

Lessons from Recent Web Surveys at Harvard University

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Abstract

This paper provides an overview of the entire process necessary to developing a university-wide web survey, from the community-building process for creating support for the survey and determining the questions, to the specific tasks necessary for designing and administering an efficient web product.

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Overview of Essential Steps for Web Survey Projects

I. Survey Background

1. Critical background questions
2. Building a survey team
3. Defining survey content
4. Choosing web surveys over paper surveys
5. Selection of the survey population

II. Designing a Web Survey

6. Questionnaire design
7. Choosing HTML software and format
8. Turning a survey questionnaire into a web survey: technical issues

III. Administering a Web Survey

9. Administering a web survey: technical issues
10. Pre-testing
11. Privacy issues
12. Survey incentives
13. Technical support for duration of survey
14. Output of survey data

IV. Reportage

I. Survey Background

In the past few years, several Harvard surveys that had been previously done as paper surveys were transformed into web surveys. These were high-profile surveys in that they were endorsed by administrators such as the Provost and Dean of the College, and covered major portions of the university populations (all undergraduates, all graduate students, tenured and non-tenured faculty). As recently as 2001, when planning for these surveys had begun, web surveys were still avant-garde. Dillman's 2000 reprinting of *Mail and Internet Surveys* devoted only 29 out of 450 pages to web surveys, indicative of the small size of the collected body of knowledge about web surveys at that time.

I.1. Critical Background Questions

The beginnings of our projects were similar to the beginnings of all good survey projects. There were four predominant reasons for conducting the surveys:

Table 1 Reasons to Do a Survey	
Top-Down	University administration wants to know more about a population or subject area.
Bottom-Up	University department wants to make a policy or business-practice changes, and needs data to support recommendation.
Consortial Project	University participates in consortial project to have peer information.
Trend Data	University repeats previous survey in order to have trend data for decision-making.

For each project, the critical background questions were the same:

Table 2 Critical Background Questions
1. What is the purpose of the survey, and how will we use the survey data?
2. Whom are we surveying?
3. Who are the audiences for the survey results?
4. What kind of support do we need for the survey effort? <ul style="list-style-type: none"> ▪ Building a survey team (see below)
5. What survey methodology will we use? (see below)
6. What is the project budget?

The projects that stemmed from the Harvard Office of Instructional Research and Evaluation were all established consortial or trend-data surveys which already received support from the Dean of the College and had long-standing audiences for the survey results. However, a decision was made to switch both types of surveys from paper surveys to web surveys.

The two surveys initiated by Harvard Real Estate Services (HRES) had more complex origins. HRES has traditionally conducted triennial surveys on housing and transportation topics. These surveys have focused on different University populations with the aim to collect updated demographic information, information on current housing decisions and satisfaction, and information about the demand and need for Harvard housing and transportation services. One of the surveys that we are discussing here, the 2001 Harvard Graduate Student Housing Survey, had been previously done as a paper survey. There was a need for trend data, more complete coverage of the topic (and thus, a re-designed survey), and a desire for a more streamlined administration via the web. The Provost's Advisory Committee on Housing then recognized a need to understand *faculty* need and demand for housing and housing services, and the Committee recommended that a survey be undertaken in the spring of 2003 for the first time. Again, a decision was made to conduct the 2003 Faculty Housing and Transportation Survey via the web.

I.2. Building a Survey Team

For the two original-design HRES survey projects, the members of the HRES Core Survey Team were charged to do the following:

Table 3	
Charge to Core Team Members	
1.	Identify areas of expertise needed to undertake the effort (both functional and topic specific)
2.	Identify if there are survey synergies and multiple topics that can be combined to prevent over-surveying the population
3.	Identify strengths and gaps across the internal resources
4.	Determine if budget allows for external professionals

To supplement HRES's own expertise, several different types of consultants were retained to help with each survey (see Table 4 below). In addition, since the two HRES surveys were expected to have many and varied audiences for the results, a decision was made to establish different internal survey teams and advisory groups to secure buy-in to the survey effort from various levels within the university. The Advisory Committee for the Faculty Survey was explicitly established to help the survey effort in that each member could be a spokesperson within his or her department or school to other administrators and faculty. In addition, the establishment of a Committee would help get the attention of the top decision-makers. The Advisory Committee was also helpful in reviewing wording that needed to be precise and appropriate for the respondent community (in particular, acronyms and building, place, and office nicknames).

