



HARVARD BUSINESS SCHOOL SURVEY ON U.S. COMPETITIVENESS (2013–14): METHODOLOGY

I. INTRODUCTION

Abt SRBI conducted the 2013–14 U.S. competitiveness survey on behalf of Harvard Business School (HBS). The HBS Survey of U.S. Competitiveness drew a sample of HBS alumni with email addresses. The definition of alumni includes holders of HBS degrees (e.g. MBA, DBA) as well as those who have completed longer executive education courses (e.g. AMP, PMD). The survey asked questions about the competitiveness of the United States, defined by HBS as the ability to compete successfully in global markets while supporting high and rising living standards, as well business interaction with K–12 education in the U.S. (paralleling a survey of public school superintendents carried out for HBS and the Boston Consulting Group), items on middle-skills positions (those requiring education or training beyond high school but less than a bachelor’s degree), and on U.S. transportation and communications infrastructure.

The survey used web mode only. The decision to exclude the downloadable paper mode, used in 2011 and 2012 studies, was taken based on the limited number of paper responses received (122 completed surveys in 2012) and the disproportionate level of effort required to prepare the paper instrument. One alumnus requested a paper survey which was prepared for him; in the event, he was unable to fill it out.

II. INSTRUMENT

The HBS instrument was developed jointly by HBS faculty and Abt SRBI. The instrument is found in Appendix A. The survey was administered on the web using a layout designed to match HBS style, incorporating the logo used for the U.S. Competitiveness Project.

In order to ensure that the survey was understood by respondents as intended by the survey designers, Abt SRBI conducted six cognitive testing interviews via telephone. In the interviews, the interviewer read the each item to the respondent, who had been asked to think aloud, describing their thought processes as they answered the question. The interviewer would ask follow-up questions in some situations. These included asking respondents how they defined a particular term, what they thought the question was “getting at,” and (in cases where respondent interpretation was at variance with the intentions of the survey designer) how the question could be reworded. Additional questions were asked at the end of the cognitive interview regarding any items that were particularly problematic, whether any questions “just didn’t get it,” and whether any salient topics had been left out.

III. SAMPLE

The 2013–14 competitiveness survey marked a departure from the 2011 and 2012 surveys by drawing a sample of alumni with email addresses rather than including all alumni with email

addresses; this sampling was done to avoid overburdening the alumni population. HBS defines alumni as graduates of its degree-awarding programs, as well as qualifying executive education programs.¹ All living alumni with email addresses were considered to be eligible for inclusion in the sample, regardless of their retirement status, field of employment, or whether they were located in the U.S. or overseas.

Abt SRBI staff received the updated database from HBS containing 79,675 records. This was then matched with the 2011 and 2012 databases in order to identify which alumni had responded to previous surveys, which alumni had been eligible for previous surveys but had not responded, and which alumni were new and had not been eligible for previous surveys as well as remove alumni who had refused previous surveys. Altogether, 58,588 were eligible for this survey, having an email address and lacking a "no contact email" or "no contact all" flag from the alumni database and not having refused the 2011 or 2012 alumni surveys or the Life and Leadership After HBS Survey.

The eligible population of alumni with email addresses was divided into three strata: respondents to previous competitiveness surveys, nonrespondents to previous waves of the competitiveness survey, and new sample (defined as alumni not found in the 2012 alumni file obtained from HBS). Based on response rates to prior waves without advance letters, the number of alumni sampled was set at 15,100, which was estimated to be sufficient to yield 1,000 completed surveys.

With the sample size fixed, the sample was then allocated to the three strata. The proportion of new sample assigned was fixed at 3.3%, its incidence in the general population. The proportion of the sample assigned to the previous respondent stratum was determined using the Microsoft Excel nonlinear solver with the object of maximizing the effective sample size. Effective sample size is the nominal sample size divided by the design effect, which is a measure of the statistical efficiency of a complex sample relative to a simple random sample. Design effects greater than one are less efficient than are simple random samples and result in an effective sample size less than the nominal sample size. The design effect was estimated as $1 + CV^2$, where CV is the coefficient of variation of the expected weights, which were in turn a product of the probabilities of selection imposed by the sample design and the probabilities of response, which were estimated based on a logistic regression of the probability of response to the 2012 wave on age, gender, location (U.S. vs. overseas), alumni type (degree vs. executive education), and sample type (prior nonrespondent, prior respondent, and

¹ Degrees: Doctor of Business Administration (DBA); Doctor of Commercial Science (DCS; no longer offered); Doctor of Philosophy (Ph.D.); Master of Business Administration (MBA). Programs: Advanced Management Program (AMP); Central and Eastern European Teachers' Program (ETP; no longer offered); General Management Program (GMP); Industrial Administrator (IA; no longer offered); International Teachers' Program (ITP; no longer offered); Middle-Management Program (MMP; no longer offered); Mid-Officer Certificate (MOC; no longer offered); Naval Supply Corps School (NSC); Owner/President Management Program (OPM); Presidents' Program in Leadership (PPL); Program for Global Leadership (PGL; no longer offered); Programs for Health Systems Management (PHSM; no longer offered); Program for Leadership Development (PLDA); Program for Management Development (PMD; no longer offered); Senior Executive Program for Africa (SEPSA; no longer offered); Senior Executive Program for the Middle East (SEPME; no longer offered); Senior Managers Program (SMP); Strategic Human Resources Program (HRP); The General Manager Program (TGMP; no longer offered); Veterans' Certificate (VC); Visitor for Individual Studies (VIS).

new sample). The nonlinear solver was allowed to manipulate the proportion of sample assigned to the previous respondent stratum. The proportion assigned to the previous nonrespondent stratum was equal to 1 minus the sum assigned to the other two strata. The resulting sample is shown in Table 1, below. The estimated number of completed surveys was 1,056, with an estimated design effect of 1.53 for an effective sample size of 688. The sample size was 15,099 rather than 15,100 due to rounding error.

Table 1. Sample Drawn by Stratum²

Stratum	Population size	Sample size
Previous respondents	6,735	1,592
Previous nonrespondents	49,897	13,003
New sample	1,956	504
Total	58,588	15,099

After we determined the sample sizes to be drawn from each stratum, the sample was selected using systematic random sampling. The sample was sorted based on gender, age, location (U.S. vs. overseas), alumni type (degree vs. executive education), and finally a random number. A starting point was selected at random and, beginning at that point, we added the probability of selection. A case was eligible if the rounded probability of selection for that stratum was greater than that of the preceding case. This ensured that the correct number of cases was chosen. The sampling strategy ensured that the resulting sample was implicitly stratified by gender, age, location, and alumni type, ensuring that alumni were represented in appropriate proportions in the sample drawn, avoiding the potential for a sample selected at random to contain disproportionate numbers of alumni with certain characteristics.

Cases were assigned to three experiments, which are discussed in additional detail below, at this time. Using similar systematic random sampling procedures to those described above, the experimental assignments were made with 50% probability to the two conditions for each of the three experiments. The experimental samples were nested within one another to ensure that the proper mixture of experimental assignments was obtained.

