

ENGINEERING BUSINESS SENTIMENT

2022 Q4

OCTOBER 2022

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2022 Q4

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EXECUTIVE SUMMARY

Current Business Conditions

- Current sentiment for firms and the industry remains extremely optimistic. The Net Rating for firms' overall finances is +88 and +79 for the engineering and design services industry.
- The Net Rating for the U.S. economy, however, is much lower at 0, though this is up 15 points since 2022 Q3.
- Current *industry* sentiment remains very optimistic within all market sectors.
- The median firm backlog has remained steady at 12 months, but represents an increase from 10 months at the beginning of the year.

Future Business Conditions

- Future sentiment remains positive for firms (Net Rating +31), but less so for the industry (+12) and negative for the U.S. economy (-28).
- Future sentiment of the U.S. economy rose from a Net Rating of -40 last quarter to -28 this quarter. Future sentiment for firms' finances and the industry also rose slightly and remain positive.
- Inflation (93%) and a recession (84%) are the greatest concerns fueling negative future sentiment.
- Forty-seven percent believe their firms will see a higher backlog of projects 12 months from now, nearly the same as last quarter (46%).
- Sixty-nine percent predict there will be an increase in hiring over the next 12 months at their firms, up from 65% last quarter.

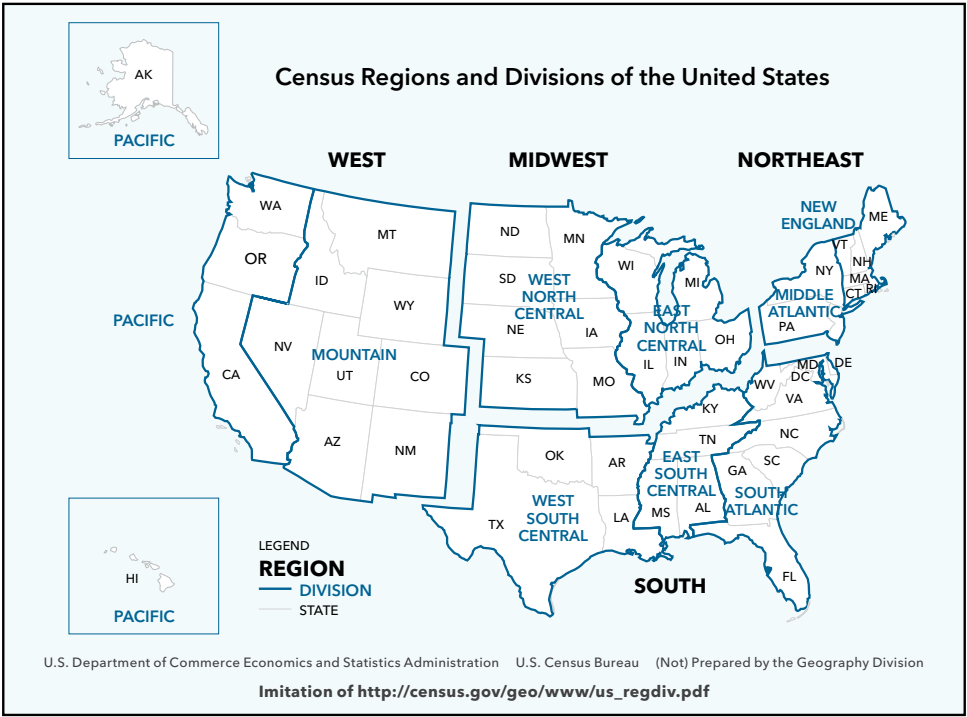
Hot Topics

- The median number of open positions remained steady at 5.
- Concern over the effects of inflation remains very high.
- In the past three months, a little more than half of firms (51%) have turned down work due to workforce shortages, similar to last quarter (52%).
- Among firms turning down work, most (86%) are being selective about the projects they are accepting. Sixty-one percent of firms also indicated that they are turning down less profitable work.
- Ninety-seven percent of firms with U.S. locations have opened ALL of their offices.
- Only 17% of firms are requiring all employees to work in the office every day of the week, although this is most common among firms with 1 to 25 employees (39%).
- Thirty-five percent of firms are handling remote work requests on a case-by-case basis, and 31% are allowing employees to decide their own flexible schedule.
- Thirty percent of firms require four or five days in the office, though 20% require none.

DEMOGRAPHICS

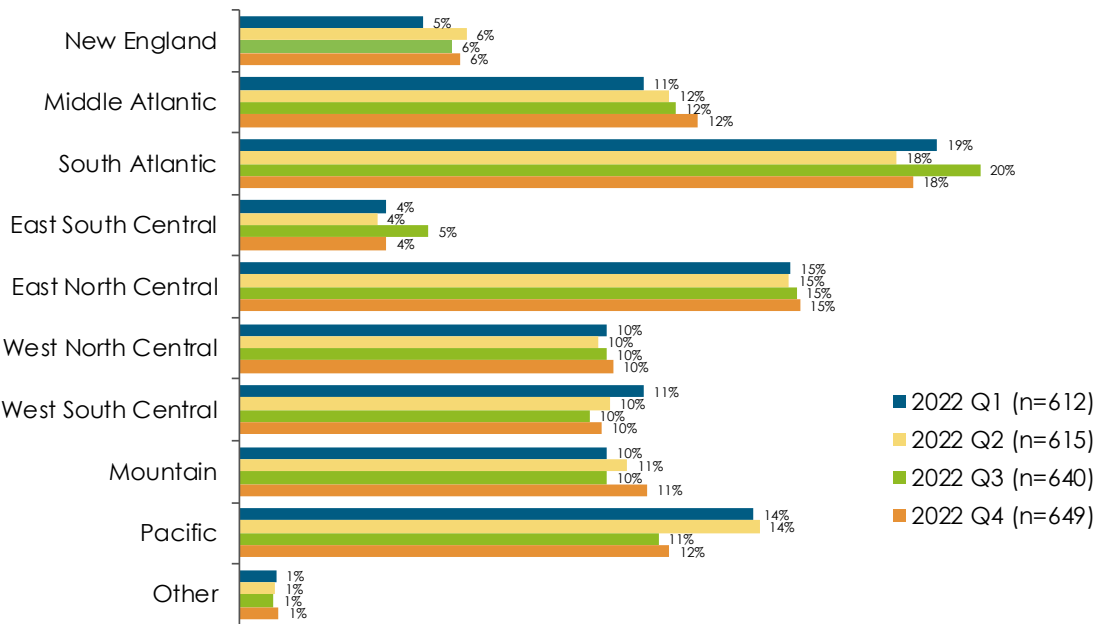
- For reference, the ACEC Research Institute uses the U.S. Census Bureau definition of geographic regions seen in Figure 1 below.

