



COVID-19 BUSINESS IMPACT SURVEY WAVE 6

May 7, 2020

TABLE OF CONTENTS

- Introduction
- Executive Summary
- Demographics
- Economic Sentiment
- Business Impacts
- Impact of Federal Stimulus Program
- Plans to Re-Open Offices
- Methodology
- Statistical Notes
- Appendix

EXECUTIVE SUMMARY

DEMOGRAPHICS

- The geographic location of respondents' organizations are statistically similar to all previous waves.
- Throughout all waves, roughly half of firms report fewer than 50 FTEs. The percentage of firms falling into higher FTE ranges has also remained constant.
 - The median number of FTEs in Wave 6 is 26 compared to 25 in Waves 5 and 4, 26.5 in Wave 3 and 23 in the first two waves. The difference between the waves is not statistically significant, so comparison between waves can be made accurately.
 - The largest organization in Wave 6 has 7,500 FTEs. This figure has fluctuated between 11,000 and 7,500 throughout the series.

ECONOMIC SENTIMENT

- Although the vast majority of firms (82%) still feel the condition of the US Economy is worse compared to March 1, this metric has declined significantly since Wave 3. In addition, firms are less negative regarding their own finances and cash flow compared to previous waves.
 - Firms with 25 or fewer FTEs are more likely than other firms to say their finances (41%) and cash flow (44%) are worse today.
- Overall, firms are less optimistic in Wave 6 about a “return to normal” within six months compared to Wave 5 (27% vs. 37%). Conversely, more firms feel it will take 12 to 18 months for a return to normal compared to Wave 5 (36% vs. 27%).
 - Smaller firms are slightly more optimistic than larger firms. While roughly three out of ten firms with 50 or fewer FTEs feel business will return to normal within six months, only one out of ten firms with more than 200 FTEs feel the same.

BUSINESS IMPACTS

- The top actions firms have taken to shore up their finances since March 1 are freezing non-essential purchases (46%), speeding up collections (39%) and freezing salary/pay increases (33%). These results are statistically similar to Waves 4 and 5.
 - As in previous waves, firms with more than 200 FTEs are more likely to have taken most of the actions tested.
- Slightly more firms report working on new projects directly related to the COVID-19 pandemic response compared to Wave 5 (12% vs. 8%).
 - Larger firms are more likely to be working on new projects directly related to COVID-19.
 - 0 to 25 FTEs = 5%
 - 26 to 50 FTEs = 13%
 - 51 to 200 FTEs = 21%
 - 201 to 500 FTEs = 27%
 - 501 or more FTEs = 21%

BUSINESS IMPACTS (CONT'D)

- About one out of eight firms (12%) report having business areas that are outperforming now. This is the same as in Wave 5.
 - Larger firms are more likely to have business areas that are outperforming.
 - 0 to 25 FTEs = 5%
 - 26 to 50 FTEs = 13%
 - 51 to 200 FTEs = 16%
 - 201 to 500 FTEs = 28%
 - 501 or more FTEs = 54%

IMPACT OF FEDERAL STIMULUS PROGRAM

- Perceptions of the CARES Act have fluctuated since it was first asked in Wave 3. Positive perceptions are back up again compared to Wave 5 (70% vs 55%) and are almost at the same level as during Wave 4 (74%).
 - Positive perceptions of the CARES Act increase as firm size increases up to 200 FTEs, after which positive perceptions decline.
- Nearly nine out of ten firms (88%) applied for the Small Business Administration (SBA) Paycheck Protection Program (PPP).
 - Firms with 25 or fewer FTEs are the *least* likely to have submitted an application.
 - 0 to 25 FTEs = 83% “Submitted application”
 - 26 to 50 FTEs = 89%
 - 51 to 200 FTEs = 95%
 - 201 to 500 FTEs = 93%
 - 501 or more FTEs = Not Applicable

IMPACT OF FEDERAL STIMULUS PROGRAM (CONT'D)

