have applied?
  - 1) Always
  - 2) Usually
  - 3) Sometimes
  - 4) Never
  - 5) No recent hires or Don't Know



- 4. My work unit has enough resources (people and money) to accomplish its major tasks.
  - 1) Fully
  - 2) Mostly
  - 3) Somewhat
  - 4) Not at all
  - 5) Don't know



- 5. In my agency/department
  - Plans identify improvement priorities critical to organization's mission that will be relatively difficult to attain; resources are not allocated to support these objectives
  - 2) Plans identify improvement priorities central to organization's mission; plans aim for higher objectives each year; resources are related to major goals.
  - Goals identify quality priorities that may or may not be central to organization's mission; goals do not require major effort or change in organization.
  - 4) Implementation strategy for introducing TQM in organization is underway.
  - 5) None of these applies to my agency/organization.
  - 6) Do not know whether or not any of these applies.



- 6. Risk-taking is rewarded in this organization.
  - 1) Strongly Disagree
  - 2) Disagree
  - 3) Undecided
  - 4) Agree
  - 5) Strongly Agree



- 7. Are you free to make decisions about joining or not joining a labor union without fear of reprisal?
  - 1) Yes
  - 2) No
  - 3) Don't know



- 8. Given a choice, I would rather prefer to stay here than move to a similar job in a different organization.
  - 1) Always
  - 2) Usually
  - 3) Seldom
  - 4) Never
  - 5) Don't Know



Would you include this question on YOUR survey?

9.

	Are you aware of this option?	Have you ever needed this option?	Have you ever used this option?	When you requested this option, did management give resistance?	Do you have an interest in this option
Telecommuting	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes
	□ No	□ No	□ No	□ No	□ No
Part-time employment	□ Yes	□ Yes	□ Yes	□ Yes	☐ Yes
	□ No	□ No	□ No	□ No	☐ No
Flexible hours	□ Yes	□ Yes	□ Yes	□ Yes	☐ Yes
	□ No	□ No	□ No	□ No	☐ No
Work and family options	□ Yes	□ Yes	□ Yes	□ Yes	□ Yes
	□ No	□ No	□ No	□ No	□ No



- 10. Over the past year I have experienced health related issues as a result of balancing my work and personal life.
  - 1) Strongly Disagree
  - 2) Disagree
  - 3) Can't Decide
  - 4) Agree
  - 5) Strongly Agree



### **Next Steps**

- Assemble the Questionnaire
  - Instructions
  - Questions
  - Demographics
- Prepare Correspondence to Respondents
  - Announcement
  - Invitation
  - Reminders
- Pretest the Survey



### **Assemble the Questionnaire**



- Sequence the fixed-response questions
  - Lead with a question that is likely to be non-threatening
    - Include a few questions that can be answered positively, especially if the overall news is not likely to be good
  - Sequence the material logically
    - Subheadings or lead-in statements help organize the material for respondents
      - The next section will ask you about . . .
  - Shorter is better!



### **Assemble the Questionnaire**

- Sequence the remaining content
  - Instructions
    - Provide general instructions for completing the survey
    - Provide any special instructions for sections and individual questions
  - Open-ended questions
    - If relevant to specific section, place at end of section
    - Place general questions at the end
  - Demographic questions
    - Place at end if information is not in your database
  - Thank You!
    - Always end by thanking the respondents





### **Prepare Correspondence to Participants**

- The Announcement
  - The announcement should come from the highest possible level of management
  - The announcement should include:
    - The purpose of survey
    - The sponsor of the survey
    - Who will be asked to participate
    - How long it takes to complete the survey
    - When the survey will arrive
    - Assurance of confidentiality
    - How data will be used



### **Sample Announcement**

The <u>Office of Personnel Management (OPM)</u> will soon be conducting a government-wide survey entitled <u>The Federal Dependent Care Survey: A</u>

<u>Worklife Initiative.</u> Over 40,000 Federal Government employees will be selected at <u>random</u> to complete the survey, which will <u>examine the child and dependent adult care services</u> currently utilized by Federal employees, assess how well these services mesh with employee work schedules, and evaluate the Government's effectiveness in supporting its employees' dependent care needs.

If you are selected to participate, you are strongly <u>encouraged</u> to complete the survey, whether or not you have dependents. Those employees who are contacted will receive an <u>email from WorkLifeSurvey@opm.gov</u>, directing them to a <u>secure</u> OPM Web site. Once there, employees will be assigned a <u>user name</u> and <u>password</u>. Please be assured that all responses to the survey will remain <u>anonymous</u>.