Figure 1: U.S. Census Regions of the United States



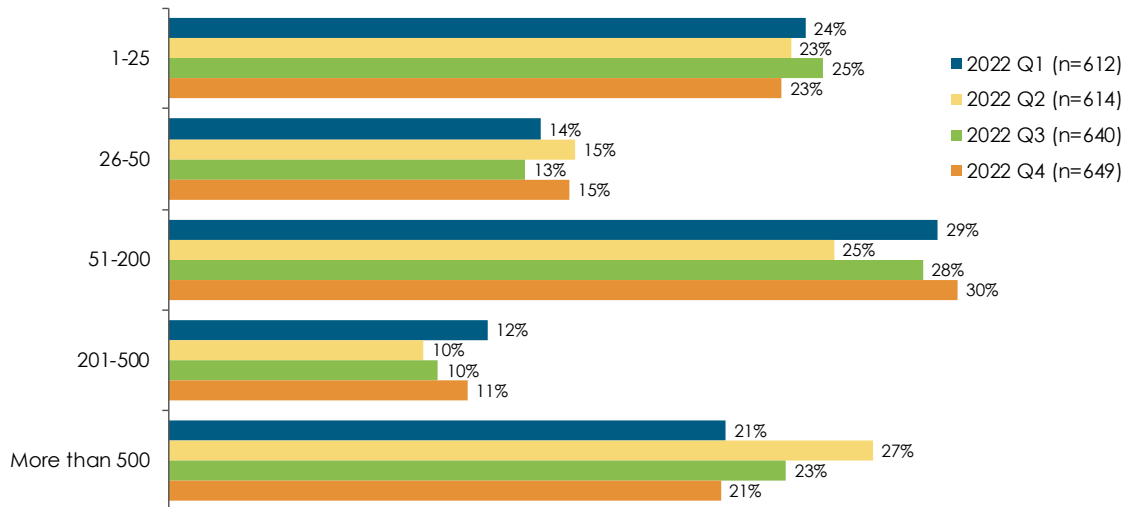
- Respondents' firms are widely dispersed around the United States. A few respondents (Other) indicate their firm is headquartered outside the U.S. These results are statistically similar to previous quarters.

Figure 2: Location of Organization Headquarters



- Respondents represent a wide range of firm sizes. While nearly one-fourth of respondents represent firms with 25 or fewer full-time equivalents (FTEs), another 21% represent firms with more than 500 FTEs. The median firm size is 85 FTEs, slightly lower than last quarter (88).

Figure 3: Number of Full-Time Equivalents at Firm



CURRENT BUSINESS CONDITIONS

Current U.S. Economy, Industry and Firm Sentiment

- Current sentiment for firms and the industry remains extremely optimistic. The Net Rating for firms' overall finances is +88 and +79 for the engineering and design services industry.
- The Net Rating for the U.S. economy, however, is much lower at 0, though this is up 15 points since 2022 Q3.
- Firms with 201 to 500 FTE are the most positive about their firm's finances (+99 Net Rating).
- Respondents with 25 or fewer FTE are relatively less positive about the industry (+71).

Figure 4: Current Economic Sentiment

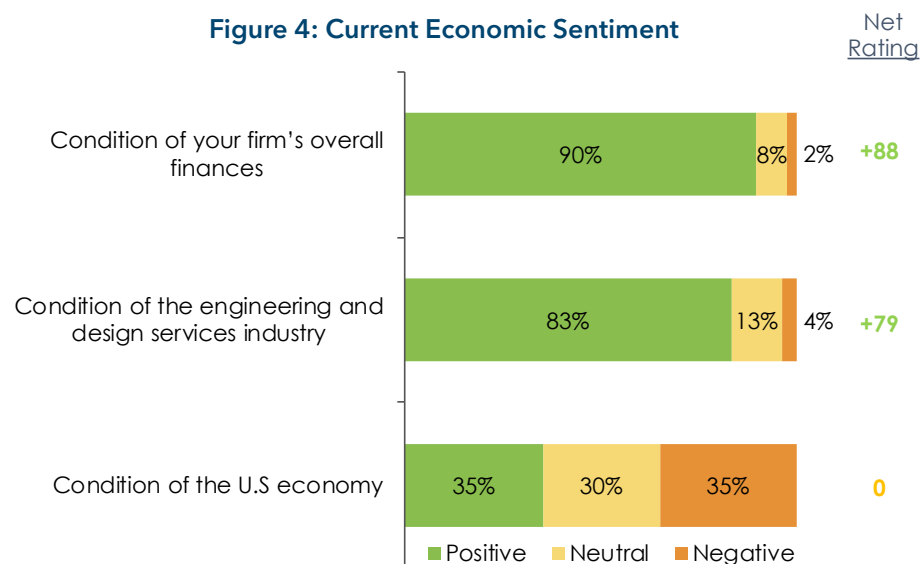
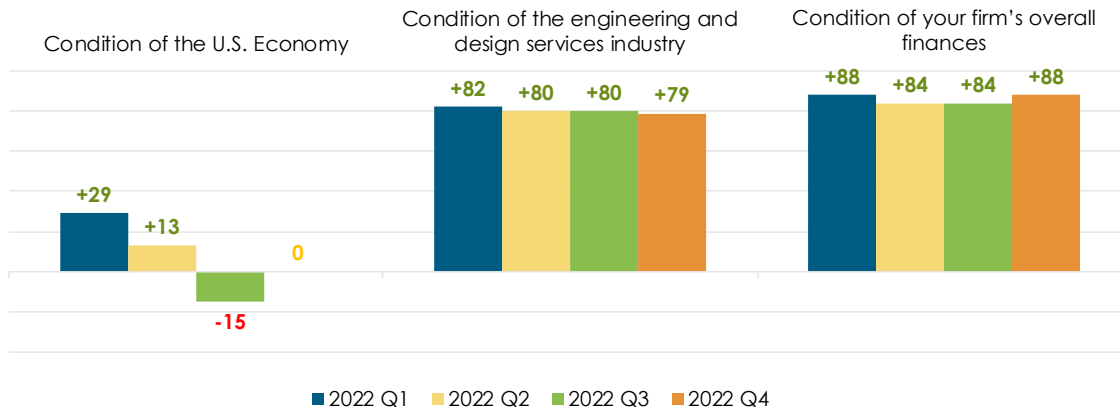


