ENGINEERING BUSINESS SENTIMENT

2023 Q2

MAY 2023



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2023 Q2

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
DEMOGRAPHICS	2
CURRENT BUSINESS CONDITIONS	3
Current U.S. Economy, Industry and Firm Sentiment	3
Current Industry Sector Sentiment	5
Current Backlog	5
FUTURE BUSINESS CONDITIONS	6
Future U.S. Economy, Industry and Firm Sentiment	6
Reasons for Future Economic Sentiment	8
Future Industry Sector Sentiment	8
Future Backlog	9
Future Hiring Projections	11
HOT TOPICS	
Current Open Positions	12
Job Growth	13
Inflation	13
Turned Down Work Due to Workforce Shortages	14
Staff Turnover	15
New Hires Salary	15
Existing Employees	16
Closing Contracts	17
METHODOLOGY	18
STATISTICAL NOTES	18

EXECUTIVE SUMMARY

Current Business Conditions

- Current sentiment for firms and the industry remains extremely optimistic. The Net Rating for firms' overall finances and the engineering and design services industry are both +86, both increasing slightly compared to last quarter.
- The Net Rating for the U.S. economy increased to +18 (up six points since last quarter) which represents an increase of 33 points since its low in 2022 Q3.
- Current sentiment remains very optimistic within most market sectors. Sentiment is strongest in Water/Wastewater (Net Rating +81) and Roads and Bridges (+80). Nearly half of the sectors increased relative to last quarter.
- The median firm backlog increased from 10 months to 12 months, indicating the dip in Q1 was a temporary blip.

Future Business Conditions

- Future sentiment remains positive for firms' finances (Net Rating +35), but less so for the industry (+13) and for the U.S. economy (-24).
- Future sentiment of the U.S. economy declined from a Net Rating of -15 last quarter to -24 this quarter. Future sentiment for firms' finances rose slightly, while sentiment for the industry declined six points but remains positive.
- Inflation (86%) and a recession (80%) remain the greatest concerns fueling negative future sentiment. In addition, concerns about supply chain issues continue to lessen (40% down from 56% in Q4 2022), however, worries about political uncertainty jumped (74% up from 65% in Q1 2023) and now ranks third after inflation and recession concerns.
- Fifty-one percent believe their firms will see a higher backlog of projects 12 months from now, up from last quarter (46%). The Net Rating also increased slightly from +27 to +33 and is much higher than in 2022 Q3 (+21).
- Seventy percent predict there will be an increase in hiring over the next 12 months at their firms, up one percentage point from last quarter.

Hot Topics

- Ninety-one percent currently indicate their firm has at least one opening, up from 88% last quarter. The median number of open positions remained steady at five.
- Seventy-seven percent of firms are adding people to accommodate growth, and 61% are replacing people who left the organization. Both figures are virtually unchanged from last year (2022 Q3).
- Concern over the effects of inflation remains high. However, firms are not quite as anxious about its impact as last year.
- In the past three months, over half of firms (56%) have turned down work due to workforce shortages, up from previous quarters.
- Thirty-five percent of firms have had at least 10% of their staff leave. The average is 7% for staff turnover.
- Ninety-two percent say that the average salary for new hires at their firm has increased in the past year, up three points from last year. Among those experiencing increases, the average increase in salary for new hires is 10%, compared to 9.5% one year ago.
- Ninety-one percent say that the average salary for existing employees at their firm has increased in the past year, up two points from last year. Among those experiencing increases, the average increase in salary for existing staff is 8.1%, compared to 7.3% one year ago.
- Only 20% indicate that their firms have had any trouble closing contracts.

DEMOGRAPHICS

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

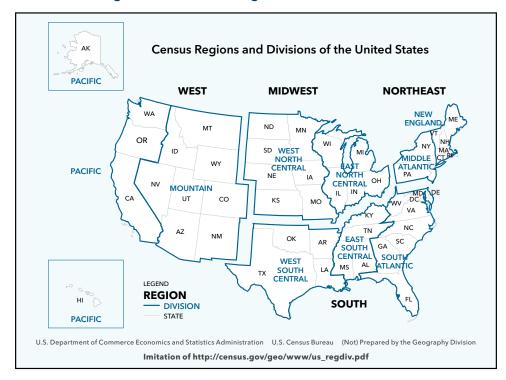


Figure 1: U.S. Census Regions of the United States

• 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.