IV. FIELD OPERATIONS

Advance Letter

With the switch from a census to a sample survey, obtaining sufficiently high response rates to achieve HBS's desired sample size became more important. There is extensive evidence of the positive impact of advance letters on response rates (De Leeuw et al. 2007; Edwards et al. 2002; Goldstein and Jennings 2002; Hembroff et al. 2005; Link and Mokdad 2005; Yammarino, Skinner, and Childers 1991). In addition, higher response rates achieved for populations in the 2012 Life and Leadership After HBS Survey that received (besides an advance letter) only contacts by email than

² Alumni with email addresses only.

for similar sample in the 2012 competitiveness survey (which did not receive an advance letter) suggested that an advance letter might increase response rates for the competitiveness survey. Higher response rates could reduce the number of alumni selected in order to achieve a given number of completed surveys or increase the number of completed surveys from a given number of alumni. To test the effectiveness of advance letters on the HBS population, an advance letter was sent to $n=1,000$ randomly assigned cases using the selection procedures described above. The advance letter was sent on HBS letterhead under the signatures of Professors Michael Porter and Jan Rivkin. The weighted response rate for alumni in the letter condition was significantly higher in the advance letter condition at 16.8% as opposed to 13.0% in the no letter condition ($F_{1,15098} = 11.73, p \leq .001$).³

Email Invitation

An invitation email was sent to $n=15,099$ alumni beginning on the afternoon of December 12, 2013. The message was sent under the signature of Professors Porter and Rivkin from HBS mail servers. An experiment was conducted with the formatting of the email based on prior experience with the competitiveness survey and experiments conducted in the Life and Leadership After HBS Survey, which suggested that email reminders with minimal formatting achieved higher response rates than did email with extensive formatting. Using the procedures for experimental assignment described above, a split-half experiment was conducted, with half of the respondents receiving an HTML-formatted email using the logotype of the U.S. Competitiveness Project and another half receiving an email with minimal formatting except for the inclusion of images of the senders' signatures. There were no significant differences between weighted response rates at survey completion of 13.1% for the formatted version and 13.4% for the unformatted version ($F_{1,15098} = 0.40, p > .1$).⁴

The decision to send email from HBS rather than Abt SRBI was based on the perceived greater credibility of HBS for its alumni, which was thought to enhance the probability of response. The email formatting used was similar to other HBS email messages sent to alumni. The email contained an embedded unique URL link that allowed alumni to go directly to the survey. The reply-to email address of porteroffice@hbs.edu was chosen in order to enhance the sense that the email was a personal communication. Email sent to this address was monitored by U.S. Competitiveness Project researchers.

³ Weighted with design weights. Unweighted response rates were 16.5% for the letter condition and 12.6% for the no letter condition ($\chi^2_1 = 12.39, p \leq .001$).

⁴ Weighted with design weights. Unweighted response rates were 12.7% for the formatted version and 13.1% for the unformatted version ($\chi^2_1 = 0.50, p > .1$). The design was sufficient to detect differences of 1.6 percentage points in response rates between conditions with greater than 0.80 power, where response rates for the conditions are centered around the overall response rate of 12.9%. The absence of a significant impact of invitation formatting on response rates was not the product of patterns of response due to later reminders. Immediately prior to sending the first reminder, there was no significant impact with weighted response rates of 5.1% and 5.4% for the formatted unformatted versions respectively (weighted by design weights, $F_{1,15098} = 0.748$) and unweighted response rates of 5.0% and 5.3% ($\chi^2_1 = 0.92, p > .1$).

Email Reminder Experiments

The third experiment embedded into the study focused on the impact of email formatting. Based on experimental evidence from the Life and Leadership After HBS Survey, it was decided to forego testing fully formatted email reminders. The experiment compared email with the typical lack of extensive formatting found in most person-to-person email messages with one including the signature of the sender, which is not typically found in person-to-person email. Alumni were randomly assigned to treatment conditions following the procedures outlined on p. 3. Response rates were higher for the reminders without the signature, with design weighted response rates of 13.7% and 12.8% respectively for the no signature and signature conditions; this approached—but did not exceed—statistical significance ($F_{1,15098} = 2.99, p \leq .1$).⁵

First Email Reminder

The first email reminder was sent under the signature of Professor Michael Porter to all nonrespondent alumni on December 18, 2013 ($n=14,384$), including those who had started but not finished the survey. Respondents who refused to participate in the survey in communications with Abt SRBI or HBS were excluded from the sample. In addition to the experiments with formatting, alumni who had started but not completed the survey were sent a reminder that focused on potential barriers to completing the survey. As before, the email was sent from HBS servers. The reply-to address was porterooffice@hbs.edu.

Second Email Reminder

The second email reminder was sent on January 7, 2014, to all nonrespondent alumni ($n=14,007$), including those who had started but not finished the survey, under the signature of Professor Jan Rivkin. The delay between the first and second email reminders was due to the Christmas holidays, which were expected to exert a negative influence on response to the reminder. A total of 190 alumni who had already responded to the survey were incorrectly sent reminders. As before, the email was sent from HBS servers. The reply-to address was Professor Rivkin's office, and messages were directly monitored by U.S. Competitiveness Project researchers.

Third Email Reminder

The third and final email reminder was sent to all nonrespondent alumni ($n=13,572$), including those who had started but not completed the survey, on January 14, 2014. This email was sent under Prof. Porter's signature, again from HBS servers using his office email account as a reply-to address.

Closing the Survey

The survey was closed on the morning of January 17, 2014. The field period for the survey was December 12, 2013, to January 17, 2014.

⁵ Weighted with design weights. Unweighted response rates were 13.4% for the no signature and 12.4% for the signature conditions ($\chi^2_1 = 2.96, p \leq .1$). As described in the previous note, the experimental design did not have sufficient power to reliably detect differences of this magnitude.

V. WEIGHTING

Weighting took place in four steps:

1. Design weights (wt_1) were calculated within stratum as the inverse of the probability of selection. These are N_h/n_h , where N_h is the population from which the sample is drawn, n_h is the size of the sample drawn, and n_h is the stratum (where $h = 1, 2, \dots, L$);
2. Nonresponse weights (wt_2) were calculated within stratum, there are n_h/n'_h , where n'_h is the number of completed surveys in the h th stratum, where a completed survey is counted as described under Final Dispositions and Outcome Rates;
3. Base weights (wt_3) were calculated as $wt_{3h} = wt_{1h} \times wt_{2h}$;
4. Poststratification weights (wt_4) were created by raking base weights to marginal frequencies of the interactions of age x gender, degree x age, and stratum x location.

The weights were finally standardized to sum to n' , where $n' = \sum_{h=1}^L n'_h$.

Precision of Estimates

As a sample survey, estimates from the 2013–14 competitiveness survey are subject to sampling error: variations from the extent to which responses to a survey may be expected to differ from those of the population from which the survey sample was drawn due to the sampling process. Due to the design of the survey (outlined pp. 1-3) as well as weighting adjustment for nonresponse (described above), estimates from the 2013–14 competitiveness survey will have higher sampling error than would a simple random sample. Based on the $1 + CV^2$ approximation, design effect was estimated at 1.43. Given the 1,947 completed surveys, the effective sample size would be $n=1,359$. Based on this effective sample size, the 95% confidence intervals for a proportion of 50% would be $\pm 2.7\%$. Analyses based on a subset of cases will have wider confidence intervals, while percentages above or below 50% will have narrower confidence intervals. The specific confidence intervals for any item may, however, deviate from these estimates. We show design effects for each item in Appendix D. The average design effect in these analyses is 1.45, slightly higher than the $1 + CV^2$ approximation.⁶

Other Sources of Error

As with other surveys and censuses, the 2013–14 competitiveness survey is subject to other forms of error. These include coverage error, nonresponse error, and measurement error.