Figure 5: Current Economic Sentiment vs. Previous Quarters



- All segments are feeling much less negative than last quarter about the state of U.S. economy.

Figure 6: Current Condition of U.S. Economy vs. Previous Quarters - By Region and Firm Size

Condition of the U.S. Economy	2022 Q1 (n=600)	2022 Q2 (n=609)	2022 Q3 (n=634)	2022 Q4 (n=643)	Change vs. Previous Quarter
TOTAL	+29	+13	-15	0	+15
REGION					
Northeast	+32	+22	-19	+4	+23
South	+29	+13	-23	-5	+18
Midwest	+32	+13	-8	+7	+15
West	+27	+8	-9	-2	+7
FIRM SIZE					
1-25	+27	-1	-22	-9	+13
26-50	+22	+17	-10	+4	+14
51-200	+30	+10	-16	-5	+11
201-500	+36	+19	-22	+5	+27
More than 500	+34	+25	-7	+13	+20

Current Industry Sector Sentiment

- Current sentiment remains very optimistic within all market sectors.
- Sentiment is strongest in the Transportation – Roads and Bridges (Net Rating +78) and Water/Wastewater sectors (+77).
- The Residential – Land Development (+41 Net Rating) and the Justice (+27) sectors are performing relatively less well, but sentiment is still positive.

Figure 7: Current Industry Sentiment by Sector vs. Previous Quarters

	2022 Q1 (n = 192-446)	2022 Q2 (n = 200-464)	2022 Q3 (n = 196-473)	2022 Q4 (n = 213-505)	Change vs. Prev. Qtr.
Telecommunications	+69	+64	+59	+65	+6
Energy and Utilities	+72	+73	+67	+72	+5
Commercial Real Estate	+53	+59	+44	+47	+3
Federal/Military, State and Local Government Buildings	+62	+63	+63	+66	+3
Healthcare Facilities	+75	+73	+72	+73	+1
Transportation – Roads and Bridges	+67	+76	+77	+78	+1
Transportation – Airports	+68	+73	+72	+73	+1
Water/Wastewater	+77	+77	+76	+77	+1
Science and Technology	+73	+73	+64	+63	-1
Convention Centers, Sports Facilities and Cultural Facilities	+42	+51	+43	+42	-1
Education	+55	+56	+52	+50	-2
Industrial and Manufacturing Facilities	+69	+68	+66	+63	-3
Transportation – Transit	+59	+65	+68	+65	-3
Data Centers	+74	+71	+70	+65	-5
Justice	+39	+37	+33	+27	-6
Residential – Land Development	+72	+68	+50	+41	-9

Current Backlog

- The median firm backlog has remained steady at 12 months, but represents an increase from 10 months at the beginning of the year.
- In addition, 52% indicate that their firm has a current backlog of one year or more.
- The current median backlog has not changed significantly across the segments since the prior quarter, increasing or decreasing no more than a month.

Figure 8: Current Backlog

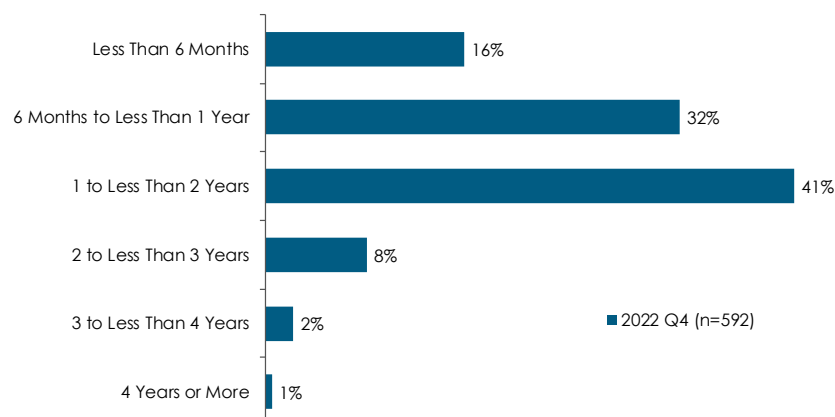


Figure 9: Current Backlog vs. Previous Quarters - By Region and Firm Size

	2022 Q1 (n=534)	2022 Q2 (n=542)	2022 Q3 (n=563)	2022 Q4 (n=592)	Change vs. Previous Quarter
TOTAL	10	11	12	12	0
REGION					
Northeast	12	12	12	12	0
South	9	10	10	10	0
Midwest	12	11	12	12	0
West	9	10	9	10	+1
FIRM SIZE					
1-25	6	6	6	6	0
26-50	10	9	10	9	-1
51-200	11	12	12	12	0
201-500	12	12	12	12	0
More than 500	12	13	14	13	-1

FUTURE BUSINESS CONDITIONS

Future U.S. Economy, Industry and Firm Sentiment

- Future sentiment remains positive for firms (Net Rating +31), but less so for the industry (+12) and negative for the U.S. economy (-28).
- Future sentiment of the U.S. economy rose from a Net Rating of -40 last quarter to -28 this quarter. Future sentiment for firms' finances and the industry also rose slightly and remain positive.