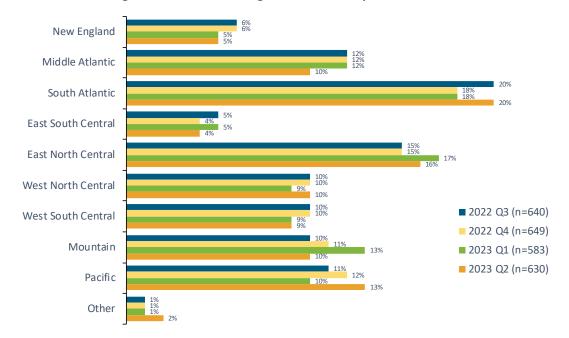


Figure 2: Location of Organization Headquarters

• The median firm size is 80 FTEs, the same as last quarter.

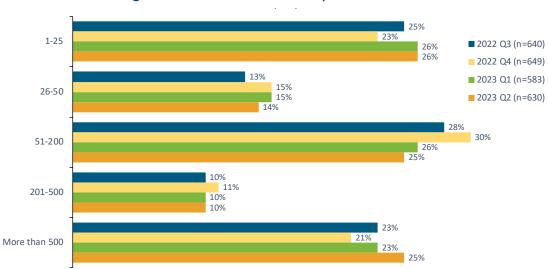


Figure 3: Number of Full-Time Equivalents at Firm

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 and the engineering and design services industry are both +86.
- Firms with more than 500 FTEs are the most positive about their firm's finances (+99) and the industry (+94).
- Sentiment for the economy is strongest in the Northeast (+23), but weakest in the Midwest (+14).

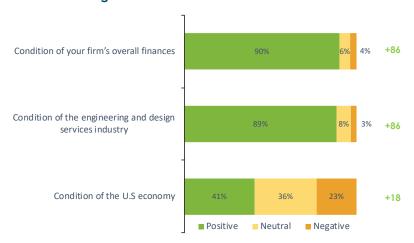
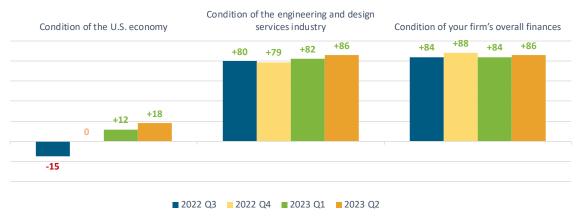


Figure 4: Current Economic Sentiment

Figure 5: Current Economic Sentiment vs. Previous Quarters



• Most segments are feeling more positive than last quarter about the state of the 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 Q3 (n=634)	2022 Q4 (n=643)	2023 Q1 (n=583)	2023 Q2 (n=624)	Change vs. Previous Quarter
TOTAL	-15	0	+12	+18	+6
REGION					
Northeast	-19	+4	+28	+23	-5
South	-23	-5	+10	+19	+9
Midwest	-8	+7	+11	+14	+3
West	-9	-2	+5	+17	+12
FIRM SIZE					
1-25	-22	-9	+16	+18	+2
26-50	-10	+4	-6	+15	+21
51-200	-16	-5	+15	+8	-7
201-500	-22	+5	+13	+7	-6
More than 500	-7	+13	+18	+33	+15

Current Industry Sector Sentiment

- Current sentiment remains very optimistic within most market sectors. Sentiment is strongest in Water/ Wastewater (Net Rating +81) and Roads and Bridges (+80).
- The Residential Land Development (+32 Net Rating) and the Commercial Real Estate (+26) sectors are performing relatively less well, but sentiment is still positive.
- Nearly half of the sectors increased relative to last quarter.

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

Current Industry Sector Sentiment	2022 Q3 (n =196-473)	2022 Q4 (n = 213-505)	2023 Q1 (n = 185-423)	2023 Q2 (n=202-483)	Change vs. Prev. Qtr.
Water/Wastewater	+76	+77	+74	+81	+7
Science and Technology	+64	+63	+64	+70	+6
Industrial and Manufacturing Facilities	+66	+63	+62	+67	+5
Justice (Courthouses and Corrections)	+33	+27	+35	+38	+3
Residential – Land Development	+50	+41	+30	+32	+2
Federal/Military, State and Local Government Buildings	+63	+66	+67	+68	+1
Transportation – Roads and Bridges	+77	+78	+79	+80	+1
Convention Centers, Sports Facilities and Cultural Facilities	+43	+42	+39	+39	0
Transportation – Airports	+72	+73	+77	+77	0
Education (K-12 and Higher Education)	+52	+50	+57	+56	-1
Transportation – Transit (Rail, BRT)	+68	+65	+69	+68	-1
Energy and Utilities	+67	+72	+78	+74	-4
Data Centers	+70	+65	+69	+63	-6
Healthcare Facilities	+72	+73	+75	+68	-7
Commercial Real Estate (Office, Hotel, Retail and Multifamily Residential)	+44	+47	+36	+26	-10
Telecommunications	+59	+65	+66	+55	-11

