

Negatively Worded Questions Cause Respondent Confusionⁱ

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1. Purpose

The purpose for this analysis is to compare the results of two surveys, specifically the negatively worded questions vs. the positively worded questions, and to make recommendations for future surveys. Since the questionnaires were not designed for a comparison, there are many confounding issues in the analysis including context effects, length of the surveys, question wording, and order of the sections.

2. Introduction

In 2000 the Census Bureau administered two employee satisfaction questionnaires. The Joint Program in Survey Methodology (JPSM) designed the first survey, the Organizational Assessment Survey (OAS). The Office of Personnel Management (OPM) wrote the second questionnaire called the Organizational Climate Survey (OCS). This paper compares the results of these two employee satisfaction surveys with a goal of identification of the preferred survey to use in the future. More specifically, we focused on the effects of the positively versus negatively worded questions.

The JPSM survey used negatively worded questions to correct for acquiescence. Acquiescence, the main focus of this paper, is the tendency for a respondent to agree with a statement without considering the content of the item. After many years of debate in social science literature about the existence of the error, Schuman and Presser (1981) clearly identified acquiescence response bias. They also found a negative correlation between acquiescent error and education. Watson (1992) used factor analysis to separate acquiescence from substantive content differences in class-consciousness. Her study confirmed the existence of acquiescence response bias and a correlation with education. Although the current analysis does not attempt to tie acquiescence with education, based on these past studies, we assume that acquiescence does exist and should be addressed by survey designers. However, a thorough evaluation of the magnitude of acquiescent error within these two surveys was not done.

Often, acquiescent error incorporates many different types of response bias. The literature provides strong evidence that acquiescence is a complicated issue. Social desirability, sensitivity, and yea-saying all influence response bias in the same

direction and are included in the tendency to “agree” without regard to content. Reversing the logic of the question to make “disagreement” the more socially acceptable answer may cause confusion for some respondents. This commonly accepted solution to correct for acquiescence, although logical, has not been fully discussed in the literature.

3. Background

Previous analysis on these data included a comparison of the 2000 JPSM survey data to an administration of the JPSM survey in 1997. Karen Owens and Frank Vitrano (Owens and Vitrano, 2001) found that the Census Bureau employees became more satisfied with their jobs in 2000 than they were in 1997. Nancy Bates (Bates, 2001) compared the Internet version of the OPM survey with the paper and pencil version. She found that the Internet had higher response rates, faster response, and higher occurrence of partial interviews than the paper and pencil. She also found some substantive differences in the results based on mode.

The 2000 OPM survey data were collected using two modes, the Internet and paper and pencil, but the 2000 JPSM survey was collected only on paper and pencil. We allocated the sample into three groups, OPM survey Internet, OPM survey paper, and JPSM survey paper. All three groups are considered in this analysis.

The 2000 JPSM survey was given to nine different organizations in the government (all paper and pencil) and the OPM survey was only administered at the Census Bureau. Only Census Bureau employees will be used in this analysis. The JPSM paper and pencil survey achieved a 71.9 percent response rate at the Census Bureau and the OPM survey, mail and Internet, achieved response rates of 62.8 percent and 66.6 percent respectively¹.

These two questionnaires used sub-topics to focus respondents on more specific areas of the organization. The JPSM survey was divided into 15 sections, 13 that have comparable sections in the OPM, one section where OPM uses a different response scale, and one section that collects demographics. The OPM survey has five additional topics that the JPSM survey doesn't address (Fairness and Treatment of Others, Employee Involvement, Use of Resources, Performance Measures, and Reinvention). Only sections shared by both surveys will be included in this analysis.

¹ Response rate is defined by the number of usable questionnaires divided by the original sample minus ineligible cases.

4. Methods

Both surveys offer satisfaction questions in sub-sections like communication, diversity, benefits, etc. Each sub-section includes 4-9 questions with response options of

(1) Strongly Disagreed, (2) Disagreed, (3) Neither Agreed nor Disagreed, (4) Agreed, (5) Strongly Agreed, or Do Not Know. Both surveys use this Likert-type scale for response options with both a neutral option and a don't know option. There are 91 questions in the JPSM survey and 176 questions in the OPM survey. In the OPM survey questions 110-161 (part of reinvention, personal experiences, job satisfaction, and diversity) did not use the 5-point scale with a "don't know" option and were hence not included in this analysis. Because the JPSM survey did not sample Census Bureau employees that work in the regional offices, all non-headquarters staff in the OPM survey was omitted from this analysis.