The HRES Faculty survey project ultimately included four teams:

Table 4	
2003 Harvard Faculty Housing and Transportation Survey Team	
1. Core Team	HRES Staff; Office of Budgets, Financial Planning, and Institutional Research staff
2. Outside Consultant Team	Survey research specialist; architectural consultant; Information Technology consultant
3. Internal Advisors	Faculty members with area expertise or methodological expertise; Office of Instructional Research and Evaluation
4. Advisory Committee	Deans or Directors representing each of Harvard's 10 schools

General Roles and Responsibilities of Survey Team Members

For any survey project, there are a number of survey functions that must be covered, and it would not be uncommon for survey team members to have overlapping duties. With paper surveys, an institutional researcher might do all the work alone ‘from A to Z,’ including pre-survey tasks such as copying the survey instrument, stuffing and stamping, and walking it to the post office. By contrast, web surveys involve tasks that require specialized skills and it is more likely that there would be at least two persons involved -- a survey research specialist and an information technology specialist.

1. Executive sponsor	Senior administrator (President/Provost, VP, Dean), often the person who signs the cover letters to participate in the survey
2. Project director	Head of the department/office charged with administering the survey
3. Project manager	Person with overall responsibility for the survey effort
4. Content specialists	Identify themes and topical areas, determine questions (see below)
5. Survey research expert	Overall knowledge of survey research, with special responsibility for appropriate question wording, survey design, and web design. May be used to consult on all aspects of project including selection of appropriate survey population.
6. IT specialists	Survey layout, HTML programming, manage other IT functions, e.g. host survey, create final database
7. Keeper of email list	Knowledge of Human Resources or Registrar’s databases, assembles email list of survey population.
8. Communications	Manage all communications between sponsoring administrator and target populations (e.g., launch letter, reminder letters, closing letters).
9. (Sales Manager)	(Note that some consulting groups work through a sales manager who oversees many details but does not do the actual work.)

I.3. Defining survey content. (Led by Content Specialist and/or Survey Researcher.)

If the project involves an original survey, a large portion of the survey effort should be devoted to defining the survey content. Issues of policy-level importance to the university will likely inform the content. It is important to focus on the questions that your audiences want answers to; questions should yield results that are useful, not simply interesting. In addition, if you have multiple audiences for your survey, each with their own agenda, take care to combine only related topics into a single survey at the risk of frustrating your respondent population.

Here are some of our tips for defining survey content:

Table 6 Tips on Defining Survey Content
1. Identify overarching themes that are of importance to executive sponsor and other internal decision-makers. Seek <i>early and timely</i> confirmation/approval from survey sponsor and other decision-makers.
2. Use focus groups or interviews with members of target population to confirm themes and test sensitivities, if necessary.
3. Write questions using the assistance of topical experts to be sure that questions will yield meaningful results that will inform policy setting, changes to business practice, etc. Avoid jargon, shorthand, and technical terms unless you are certain this language will make sense to everyone.
4. “Paper test” questions with members of target audience to be sure that they (a) make sense to representatives of target audience and will be answered in the intended manner; (b) do not offend, if the topic is sensitive; (c) wording is appropriate for the times and the culture (e.g., ‘Black’ vs. ‘African-American’); (d) fixed-response questions include all the relevant options; (e) survey time does not exceed your goal length. (See Section III.10.)
5. Revise questions as appropriate. Whittle down questions to meet goals related to survey length.
6. Provide questions (with parenthetical instructions about type of question, skip patterns, layout, etc.) to survey designer for programming.
7. Prepare the survey designer and the web programmer from the very beginning that the survey might need a last-minute sign-off from a high-level administrator. Consequently, last minute changes may be involved, both big and small.