Current Backlog

- The median firm backlog increased from 10 months to 12 months. In addition, 52% indicate that their firm has a current backlog of one year or more (up from 45%).
- No segment saw a decline (though some did stay the same as last quarter).

Less than 6 Months

19%

Median: 12 months

6 Months to Less Than 1 Year

1 to Less Than 2 Years

2 Years to Less Than 3 Years

3 Years to Less than 4 Years

4 Years or More

1%

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

Current Backlog	2022 Q3 (n=563)	2022 Q4 (n=592)	2023 Q1 (n=529)	2023 Q2 (n=585)	Change vs. Previous Quarter
TOTAL	12	12	10	12	+2
REGION					
Northeast	12	12	12	12	0
South	10	10	9	10	+1
Midwest	12	12	11	12	+1
West	9	10	8	10	+2
FIRM SIZE					
1-25	6	6	6	6	0
26-50	10	9	9	10	+1
51-200	12	12	10	12	+2
201-500	12	12	12	12	0
More than 500	14	13	13	14	+1

FUTURE BUSINESS CONDITIONS

Future U.S. Economy, Industry and Firm Sentiment

- Future sentiment remains positive for firms' finances (Net Rating +35, up two points).
- Future sentiment for the U.S. economy dropped from a Net Rating of -15 last quarter to -24 this quarter and industry sentiment declined six points to +13 but remains positive.

Figure 10: Economic Sentiment 12 Months from Now

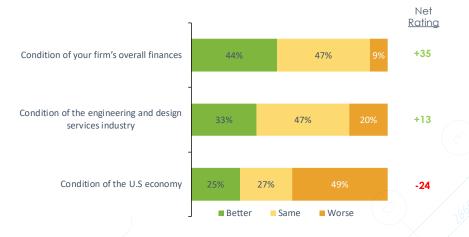
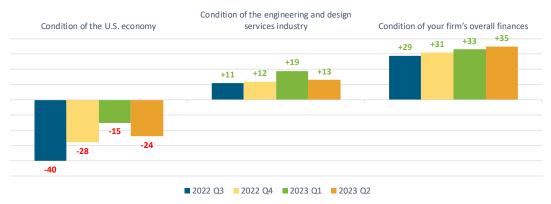


Figure 11: Economic Sentiment 12 Months from Now vs. Previous Quarters



• Future sentiment about firms' overall finances is slightly more positive than last quarter (+2) and has improved in most 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 Q3 (n=561)	2022 Q4 (n=590)	2023 Q1 (n=525)	2023 Q2 (n=576)	Change vs. Previous Quarter
TOTAL	+29	+31	+33	+35	+2
REGION					
Northeast	+29	+33	+56	+29	-27
South	+32	+35	+29	+33	+4
Midwest	+29	+35	+38	+35	-3
West	+22	+15	+14	+39	+25
FIRM SIZE					
1-25	+13	+8	+9	+14	+5
26-50	+19	+29	+30	+39	+9
51-200	+28	+39	+43	+44	+1
201-500	+40	+30	+33	+44	+11
More than 500	+52	+44	+50	+40	-10

Reasons for Future Economic Sentiment

• Inflation (86%) and a recession (80%) remain the greatest concerns fueling negative future sentiment. But both concerns are falling. Meanwhile, political uncertainty jumped by nine points while supply chain issues continue to recede.

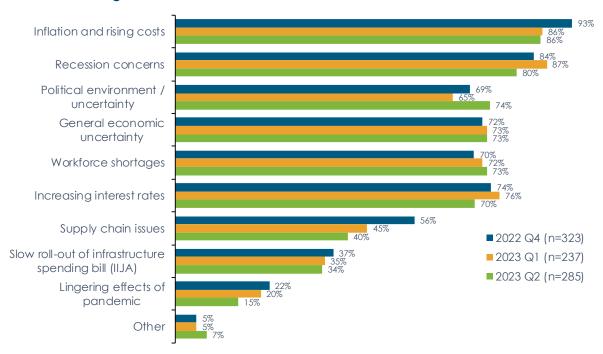


Figure 13: Reasons for Economic Sentiment 12 Months from Now

Future Industry Sector Sentiment

- Future sentiment is positive in many sectors including Transportation (Roads/Bridges/Transit/Airports), Energy and Utilities, and Water/Wastewater.
- The majority of sectors have a positive Net Rating, but many have seen a Net Rating decrease since last quarter.