For this analysis, a positively worded question refers to an item where agreement is considered a good answer. For example, "Employees are receptive to change." A negatively worded question is considered an item where disagreement would be a good answer. For example, "It is difficult to get things changed in the agency." The JPSM survey used both positively and negatively worded questions in a ratio of about 3:1 respectively. When calculating the means for the perspective surveys, "don't know" and missing responses were not used in the numerator or denominator. Each response was converted to a number in the response scale previously provided and responses for negatively worded questions were reversed to match the response scale for the positively worded questions.

A crosswalk was generated to compare the wording of the questions between the two surveys: identical items (4 pairs of questions), very similarly worded items (44), similarly worded items (12), and no matching question (21). 10 questions were background. Although 44 questions in the JPSM survey had very similarly worded questions in the OPM survey, the minor differences in wording constituted major differences in content. The crosswalk identified that most of the questions in the JPSM survey do not have a matching question in the OPM survey, from a content perspective. Therefore, few comparisons can be made between the two questionnaires.

5. Limits

The questionnaires differ in many ways. Therefore we had difficulty attributing any difference in results to one specific cause. The following confounding issues exist between the two surveys:

- Response Rate: The Joint Program in Survey Methodology survey had 71 percent response rate and the Office of Personnel Management survey had 65 percent.
- Mode: The Joint Program in Survey Methodology survey was conducted on paper only and the Office of

Personnel Management was conducted on the Internet and paper.

- Questionnaire Length: The Joint Program in Survey Methodology survey had 13 sections and the Office of Personnel Management survey had 20. The Joint Program in Survey Methodology survey had 91 questions and the Office of Personnel Management survey had 176 (but only the first 110 were used).
- Question Order: The sub-sections occurred in a different sequence within each questionnaire. The number and content of the questions in each sub-section are different.
- Instructions: Titles of the sections are worded differently. The Office of Personnel Management questionnaire has definitions in the front and the Joint Program in Survey Methodology questionnaire does not.
- Response Scale: Questions 110-161 in Office of Personnel Management survey could not be used because the response scale did not match the Joint Program in Survey Methodology survey (5-point, Likert response options with a don't know offered).

6. Results

Given that the questionnaires are different in many ways, we are not surprised that the results are different. One major deviation in the two surveys is the negative wording of some questions in the JPSM survey. Therefore, we focus our analysis on negatively worded JPSM questions.

The overall mean for the JPSM survey was 3.35 and OPM survey was 3.51 (statistically different with $p < .001$). Table 1 shows the means by sub-section for both the JPSM survey and the OPM survey. Also noted in Table 1 are the order within the questionnaire and the order of each mean from lowest to highest.

TABLE 1: Means by Sub-Topic in both the JPSM Survey and OPM Survey

Sub-Topic	JPSM Survey (n=561)				OPM Survey (n=1723)			
	Order in Quex.	Order by Mean	Mean	Std Dev	Order in Quex.	Order by Mean	Mean	Std Dev
Rewards*	7	1	2.86	0.92	1	5	3.27	0.92
Communication*	1	2	2.88	0.72	7	6	3.28	0.87
Teamwork*	3	3	2.96	0.78	12	11	3.59	0.80
Innovation*	4	4	2.97	0.86	3	3	3.16	0.79
Top Management*	2	5	2.97	0.89	5	7	3.30	0.93
Mission*	5	6	3.23	0.73	14	2	3.11	0.87
Job Security*	9	7	3.32	0.88	13	4	3.18	0.80
Work Environment*	10	8	3.35	0.66	10	1	3.00	0.86
Supervisor*	13	9	3.35	0.74	16	10	3.50	0.91
Service*	6	10	3.38	0.65	4	9	3.49	0.75
Training	8	11	3.44	0.87	2	8	3.44	0.86
Diversity*	12	12	3.60	0.66	15	13	3.72	0.78
Personal Needs*	11	13	3.79	0.70	11	12	3.59	0.75

- * Mean difference between surveys with p<.001
- (Bolded means are higher for JPSM than for OPM)