Coverage errors occur when the sampling frame includes ineligible units or excludes eligible units; biases associated with undercoverage are the product of the degree of difference between the population included in the sampling frame and the population excluded, as well as the proportion of the population excluded. We do not have any reason to believe that the HBS alumni file includes ineligible alumni, other than those who may be deceased. As deceased alumni will not respond to the survey, over-coverage is not a concern. A more serious potential source of coverage error is the

⁶ Within each item, an average design effect is calculated by taking the weighted sum of the design effects for each category of response, where the weights are the proportion responding.

exclusion of alumni for whom no email address is available, together with those who had previously refused an HBS survey or who had a no contact flag. Altogether, 26.5% of alumni found on the list provided to Abt SRBI were excluded from the sampling frame. As these alumni tend to be older and are likely to differ in other nonrandom ways from the population of alumni with email addresses, coverage error will be a threat to attempts to generalize findings from this research to the entire population of HBS alumni. Findings from this study can, however, be generalized fairly to the population of HBS alumni for whom the school has an email address.

Nonresponse error occurs when the respondents to a survey differ systematically from those who were sampled but did not respond. As with coverage error, the degree of bias caused by sampling error is a product of the differences between respondents and nonrespondents on a given measure and the relative sizes of these groups. Nonresponse error is addressed in this study by weighting the sample to the known characteristics of HBS alumni with email addresses with respect to age, sex, location, and stratum.

Measurement error occurs when response to a measurement deviates from the true value of the measurement. Measurement error causes bias when there is a consistent direction to the departure of responses given to a survey from their true values. This is most likely to occur when a given response is socially desirable and in an interviewer-mediated context. In general, the topics covered in the survey are unlikely to be associated with socially desirable response and the survey is not interviewer-mediated. Response error can also occur due to the properties of the measurement being taken. Responses to paper and web surveys, for instance, exhibit primacy effects (disproportionate rates of selecting responses occurring earlier in lists), while responses to interviewer-mediated surveys exhibit latency effects (disproportionate rates of selecting responses occurring later in lists). In several cases where concern existed about wording effects, the text of the question was systematically varied in order to better understand the nature of any biases and—to the extent they are offsetting—correct for them.

Final Dispositions and Outcome Rates

Final dispositions and outcome rates are shown in Table 2, below. A completed interview was defined as any interview for which the core questions (Q1_1 to Q7) had been answered. A partial interview was defined as any interview for which Q1_1 had been answered but Q7 had not. American Association for Public Opinion Research outcome rates are calculated for this column. Overall, a response rate of 12.9% was achieved.

Table 2. Final Dispositions and Outcome Rates

Code	Disposition	Total
1.0	Interview	2,278
<u>1.1</u>	<u>Completed interview</u>	<u>1,947</u>
<u>1.2</u>	<u>Partial interview</u>	<u>331</u>
2.0	Eligible non-interview	97
<u>2.10</u>	<u>Refusal and Break-off</u>	<u>96</u>
2.11	Explicit Refusal	9
2.12	Implicit Refusal	87
2.121	Implicit: logged on to survey, did not complete any items	87
<u>2.30</u>	<u>Other</u>	<u>1</u>
2.32	Physically or mentally unable/incompetent	1
3.0	Unknown eligibility, non-interview	12,724
<u>3.10</u>	<u>Nothing known about respondent/contact information</u>	<u>12,724</u>
3.19	Nothing ever returned	12,724
	<u>Total All Cases</u>	<u>15,099</u>
	Response Rate 1	.129
	Cooperation Rate 1	.820
	Refusal Rate 1	.006
	Contact Rate 1	.157



APPENDIX A: SURVEY INSTRUMENT

Harvard Business School U.S. Competitiveness Survey

Instrument

December 10, 2013

Welcome Page

Thank you for participating in Harvard Business School's 2013-14 U.S. Competitiveness Survey. The survey focuses on understanding the ability of firms operating in the United States to compete in the global marketplace. The findings will contribute to assessing and improving U.S. competitiveness. Previous surveys of alumni have been highly influential in the media and policy discussions.

The survey is being conducted by Abt SRBI, a leading business research firm. It will take approximately 15 minutes and consists of four sections. Many people find the questions very interesting.

HBS is inviting a sample of alumni to complete the survey. We are grateful to everyone who participates: working or retired, based inside or outside the U.S., employed in a for-profit, nonprofit, or government organization, and from all industries. Your responses are confidential, and participation is entirely voluntary.

You can leave the survey at any time and return to a partially completed survey. All of your responses will be saved up to the point at which you last pressed the Continue button.

If you have any questions about this study, please contact:

Abt SRBI
[CONTACT NAME]
Analyst/Project Manager

Phone: +1-866-xxx-xxxx
Email: xxxxx@srbi.com

Harvard Business School
[CONTACT NAME]
Program Manager and Senior Researcher
U.S. Competitiveness Project

Phone: +1-617-xxx-xxxx
Email: xxxxx@hbs.edu



About You

[DISPLAY SECTION-LEVEL PROGRESS BAR]

S2 This section asks a brief series of questions about you so that we can examine whether individuals with different backgrounds and experiences have different perspectives on the questions that follow.

Are you currently employed?

An answer to this question is required.

- 1 Yes SKIP TO S1
- 2 No CONTINUE

[PAGE BREAK]

S2a Are you retired?

We are requesting this information so that we do not later ask retirees questions about their current employer.

- 1 Yes
- 2 No

SKIP TO NS19

[PAGE BREAK]



S1 You are listed in the HBS alumni database as a [BUSTITLE from frame] at [BUSNAME from frame] in [OFFICE LOCATION]. Is this information up-to-date and correct?

If you would like to update any information, select “No” below, and click Continue.

An answer to this question is required.

- | | | |
|---|---------------------------------------|------------|
| 1 | Yes | SKIP TO S9 |
| 2 | No, the information should be updated | CONTINUE |

[PAGE BREAK]

S3 What is your current job title?

[PAGE BREAK]

S4 At what company do you currently work?

S5 Are you located in the U.S.?

An answer to this question is required.

- | | | |
|---|-----|---|
| 1 | Yes | AUTCODE S9=1 AND CONTINUE /* Assume working U.S. residents
are employed by firms with U.S. operations */ |
| 2 | No | SKIP TO S7 |

[PAGE BREAK]

S6 In which state are you located?

[DROP DOWN LIST]

- | | |
|---|---------|
| 1 | Alabama |
| 2 | Alaska |
| 3 | Arizona |



- 4 Arkansas
- 5 California
- 6 Colorado
- 7 Connecticut
- 8 Delaware
- 9 District of Columbia
- 10 Florida
- 11 Georgia
- 12 Hawaii
- 13 Idaho
- 14 Illinois
- 15 Indiana
- 16 Iowa
- 17 Kansas
- 18 Kentucky
- 19 Louisiana
- 20 Maine
- 21 Maryland
- 22 Massachusetts
- 23 Michigan
- 24 Minnesota
- 25 Mississippi
- 26 Missouri
- 27 Montana
- 28 Nebraska
- 29 Nevada
- 30 New Hampshire
- 31 New Jersey
- 32 New Mexico
- 33 New York
- 34 North Carolina
- 35 North Dakota
- 36 Ohio
- 37 Oklahoma
- 38 Oregon
- 39 Pennsylvania
- 40 Rhode Island
- 41 South Carolina
- 42 South Dakota



- 43 Tennessee
- 44 Texas
- 45 Utah
- 46 Vermont
- 47 Virginia
- 48 Washington
- 49 West Virginia
- 50 Wisconsin
- 51 Wyoming

SKIP TO S8

[PAGE BREAK]

S7 In which country are you located?