Your <u>input will help</u> to ensure that Federal Government employees continue to receive optimal dependent care and support.



### **Prepare Correspondence to Participants**

#### The Invitation

- Reminder about purpose, sponsorship, participants, participation requirements
- Assurance of anonymity and confidentiality
- How results will be used
- Whether and how feedback will be provided
- General instructions for completing survey
- Open period for completing the survey
- Point of Contact
- Link to survey



### Sample Invitation

Recently, you received a message regarding a confidential survey on [subject of survey]. We are conducting this survey to [give survey purpose here]. Beginning on [Start Date], employees within [the Organization] will be chosen at random to participate in the survey.

As an employee of [Organization], you have been randomly selected to participate in this survey. Be assured that your responses will be completely confidential; [the Originating Office] will protect your identity and all responses to the survey will be reported in summary form only.

The survey can be accessed in one of the following ways:

- 1. Using the secure internet site listed at the end of this message, OR
- 2. By calling the telephone number below and providing identification number below.

We estimate that the survey should take approximately [estimate of completion time] to complete. The survey will remain open until [Time, Day, Date, Year].

#### [SURVURL]

#### [Phone Number: , Survey Identification Number: ]

If you have any questions or technical difficulties with this survey, please contact us at **[e-mail** address] or call **[phone number**].

Thank you in advance for your participation,

Sincerely,

[Name, Title]



### The Reminder/Extension

- Send a reminder notice about 2 weeks after sending the invitation
- If needed, repeat the reminder to sustain the response rate
- If necessary, extend the survey to improve response rate

Recently you were invited to participate in the <u>HR Client Service Questionnaire</u>. It is important to me and to my staff that we hear from you about how well we are supporting your mission. Please take a moment to click on the link below and complete the on-line questionnaire. It is very easy to complete and will only take <u>3 to 7 minutes</u> of your time. The survey will remain open until <u>June 14, 2006.</u>

Thank you for helping me provide a better a mission-first program.

[Insert link here]

Mike Manager

**Director, HRM Client Services** 



### The Letter You Never Want to Send (or Receive)

#### Dear Survey Participant:

Thank you for being so responsive to our recent survey. Now we are asking for your help. A "glitch" occurred when some surveys were submitted, interfering with data capture. The problem was identified early on and has now been corrected. However, the responses submitted by those who took the initiative to respond early may have been compromised. We have identified your survey as one of the ones potentially affected.

To ensure that important data have not been lost, we are asking you to revisit the first four sections of the survey (no more than 31 questions). When you go to the website and enter your passcode, you will see your responses as they were recorded. Items that are blank show where the problem occurred. THESE ARE THE ONLY ITEMS YOU NEED TO RESPOND TO. Your responses here will be combined with the unaffected survey responses that you initially submitted, adding up to one complete survey.

We take full responsibility for this error. We recognize that your time is valuable and are sincerely sorry for this inconvenience. However, the need to have data that accurately reflects the opinions of our members makes this step necessary.



### Web-based Surveys: Design Considerations

- Format counts!
  - Is it readable?
    - Font size
    - Line spacing
    - Color (font and background)
  - Does the screen contain all pertinent information
    - The WHOLE question
    - All response options
      - Beware if responses are dependent on a page "header" listing the response options
- Pretest your format: Monitors differ!





### Section 508 Compatibility: Some Guidelines

- If you include video or audio content, provide equivalent alternatives
  - Text equivalent for non-text information for the hearing impaired
  - Auditory presentation for the visually impaired
- Provide alternative navigation for the motion impaired
- If you use color to convey information, provide a black and white alternative
- For tables, include clear row and column headers
- If responses are timed, provide sufficient time to indicate that more time is needed

http://www.section508.gov/



#### **Accessibility**

We are committed to providing access to our web pages for individuals with disabilities, both members of the public and Federal employees.

To meet this commitment, we will comply with the requirements of Section 508 of the Rehabilitation Act Amendments of 1998 (29 U.S.C. 794) and the accessibility standards issued by the Architectural and Transportation Barriers Compliance Board.