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

Future Industry Sector Sentiment	2022 Q3 (n = 215-460)	2022 Q4 (n = 236-482)	2023 Q1 (n = 196-402)	2023 Q2 (n = 225-467)	Change vs. Previous Quarter
Data Centers	+20	+18	+9	+20	+11
Industrial and Manufacturing Facilities	+4	+4	+10	+17	+7
Residential – Land Development	-43	-39	-25	-19	+6
Justice (Courthouses and Corrections)	-6	-11	-1	+4	+5
Energy and Utilities	+33	+44	+46	+51	+5
Federal/Military, State and Local Government Buildings	+28	+30	+28	+32	+4
Convention Centers, Sports Facilities and Cultural Facilities	-26	-25	-13	-10	+3
Education (K-12 and Higher Education)	+2	+5	+9	+11	+2
Transportation – Transit (Rail, BRT)	+46	+42	+48	+49	+1
Science and Technology	+17	+22	+25	+25	0
Water/Wastewater	+37	+42	+46	+45	-1
Commercial Real Estate (Office, Hotel, Retail and Multifamily Residential)	-37	-29	-23	-24	-1
Transportation – Airports	+38	+39	+46	+42	-4
Transportation – Roads and Bridges	+55	+52	+58	+53	-5
Telecommunications	+29	+24	+33	+26	-7
Healthcare Facilities	+17	+17	+30	+23	-7

Future Backlog

- Fifty-one percent believe their firms will see a higher backlog of projects 12 months from now, up from last quarter (46%). The Net Rating also increased from +27 to +33.
- Compared to last quarter, more firms anticipate an increase in backlog twelve months from now.

Net Rating: +33 Increase a lot Increase a little 44% 30% Stay about the same Decrease a little ■ 2023 Q2 (n=578) Decrease a lot

Figure 15: Backlog 12 Months from Now

Figure 16: Backlog 12 Months from Now - Net Rating Trend



- Relative to last quarter, most segments expect to see an increase in future backlog.
- Firms in the West have the lowest future backlog Net Rating (+26) compared to other regions, though this was an increase over last quarter (+2),
- Firms with 25 or fewer FTEs have the lowest future backlog Net Rating (+11) compared to other firm sizes.

Figure 17: Backlog 12 Months from Now vs. Previous Quarters - By Region and Firm Size

	2022 Q3 (n=554)	2022 Q4 (n=585)	2023 Q1 (n=522)	2023 Q2 (n=578)	Change vs. Previous Quarter
TOTAL	+21	+25	+27	+33	+6
REGION					
Northeast	+40	+36	+61	+39	-22
South	+21	+25	+21	+32	+11
Midwest	+23	+26	+39	+33	-6
West	+6	+12	+2	+26	+24
FIRM SIZE					
1-25	+1	+3	+7	+11	+4
26-50	+9	+20	+13	+21	+8
51-200	+24	+31	+32	+40	+8
201-500	+43	+29	+33	+51	+18
More than 500	+36	+38	+56	+45	-11

Future Hiring Projections

• Seventy percent predict there will be an increase in hiring over the next 12 months at their firms, a Net Rating of +67 (up two points from 2023 Q1).

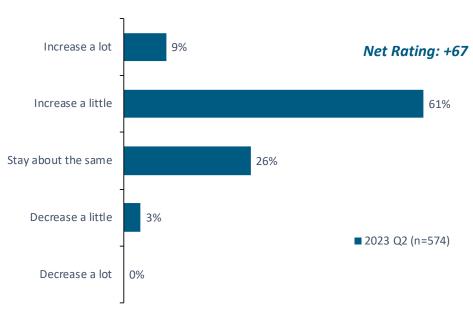


Figure 18: Hiring Over the Next 12 Months

- Although still optimistic, future hiring sentiment in the South is lower than all other regions (+60).
- Firms with 201-500 FTEs (+83, up 13 points) are the most optimistic about future hiring.
- Although future hiring sentiment has slightly improved, a few segments still expect declines.