[DROP DOWN LIST]

- 1 Afghanistan
- 2 Albania
- 3 Algeria
- 4 Andorra
- 5 Angola
- 6 Antigua & Barbuda
- 7 Argentina
- 8 Armenia
- 9 Australia
- 10 Aus. Overseas Ter.
- 11 Austria
- 12 Azerbaijan
- 13 Bahamas
- 14 Bahrain
- 15 Bangladesh
- 16 Barbados
- 17 Belarus
- 18 Belgium
- 19 Belize
- 20 Benin
- 21 Bhutan
- 22 Bolivia



23	Bosnia & Herzegovina
24	Botswana
25	Brazil
26	Brunei
27	Bulgaria
28	Burkina Faso
29	Burundi
30	Cambodia
31	Cameroon
32	Canada
33	Cape Verde
34	Central African Rep.
35	Chad
36	Chile
37	China
38	Colombia
39	Comoros
40	Congo, Dem. Rep.
41	Congo, Rep. of
42	Cook Islands
43	Costa Rica
44	Cote d'Ivoire
45	Croatia
46	Cuba
47	Cyprus
48	Czech Rep.
49	Denmark
50	Dan. Overseas Ter.
51	Djibouti
52	Dominica
53	Dominican Rep.
54	East Timor
55	Ecuador
56	Egypt
57	El Salvador
58	Equatorial Guinea
59	Eritrea
60	Estonia
61	Ethiopia



62	Fiji
63	Finland
64	France
65	Fr. Overseas Ter.
66	Gabon
67	Gambia
68	Georgia
69	Germany
70	Ghana
71	Greece
72	Grenada
73	Guatemala
74	Guinea
75	Guinea-Bissau
76	Guyana
77	Haiti
78	Honduras
79	Hong Kong
80	Hungary
81	Iceland
82	India
83	Indonesia
84	Iran
85	Iraq
86	Ireland
87	Israel
88	Italy
89	Jamaica
90	Japan
91	Jordan
92	Kazakhstan
93	Kenya
94	Kiribati
95	Korea, DPRK
96	Korea, Rep. of
97	Kuwait
98	Kyrgyzstan
99	Laos
100	Latvia



- 101 Lebanon
- 102 Lesotho
- 103 Liberia
- 104 Libya
- 105 Liechtenstein
- 106 Lithuania
- 107 Luxembourg
- 108 Macao
- 109 Macedonia
- 110 Madagascar
- 111 Malawi
- 112 Malaysia
- 113 Maldives
- 114 Mali
- 115 Malta
- 116 Marshall Is.
- 117 Mauritania
- 118 Mauritius
- 119 Mexico
- 120 Micronesia
- 121 Moldova
- 122 Monaco
- 123 Mongolia
- 124 Montenegro
- 125 Morocco
- 126 Mozambique
- 127 Myanmar
- 128 Namibia
- 129 Nauru
- 130 Nepal
- 131 Netherlands
- 132 Neth. Overseas Ter.
- 133 New Zealand
- 134 N.Z. Overseas Ter.
- 135 Nicaragua
- 136 Niger
- 137 Nigeria
- 138 Niue
- 139 Norway



140	Oman
141	Pakistan
142	Palau
143	Palestinian Ter.
144	Panama
145	Papua New Guinea
146	Paraguay
147	Peru
148	Philippines
149	Poland
150	Portugal
151	Puerto Rico
152	Qatar
153	Romania
154	Russia
155	Rwanda
156	St. Kitts and Nevis
157	St. Lucia
158	St. Vincent & Gren.
159	Samoa
160	San Marino
161	Sao Tome & Principe
162	Saudi Arabia
163	Senegal
164	Serbia
165	Seychelles
166	Sierra Leone
167	Singapore
168	Slovak Republic
169	Slovenia
170	Solomon Islands
171	Somalia
172	South Africa
173	South Sudan
174	Spain
175	Sri Lanka
176	Sudan
177	Suriname
178	Swaziland



179	Sweden
180	Switzerland
181	Syria
182	Taiwan
183	Tajikistan
184	Tanzania
185	Thailand
186	Togo
187	Tonga
188	Trinidad & Tobago
189	Tunisia
190	Turkey
191	Turkmenistan
192	Tuvalu
193	Uganda
194	Ukraine
195	United Arab Emirates
196	United Kingdom
197	U.K. Overseas Territories
198	United States
199	U.S. Minor Outlying Is.
200	Uruguay
201	Uzbekistan
202	Vanuatu
203	Venezuela
204	Vietnam
205	Western Sahara
206	Yemen
207	Zambia
208	Zimbabwe

[PAGE BREAK]



S8 HBS would like to update your information in the alumni database. May we send your updated information to HBS External Relations?

- 1 Yes (send my updated information to HBS)
 - 2 No (do not send my updated information to HBS)
- IF S5=1 SKIP TO S10

[PAGE BREAK]

S9 Does your firm have any business activities in the U.S.?

An answer to this question is required.

- 1 Yes
 - 2 No
- IF S5=2 SKIP TO S11

[PAGE BREAK]

S10 Does your firm have any business activities outside the U.S.?

- 1 Yes
- 2 No

[PAGE BREAK]

S11 Is your firm exposed to international competition?

- 1 Yes
- 2 No

[PAGE BREAK]



S21 How many people does your firm employ?

Please include full- and part-time employees.

- 1 Fewer than 5
- 2 5 to 9
- 3 10 to 19
- 4 20 to 49
- 5 50 to 99
- 6 100 to 249
- 7 250 to 499
- 8 500 to 999
- 9 1,000 to 2,499
- 10 2,500 to 4,999
- 11 5,000 to 9,999
- 12 10,000 or more
- 99 Don't know

[PAGE BREAK]

S20 Are you employed by a...

- 1 Private sector, for-profit organization
- 2 Nonprofit organization
- 3 Public sector or government organization

NS12 In what sector do you work?

- 1 Insurance
- 2 Financial Services
- 3 Accounting
- 4 Professional Services
- 5 Scientific Services
- 6 Technical Services
- 7 Media: Broadcast, Film, and Multimedia
- 8 Media: Print and Publishing
- 9 Telecommunications
- 10 Data Processing
- 11 Construction
- 12 Real Estate
- 13 Wholesale and Retail Trade



- 14 Manufacturing: Food and Beverage
 - 15 Manufacturing: Textile and Apparel
 - 16 Manufacturing: Wood, Paper, and Printing
 - 17 Manufacturing: Petroleum, Chemicals, and Plastics
 - 18 Manufacturing: Metal and Machinery
 - 19 Manufacturing: Computer, Electrical, and Appliance
 - 20 Other Manufacturing
 - 21 Accommodation and Food Services
 - 22 Health Care and Social Assistance
 - 23 Arts, Entertainment, and Recreation
 - 24 Transportation and Logistics
 - 25 Mining and Oil & Gas Extraction
 - 26 Utilities
 - 27 Agriculture, Forestry, and Fishing
 - 28 Educational Services
 - 29 Other Services
 - 30 Public Administration
- SKIP TO Q1

[PAGE BREAK]

NS19 In what sector did you work?