Section 508 requires that individuals with disabilities, who are members of the public seeking information or services from us, have access to and use of information and data that is comparable to that provided to the public who are not individuals with disabilities, unless an undue burden would be imposed on us. Section 508 also requires us to ensure that Federal employees with disabilities have access to and use of information and data that is comparable to the access to and use of information and data by Federal employees who are not individuals with disabilities, unless an undue burden would be imposed on us.

http://64.210.244.55/OPM FCATM/modules/SiteFooter/SiteFooterDetail.aspx?tabindex=0&tabid=0&SiteFooterId=2



### Web-based Surveys: Some Design Options

- Exiting and and re-entering the survey
- Opting out of the survey
- Mandatory response fields
- Allowing more than one answer
- Branching
  - Item-level

- "If you, are planning to leave the agency within the next year . . ."

- Group-based
  - "If you supervise 3 or more employees . . ."
- Sample-based
  - Randomly select respondents to answer a set of questions







### Web-based Surveys: Delivery Considerations

- Be aware of limitations imposed by your equipment, browser, or transmission capability
  - Complex designs require more computer memory and take longer to transmit
  - Some programming languages (e.g., Java) cannot be accessed by all computers
  - Some browsers will not support the technology
- Make arrangements for respondents who do not have easy access to the internet or intranet
  - Phone
  - Paper-and-pencil



### **Pretest the Survey**

- Content
  - Sensitivity
  - Reading level
- Form
  - Layout
  - Attractiveness
- Function
  - Access
  - Navigation
  - Technology



### People will be more likely to respond if the survey is:

- Meaningful
  - Survey addresses important issues
  - Respondents stand to benefit from results
- Anonymous
- Confidential
- Minimally intrusive
- Attractive
- Easy to navigate and complete



### 5. Conduct the Survey

#### Publicize the Survey

- Announce the survey with an e-mail message
- Communicate throughout the chain of command
  - Management meetings
  - Staff meetings or musters
- Place announcements on electronic bulletin boards

#### Launch the Survey

Push the button!



#### Follow Up

- Reminders improve response rate!
  - The Web makes follow-up easier
- Extend the survey if necessary



### **Coordinate Analyses with Your Sponsor**

- Find out what questions are most critical to analyze
- Confirm need for breakouts or cross tabulations
  - Supervisors vs. non supervisors
  - Attitudes toward products and satisfaction with service quality
- Be mindful of your sponsor's time frame
- Determine who will be preparing recommendations
  - You
  - Your sponsor
  - Working group/task force



#### Don't overstep the bounds of the data—Keep it simple!

- Most survey data relies on a nominal or ordinal scales
  - Complicated statistical techniques are inappropriate
- For most purposes, frequencies are both sufficient and appropriate
  - Usually % positive, % neutral, and % negative provides enough information
  - Decide how you will handle rounding error
    - Add a note if the total % doesn't add to 100
- Don't average things that should not be averaged
  - "Don't know" and "Not Applicable" are qualitatively different from "Satisfied" or "Dissatisfied"



#### Conduct subgroup analyses carefully!

- Margin of error
  - Smaller subgroups have larger margin of error
- Weight total responses for unequal subgroup contribution
  - Large subgroups can obscure results
  - Small dissimilar groups can bias results
- Confidentiality
  - Aggregate data to protect confidentiality
  - Small subgroups (less than 10) risk respondent confidentiality



#### **Code Open-ended Responses**

- Establish content categories
  - Get 2 people to establish the coding scheme if possible.
  - Develop content categories or themes for grouping responses
  - Test the categories by coding a sample of responses
  - Check inter-rater agreement
    - On categories
    - On coded responses
- Apply the coding scheme to remaining responses



- Summarize findings
  - By % of total responses
  - By % of respondents
- Plan for the final report/presentation
  - Don't get swayed by "the evidence"
    - Example:
      - 2000 people responded,
      - 500 provided written comments.
      - 100 gave similar responses for content category "X"
        - Is this (5% of respondents) really meaningful?
- Earmark salient quotes to illustrate survey findings



#### Remember your "contract" and keep your promise

- Who gets the results?
  - Executives
  - Managers
  - Employees
  - The Union
- Who absolutely does not get the results?
  - Things you don't want to hear
    - We never promised them to the Union!
    - How did this wind up on the "front fold" of the newspaper?
  - Do not share results until your sponsor releases them
  - Keep the results secure
    - Shred the drafts—they are more sensitive than the questions



#### Remember your "contract" and keep your promise

- Who will present results?
  - Executives
  - Unit managers/supervisors
  - HR staff
- How will results be presented?
  - Executive Briefings
  - Supervisor/Manager coaching and counseling sessions
  - Action planning sessions for managers
  - Problem solving sessions for workgroups
  - All hands meetings for employees
  - Town Hall meetings for the community
  - Written report with baseline data for improving services