- Among firms submitting an application, nearly all (94%) say it was accepted and approved. Most of the rest (4%) are waiting on approval.
 - Firms with 25 or fewer FTEs are the least likely to have received approval (so far).
 - 0 to 25 FTEs = 90% "Accepted & approved"
 - 26 to 50 FTEs = 98%
 - 51 to 200 FTEs = 96%
 - 201 to 500 FTEs = 100%
 - 501 or more FTEs = Not Applicable
- Among firms whose application was approved, 84% have received the funds in their bank account compared to 70% in wave 5.
 - Firms with 25 or fewer FTEs are the least likely to have received funds (so far).
 - 0 to 25 FTEs = 76% "Yes"
 - 26 to 50 FTEs = 94%
 - 51 to 200 FTEs = 88%
 - 201 to 500 FTEs = 93%
 - 501 or more FTEs = Not Applicable

IMPACT OF FEDERAL STIMULUS PROGRAM (CONT'D)

- The vast majority of firms (86%) received \$2 million or less for their PPP loan. However, 96% of firms with more than 200 FTEs received a loan for more than \$2 million.
 - Nearly all firms with 50 or fewer FTEs (99%) received a loan amount of \$2 million or less.
 - For firms with 51 to 200 FTEs, 75% received a loan amount of \$2 million or less, while 23% received a loan for more than \$2 million.
- About two-thirds (64%) of firms plan to use all of their PPP loan, while 22% plan to use some of it and to return the rest. Only 2% plan to return all of the loan.
 - As firm size increases, plans to use all of the loan decrease.
 - 0 to 25 FTEs = 71% "Use All"
 - 26 to 50 FTEs = 68%
 - 51 to 200 FTEs = 54%
 - 201 to 500 FTEs = 43%
 - 501 or more FTEs = Not Applicable

PLANS TO RE-OPEN OFFICES

- Fourteen percent of firms have already re-opened at least some of their offices, while 28% said they never closed to begin with. Of the remaining firms, most say they will re-open when they feel it is safe to do so (38%).
 - There are no significant differences between firm size when it comes to having already opened.
 - Larger firms are more likely to re-open when they feel it is safe, not when the governor allows it.
 - 0 to 25 FTEs = 31% “When we feel it's safe”
 - 26 to 50 FTEs = 34%
 - 51 to 200 FTEs = 48%
 - 201 to 500 FTEs = 67%
 - 501 or more FTEs = 50%
- The number of firms that have created a plan for re-opening has more than doubled (20% to 42%) in the past two weeks.
 - After removing firms for whom this question does not apply, firms with more than 25 FTEs are slightly more likely to either have a plan or to be working on one.
 - 0 to 25 FTEs = 89% “Have or working on one”
 - 26 to 50 FTEs = 98%
 - 51 to 200 FTEs = 99%
 - 201 to 500 FTEs = 100%
 - 501 or more FTEs = 100%

PLANS TO RE-OPEN OFFICES (CONT'D)

- Nearly half of firms (49%) say they will restrict or prohibit domestic travel for training/events/conferences after stay-at-home orders are lifted. Another third (33%) say they will restrict air travel. These results are nearly the same as in Wave 5.
 - Larger firms are more likely to restrict domestic travel for training/events/conferences and air travel.
 - 0 to 25 FTEs = 42% (Events), 28% (Air Travel)
 - 26 to 50 FTEs = 43%, 31%
 - 51 to 200 FTEs = 61%, 38%
 - 201 to 500 FTEs = 72%, 52%
 - 501 or more FTEs = 93%, 50%
- About one out of seven firms (15%) say they will restrict or prohibit international travel for training/events/conferences after stay-at-home orders are lifted. Another 11% say they will restrict air travel. These results are nearly the same as in Wave 5.
 - Larger firms are more likely to restrict international travel for training/events/conferences and air travel.
 - 0 to 25 FTEs = 11% (Events), 8% (Air Travel)
 - 26 to 50 FTEs = 13%, 9%
 - 51 to 200 FTEs = 12%, 9%
 - 201 to 500 FTEs = 48%, 41%
 - 501 or more FTEs = 50%, 36%