- 1 Insurance
- 2 Financial Services
- 3 Accounting
- 4 Professional Services
- 5 Scientific Services
- 6 Technical Services
- 7 Media: Broadcast, Film, and Multimedia
- 8 Media: Print and Publishing
- 9 Telecommunications
- 10 Data Processing
- 11 Construction
- 12 Real Estate
- 13 Wholesale and Retail Trade
- 14 Manufacturing: Food and Beverage
- 15 Manufacturing: Textile and Apparel
- 16 Manufacturing: Wood, Paper, and Printing
- 17 Manufacturing: Petroleum, Chemicals, and Plastics



- 18 Manufacturing: Metal and Machinery
- 19 Manufacturing: Computer, Electrical, and Appliance
- 20 Other Manufacturing
- 21 Accommodation and Food Services
- 22 Health Care and Social Assistance
- 23 Arts, Entertainment, and Recreation
- 24 Transportation and Logistics
- 25 Mining and Oil & Gas Extraction
- 26 Utilities
- 27 Agriculture, Forestry, and Fishing
- 28 Educational Services
- 29 Other Services
- 30 Public Administration

[PAGE BREAK]

NS20 Are you located in the U.S.?

An answer to this question is required.

- 1 Yes CONTINUE
- 2 No SKIP TO NS22

[PAGE BREAK]

NS21 In which state are you located?

[DROP DOWN LIST]

- 1 Alabama
- 2 Alaska
- 3 Arizona
- 4 Arkansas
- 5 California
- 6 Colorado
- 7 Connecticut
- 8 Delaware
- 9 District of Columbia
- 10 Florida
- 11 Georgia
- 12 Hawaii



- 13 Idaho
- 14 Illinois
- 15 Indiana
- 16 Iowa
- 17 Kansas
- 18 Kentucky
- 19 Louisiana
- 20 Maine
- 21 Maryland
- 22 Massachusetts
- 23 Michigan
- 24 Minnesota
- 25 Mississippi
- 26 Missouri
- 27 Montana
- 28 Nebraska
- 29 Nevada
- 30 New Hampshire
- 31 New Jersey
- 32 New Mexico
- 33 New York
- 34 North Carolina
- 35 North Dakota
- 36 Ohio
- 37 Oklahoma
- 38 Oregon
- 39 Pennsylvania
- 40 Rhode Island
- 41 South Carolina
- 42 South Dakota
- 43 Tennessee
- 44 Texas
- 45 Utah
- 46 Vermont
- 47 Virginia
- 48 Washington
- 49 West Virginia
- 50 Wisconsin
- 51 Wyoming



SKIP TO Q1

[PAGE BREAK]

NS22 In which country are you located?

[DROP DOWN LIST]

- 1 Afghanistan
- 2 Albania
- 3 Algeria
- 4 Andorra
- 5 Angola
- 6 Antigua & Barbuda
- 7 Argentina
- 8 Armenia
- 9 Australia
- 10 Aus. Overseas Ter.
- 11 Austria
- 12 Azerbaijan
- 13 Bahamas
- 14 Bahrain
- 15 Bangladesh
- 16 Barbados
- 17 Belarus
- 18 Belgium
- 19 Belize
- 20 Benin
- 21 Bhutan
- 22 Bolivia
- 23 Bosnia & Herzegovina
- 24 Botswana
- 25 Brazil
- 26 Brunei
- 27 Bulgaria
- 28 Burkina Faso
- 29 Burundi
- 30 Cambodia
- 31 Cameroon



32	Canada
33	Cape Verde
34	Central African Rep.
35	Chad
36	Chile
37	China
38	Colombia
39	Comoros
40	Congo, Dem. Rep.
41	Congo, Rep. of
42	Cook Islands
43	Costa Rica
44	Cote d'Ivoire
45	Croatia
46	Cuba
47	Cyprus
48	Czech Rep.
49	Denmark
50	Dan. Overseas Ter.
51	Djibouti
52	Dominica
53	Dominican Rep.
54	East Timor
55	Ecuador
56	Egypt
57	El Salvador
58	Equatorial Guinea
59	Eritrea
60	Estonia
61	Ethiopia
62	Fiji
63	Finland
64	France
65	Fr. Overseas Ter.
66	Gabon
67	Gambia
68	Georgia
69	Germany
70	Ghana



71	Greece
72	Grenada
73	Guatemala
74	Guinea
75	Guinea-Bissau
76	Guyana
77	Haiti
78	Honduras
79	Hong Kong
80	Hungary
81	Iceland
82	India
83	Indonesia
84	Iran
85	Iraq
86	Ireland
87	Israel
88	Italy
89	Jamaica
90	Japan
91	Jordan
92	Kazakhstan
93	Kenya
94	Kiribati
95	Korea, DPRK
96	Korea, Rep. of
97	Kuwait
98	Kyrgyzstan
99	Laos
100	Latvia
101	Lebanon
102	Lesotho
103	Liberia
104	Libya
105	Liechtenstein
106	Lithuania
107	Luxembourg
108	Macao
109	Macedonia



110	Madagascar
111	Malawi
112	Malaysia
113	Maldives
114	Mali
115	Malta
116	Marshall Is.
117	Mauritania
118	Mauritius
119	Mexico
120	Micronesia
121	Moldova
122	Monaco
123	Mongolia
124	Montenegro
125	Morocco
126	Mozambique
127	Myanmar
128	Namibia
129	Nauru
130	Nepal
131	Netherlands
132	Neth. Overseas Ter.
133	New Zealand
134	N.Z. Overseas Ter.
135	Nicaragua
136	Niger
137	Nigeria
138	Niue
139	Norway
140	Oman
141	Pakistan
142	Palau
143	Palestinian Ter.
144	Panama
145	Papua New Guinea
146	Paraguay
147	Peru
148	Philippines



149	Poland
150	Portugal
151	Puerto Rico
152	Qatar
153	Romania
154	Russia
155	Rwanda
156	St. Kitts and Nevis
157	St. Lucia
158	St. Vincent & Gren.
159	Samoa
160	San Marino
161	Sao Tome & Principe
162	Saudi Arabia
163	Senegal
164	Serbia
165	Seychelles
166	Sierra Leone
167	Singapore
168	Slovak Republic
169	Slovenia
170	Solomon Islands
171	Somalia
172	South Africa
173	South Sudan
174	Spain
175	Sri Lanka
176	Sudan
177	Suriname
178	Swaziland
179	Sweden
180	Switzerland
181	Syria
182	Taiwan
183	Tajikistan
184	Tanzania
185	Thailand
186	Togo
187	Tonga



- 188 Trinidad & Tobago
- 189 Tunisia
- 190 Turkey
- 191 Turkmenistan
- 192 Tuvalu
- 193 Uganda
- 194 Ukraine
- 195 United Arab Emirates
- 196 United Kingdom
- 197 U.K. Overseas Territories
- 198 United States
- 199 U.S. Minor Outlying Is.
- 200 Uruguay
- 201 Uzbekistan
- 202 Vanuatu
- 203 Venezuela
- 204 Vietnam
- 205 Western Sahara
- 206 Yemen
- 207 Zambia
- 208 Zimbabwe

CONTINUE WITH Q1

[PAGE BREAK]



U.S. COMPETITIVENESS

[DISPLAY SECTION LEVEL PROGRESS INDICATOR]

This section focuses on the competitiveness of the United States and the state of the U.S. business environment.

The next set of questions asks about various elements of the U.S. business environment, elements that affect how well firms in the United States can compete in the global marketplace. For each element, please rate the U.S. *compared to other advanced economies like Western Europe, Japan, and Canada.*

[VERTICAL ORIENTATION OF COLUMN HEADERS IS FOR WORD PROCESSOR FORMATTING ONLY. WILL BE HORIZONTAL ON WEB.]