Figure 19: Expectations for Hiring Increases Over the Next 12 Months vs Previous Quarters -By Region and Firm Size

	2022 Q3 (n=556)	2022 Q4 (n=580)	2023 Q1 (n=514)	2023 Q2 (n=569)	Change vs. Previous Quarter
TOTAL	+59	+65	+65	+67	+2
REGION					
Northeast	+71	+66	+83	+73	-10
South	+56	+66	+54	+60	+6
Midwest	+67	+71	+77	+73	-4
West	+49	+56	+50	+63	+13
FIRM SIZE					
1-25	+42	+45	+37	+42	+5
26-50	+46	+66	+62	+65	+3
51-200	+68	+69	+77	+73	-4
201-500	+69	+72	+70	+83	+13
More than 500	+75	+76	+81	+81	0

HOT TOPICS

Current Open Positions

More than 10

- 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 five.
- Sixty-five percent of executives indicate that open positions constitute at least 5% of all FTEs. On average, one out of 10 positions is currently unfilled.

■ 2022 Q3 (n=556) None 2022 Q4 (n=583) 12% 10% ■ 2023 Q1 (n=509) 2023 Q2 (n=570) 21% 1 or 2 21% 24% 36% 3 to 10 34% 31% 35%

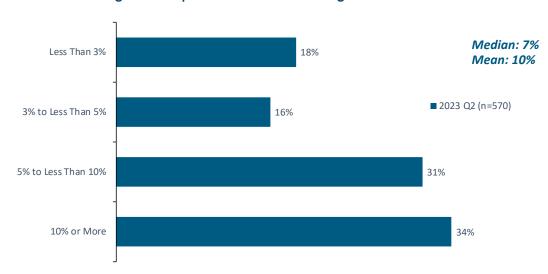
Figure 20: Current Open Positions vs. Previous Quarters



34%

36%

33%



Job Growth

• Seventy-seven percent of firms are adding people to accommodate growth, and 61% are replacing people who left the organization. Both figures are virtually unchanged from last year (2022 Q3).

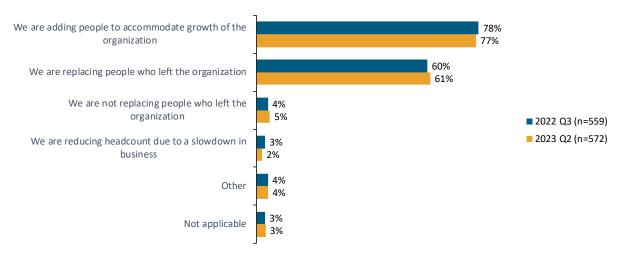


Figure 22: Firm's Current Employment Situation

Inflation

- Concerns over the effects of inflation remain high.
- While still very concerned about inflation, firms are not quite as anxious about its impact as last year.

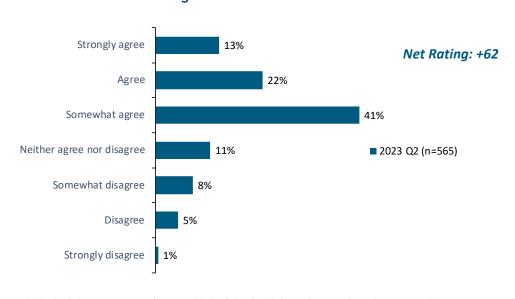


Figure 23: Inflation Concerns

Figure 24: Inflation Concerns vs. Previous Quarters

I am extremely concerned about the impact inflation will have on my firm in the coming year. +61 ■ 2022 Q3 ■ 2022 Q4 ■ 2023 Q1 ■ 2023 Q2

Turned Down Work Due to Workforce Shortages

- In the past three months, over half of firms (56%) have turned down work due to workforce shortages, up from 50% last quarter.
- At 61%, firms in the West are most likely to have turned down work. Firms in the South are least likely to have turned down work (51%).
- Sixty-three percent of the largest firms (more than 500 FTEs) turned down work, compared to the smallest firms (1-25), of which 49% turned down work.

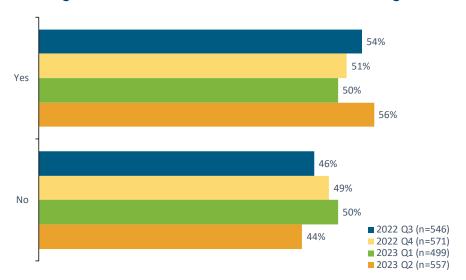


Figure 25: Turned Down Work Due to Workforce Shortages

Staff Turnover

• Thirty-five percent of firms have had at least 10% of their staff leave. The average is 7% for staff turnover.