Figure 10: Economic Sentiment 12 Months from Now

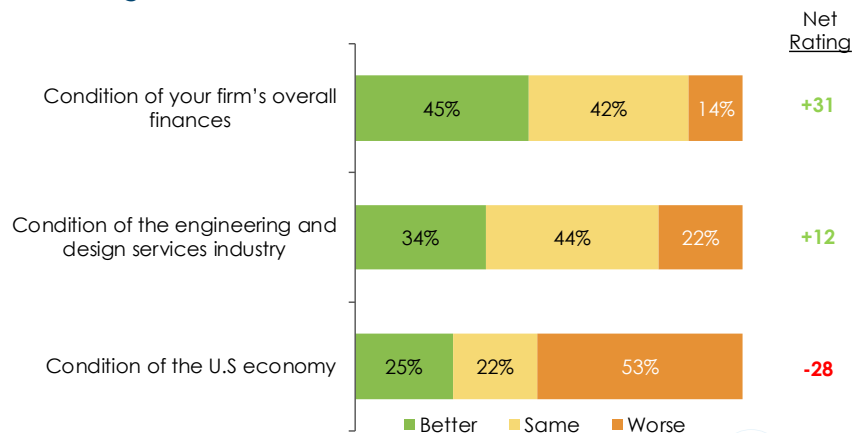
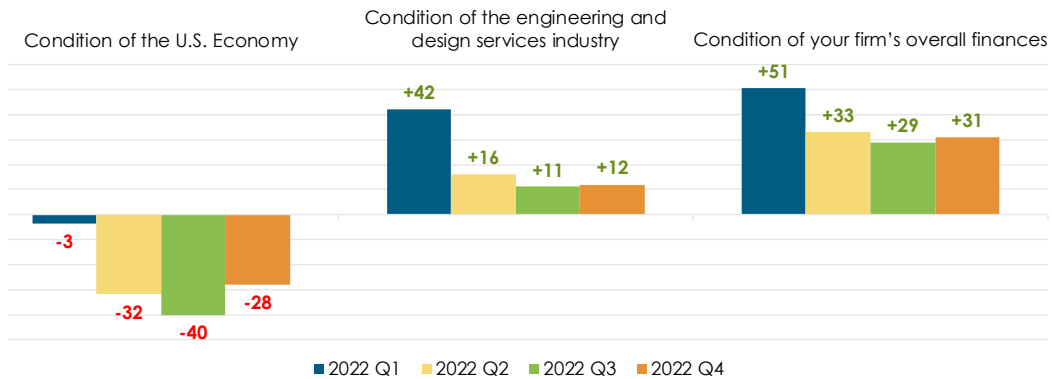


Figure 11: Economic Sentiment 12 Months from Now vs. Previous Quarters



- Future sentiment about the firms' overall finances is slightly more positive than last quarter and has improved in many segments.

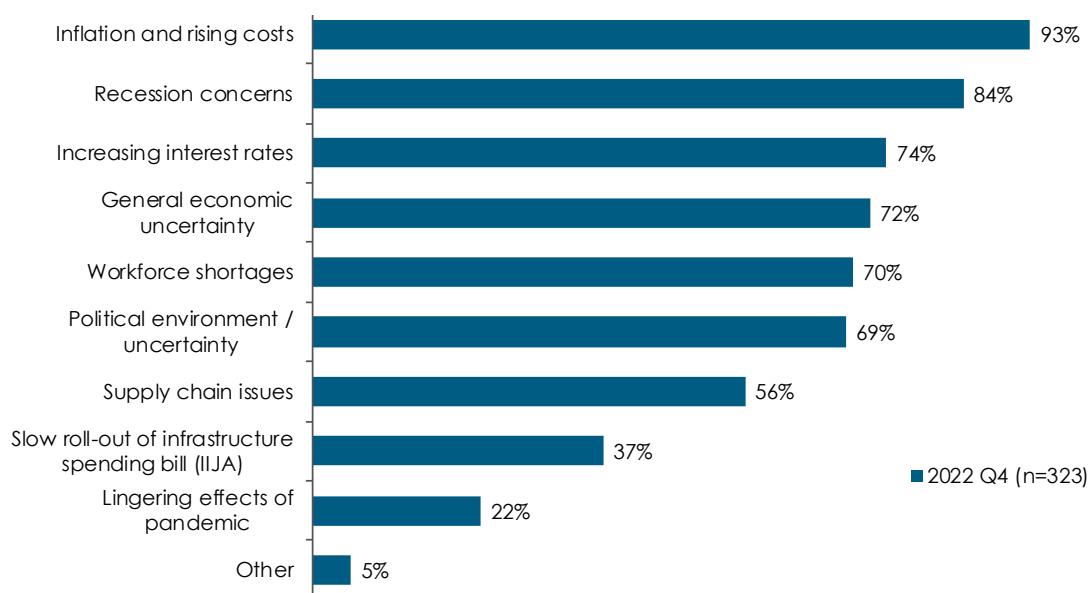
Figure 12: Condition of Firm's Finances 12 Months from Now vs. Previous Quarters - By Region and Firm Size

Condition of your firm's overall finances	2022 Q1 (n=504)	2022 Q2 (n=511)	2022 Q3 (n=561)	2022 Q4 (n=590)	Change vs. Previous Quarter
TOTAL	+51	+33	+29	+31	+2
REGION					
Northeast	+57	+38	+29	+33	+4
South	+52	+33	+32	+35	+3
Midwest	+53	+33	+29	+35	+6
West	+41	+30	+22	+15	-7
FIRM SIZE					
1-25	+35	+12	+13	+8	-5
26-50	+56	+26	+19	+29	+10
51-200	+51	+39	+28	+39	+11
201-500	+54	+29	+40	+30	-10
More than 500	+65	+53	+52	+44	-8

Reasons for Future Economic Sentiment 12 Months from Now

- Inflation (93%) and a recession (84%) are the greatest concerns fueling negative future sentiment.

Figure 13: Reasons for Economic Sentiment 12 Months from Now



Future Industry Sector Sentiment

- Future sentiment is positive in many sectors including Transportation – Roads and Bridges and Energy and Utilities.
- Future sentiment is weakest in the Commercial Real Estate (Net Rating -29) and Residential – Land Development (-39) sectors.
- Most sectors have a positive Net Rating, and over half of the sectors have seen a Net Rating increase since last quarter.