I.4. Choosing Web Surveys over Paper Surveys

Although this paper assumes that you have already made the decision to use a web survey format, it is helpful to be able to defend this decision. At some universities, students, staff and faculty have very recently come to expect campus communication to take place over the web, and survey respondents appreciate the convenience of web surveys. However, there are certain populations and scenarios where web surveys might not be the best option.

Table 7 Advantages and Disadvantages of Web Surveys
<i>Advantages</i>
1. Savings in printing, postage, data entry.
2. No data entry errors from hand-entry. (However, poor programming could lead to lost data.)
3. Shortened timeframe to administer surveys (3 weeks with web surveys, vs. 6 weeks or more with paper surveys).
4. Easier and cleaner to provide skip patterns or survey sections customized to different respondent populations.
5. Almost immediate access to data for analysis.
6. Can easily link to background data, if appropriate (e.g., gender, grades, rank).
<i>Disadvantages</i>
7. Need programming and IT expertise.
8. Certain populations are not comfortable with using personal computers (senior faculty). (Note: at many campuses, this is becoming less of a problem.)
9. Must have accurate email lists (e.g., a problem with students who use hotmail or aol accounts instead of school emails, with parents, with alumni). (Note: this is becoming less of a problem with many university populations, but could still be a problem with some, for example, part-time students.)
10. Web surveys are not recommended for email software that doesn't support web access. Must be able to click on a .url provided in an email and to have it bring respondent to a web page. PINE is an example of an unacceptable email software.
11. There may be problems finding software that is appropriate for both PCs and Macs, or developing surveys that run on both platforms.
12. Data provided via a web survey are not <i>anonymous</i> , although the survey administrators may choose to keep the results <i>confidential</i> . (See Section III.11.)

I.5. Selection of Survey Population

As anyone who has ever done IPEDS reporting, created a factbook, or responded to a data request on population numbers knows, there is more than one way to define the populations of students, faculty, alumni, parents, and staff. It is, of course, important to get the survey to the correct people, but it is also important to be able to document and, possibly, replicate the population selection in order to calculate the survey response rate. Often, an HR or IT person who is unfamiliar with the goals of the survey is the one to work with the administrative database to select the population and create the email list. Build in a way to double-check the population selection; for example, you might summarize the background data of the population and compare to a factbook table, or search the database to make sure that people who fall into a specific category are excluded. Here are five pitfalls that we have encountered:

Table 8 Pitfalls of Defining Populations	
1.	Be careful to exclude the non-resident population if inappropriate for survey goals (e.g., overseas students, faculty on sabbatical). Example: if you are designing questions that get at satisfaction with or use of local resources, stick to the ‘on campus’ population. Note that a university email addresses can mask the fact that the recipient is at a remote location, so it might be helpful to screen by mailing address.
2.	For a survey of parents, you must decide if you will survey divorced parents separately, or only one parent per student.
3.	Will the list of respondents change during the lifespan of the survey (e.g., any student enrolled in a class throughout the term, vs. all students enrolled in a class as of the opening day of class), or even from the time you select the population to the beginning of the survey?
4.	Select on the proper variable to define your population. In one project with which we are familiar, a University variable that was thought to distinguish PhDs from other degree-seeking students was used, only to learn that this variable was not valid for one of the University schools. Thus, in that school, MA students were inadvertently surveyed along with PhD students.
5.	It is important to provide a background dataset with ids and demographic information on all recipients for response-rate analysis, analysis of <i>representativeness</i> of the respondent population, and any merging of survey responses with background data. Keep this file for reference.

II. Designing a Web Survey

II.6. Questionnaire Design

The presiding rule of questionnaire design is to make it simple for the respondent to fill out. The questionnaire should be ‘eye candy’ - nice to look at, clear, flowing, easy. No incentive is high enough to induce respondents to waste their time on a confusing and frustrating questionnaire! There has been a lot written over the years on tips for paper questionnaire design, and many of these ‘rules’ still apply for a web questionnaire. However, designing a questionnaire for the web also has some additional and unique challenges. For one thing, everything is bigger and closer on the web. Things that are out of line look particularly jarring, and font and color clashes are right there to confront the respondent.