#### Make your findings relevant

#### Make your findings easy to understand

- Tailor reports and presentations to your sponsor's style
  - Some managers want bullet points
  - Some want bar charts
  - Some want tables with highlighting on key findings
  - Some want your Excel spread sheet
- Keep details to a minimum
- Make materials self-explanatory
- Support text with graphics

#### Be responsive

- Report results quickly as possible
- Be aware of your sponsor's external commitments
- Be prepared to provide extra copies of reports



(Group Exercise: Discuss presentation format—3 slides)

### Would **YOU** use this format?

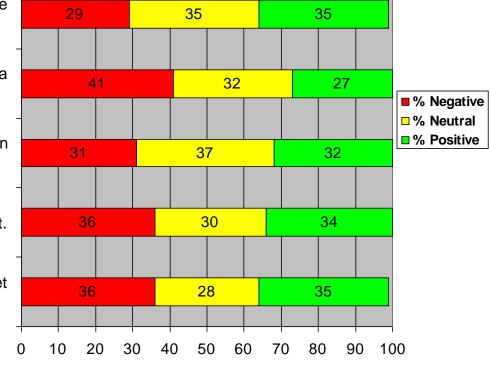
Key Concerns	% Positive
31. In my work unit, differences in performance are recognized in a meaningful way.	27.40%
24. In my work unit, steps are taken to deal with a poor performer who cannot or will not improve.	29.40%
32. In my work unit, personnel decisions are based on merit.	31.50%
23. Promotions in my work unit are based on merit.	33.80%
63. How satisfied are you with your opportunity to get a better job in your organization?	35.30%



### Would **YOU** use this format?

#### **Key Concerns**

- 31. In my work unit, differences in performance are recognized in a meaningful way.
- 24. In my work unit, steps are taken to deal with a poor performer who cannot or will not improve.
- 32. In my work unit, personnel decisions are based on merit.
  - 23. Promotions in my work unit are based on merit.
- 63. How satisfied are you with your opportunity to get a better job in this organization?





# Would <u>YOU</u> use this format?

Appendix D. Trend Analysis							
Item #	2006 FHCS Item	2002	Significant Trends				
1.	The people I work with cooperate to get the job done.	79.8%	85.4%	83.3%	ZZ		
* 2.	I am given a real opportunity to improve my skills in my organization.	56.5%	63.0%	62.1%	7→		
3.	I have enough information to do my job well.	71.1%	73.5%	72.4%	ZЛ		
4.	I feel encouraged to come up with new and better ways of doing things.	56.7%	60.1%	60.3%	7→		
*5.	My work gives me a feeling of personal accomplishment.	69.9%	70.9%	73.0%	<del>&gt;</del> ⊿		
*6.	I like the kind of work I do.	81.6%	82.5%	83.4%	77		
7.	I have trust and confidence in my supervisor.	NA	NA	63.8%	NA		
8.	I recommend my organization as a good place to work.	60.1%	63.6%	63.5%	7→		
*9.	Overall, how good a job do you feel is being done by your immediate supervisor/team leader?	61.0%	65.3%	66.2%	7)		
10.	How would you rate the overall quality of work done by your work group?	81.0%	83.3%	83.0%	7→		
Note: the state of							

Note: Impact items, highly related to satisfaction and intent to leave, are noted by an asterisk (\*).

Items included on the Annual Employee Survey are displayed in bold font.



Source: http://www.fhcs2006.opm.gov/Published/FHCS\_2006\_Report.pdf (p. 50)

#### Useful Euphemisms--Making your point without numbers

- Overwhelming majority (more than 80%)
- Widespread agreement (75-80%)
- A large percentage (70%)
- Significant or meaningful majority (About 60%)
- More respondents than not (52%)
- Nearly half (45-49%)
- Some, but not the majority (35-40%)
- Only a handful (10-15%)