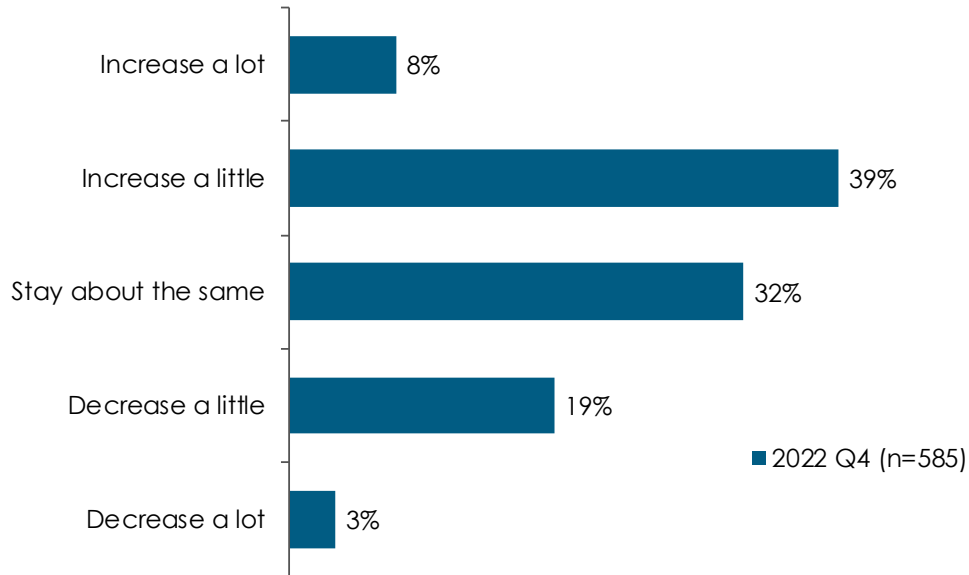
Figure 14: Economic Sentiment by Sector 12 Months from Now vs. Previous Quarters

	2022 Q1 (n = 205-400)	2022 Q2 (n = 202-411)	2022 Q3 (n=215-460)	2022 Q4 (n = 236-482)	Change vs. Previous Quarter
Energy and Utilities	+49	+39	+33	+44	+11
Commercial Real Estate	+13	-11	-37	-29	+8
Water/Wastewater	+59	+45	+37	+42	+5
Science and Technology	+32	+21	+17	+22	+5
Residential – Land Development	+14	-12	-43	-39	+4
Education	+21	+8	+2	+5	+3
Federal/Military, State and Local Government Buildings	+34	+27	+28	+30	+2
Convention Centers, Sports Facilities and Cultural Facilities	-5	-10	-26	-25	+1
Transportation – Airports	+53	+45	+38	+39	+1
Industrial and Manufacturing Facilities	+34	+15	+4	+4	0
Healthcare Facilities	+41	+18	+17	+17	0
Data Centers	+30	+21	+20	+18	-2
Transportation – Roads and Bridges	+67	+55	+55	+52	-3
Transportation – Transit	+55	+46	+46	+42	-4
Telecommunications	+36	+28	+29	+24	-5
Justice	+1	-4	-6	-11	-5

Future Backlog

- Forty-seven percent believe their firms will see a higher backlog of projects 12 months from now, nearly the same as last quarter (46%).
- The Net Rating also increased slightly from +21 to +25.

Figure 15: Backlog 12 Months from Now vs. Last Quarter



- Firms in the West have the lowest future backlog Net Rating (+12) compared to other regions.
- Firms with 25 or fewer FTE have the lowest future backlog Net Rating (+3) compared to other firm sizes.
- Compared to last quarter, all but two segments expect to see an increase in future backlog.

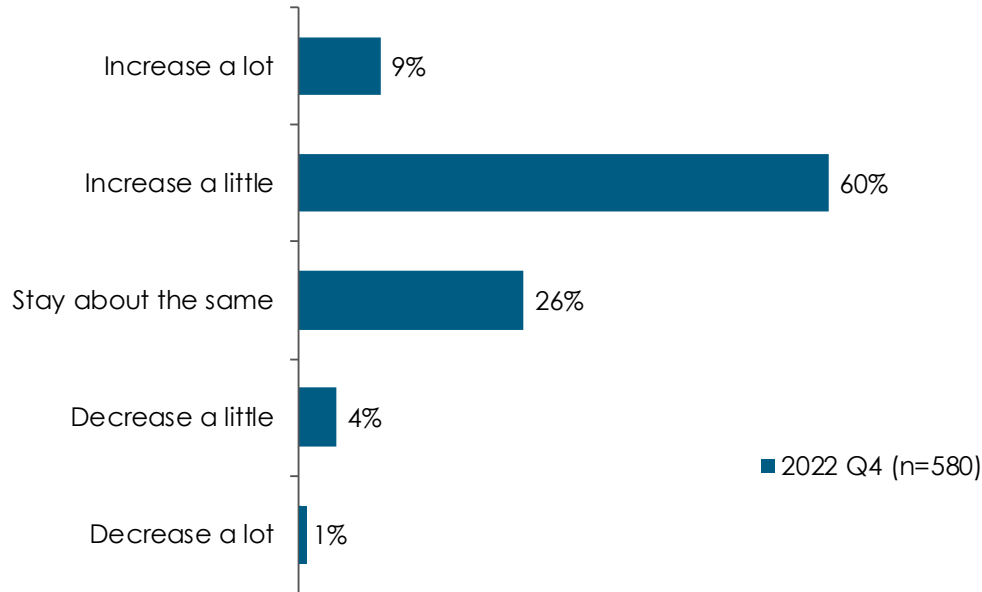
Figure 16: Backlog 12 Months from Now vs. Previous Quarters - By Region and Firm Size

	2022 Q1 (n=504)	2022 Q2 (n=507)	2022 Q3 (n=554)	2022 Q4 (n=585)	Change vs. Previous Quarter
TOTAL	+56	+36	+21	+25	+4
REGION					
Northeast	+68	+46	+40	+36	-4
South	+55	+35	+21	+25	+4
Midwest	+64	+36	+23	+26	+3
West	+41	+31	+6	+12	+6
FIRM SIZE					
1-25	+30	+11	+1	+3	+2
26-50	+52	+16	+9	+20	+11
51-200	+60	+37	+24	+31	+7
201-500	+76	+41	+43	+29	-14
More than 500	+70	+70	+36	+38	+2

Future Hiring Projections

- Sixty-nine percent predict there will be an increase in hiring over the next 12 months at their firms, up from 65% last quarter.