The famous information design specialist Edward Tufte points out that, contrary to what you might think, a much smaller amount of information can be displayed on a web screen compared to a piece of paper. Keep in mind that because of all the headers and footers provided by Windows applications, sometimes as little as one-third of the screen might have your questionnaire on it.

Table 9
Tips on Web Questionnaire Design

1. Keep survey length to something that can be done in 25 minutes or less. This is the ideal, though it is not always possible.
2. Manage the respondents' expectations of survey length by telling them where they are in the survey, e.g., 'Page 1 of 5,' 'Page 5 of 5.'
3. No matter what the length, some respondents will not complete the survey. This appears to be a problem of greater magnitude than previously for paper surveys. Be careful of the order of your sections, and do not include crucial questions in the final sections of the surveys. (Recommendation: put crucial demographic questions in the middle of the survey.)
4. The less typing for the respondent, the better. There is some evidence that respondents tend to skip drop-down questions and write-ins for short answers (e.g., age, gender).
5. Although we prefer to display all options on the screen and not use drop-down boxes, there may be situations where you prefer to use a drop-down box for a very long list of options. (For example, towns, states, occupations.) If you use a drop-down box, be sure that the default which appears on the screen is something like 'Click Here' and not a valid survey response such as 'Boston,' or 'Strongly Disagree.' You don't want the respondent's choice to be unnecessarily influenced by what they see on the screen. In addition, careless programming could turn a non-response into the default response.
6. Also avoid write-ins for short answers if you can provide a coding scheme for the respondent. Respondents will rarely type their short answers the same way, which will involve a lot of hand re-coding at the analysis end. Example: Gender _____, vs. (<i>better</i>) Gender <input type="radio"/> Male <input type="radio"/> Female.
7. Use a delicate hand with color and only to help your respondent navigate the survey. For example, every other line in a long grid of questions can be shaded, and section headers or header and footers can be in a different color than the questions. Be aware that unusual colors might not appear the same to all end-users because of 1) the color palate of the end-user's computer, 2) possible color-blindness.
8. Restrain the inclination to use images. They distract from the most important part of the questionnaire -- the text. In addition, a file with images might load slowly.
9. At least one general comment question at the end of the survey is useful -- it provides good quotes to accompany the survey data analysis. In addition, it makes respondents feel that their opinions are valued.
10. Each page should have a small distinctive logo/header on the top or bottom. A 'help' email or phone number should also be prominently displayed. Be careful, however, that the header/footer does not take up too much of the viewing page.

II.7. Choosing HTML Software and Format

We have been involved in web projects that rely on many kinds of software to program the HTML: Cold Fusion, Dreamweaver, SurveySolutions, SurveyMonkey, and SurveySelect. None are perfect, but most can be adequately customized if the programmer is willing to take the time. Now is the time to start thinking about the fact that a programmer is generally just a programmer, not a survey research and questionnaire design specialist or a graphic designer. No software will get you what you need if the survey researcher doesn't take the time to work closely with the programmer. More will be discussed on this in the next section. In addition, don't assume that the programmer and survey researcher speak the same language with regards to coding, etc.

Table 10
Thoughts About Software

- | |
|---|
| <p>1. Own programming vs. canned packages. Each canned package has some sort of limitation - some that will jeopardize the integrity of the responses, and some that will affect the graphic look of the design.</p> <p style="padding-left: 20px;">Example 1) Once a question is answered, respondent can't erase responses to question entirely, although can change responses. To avoid this, provide a 'not applicable' or some such response so that respondents can decide NOT to respond at all after initially giving an answer</p> <p style="padding-left: 20px;">Example 2) Might be initially difficult to evenly space a grid horizontally, or control hanging indents.</p> |
| <p>2. Test the time it takes for each survey page to load (especially if using images); keep it short. Test using both a high-speed line and a dial-up line.</p> |
| <p>3. Check to be sure survey works on both Macs and PCs.</p> |
| <p>4. Determine which browsers are optimal, including which version of the browser, and give this info to respondent in the cover page (i.e., Netscape 7.0, Internet Explorer 6.0). Provide respondent with the link to download current software, if necessary.</p> |

5. Output of data:

- It must be possible to export data to Access, an SPSS datafile or other statistical software, a comma or semi-colon delimited data, or a CSV file.
- Excel is not recommended due to size limitations for both the dataset and for individual text cells, but Excel works fine if there are a small number of respondents, the survey is short in length, and there are no lengthy comment fields.
- Comments (longer essay questions) work well in Access (using memo fields), or Word, and should be associated with an ID field in order to link with background and other survey data.