The OPM survey has higher average means than the JPSM survey in 9 of the 13 sub-section areas. Interestingly, four sub-sections of the JPSM survey (bolded in Table 1) collected higher averages than the OPM survey data (Mission, Security, Environment, and Personal Needs). Why do these four sub-sections achieve higher means in the JPSM survey? An analysis of the OPM survey conducted at NASS in 2000 suggested that employees need time to figure out that the survey contains negatively worded questions. Respondents learn that the appropriate way to answer the negatively worded questions is to reverse the response scale (agreement is negative and disagreement is positive). This “training respondents” to answer differently based on the negative or positive wording of the questions requires them to answer some questions to get a feel for the questionnaire. We see possible evidence of this in 3 of the 4 sections where the JPSM survey achieved higher means and are placed in the later sections of the survey. The only section that was earlier in the survey and had a higher mean in the JPSM survey was Mission (the 5th section in the questionnaire). The Mission section of the JPSM survey does not have any negatively worded questions in the section. One could argue that the respondents are “trained” at section 8 where the means are the same.

The two surveys do collect different results. What caused these differences? Are negatively worded questions misread or misinterpreted by respondents? We looked more closely at the negatively worded questions in JPSM survey and found questions in OPM survey that were very similar only positively worded.

Table 2 presents the JPSM negatively worded questions and OPM positively worded questions. About one out of every 4 questions (19 out of 73) in the JPSM survey is negatively worded. Of the 19, only 8 had a comparable positively worded question in the OPM survey from a content perspective.

TABLE 2: Negatively (JPSM) and Positively (OPM) Word Questions

JPSM Negative Question Wording	OPM Positive Question Wording
There is poor communication between different parts of the agency . (Qa4)	There is communication between various levels of the organization . (Q47)
It is difficult to get things changed in the agency . (Qd4)	Managers are receptive to change (Q18) Employees are receptive to change (Q19)
Employees are unsure who their customers are. (Qf1)	Employees have a good understanding of who their customers are. (Q23)
The physical environment in my office makes it difficult to do my job well . (Qk2)	Physical conditions (for example, noise level, temperature, lighting, cleanliness) allow employees to perform their jobs well . (Q60)
Red tape and unnecessary rules interfere with completing work on time . (Qk5)	“Red tape” and unnecessary rules/regulations do not interfere with the completion of work in a timely manner . (Q57)
Employees who take time off for family, medical, or personal reasons hurt their career opportunities. (Ql1)	Employees who take advantage of family/personal life policies and benefits do not hurt their career opportunities. (Q67)
The agency does not do enough to promote diversity in the workplace . (Qm1)	Policies and programs promote diversity in the workplace (for example, recruiting minorities and women, training in awareness of diversity issues, mentoring) . (Q92)
Supervisors/team leaders rarely provide employees with constructive suggestions to improve their job performance. (Qn2)	Supervisors/team leaders provide employees with constructive suggestions to improve their job performance. (Q97)

- Differences are in bold
- The survey question is provided in parenthesis.

In addition to looking at means, we turn our attention to distributions of these questions. Because the content should be identical, the distributions of the negatively vs. positively worded questions should be the same or at least similar. Table 3 shows that the distributions are significantly different.

TABLE 3: Probability That Negatively Worded Questions (JPSM) Produce Different Distributions Than Positively Worded Questions (OPM)

JPSM Question	OPM Question	Chi-Square value	P value
Qa4	Q47	253.53	<.0001
Qd4	Q18	241.78	<.0001
Qd4	Q19	477.59	<.0001
Qf1	Q23	15.71	.0077
Qk2	Q60	64.90	<.0001
Qk5	Q57	14.78	.0113
Ql1	Q67	48.14	<.0001
Qm1	Q92	43.76	<.0001
Qn2	Q97	33.38	<.0001

Because negatively worded questions are used to correct for acquiescent bias, these results are not surprising. After finding that negatively worded questions do produce different distributions, we investigated two reasons for the differences.

Are the differences attributable to the negative or positive wording specifically or could it be the context of the questions that causes the differences? By looking at identically worded questions, we can begin to determine the effects of the context. If there are not any differences in the distributions of the identically worded questions, we hypothesize that the differences in Table 3 are attributable to the negative wording. We looked at 4 very similarly worded questions as shown in Table 4.