#### **Explaining the Data**

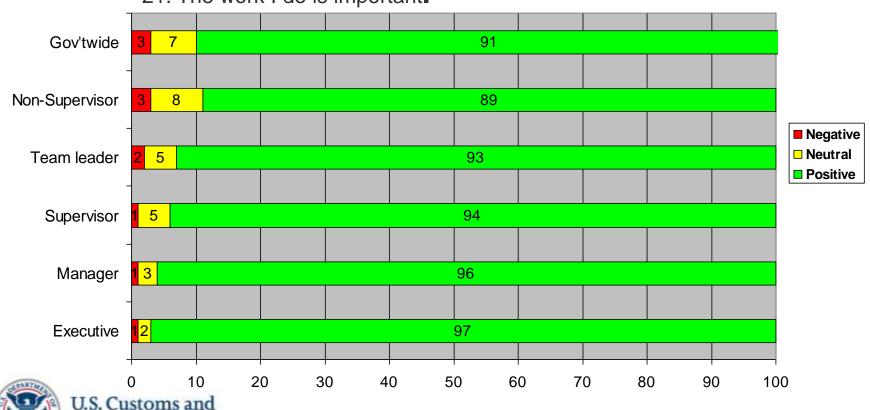
- First, consider the baseline in your organization
- Then consider these "rules of thumb"
  - Over 65% positive is good
  - Less than 35% positive is a red flag
  - More than 35% negative is a red flag
  - If you have 20% or more neutral responses, this is significant and worth reporting
- If your margin of error is reasonable (2-3%), a
   10% difference between groups is worth mentioning



#### **Lead with Positive Results**

**Border Protection** 

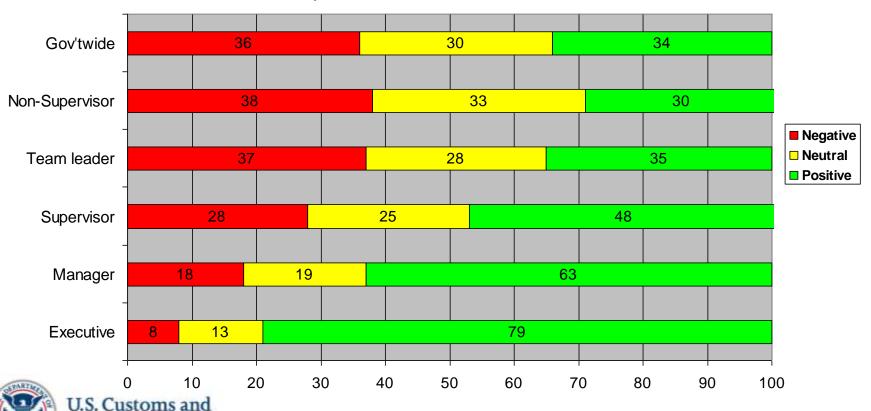




**Border Protection** 

#### **Present Meaningful Group Differences**

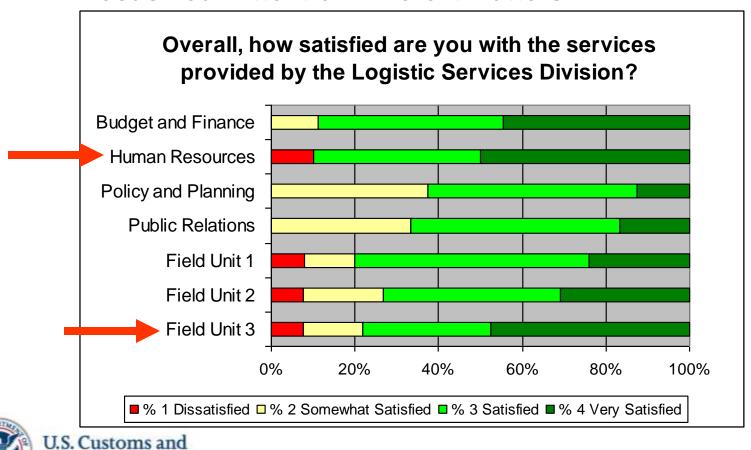
23. Promotions in my work unit are based on merit.



**Border Protection** 

Group Exercise: Percentages can be misleading . . .

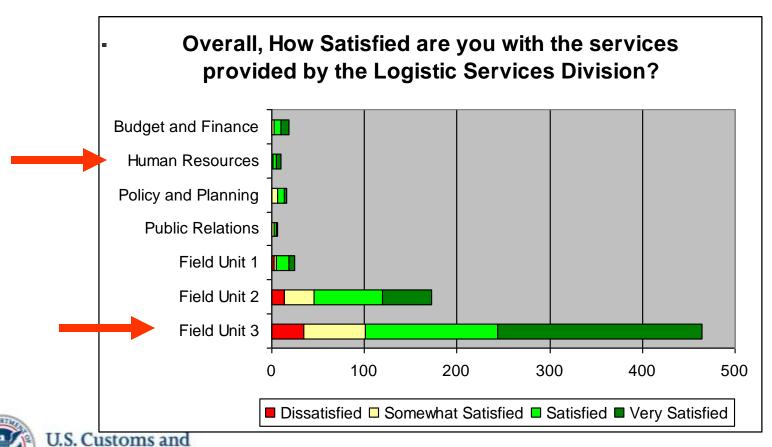
#### **Focus Your Attention Where it Matters**



**Border Protection** 

Group Exercise: Percentages can be misleading . . .look at the raw numbers.