II. 8. Technical Issues of Turning a Survey Questionnaire into a Web Survey

In our experience, even giving the programmer a paper questionnaire that is fully designed and to scale is not enough. If you are doing the programming yourself, start by reviewing the basics of questionnaire design. (Dillman's book *Mail and Internet Surveys: The Tailored Design Method*, John Wiley, 2000, is still the 'bible.')

Then seek any help you might need on graphic design for the web from a Webmaster or someone in the publications department. Think about how you will analyze the questions at the end to help you program the skip patterns correctly.

In the previous section, we mentioned that the programmer and survey researcher don't necessarily share an understanding of data technicalities. After all, the programmer's job ends when the survey administration is completed which is when the analyst's job begins. In one project of which we are aware, the survey researcher indicated that dichotomous variables were to be coded as 1=yes, and 2=no (hoping to avoid a situation where the programmer used 1=yes and no is assigned to missing). The programmer used dichotomous codes, but relied on a programmer's default, 1=yes and 0=no (and didn't change the codebook). This problem could have been avoided if the researcher had tried a little harder to think like a programmer as, in our experience, it is more difficult for a programmer to think like a data analyst.

In another project, a skip pattern was followed by a 'mark all that apply' type variable. If an answer wasn't marked, the value was assigned as missing. The programmer did not understand that respondents who skipped must not be included with those who did not skip but who (actively) chose not to mark this option.

Table 11 Turning a Survey into a Web Product	
1.	You must decide if the respondents will be required to respond to any or all of the questions. <i>Requiring</i> anyone to respond to the survey as a whole as well as individual questions often does not fit with the University's ethos. It also might conflict with instructions you receive from your Human Subjects Review Committee. (See Section III.11.) In addition, with certain populations, it could simply annoy the respondents. Use selectively, if at all.
2.	You must decide if respondents will be able to exit and re-enter the survey, and if yes, whether or not they will be able to change any or all of their responses. If the survey is created as multiple pages, as described above, one method would be to allow the respondents to re-enter the survey but only be allowed to see and change their responses going forward (and not the pages already submitted). Be sure the respondents know whether they can exit and re-enter.
3.	Pre-determine the variability of the target population's technical knowledge about the survey subject. Do you want or need to provide a pop-up glossary of terms?
4.	Select a graphic design template that is emblematic of survey sponsor's image or the image of the college or university. <ul style="list-style-type: none"> ▪ Choose distinctive color scheme and appropriate fonts for headers and question text. Get help from a professional graphic designer, if necessary. ▪ Consider shading alternate rows in big grids of questions. ▪ Include good size margins to make page readable.
5.	Take time to be sure the programmer understands the questionnaire in order to program skip patterns correctly.
6.	Create the survey as multiple pages, and not as one long page. This helps the respondent navigate through the survey more easily. In addition, each individual page can be submitted (and captured) when completed, which will prevent the loss of data if the respondent doesn't finish the entire survey if the system crashes.
7.	Survey designer should provide codebook or data dictionary of survey questions and possible responses for programmer to work with. All 'click' responses should be stored as numeric even when response choices appear as text to the respondents. Write-ins will be text.
8.	Obtain a print copy of the final web survey for inclusion in a survey report and for historical record. Note that some software packages will not provide a pretty print copy – what looks fine on the web may not print well on hard copy. It may be especially important to get a paper copy if the survey resides on a server that is not under the control of the survey group (e.g., another university office, an outside consultant).

III. Administering the Web Survey

III.9. Technical Issues of Administering the Web Survey

There are many small decisions to be made about how to administer the survey. Again, don't rely on your programmer's judgment, even if they are experienced at web surveys, because many of the decisions must be tailored to the culture and style of your University.