TABLE 4: Identically Worded Questions in JPSM survey and OPM survey

Topic	JPSM survey question wording	OPM survey question wording	P-value for Differences in Distributions
Communication	Employees are kept informed about issues affecting their jobs. (Qa5)	Employees are kept informed on issues affecting their jobs. (Q42)	.1723
Top Management	Management lets employees know how their work contributes to the agency's mission and goals. (Qb2)	Managers let employees know how their work contributes to the organization's mission and goals. (Q31)	<.0001
Customer Service/Rewards	Employees are recognized for providing high quality products and services to customers. (Qf2)	Employees are rewarded for providing high quality products and services to customers. (Q08)	<.0001
Diversity	Supervisors/team leaders work well with employees of different backgrounds. (Qm7)	Managers/supervisors/team leaders work well with employees of different backgrounds. (Q95)	<.0005

- Differences are in bold
- The survey question is provided in parenthesis

As seen in Table 4, a comparison of the distributions of these two types of questions achieved mixed results. The JPSM survey and the OPM survey collect similar results for the Communication questions (chi-square P-value = .1723). However Top Management, Customer Service, and Diversity produce significantly different results (p-values < .001). The title of the section can be different, which could influence the respondent's answers. For Top Management the title for the JPSM survey is "Your Experience of Top Level Agency Management in the Agency" and for the OPM survey "Leadership and Quality" is the title for that section. The respondents are first put in a different context and then asked the same question. The titles are even more different for the Customer Service comparison, JPSM reads "Your Experience of Internal and External Customers in the Agency" and OPM reads "Rewards and Recognition". This can influence the content of the questions even if the question themselves are identical. This confounds the results for this dimension of the analysis.

Given the weak results related to the identically worded questions, we cannot conclude that the differences in Table 3 are attributable to the negative wording. However, two of the four identically worded questions have different titles so the content could be different and the remaining two are inconclusive. We also looked at seventeen very similarly worded questions hoping to find questions that might have the same content. All produced statistically significant differences for the distributions (P-values <.05). But all had real content differences between the question's wording as well.

Do respondents answer questions inconsistently? Within one section, like Communication or Diversity, for one respondent some consistency should exist. For the next part of the analysis, we analyzed individual records to identify if respondents answered inconsistently within one sub-section of the survey. This can help identify respondents that get confused by negatively worded questions. As mentioned earlier, we transposed the scales of the negatively worded questions to match the positively worded questions (reversed the scale). If a question was two

points above or two points below the average of the positively worded questions in that sub-section, then that question for that respondent was flagged. For example, in the first section, the positively worded questions (Qa1 + Qa3 + Qa5 + Qa6 + Qa8) were added together (strongly disagree=1, disagree=2, neutral=3, agree=4, and strongly agree=5) and then divided by 5. If the answer to the negatively worded question (Qa2, Qa4, or Qa7) was outside the average for the section (+2), then that question was flagged as inconsistent. Flags were also calculated for the positively worded questions. For example for Qa1's flag Qa3 + Qa5 + Qa6 + Qa8 were added together and then divided by four. If the answer to Qa1 was greater than 2 points above or more than 2 points below the average for the section, then Qa1's flag would be set. Some questions will get their flag set based on real content differences in the questions but that should happen for both the negatively worded and positively worded questions. If we look at all the negatively worded questions together and all the positively worded questions together then we might gain some insight into the differences the negative wording introduces.

Two additional sources identifying whether respondents are confused include frequency of "Don't Know" (DK) and missing responses. Table 5 shows the percent with inconsistent answers, percent with DK answers, and frequency of missing data for all the questions in the JPSM survey (demographics not included).

TABLE 5: Inconsistent Responses by Question Within the JPSM Survey Questionnaire (n = 562)

Topic	Question	Percent Inconsistent Answers	with Don't Know	Frequency with Missing
Communication				
	A1	3.02	6.87	9
	A2	4.09	10.77	5
	A3	2.31	3.23	5
	A4	12.28	9.50	4
	A5	1.78	1.26	5
	A6	4.27	1.79	4
	A7	23.49	3.94	4
	A8	2.14	0.90	5
Top Management				
	B1	5.52	8.24	4
	B2	1.96	1.61	3
	B3	0.71	3.05	5
	B4	2.31	2.51	5
	B5	2.85	2.51	5
Team Work				
	C1	3.91	1.79	4
	C2	5.34	3.22	3
	C3	2.49	6.81	4
	C4	3.38	3.41	4
	C5	3.38	4.30	4
Innovation				
	D1	1.78	4.11	3
	D2	1.25	2.86	2
	D3	1.42	5.72	3
	D4	9.79	8.23	3
Mission				
	E1	3.20	4.46	2
	E2	0.71	4.11	2
	E3	5.16	10.52	1
	E4	1.07	5.00	2
	E5	8.54	8.78	4
Service*				
	F1	7.30	3.94	3
	F2	*	5.22	6
	F3	4.63	9.84	3
	F4	*	17.81	6
	F5	6.23	13.26	4
Rewards				
	G1	4.80	1.61	2
	G2	1.07	6.08	3
	G3	10.14	2.86	2
	G4	3.20	5.36	2
Training				
	H1	1.25	0.71	1
	H2	0.89	1.96	2
	H3	3.02	8.39	2
	H4	2.31	3.22	3
	H5	1.07	3.03	1
Security*				
	J1	*	21.86	4
	J2	*	8.42	4
	J3	5.69	6.44	3
Environment				
	K1	*	0.00	2
	K2	17.08	0.54	4
	K3	*	3.05	4
	K4	9.61	10.55	3
	K5	14.77	5.02	4