#### **Focus Your Attention Where it Matters**



Group Exercise: Percentages can be misleading . . .look at the raw numbers.

#### **Focus Your Attention Where it Matters**

Overall, how satisfied are you with the services provided by the Logictic Services Division?

	1		2		3			4	
Office	Dissat	isfied	Somewhat	t Satisfied	Satis	fied	Very S	Satisfied	Total Number
	#	%	#	%	#	%	#	%	
Budget and Finance	0	0%	2	11%	8	44%	8	44%	18
Human Resources	1	10%	0	0%	4	40%	5	50%	10
Policy and Planning	0	0%	6	38%	8	50%	2	13%	16
Public Relations	0	0%	2	33%	3	50%	1	17%	6
Field Unit 1	2	8%	3	12%	14	56%	6	24%	25
Field Unit 2	13	8%	33	19%	73	42%	53	31%	172
Field Unit 3	35	8%	66	14%	143	31%	220	47%	464



Pay attention to margin of error when examining group differences.

#### **Sampling Error Confidence Intervals**

Group	N Population Size	n # Responded	Max. Margin of Error (95% confidence interval)	Percent of Population Responded
Budget and Finance	65	18	19.79%	27.69%
Human Resources	60	10	28.53%	16.67%
Policy and Planning	63	17	20.47%	26.98%
Public Relations	21	6	34.65%	28.57%
Field Unit 1	169	25	18.15%	14.79%
Field Unit 2	577	172	6.27%	29.81%
Field Unit 3	1089	464	3.45%	42.61%
Total Sample	2044	712	2.97%	34.83%



### **Next Steps:**

- Act on the Results
  - Briefings for respondents
  - Planning meetings
    - Focus groups
  - Interventions
- Document the Findings
  - Final report to sponsor
  - Technical reports\*
  - Professional presentations\*

\*If permitted by sponsor



### References

- American Psychological Association. (2002). *Ethical principles of psychologists and code of conduct* [http://www.apa.org/ethics/code2002.pdf].
- Babbie, E. (1990). Survey research methods. Belmont, CA Wadsworth.
- Dillman, D.A. (1999). *Mail and internet surveys : The tailored design method (2<sup>nd</sup> ed.)*. New York, NY: Wiley.
- Dillman, D.A., Tortora, R.D., & Bowker, D. (1999). Principles for conducting web surveys.
  - http://survey.sesrc.wsu.edu/dillman/papers/websurveyppr.pdf].
- Dillman, D.A., Tortora, R.D., Conradt, J. & Bowker, D. (1998). *Influence of plain vs. fancy design on response rates for web surveys*. [http://survey.sesrc.wsu.edu/dillman/papers/asa98ppr.pdf].
- Haynes, K. & Bobrow, W. How to design and implement an effective employee attitude survey. [http://www.allaboutperformance.biz/pdfs/hrattitude.pdf].
- Hayes, B.E. (1991). *Measuring customer satisfaction: Development and use of questionnaires.* Milwaukee, WI: ASOC Quality Press.
- Kish, L. (1965). The survey sample. New York, NY: Wiley.
- Kraut, A.I. (Ed.) (2006). *Getting action form organizational surveys: New concepts, technologies, and applications*. San Francisco, CA: Jossey-Bass.
- Kraut, A.I. (1996). Organizational surveys: Tools for assessment and change. San Francisco, CA: Jossey-Bass.
- Lowman, R.L. (1998). *The Ethical practice of psychology in organizations*. Washington, DC: American Psychological Association.
- Rossi, P.H., Wright, J.D., & Anderson, A.B. (1983). *Handbook of survey research.* San Diego, CA: Academic Press.
- Sudman, S., & Bradburn, N. M. (1982). Asking questions: A practical guide to questionnaire design. San Francisco, CA: Jossey-Bass.



### **Contact Information**

Ilene Gast Senior Research Psychologist Personnel Research and Assessment Division US Customs and Border Protection 1400 L Street, NW, Rm. 7S12 Washington, DC 20005

ilene.gast@dhs.gov

202-863-6291





## U.S. Customs and Border Protection