Figure 17: Hiring Over the Next 12 Months



- Except for the Northeast (-5 change in Net Rating), each segment is more optimistic about hiring over the next twelve months compared to last quarter.
- Firms in the Midwest (+71 Net Rating) and firms with 500+ FTE (+76) are the most optimistic about future hiring.
- All segments but one are more likely than last quarter to indicate that FTE counts will increase over the next year.

Figure 18: Expectations for Hiring Increases Over the Next 12 Months vs Previous Quarters - By Region and Firm Size

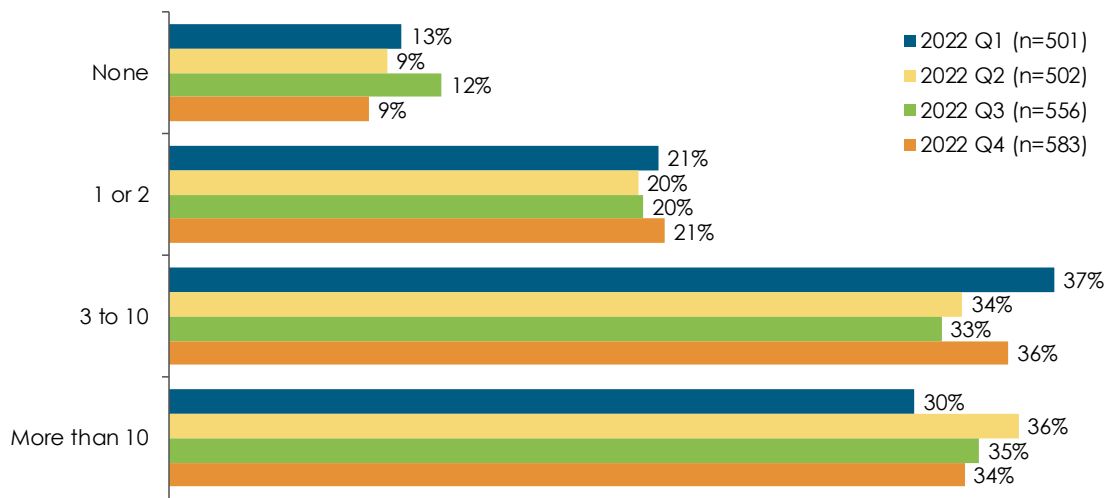
	2022 Q1 (n=493)	2022 Q2 (n=495)	2022 Q3 (n=556)	2022 Q4 (n=580)	Change vs. Previous Quarter
TOTAL	+78	+69	+59	+65	+6
REGION					
Northeast	+80	+75	+71	+66	-5
South	+76	+67	+56	+66	+10
Midwest	+85	+73	+67	+71	+4
West	+71	+61	+49	+56	+7
FIRM SIZE					
1-25	+56	+38	+42	+45	+3
26-50	+79	+62	+46	+66	+20
51-200	+80	+77	+68	+69	+1
201-500	+88	+78	+69	+72	+3
More than 500	+95	+89	+75	+76	+1

HOT TOPICS

Current Open Positions

- Ninety-one percent currently indicate their firm has at least one opening, up slightly from 88% last quarter. The median number of open positions remained steady at 5.
- Open positions remained largely steady in the past quarter. The largest firms (more than 500 employees) still have a median of 100 open positions.

Figure 19: Current Open Positions vs. Previous Quarters



Inflation

- Concern over the effects of inflation remains very high.
- While still very concerned about inflation, firms are not quite as anxious about its impact as two quarters ago (2022 Q2).
- Firms remain very concerned that inflation will lessen the impact of the IIJA.

Figure 20: Inflation Concerns

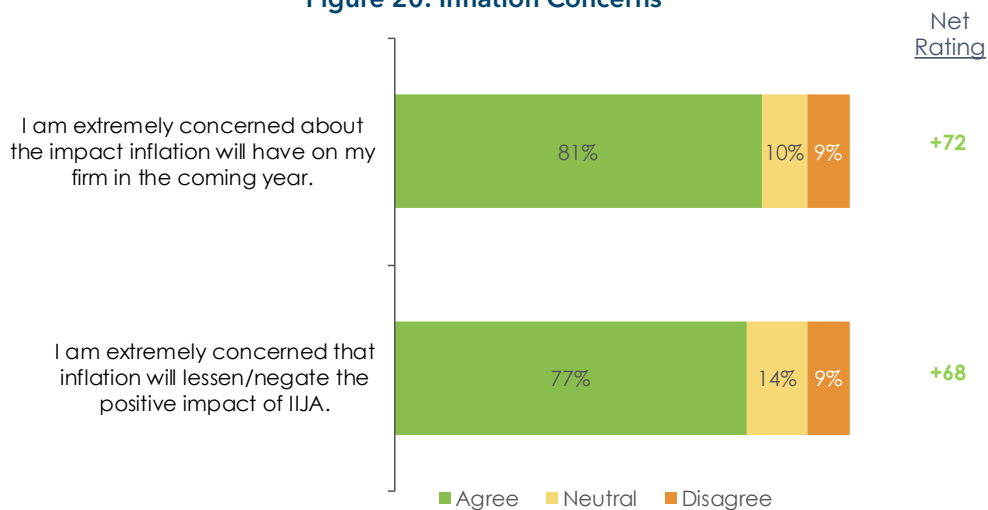
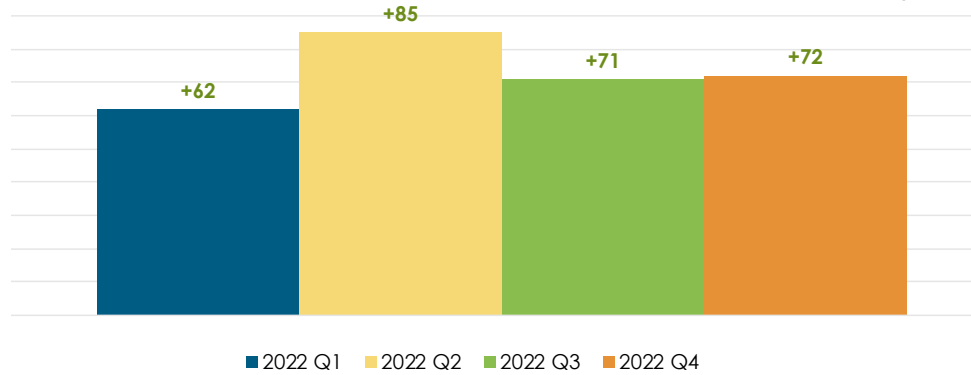
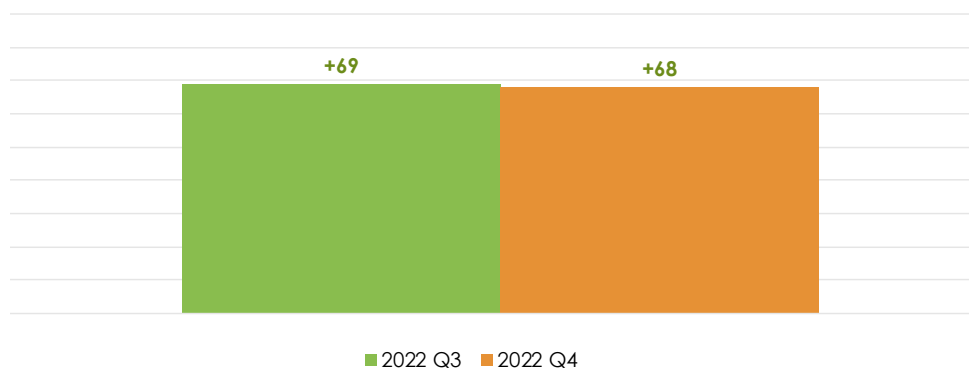