Topic	Question	Percent Inconsistent Answers	with Don't Know	Frequency with Missing
Needs				
	L1	3.38	15.54	2
	L2	5.16	2.68	2
	L3	1.78	19.86	3
	L4	2.31	3.04	3
Diversity				
	M1	4.98	7.71	4
	M2	3.56	5.18	2
	M3	4.09	17.65	1
	M4	1.07	24.19	4
	M5	0.53	50.89	2
	M6	1.60	45.08	3
	M7	0.89	6.99	4
Supervisor				
	N1	3.38	3.78	6
	N2	3.02	3.24	6
	N3	2.85	1.44	6
	N4	1.42	1.97	5
	N5	1.07	10.41	5
	N6	1.07	1.08	7
Job Satisfaction				
	P1	12.99	9.73	7
	P2	0.00	14.59	7
	P3	1.96	20.65	5
	P4	4.63	14.21	6
	P5	4.27	4.84	4
	P6	5.16	36.33	6
	P7	3.38	15.77	4

- NOTE: Bolded data are for the negatively worded questions
- * Only 2 positively worded questions exist for these sections, therefore we could not calculate meaningful flags for the each positively worded question based on the definition given previously.
- To See question wording see Appendix or contact the author Robert Colosi

On average, respondents answered inconsistently on the positively worded questions 2.59 percent of the time. For the negatively worded questions, respondents answered inconsistently on average 8.00 percent of the time. If 2.59 percent represents the true measure of differences in answers due to true content changes, then about 5 percent of the inconsistent answers could be attributable to confusion related to the negative wording. The frequency of DK answers also seems tied to the type of question, positive or negative wording. Excluding the sections Diversity and Job Satisfaction (the content of these sections increased the DK rates) as outliers for DK rates, 6.93 percent of the negatively worded questions were answered with “Don’t Know” and the positively worded questions only yielded a 5.09 percent “Don’t Know” rate. If we include the concept of “training the respondent” discussed earlier, then the figures change as seen in Table 6. Positive or negative wording did not seem to affect the frequency of respondents leaving the questions blank (“missing” in table 5).

TABLE 6: Frequency of Inconsistent and Don’t Know Answers By Physical Location in the Questionnaire

Section of Questionnaire	Positively Worded Questions				Negatively Worded Questions			
	Percent with Inconsistent Answers	Percent with Know	Percent with Don't	Percent with Know	Percent with Inconsistent Answers	Percent with Know	Percent with Don't	Percent with Know
Sections 1-7	2.54	4.90			8.61	6.81		
Sections 8-13	2.68	5.41			7.31	7.10		

Note: As discussed earlier, respondents seem to be “trained” by section 8

The data suggest that some respondents are being “trained” to a degree with regard to answering the negatively worded questions. However, the confusion associated with the negatively worded questions does continue throughout the questionnaire given that 7.31 percent and 7.10 percent in Table 6 are still almost 5 percent and 2 percent higher than their positively worded counterparts. As discussed earlier, some respondents “yea-say”. When all the negatively worded questions for a respondent are inconsistent, the respondent could be disengaging with the content of the questions and answering generally for the section or generally for the entire questionnaire (yea-saying).