Table 12 Administering the Web Survey	
1.	What is the desired timeline for the survey? We have found that 3 weeks is about right, with emails sent 3 to 4 days apart. We adjust the timeline based upon the response rate. If the response is flagging, we might send a reminder email one day earlier than originally scheduled.
2.	How many contacts? We have been contacting the respondent 4 times: a pre-letter from a top administrator (President/Provost, VP, Dean), a launch letter with the .url for the survey, a follow-up email only to those who have not responded, which also announces the end of the survey a few days hence, and a thank-you letter that goes to all recipients.
3.	<p><i>Detail on suggested email contacts</i></p> <ul style="list-style-type: none"> ▪ Optional pre-survey notification letter from top administrator to notify the population that the survey is coming and why it is important to the university. ▪ Launch letter/email containing the survey link and contact email in the event that any recipient has questions/comments. ▪ Pre-assigned unique URLs allow survey team to send 1 or 2 follow-ups to only those who have not responded. Sending reminder letters to those who have completed the survey will only cause frustration, confusion, and a slew of emails to project manager. The logon process can be used to select those who need reminders. ▪ 2nd follow-up could also be a notification of closing letter; "The survey will be closing on May 6th at 5.00 p.m." ▪ Thank you email goes to all recipients. Include information on response rate or something learned from the survey, if desired. ▪ Place "survey is closed" page at the survey address for latecomers to see.
4.	Create one survey alias address, for example, 'Facultysurvey@harvard.edu.' Typically, alias addresses are used for all communications from university officers who don't want returned email coming back to them. Be warned that the

<p>authenticity of the email could be in question if an email letter from a top administrator doesn't have a matching return address (in the 'Reply-to' area).</p>
<p>5. Choose an appropriate subject line for all email communications. We have used:</p> <ul style="list-style-type: none"> ▪ A <i>message</i> from Provost Smith ▪ A <i>reminder</i> from Provost Smith <p>Some subject lines with valid meanings may be identified by certain browser's as junk mail, e.g., 'congratulations,' or 'confidential.'</p>
<p>6. How will respondents enter into the survey? We have used a login via PIN authentication, and unique URLs for each respondent.</p>
<p>7. Proper programming is needed to ensure that one person submits only one survey. Once in and done with a particular 'page' of the survey, respondent can't enter that page again, avoiding multiple submissions.</p>
<p>8. What constitutes a completed survey?</p> <ul style="list-style-type: none"> ▪ Suggestion: after completing each page, have a click button that submits this page. (Could have 2 buttons, '<i>Save and logout</i>' and '<i>Continue to next page</i>') If re-enter survey, enter at beginning of first uncompleted page (entry on that page not saved). ▪ Suggestion: all respondents who have not submitted the <i>final</i> page of the survey should receive reminders.
<p>9. How are respondents required to navigate the survey? We prefer something in between requiring respondents to answer questions in a fixed order or answering questions at random. We use the fixed order of pages method – respondents can jump around on a particular page, but must do page 1 and submit it before going on to page 2.</p>
<p>10. Time of day to send emails:</p> <ul style="list-style-type: none"> ▪ Evening often works well when respondents are done with the business of the day and ready to 'relax' and look at non-work emails. ▪ If IT folks send the emails, it will depend on their schedules and the acceptable number of emails they can send at one time. The server must have the resources to temporarily store all of the emails until the respondents download them, and to do both the task of sending out these emails and other server chores. If not, it may be necessary to send out the survey in waves.
<p>11. Day of week to send emails: Differs from survey wisdom learned from paper surveys. It is acceptable to have web surveys arrive at any day of the week, including weekends.</p>

<p>12. Response Rate report while the survey is live. Use the time-date stamp that comes with each response to analyze the data, for example, responses by School and Faculty Rank. Used to:</p> <ul style="list-style-type: none"> ▪ help target dates for reminders ▪ change or customize the reminder text ▪ catalog for future projects the days and times that your survey population prefers to respond to surveys ▪ manage the expectations of top administrators as to the pace of the survey and the eventual response rate.

III.10. Pre-Testing

Pre-testing takes time, but it is a worthwhile step. It's akin to always asking for references -- even if you have never had any problems, you know that it's inevitable that you will someday if you don't ask for references. Similarly, you should always have someone from the population you are surveying look at the questionnaire with fresh eyes.