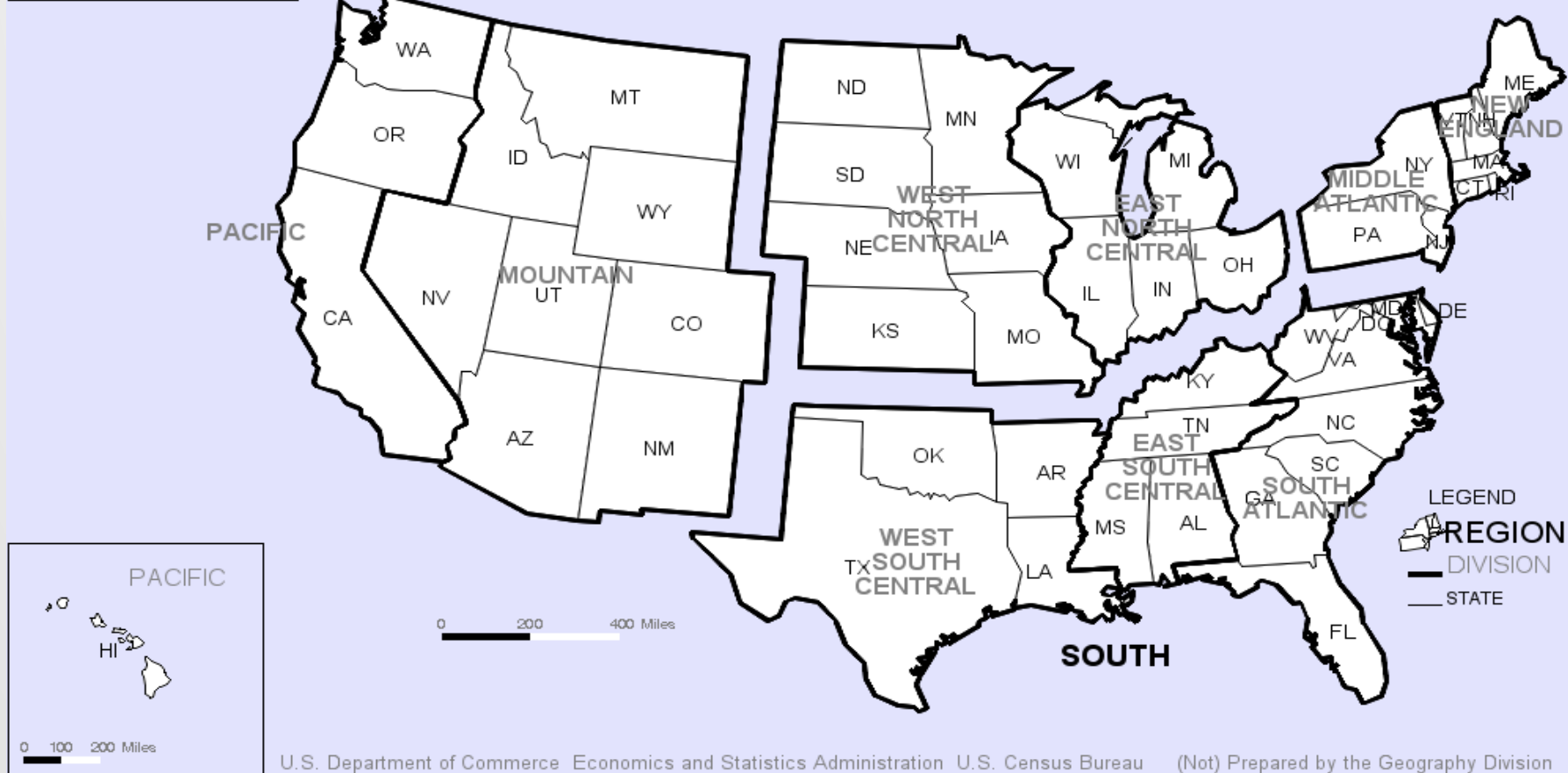
PLANS TO RE-OPEN OFFICES (CONT'D)

- The vast majority of firms plan to implement a large number of safety measures once they re-open their offices. Top among these are maintaining social distancing (95%) and allowing staff to work remotely to care for others (85%).
 - More firms intend to implement various safety measures than in Wave 5.
 - The only significant differences are that firms with 25 or fewer FTEs are *less likely* to implement most measures including:
 - Allowing “at-risk” workers to continue working remotely, if necessary (76%)
 - Following any CDC/government recommendations for re-opening (66%)
 - Limiting the number of staff who can gather together at one time (71%)