		Much worse than average	Somewhat worse than average	About average	Somewhat better than average	Much better than average	Don't know
Q1_1	Logistics infrastructure High-quality highways, railroads, ports, and air transport	1	2	3	4	5	9
Q1_2	Communications infrastructure High-quality and widely available telephony, Internet and data access	1	2	3	4	5	9
Q1_4	Complexity of the national tax code	1	2	3	4	5	9
Q1_5	Education system through high school Universal access to high-quality education; curricula that prepare students for productive work	1	2	3	4	5	9
Q1_6	High quality universities with strong linkages to the private sector	1	2	3	4	5	9
Q1_7	Context for entrepreneurship Availability of capital for high-quality ideas; ease of setting up new businesses; lack of stigma for	1	2	3	4	5	9



		Much worse than average	Somewhat worse than average	About average	Somewhat better than average	Much better than average	Don't know
	failure						
Q1_8	Availability of skilled labor	1	2	3	4	5	9
Q1_17	Flexibility in hiring and firing of workers	1	2	3	4	5	9
Q1_9	Innovation infrastructure High-quality scientific research institutions; availability of scientists and engineers	1	2	3	4	5	9
Q1_10	Regulation Effective and predictable regulations without unnecessary burden on firms	1	2	3	4	5	9
Q1_11	Strength of clusters: Geographic concentrations of related firms, suppliers, service providers, and supporting institutions with effective collaboration	1	2	3	4	5	9
Q1_12	Quality of capital markets Ease of firm access to appropriate capital; capital allocated to most profitable investments	1	2	3	4	5	9
Q1_13	Macroeconomic policy Soundness of government budgetary, interest rate, and monetary policies	1	2	3	4	5	9
Q1_3	Effectiveness of the political system Ability of the government to pass effective laws	1	2	3	4	5	9
Q1_14	Protection of physical and intellectual property rights and lack of corruption	1	2	3	4	5	9
Q1_15	Efficiency of legal framework Modest legal costs; swift adjudication	1	2	3	4	5	9
Q1_16	Sophistication of firm management and operations Use of sophisticated strategies, operating practices, management structures, and analytical techniques	1	2	3	4	5	9



		Much worse than average	Somewhat worse than average	About average	Somewhat better than average	Much better than average	Don't know
Q1_18	Quality of health care relative to cost	1	2	3	4	5	9

[PAGE BREAK]

Q2 Compared to other advanced economies, would you say that the U.S. business environment, overall, is...

- 1 Much worse than average
- 2 Somewhat worse than average
- 3 About average
- 4 Somewhat better than average
- 5 Much better than average
- 9 Don't know

[PAGE BREAK]

Over time, is each element of the U.S. business environment falling behind, keeping pace with, or pulling ahead of the same element in other advanced economies?

[VERTICAL ORIENTATION OF COLUMN HEADERS IS FOR WORD PROCESSOR FORMATTING ONLY. WILL BE HORIZONTAL ON WEB.]

		Falling behind	Keeping pace	Pulling ahead	Don't know
Q3_1	Logistics infrastructure High-quality highways, railroads, ports, and air transport	1	2	3	9



		Falling behind	Keeping pace	Pulling ahead	Don't know
Q3_2	Communications infrastructure High-quality and widely available telephony, Internet and data access	1	2	3	9
Q3_4	Complexity of the national tax code	1	2	3	9
Q3_5	Education system through high school Universal access to high-quality education; curricula that prepare students for productive work	1	2	3	9
Q3_6	High quality universities with strong linkages to the private sector	1	2	3	9
Q3_7	Context for entrepreneurship Availability of capital for high-quality ideas; ease of setting up new businesses; lack of stigma for failure	1	2	3	9
Q3_8	Availability of skilled labor	1	2	3	9
Q3_17	Flexibility in hiring and firing of workers	1	2	3	9
Q3_9	Innovation infrastructure High-quality scientific research institutions; availability of scientists and engineers	1	2	3	9
Q3_10	Regulation Effective and predictable regulations without unnecessary burden on firms	1	2	3	9
Q3_11	Strength of clusters: Geographic concentrations of related firms, suppliers, service providers, and supporting institutions with effective collaboration	1	2	3	9
Q3_12	Quality of capital markets Ease of firm access to appropriate capital; capital allocated to most profitable investments	1	2	3	9
Q3_13	Macroeconomic policy Soundness of government budgetary, interest rate, and monetary policies	1	2	3	9
Q3_3	Effectiveness of the political system Ability of the government to pass effective laws	1	2	3	9
Q3_14	Protection of physical and intellectual property rights and lack of corruption	1	2	3	9
Q3_15	Efficiency of legal framework Modest legal costs; swift adjudication	1	2	3	9
Q3_16	Sophistication of firm management and operations	1	2	3	9



		Falling behind	Keeping pace	Pulling ahead	Don't know
	Use of sophisticated strategies, operating practices, management structures, and analytical techniques				
Q1_18	Quality of health care relative to cost	1	2	3	9

[PAGE BREAK]

Overall, over time is the U.S. business environment falling behind, keeping pace with, or pulling ahead of the business environments in...

[VERTICAL ORIENTATION OF COLUMN HEADERS IS FOR WORD PROCESSOR FORMATTING ONLY. WILL BE HORIZONTAL ON WEB.]

		Falling behind	Keeping pace	Pulling ahead	Don't know
Q4_1	Other advanced economies like Western Europe, Japan, and Canada	1	2	3	9
Q4_2	Emerging economies like Brazil, India, China, and Eastern Europe	1	2	3	9

[PAGE BREAK]

Q5 Please think about firms operating in the United States—**whether or not they are U.S.-owned**. Overall, how successful are these firms [RANDOMIZED INSERT AT 50% PROBABILITY: today] at competing in the global marketplace against firms operating in other advanced economies?

- 1 Not at all successful
- 2 Not very successful
- 3 Somewhat successful
- 4 Very successful
- 5 Extremely successful
- 9 Don't know



[PAGE BREAK]

Q6 Three years from now, do you expect the ability of firms operating in the United States to compete successfully in the global marketplace to be...

- 1 Much worse than today
- 2 Somewhat worse
- 3 The same
- 4 Somewhat better
- 5 Much better than today
- 9 Don't know

[PAGE BREAK]

Q7 Three years from now, do you expect firms operating in the U.S. to be...

- 1 Much less able to support high wages and benefits
- 2 Somewhat less able
- 3 Neither less nor more able
- 4 Somewhat more able
- 5 Much more able to support high wages and benefits
- 9 Don't know

IF S2=2|S9=2 SKIP TO Specific elements of U.S. competitiveness intro

IF S2=1&S9=1 CONTINUE

[PAGE BREAK]

Q9 Can **your firm's** U.S. operations compete successfully in the global marketplace **and** maintain current employment levels...