Table 13 Pre-Testing
1. Paper testing. When survey is still in the paper-stage, ask individuals or assemble a group of respondents to look for terms that they do not understand, confusing question wording, and obvious questions omitted from the survey. Be attentive to their comments, but remember that they are only a small group of people; your overall sense of the survey structure should predominate.
2. Before the web survey is finalized, have individuals take the survey using a variety of different computer systems, e.g., Macs, PCs, dial-up, high-speed connection, and with different browsers. All should test whether the survey flows properly, whether there are any problems with going from page to page, pop-up glossary boxes, or incorrect skip patterns.
3. Remind web programmer regularly that there will be some last minute changes based on feedback from pre-testing.

III.11. Privacy Issues

There are two sides to the privacy issues. The biggest issue of privacy is vis a vis the respondents. Every school has a Human Subjects Review Committee/Institutional Review Board (IRB) that is set up to review all types of projects involving human subjects. Human Subjects Review is very prominent for projects and experiments conducted by a Medical School or department of Psychology. In our experience, at many schools, administrative surveys are often exempt from Human Subjects Review. It is important to determine the position of your specific IRB. We found the recommendations of the Harvard IRB to be very helpful for determining the appropriate language to be used in email communications.

The second issue of privacy is for any consultants that you might use. It is important to have a clear agreement regarding the capture, storage, and destruction of the survey data with any survey research or web programming consultants. Some schools are also requiring survey research consultants to have Human Subjects Review Certification. (This can be done over the web at National Institute of Health's website.) In addition, it is important to discuss copyright issues with the consultant. A web-programming consulting firm might typically put a copyright on their survey product although your university would like to retain the copyright; be sure to clarify their company policies.

The arrangement with a survey design consultant is different. Most survey *questions* that we are aware of are not copyrighted (e.g., CIRP questions). The unwritten convention has been that survey questions fall into the common domain, and survey researchers are even encouraged to reuse them. However, university protocol might require a web product to have a copyright notice on the bottom. This can be a problem because a survey research consultant legally owns the copyright to any questions that he or she created. One solution might be for the survey research consultant to have an explicit agreement to retain the copyright to the questions he or she designed, but to give the right to the university for the survey instrument *as a whole*.

Table 14	
Privacy Issues: A Harvard Example *	
1.	Survey was deemed exempt by the Harvard Institutional Review Board because the survey did not meet the Federal definition of research. The survey was not 'a systematic investigation designed to contribute to "generalizable" knowledge' as the results were being used for in-house planning.
2.	The Harvard attorneys thought that it was unnecessary to include consent language for the recipients; login was considered consent.
3.	They also recommended including language to assure respondents that their responses will not be personally identified with them other than to the survey research analyst, (i.e., <i>anonymous</i>).
4.	Results will be aggregated for the University report - no individual data will ever be released, (i.e., <i>confidential</i>).
5.	Any comments made by respondents that include either the name of the respondent or the names of university personnel should have the names removed before being circulated.

* *Seek specific advice from your university attorneys or IRB.*

III.12. Survey Incentives

With a paper survey, the administrator can include an actual object in the mailing. Fairly recently, in the commercial world, the ‘going rate’ was still \$1 or \$5. Dillman always stressed that pre-payment was more powerful than post-payment (after completing the survey). However, we are not aware of pre-payment ever having been a norm for university surveys.

A number of schools that we are familiar with have gotten good boosts in survey response from offering creative and desirable gift incentives. A clever way to combine an incentive to complete the survey with an incentive to do so earlier rather than later is to have those who complete the survey early entered multiple times in a lottery. The introduction could say something like:

Complete the survey by Tuesday and be entered into the gift lottery 10 times!

Complete the survey by Thursday and be entered into the gift lottery 5 times!, etc.

This technique has been used with student surveys and alumni surveys. It does not seem particularly appropriate for a survey of the faculty or parent population. Let the culture of your school be your guide as to when incentives are and are not appropriate.