DEMOGRAPHICS



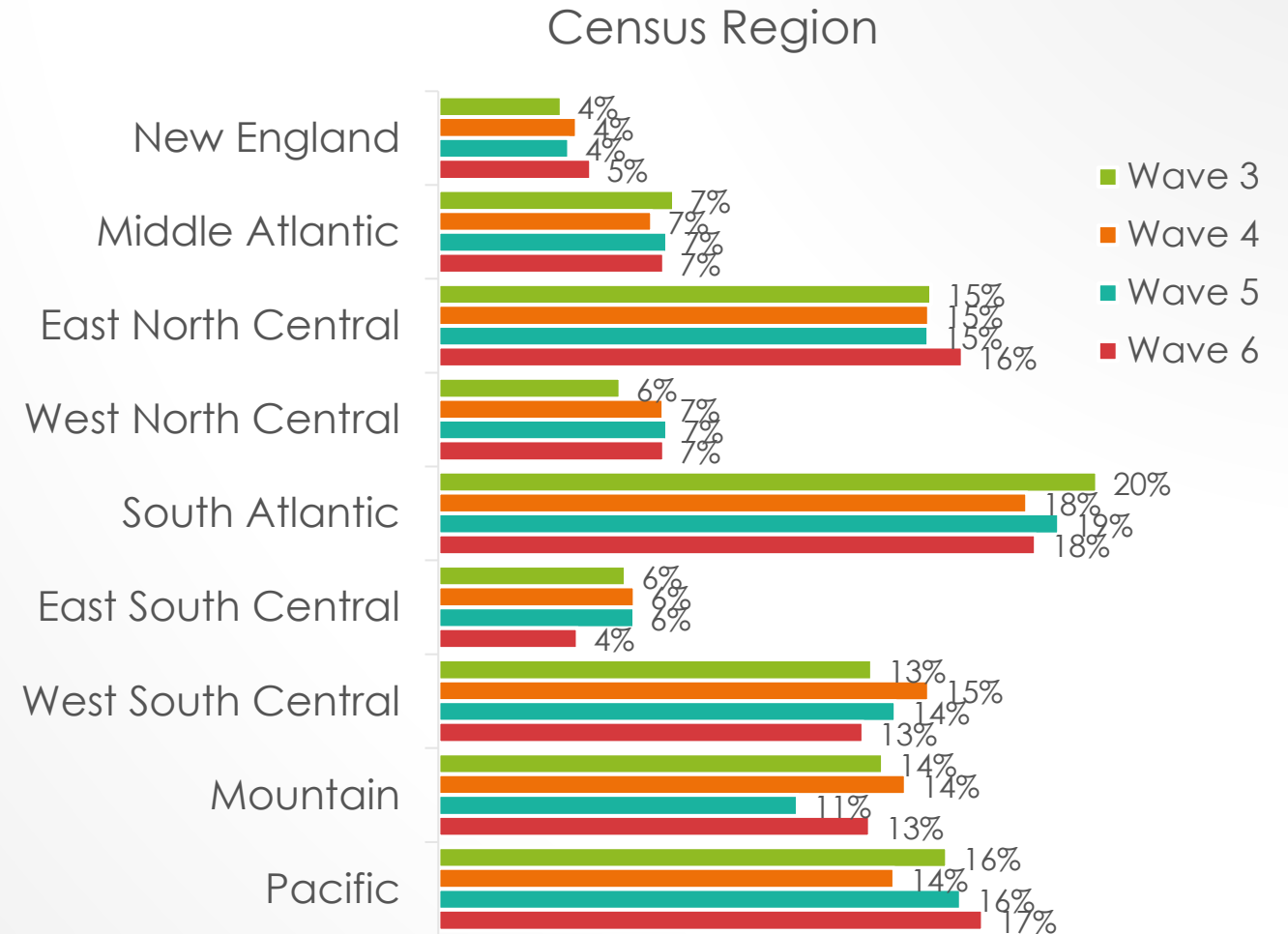
Census Regions and Divisions of the United States



Imitation of http://www.census.gov/geo/www/us_regdiv.pdf

THE GEOGRAPHIC LOCATION OF RESPONDENTS' ORGANIZATIONS ARE STATISTICALLY SIMILAR IN ALL WAVES.