- 1 While supporting **rising** wages and benefits for an average employee
- 2 While supporting **stable** wages and benefits
- 3 Only with **declining** wages and benefits for an average employee
- 4 Your firm does not compete in the global marketplace
- 9 Don't know

[PAGE BREAK]



SPECIFIC ASPECTS OF U.S. COMPETITIVENESS

[DISPLAY SECTION-LEVEL PROGRESS BAR]

LOGIC AND CONTENT FOR FILLS:

```

IF S2=1 & {
    S9=1 & {
        S1=1
            COUNT1: "three sets of questions delve deeper"
            COUNT2: "three important elements"
            SECTIONS: "the public education system through high school, skilled
            labor, and infrastructure (transportation and logistics)"
        S1=2
            /* Info incorrect */
            COUNT1: "three sets of questions delve deeper"
            COUNT2: "three important elements"
            SECTIONS: "the public education system through high school, skilled
            labor, and infrastructure (transportation and logistics)"
    }
    S9=2 & {
        S1=1 & {
            /* No firm activities in U.S. */
            /* Info correct */
            USA from frame=1
            /* In U.S. */
            COUNT1: "two sets of questions delve deeper"
            COUNT2: "two important elements"
            SECTIONS: "the public education system through high school
            and infrastructure (transportation and logistics)"
            USA from frame=0
            /* Not in U.S. */
            COUNT1: "set of questions delves deeper"
            COUNT2: "an important element"
            SECTIONS: "infrastructure (transportation and logistics)"
        }
        S1=2 & {
            /* Info incorrect */
            S5=2
            /* Not in U.S. */
            COUNT1: "set of questions delves deeper"
            COUNT2: "an important element"
            SECTIONS: "infrastructure (transportation and logistics)"
        }
    }
}

```



```

IF S2=2 & {                                     /* Not working */
    NS20=1                                       /* In U.S. */
        COUNT1: "two sets of questions delve deeper"
        COUNT2: "two important elements"
        SECTIONS: "the public education system through high school and infrastructure
        (transportation and logistics)"
    NS20=2                                       /* Not in U.S. */
        COUNT1: "set of questions delves deeper"
        COUNT2: "an important element"
        SECTIONS: "infrastructure (transportation and logistics)"
}

```

The next [COUNT1] into [COUNT2] of the U.S. business environment: [SECTIONS].

[PAGE BREAK]

```

IF S2=1 & {                                     /* Working */
    S9=1 CONTINUE                               /* Firm activities in U.S. */
    S9=2 & {                                     /* No firm activities in U.S. */
        S1=1 & {                               /* Info correct */
            USA from frame=1 CONTINUE          /* In U.S. */
            USA from frame=0 SKIP TO transportation section /* Not in U.S. */
        }
        S1=2 & {                               /* Info incorrect */
            S5=2 SKIP TO transportation section /* Not in U.S. */
        }
    }
}
IF S2=2 & {                                     /* Not working */
    NS20=1 CONTINUE                             /* In U.S. */
    NS20=2 SKIP TO transportation section      /* Not in U.S. */
}

```

BUSINESS AND AMERICA'S PUBLIC SCHOOLS

This set of questions focuses on business engagement with public schools in America. We are interested in the full range of ways that businesses and business leaders contribute time, effort, money, goods, ideas, advice, policy advocacy, and other forms of support to schools.

[PAGE BREAK]



E3 Which of the following statements best characterizes how knowledgeable you are about K-12 education in the U.S.? Are you...

- 1 Well-informed about K-12 education in the U.S.
- 2 Somewhat informed
- 3 Barely or not informed about K-12 education in the U.S.
- 9 Don't know

[PAGE BREAK]

E4 Which of the following statements best characterizes your personal commitment to K-12 education in the U.S.? Are you...

[ROTATE OPTIONS 1 AND 2]

- 1 Deeply interested in improving K-12 education **primarily** because every child deserves a good education
- 2 Deeply interested in improving K-12 education **primarily** because today's students are tomorrow's workers
- 3 Deeply interested in improving K-12 education **equally** because every child deserves a good education **and** because today's students are tomorrow's workers
- 4 **Not** deeply interested in improving K-12 education
- 9 Don't know

[PAGE BREAK]

E5 In your opinion, what are the most important barriers preventing businesses and businesspeople from supporting K-12 education effectively?

[C. THREE ROW BOX FOR OPEN-ENDED COMMENTS]

IF S2=1&S9=1 CONTINUE /* Currently employed and firm has U.S. operations */

IF S2=2|S9=2 SKIP TO T1 /* Not employed or firm has no U.S. operations */

[PAGE BREAK]



SKILLED LABOR

The next set of questions asks about general hiring practices in your firm's U.S. operations across all skill levels.

M1 To what extent do you agree or disagree with each of the following statements about your firm's **approach to hiring decisions** in its U.S. operations, across all skill levels? My firm's U.S. operations...

[VERTICAL ORIENTATION OF COLUMN HEADERS IS FOR WORD PROCESSOR FORMATTING ONLY. WILL BE HORIZONTAL ON WEB.]

		Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree	Not applicable	Don't know
M1_1	[SPLIT HALF RANDOMIZATION INDEPENDENTLY FROM M1_2] [Version A] Prefer to invest in technology to perform work when possible rather than hire or retain employees [Version B] Prefer to hire or retain employees when possible rather than invest in technology to perform work	1	2	3	4	5	8	9
M1_2	[SPLIT HALF RANDOMIZATION INDEPENDENTLY FROM M1_1] [Version A] Prefer to rely on vendors for work that can be outsourced rather than hiring additional employees [Version B] Prefer to hire additional employees rather than relying on vendors for work that can be outsourced	1	2	3	4	5	8	9
M1_3	Would hire additional workers if there were less uncertainty about the long-term costs of employees e.g., 401k matching, defined-contribution plans,	1	2	3	4	5	8	9



		Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree	Not applicable	Don't know
	health care costs for employees and retirees, workers' compensation claims							

[PAGE BREAK]

M1_4 Compared to **three years ago**, do your firm's U.S. operations use...

[RANDOMIZE ORDER OF 1 AND 3]

- 1 A higher proportion of part-time workers
- 2 About the same proportion of part-time workers
- 3 A lower proportion of part-time workers
- 8 My firm's U.S. operations were established less than three years ago
- 9 Don't know

[PAGE BREAK]

M2 Do your firm's U.S. operations employ individuals in roles that require more than a high school diploma but less than a four-year college degree—education or training typically obtained at a trade school, technical school, or community college or through significant on-the-job training?

- 1 Yes CONTINUE
- 2 No SKIP TO transportation section
- 9 Don't know SKIP TO transportation section

[PAGE BREAK]

We would like to understand the supply of and demand for employees with **middle-skills** at your firm's U.S. operations. Middle-skills jobs are those that require more education or training than a high school diploma but less than a four-year college degree. Such education or training



is typically obtained at a trade school, technical school, or community college or through significant on-the-job training.

M3 How easy or difficult is it for your firm's U.S. operations to fill such middle-skills [HYPERLINK TO DEFINITION: "Roles that require more education or training than a high school diploma but less than a four-year college degree"] jobs?

- 1 Very difficult
- 2 Somewhat difficult
- 3 Neither easy nor difficult
- 4 Somewhat easy
- 5 Very easy
- 9 Don't know

[PAGE BREAK]

M4 Compared to three years ago, has it become harder or easier to find **qualified** middle-skills [HYPERLINK TO DEFINITION: "Roles that require more education or training than a high school diploma but less than a four-year college degree"] employees for your firm's U.S. operations?

- 1 Much harder
- 2 Somewhat harder
- 3 Neither harder nor easier
- 4 Somewhat easier
- 5 Much easier
- 8 My firm's U.S. operations were established less than three years ago
- 9 Don't know



[PAGE BREAK]

M5 Over the next three years, do you expect the demand for middle-skills [HYPERLINK TO DEFINITION: “Roles that require more education or training than a high school diploma but less than a four-year college degree”] employees at your firm’s U.S. operations to...