Table 7: Frequency of Respondents with Multiple Inconsistent Responses

# Of Questions with Flag Set (Inconsistent Data)	Positively Worded Questions (n=72)	Negatively Worded Questions (n=19)
0	216	179
1	151	162
2	77	92
3	58	65
4	24	32
5	15	17
6	10	9
7	3	2
8	3	4
9	3	0
10	2	0
N	562	562

Among the nineteen negatively worded questions, as seen in Table 7, the most any one person answered inconsistently was eight. That happened for four people out of 562. Two people out of 562 answered inconsistently for seven questions. Given that inconsistent answers did not occur more than eight times out of nineteen, perhaps yea-saying and/or nay-saying is not a major issue in these data. Similar low rates of inconsistent data were found in the positively worded questions, yea-saying does not appear in them either.

7. Conclusion

Given the assumption that acquiescence exists in attitudinal surveys of employee satisfaction, the use of negatively worded questions, a technique to correct for acquiescence, may introduce new error. These similar surveys conducted at the same time, one with all positively worded questions and the other with both positive and negative wording, produced significantly different results. This analysis also shows some

evidence that negatively worded questions have specific error associated with them.

- When comparing negatively worded questions with positively worded questions on the same topic, 8.00 percent of respondents answered inconsistently. When comparing positively worded questions with other positively worded questions, 2.56 percent of respondents answered inconsistently.
- Frequencies of “Don’t Know” responses are about 7 percent and about 5 percent for negatively and positively worded questions, respectively.
- There is also some evidence that respondent error associated with negatively worded questions decreases as the survey progresses.

Ultimately, which survey should be used in the future? Because acquiescent error has not been quantified by this analysis, we can’t venture to say which survey results are closer to the truth. Are we really interested in the truth or are we trying to gauge improvement or deterioration of employee satisfaction over time? Because the JPSM survey has been conducted in 1997 and 2000, there is certainly some reason to continue with its administration. Recognizing that the sample size allows for some methodological leeway, both surveys can be administered in the future.

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Appendix

JPSM question wording

qa1	"Top level management encourages open and candid communication"
qa2	"Top level managers disregard employee ideas for improvements"
qa3	"Agency policies are clearly communicated"
qa4	"There is poor communication between different parts of the agency"
qa5	"Employees are kept informed about issues affecting their jobs"
qa6	"Employees regularly share job-related information with each other"
qa7	"Poor communication seriously hurts agency performance"
qa8	"Employees receive useful feedback on their work"
qb1	"The ratio of managers to employees is appropriate"
qb2	"Management lets employees know how their work contributes to the agency's mission and goals"
qb3	"Management sets a good example"
qb4	"Management looks after employees' interests"
qb5	"Managers have poor managerial skills"
qc1	"A spirit of cooperation and teamwork exists in the agency"
qc2	"Employees have little say about what assignments they receive"
qc3	"Opinions are considered on their merit regardless of the employee's rank"
qc4	"Employees have a sense of ownership in their work"
qc5	"Work is distributed fairly among employees"
qd1	"Creativity and innovation are valued"

qd2	"Supervisors/team leaders are open to new ways of doing things"
qd3	"Employees are encouraged to try new ways of doing things"
qd4	"It is difficult to get things changed in the agency"
qe1	"Employees have a sense of loyalty to the agency"
qe2	"The agency's mission is clearly understood by employees"
qe3	"Employees can participate in developing agency goals"
qe4	"Management effectively communicates the agency's mission to employees"
qe5	"The agency's work is valued by the public"
qf1	"Employees are unsure who their customers are"
qf2	"Employees are recognized for providing high quality products and services to customers"
qf3	"Employees feel that customer requests interfere with their real work"
qf4	"Customers are satisfied with the agency's products and services"
qf5	"Internal customers often do not receive good service from other agency staff"
qg1	"Performance is evaluated fairly"
qg2	"Agency awards go to the most deserving people"
qg3	"Opportunities for advancement in the agency are inadequate"
qg4	"Employee promotions are based on performance and qualifications"
qh1	"Employees receive the training necessary to do their jobs"
qh2	"Employees receive necessary training about new technologies"
qh3	"Training opportunities are unfairly allocated across employees"
qh4	"Supervisors/team leaders support employee efforts to learn outside the job"
qh5	"High priority is given to providing appropriate training"
qj1	"The agency takes actions to avoid layoffs or reductions in force"
qj2	"The agency keeps employees well informed of job changes that affect them"
qj3	"The agency does not seem concerned about its employees' futures"

ⁱ This paper reports the results of research and analysis undertaken by Census Bureau staff. It has undergone a Census Bureau review more limited in scope than that given to official Census Bureau publications. This report is released to inform interested parties of ongoing research and to encourage discussion of work in progress.