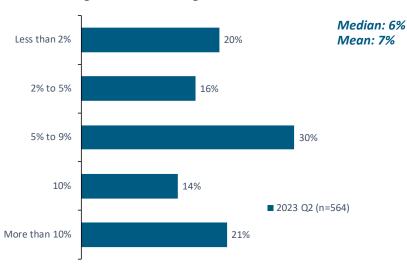


Figure 26: Percentage of Staff That Has Left

New Hires Salary

• Ninety-two percent say that the average salary for new hires at their firm has increased in the past year, up three points from last year.

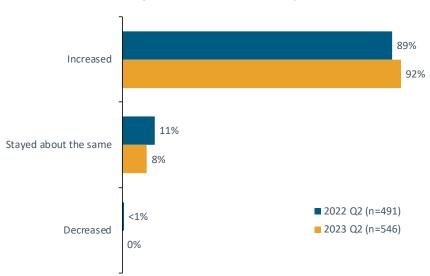


Figure 27: New Hires Salary

• The "average firm" salary increase for new hires was 10% over the past year compared to 9.5% one year ago.

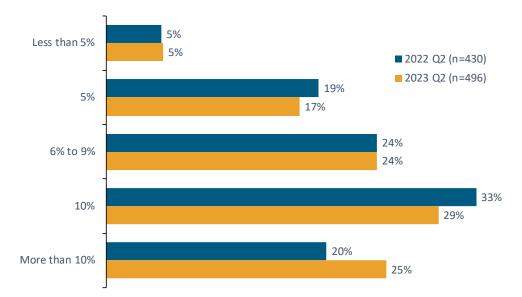


Figure 28: Salary Increase Over the Past Year - New Hires (Among Firms Reporting an Increase)

Existing Employees

• Ninety-one percent say that the average salary for existing employees at their firm has increased in the past year, up two points from last year.

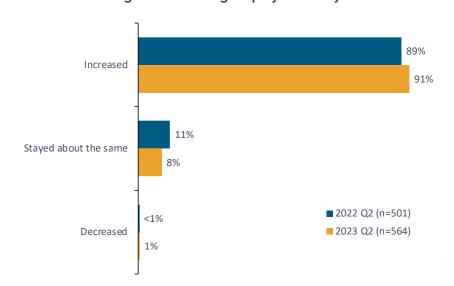
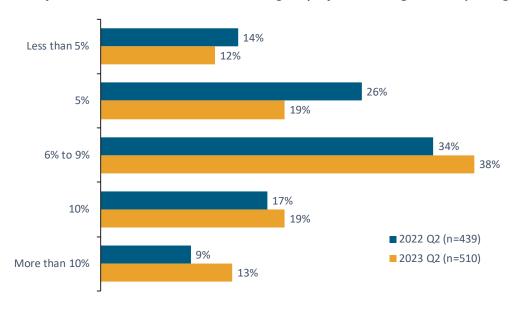


Figure 29: Existing Employees Salary

• The "average firm" salary increase for existing staff was 8.1% over the past year compared to 7.3% one year ago.

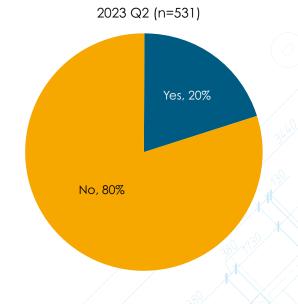
Figure 30: Salary Increase Over the Past Year - Existing Employees (Among Firms Reporting an Increase)



Closing Contracts

- Only 20% indicate that their firms have had any trouble closing contracts.
- Staff shortages on the client side, client budget constraints, and unacceptable risks were the main barriers to closing contracts.

Figure 31: Challenges Closing Contracts



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 April 13 and April 26, 2023.

A total of 11,188 invitations were emailed, although 2,303 bounced and 48 opted-out, resulting in a total of 8,837 potential respondents. Individuals who did not respond to the first email were sent three follow-up reminders.

In all, 630 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



The ACEC Research Institute provides the engineering industry with cutting edge research, trend data, and economic analysis to help firm owners make decisions and delivers thought leadership that advances engineering's essential value to society.

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