- 1 Decrease a great deal
- 2 Decrease somewhat
- 3 Remain more or less the same
- 4 Increase somewhat
- 5 Increase a great deal
- 9 Don’t know

[PAGE BREAK]

What steps has your firm taken in the U.S. to address the availability of middle-skills [HYPERLINK TO DEFINITION: “Roles that require more education or training than a high school diploma but less than a four-year college degree”] workers?

		Yes	No	Don’t know
M5_1	Create internal training programs to build middle-skills among employees	1	2	9
M5_2	Offer on-the-job training through apprenticeships or internships for trade, technical, or community college students to train middle-skills talent	1	2	9
M5_3	Collaborate with community colleges to develop an adequate talent pool of potential middle-skills employees	1	2	9
M5_4	Participate in industry-specific initiatives to collaborate on training	1	2	9
M5_5	Take any other steps (Please specify: [TEXT ENTRY])	1	2	9

[PAGE BREAK]



TRANSPORTATION AND INFRASTRUCTURE

This set of questions asks in more detail about various elements of transportation modes and infrastructure that form part of the U.S. business environment, elements that affect how effectively firms reach their goals. We are interested in the perspectives of all informed respondents, including those who are not based in the United States. If you feel you do not have enough information to offer an informed opinion on an item, please select “don’t know.”

T1 In your experience, is the cost and quality of using automobiles, trucks, trains, planes, and other vehicles in the U.S. to move people and goods...

- 1 Better than it was three years ago
- 2 About the same
- 3 Worse than it was three years ago
- 9 Don't know

T2 In your experience, is the **condition** of airports, ports, roads, and other infrastructure in the U.S....

- 1 Better than it was three years ago
- 2 About the same
- 3 Worse than it was three years ago
- 9 Don't know

IF S2=1&S9=1 CONTINUE /* Working and firm operations in U.S. */

IF S2=2|S9=2 SKIP TO CONTACTING YOU /* Not working or no firm operations in U.S. */

[PAGE BREAK]

T3 Which, if any, of the following potential deficiencies in transportation and other infrastructure in the U.S. create problems, reduce quality, or raise costs for your firm's U.S. operations? Please select the three most important factors.

[CHECK BOXES]

[RANDOMIZE ORDER OF 1-8]

- 1 Highway traffic congestion
- 2 Deteriorating roads or bridges
- 3 Airport delays or inefficiencies
- 4 Difficulties getting goods into the U.S.
- 5 Difficulties moving goods between cities/regions in the U.S
- 6 Inadequate connections across transportation modes (e.g., planes to trains)
- 7 Lack of public transportation for employees or potential employees
- 8 Insufficient Internet/digital network speed or bandwidth
- 9 Some other factor
- 10 None of the above
- 98 Not applicable
- 99 Don't know

IF SELECTIONS FROM T3>3 HARD PROMPT: "Please select the three most important factors that create problems, reduce quality, or raise costs for your firm's U.S. operations."

IF T3_10=1 & OTHER FACTOR(S) SELECTED HARD PROMPT: "You indicated that none of the factors listed above created problems, reduced quality, or raised costs for your firm's U.S. operations and that one or more factors did create such problems. If you wish to indicate that fewer than three factors affected your firm's U.S. operations, please deselect "None of the above." Otherwise, please select either "None of the above" or up to three factors.

IF T3_98=1 & OTHER FACTOR(S) SELECTED HARD PROMPT: "You indicated that the listed factors were not applicable to your firm's U.S. operations and that one or more factors did create problems. If you wish to indicate that fewer than three factors affected your firm's U.S. operations, please deselect "Not applicable." Otherwise, please select either "Not applicable" or up to three factors.



IF T3_99=1 & OTHER FACTOR(S) SELECTED HARD PROMPT: "You indicated that you did not know if the factors listed above created problems, reduced quality, or raised costs for your firm's U.S. operations and that one or more factors did create such problems. If you wish to indicate that less than three factors affected your firm's U.S. operations, please deselect "Don't know." Otherwise, please select either "Don't know" or up to three factors.

[PAGE BREAK]

T3_txt What other potential deficiencies in transportation in the U.S. create problems, reduce quality, or raise costs for your firm's U.S. operations?

[PROGRAMMER: CREATE 1 LINE TEXT BOX]

[PAGE BREAK]

T4 Which of the following improvements or innovations in transportation and other infrastructure would make it easier for your firm's U.S. operations to succeed? Please select the three most important factors.

[CHECK BOXES]

[RANDOMIZE ORDER OF 1-8]

- 1 Universal high-speed broadband telecom networks
- 2 More airports or more flights
- 3 Better or faster passenger rail
- 4 Collaborative regional planning by public and private sectors
- 5 Better coordination and/or connections across transportation modes
- 6 Technology-enabled vehicles (cars, trucks, or buses)
- 7 Less reliance on individually-owned automobiles
- 8 High quality public mass transit reaching more places
- 9 Some other innovation or improvement
- 10 None of the above
- 98 Not applicable
- 99 Don't know

IF SELECTIONS FROM T4>3 HARD PROMPT: "Please select the three most important improvements or innovations in transportation or infrastructure would make it easier for your firm's U.S. operations to succeed."



IF T4_10=1 & OTHER FACTOR(S) SELECTED HARD PROMPT: “You indicated that none of the improvements or innovations in transportation and infrastructure would make it easier for your firm’s U.S. operations to succeed. If you wish to indicate that fewer than three improvements or innovations would make it easier for your firm’s U.S. operations to succeed, please deselect “None of the above.” Otherwise, please select either “None of the above” or up to three factors.

IF T4_98=1 & OTHER FACTOR(S) SELECTED HARD PROMPT: “You indicated that none of the improvements or innovations in transportation and infrastructure would make it easier for your firm’s U.S. operations to succeed. If you wish to indicate that fewer than three improvements or innovations would make it easier for your firm’s U.S. operations to succeed, please deselect “Not applicable.” Otherwise, please select either “Not applicable” or up to three improvements or innovations.

IF T4_99=1 & OTHER FACTOR(S) SELECTED HARD PROMPT: “You indicated that you did not know if the improvements or innovations in transportation and infrastructure would make it easier for your firm’s U.S. operations to succeed. If you wish to indicate that fewer than three improvements or innovations would make it easier for your firm’s U.S. operations to succeed, please deselect “Don’t know.” Otherwise, please select either “Don’t know” or up to three improvements or innovations.

[PAGE BREAK]

T4_txt What other improvements or innovations in transportation and infrastructure would make it easier for your firm’s U.S. operations to succeed?

[PROGRAMMER: CREATE 1 LINE TEXT BOX]

[PAGE BREAK]

CONTACTING YOU

[DISPLAY SECTION-LEVEL PROGRESS BAR]

R1 HBS faculty members may wish to follow up with some alumni to discuss their views. May we contact you for this purpose?

- 1 Yes
- 2 No



To complete the survey and submit your responses, please press the Submit button below. To review or change earlier responses, please press the Go Back button below – please **do not** press your browser’s back button.

[PAGE BREAK]

TERMINATION

[DISPLAY SECTION-LEVEL PROGRESS BAR]

Your responses have been recorded. Thank you very much for participating in this important survey. Faculty members will share the survey findings by email, via the U.S. Competitiveness Project’s website (www.hbs.edu/competitiveness), and in publications.



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