Figure 21: Inflation Concerns vs. Previous Quarters

I am extremely concerned about the impact inflation will have on my firm in the coming year.



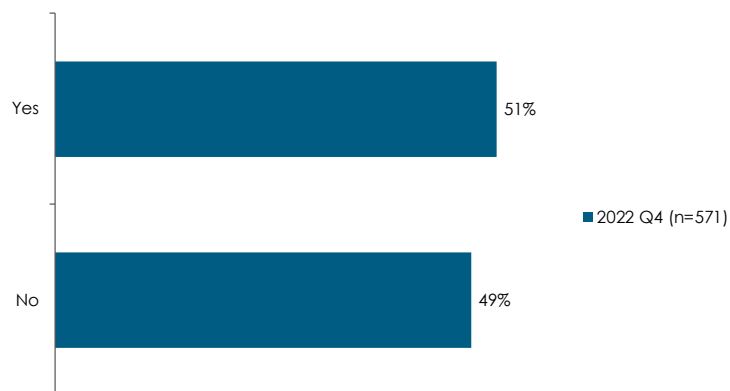
I am extremely concerned that inflation will lessen/negate the positive impact of IIJA.



Turned Down Work Due to Workforce Shortages

- In the past three months, a little more than half of firms (51%) have turned down work due to workforce shortages, similar to last quarter (52%).
- At 61%, firms in the Midwest are most likely to have turned down work. Firms in the South are least likely to have turned down work (43%).

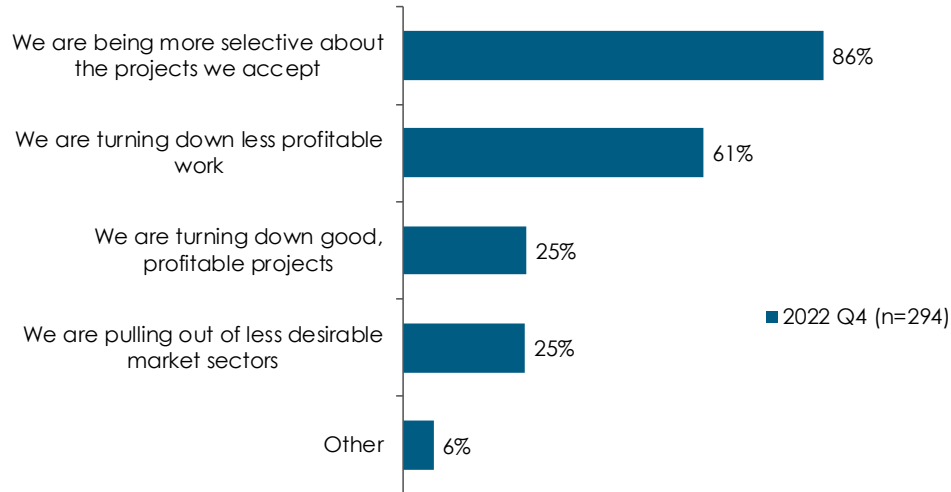
Figure 22: Turned Down Work Due to Workforce Shortages



Types of Work Turned Down

- Among firms turning down work, most (86%) are being selective about the projects they are accepting.
- Sixty-one percent of firms also indicated that they are turning down less profitable work.

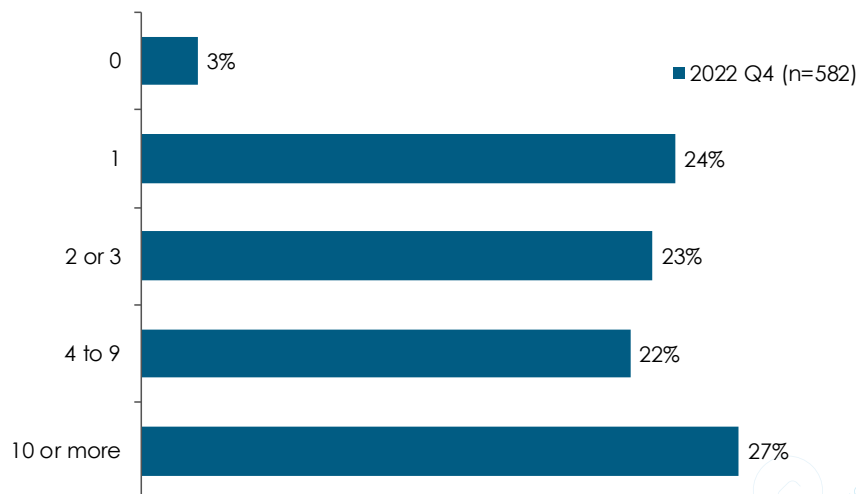
Figure 23: Types of Work Turned Down



Number of Offices in the U.S.