Table 15 Incentives	
1.	Be mindful of IRS rules on gifts and imputed income. At Harvard, no cash is allowed.
2.	Small gifts should be considered a ‘thank-you,’ but not truly an incentive (e.g., a coupon for free coffee and muffin).
3.	Use a lottery to draw prizes.
4.	Two suggested types of gifts: <ul style="list-style-type: none"> ▪ Offer a significant number of opportunities to win good-value gifts (e.g., 40 gifts valued at \$20-\$40 each, like a portable CD player). ▪ Offer one large grand prize such as a travel certificate, a few moderate-priced gifts (university chairs are nice for parents or alumni), and a market basket of very small gifts.

5. Mail gifts to recipients. Requiring the gifts to be picked up can take a surprisingly large amount of coordination and staff time.

III.13. Communication and Technical Support

Inevitably, something will go wrong in the administration of the survey. Hopefully, it is something technical that you can control and correct.

Table 16 Communication and Technical Support
<p>1. Here is a short laundry list of things that could go wrong:</p> <ul style="list-style-type: none"> ▪ the links don't work ▪ the recipient does not know how to download needed software ▪ there are server problems when sending out too many bulk emails at once; (possible solution: send emails out in waves) ▪ the server could crash while the respondent is logged in ▪ the respondent's computer doesn't have enough memory to load survey ▪ the survey looks out of alignment on respondent's computer.
<p>2. The survey instrument should prominently display the phone number and/or email address of a technical contact person for respondents who encounter problems with web administration. Respond promptly to every inquiry. Rule of thumb: respond to every query within 1 business day, if not sooner. The technical support person should document the problems and summarize for the project manager.</p>
<p>3. Some respondents will write personal notes about the survey <i>content</i> to the <i>technical</i> contact. These comments should be forwarded to the project manager to be read.</p>
<p>4. Surveys sent to incorrect or outdated emails will be returned. The technical support person should catalog this since it affects the calculation of the response rate.</p>

III.13. Output of survey data

If the programming was done correctly (skips and assignment of missing values), this step is almost a non-step. One of the great advantages of web surveys is immediate access to a final (or even interim) dataset. In Section II.8. we talked about the importance of the survey researcher and programmer speaking the same language. Here's another example: be sure to explicitly tell the programmer that you want data values output as numeric and not as text (i.e., 1-2-3, and not 'Always - Sometimes - Never).

IV. Reportage

Don't let anyone tell you that all they need are the frequencies and that no report is necessary! The frequencies and means are still just data, and not yet useful *information*.

Table 17	
Questions About Survey Analysis, and Reportage	
1.	Who will be doing the analysis?
2.	Create a full set of frequencies and crosstabs as a paper appendix for posterity's sake. Paper is still more portable than a datafile between offices and over time.
3.	A dataset is like a fingerprint -- no two analysts will label, recode, and refine the dataset in the same way. Keep (and share!) documentation, e.g., calculating a mean of hours per week, where the top category, 20 +, is recoded as 22/hours per week.
4.	A decision should be made as to whether other University personnel will have access to the dataset to pursue analyses related to the project, or even unrelated goals. If you have developed recodes or created new variables that are crucial to the analysis, be sure to have them documented so that your analyses aren't questioned when others cannot duplicate them.
5.	It is true: a picture is worth 1,000 words. Take the time to become an expert designer of charts and tables.
6.	All of your survey results will appeal to your direct 'clients,' those who initiated the project. Small parts of the survey will appeal to other University offices that may or may not have been one of the original intended audiences. Be creative about who might be interested in which pieces of data.
7.	Some of the audiences for the Harvard Faculty Survey were: <ul style="list-style-type: none"> ▪ Harvard Real Estate Services ▪ President's Office ▪ Vice Presidents of Administration and Finance ▪ Office of the Provost ▪ Deans of Faculty Affairs (each school) ▪ Harvard Mortgage and Educational Loan Office ▪ Harvard Transportation and Commuter Services

References

Dillman, Don A. 2000. *Mail and Internet Surveys: The Tailored Design Method*, second edition. John Wiley and Sons, New York.

Tufte, Edward. 1983. *The Visual Display of Quantitative Information*. Graphics Press, Cheshire, Connecticut.