- Forty-nine percent of firms have four or more offices in the U.S.
- Forty-one percent of firms in the Northeast have 10+ locations.
- Ninety-seven percent of firms with U.S. locations have opened ALL of their offices.

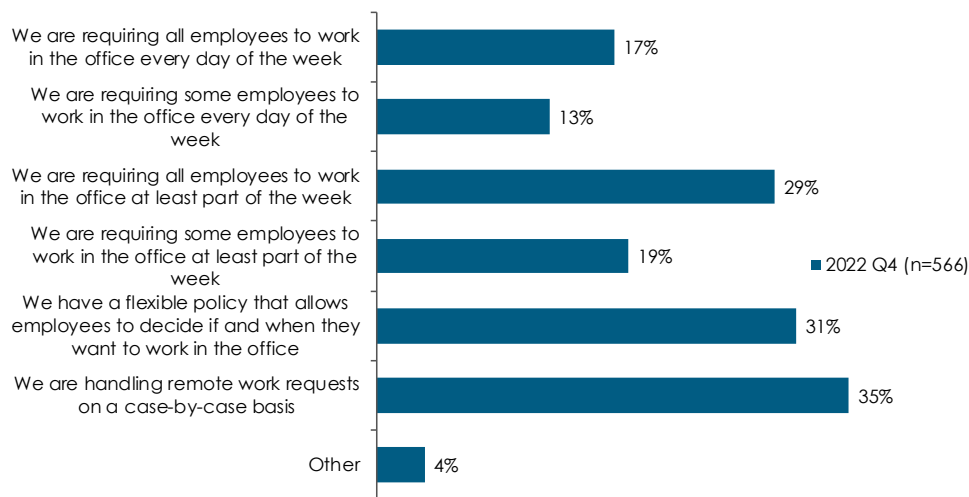
Figure 24: Number of Offices in the U.S.



Current Remote Work Policy

- Only 17% of firms are requiring all employees to work in the office every day of the week. This likely represents a huge shift in work location compared to before the pandemic when roughly 75% of all U.S. workers reported never having worked remotely (Source: 2019 Bureau of Labor Statistics, American Time Use Survey).
- At 39%, small firms (1 to 25 employees) are the most likely to require employees to work in the office every day of the week.
- Thirty-five percent of firms are handling remote work requests on a case-by-case basis, and 31% are allowing employees to decide their own flexible schedule.

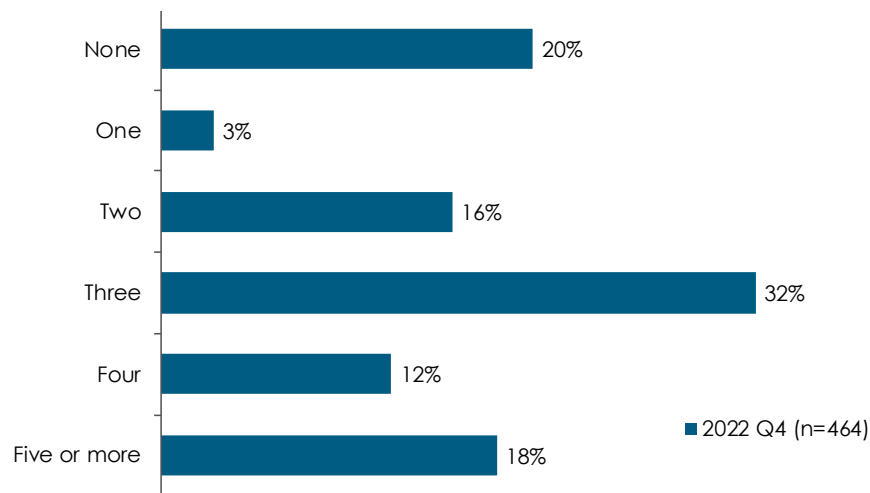
Figure 25: Current Remote Work Policy



Days Per Week in Office

- Thirty percent of firms require four or five days in the office, though 20% require none.

Figure 26: Days Per Week in Office



METHODOLOGY

The Institute for Association and Nonprofit Research (IFANR) recruited individuals from among the database list of members provided by the ACEC Research Institute. Data collection occurred between September 7 and September 19, 2022.

A total of 11,150 invitations were emailed, although 2,012 bounced and 52 opted-out, resulting in a total of 9,086 potential respondents. Individuals who did not respond to the first email were sent one follow-up reminder, and a final reminder email was sent to the remaining non-respondents.

In all, 649 individuals completed the survey for an overall response rate of 7%.

Throughout this report meaningful, statistically significant differences are noted for various subgroups, including geographic region and firm size.

NOTE: Throughout this report, “Net Ratings” are shown on many graphs to quantify the sentiment of respondents. The Net Rating is calculated by subtracting the negative ratings from the positive ratings. Therefore, a positive Net Rating indicates overall sentiment is optimistic while a negative Net Rating indicates an overall pessimistic sentiment. The higher the numeric value the stronger the sentiment (either optimistic or pessimistic).

STATISTICAL NOTES

Due to rounding, not all graphs total 100%.

Statistically significant differences are evaluated at a 95% confidence interval.

There is no margin of sampling error as this was a census of all executive-level individuals at member firms in the ACEC database.

Although every effort was taken to minimize survey bias, there is no way to eliminate all sources of potential bias. Sources of potential bias include, but are not limited to, the following:

- Non-response bias
- Confounding bias
- Question wording bias
- Question order bias
- Habituation
- Sponsor bias
- Confirmation bias

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1400 L Street, NW, Suite 400, Washington, DC 20005 | 202.347.7474 | ACECResearchInstitute.org