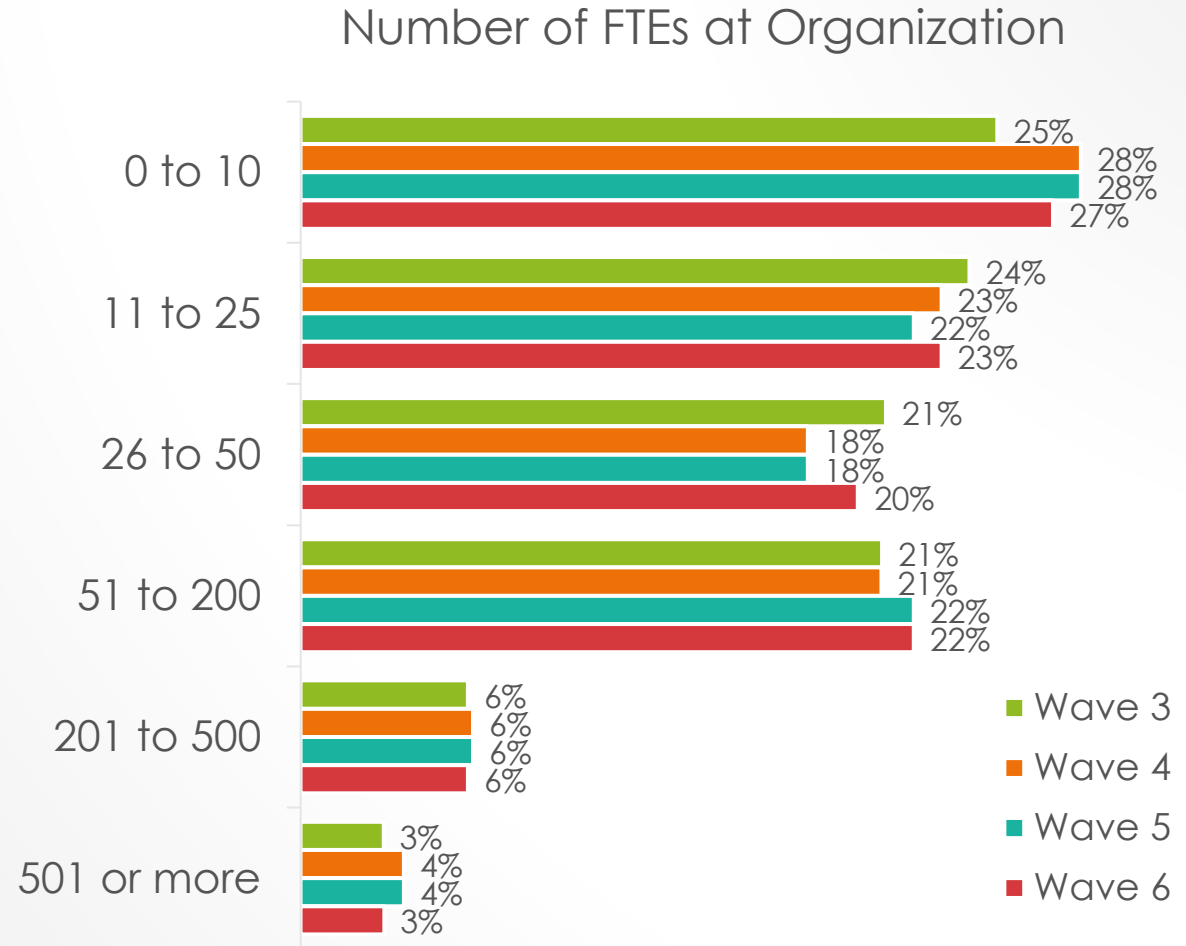
- Only the most recent four waves are shown in the graph.



Q2. In which state is your organization headquartered?
Wave 3 - n = 610, Wave 4 - n = 566, Wave 5 - n = 512, Wave 6 n = 492

THROUGHOUT ALL WAVES, ROUGHLY HALF OF FIRMS REPORT FEWER THAN 50 FTES. THE PERCENTAGE OF FIRMS FALLING INTO HIGHER FTE RANGES HAS ALSO REMAINED CONSTANT.

- Only the most recent four waves are shown in the graph.
- The median number of FTEs in Wave 6 is 26 compared to 25 in Waves 5 and 4, 26.5 in Wave 3 and 23 in the first two waves. The difference between the waves is not statistically significant, so comparison between waves can be made accurately.
- The largest organization in Wave 6 has 7,500 FTEs. This figure has fluctuated between 11,000 and 7,500 throughout the series.
- Throughout this report all questions are reported by firm size and statistically significant differences are noted.



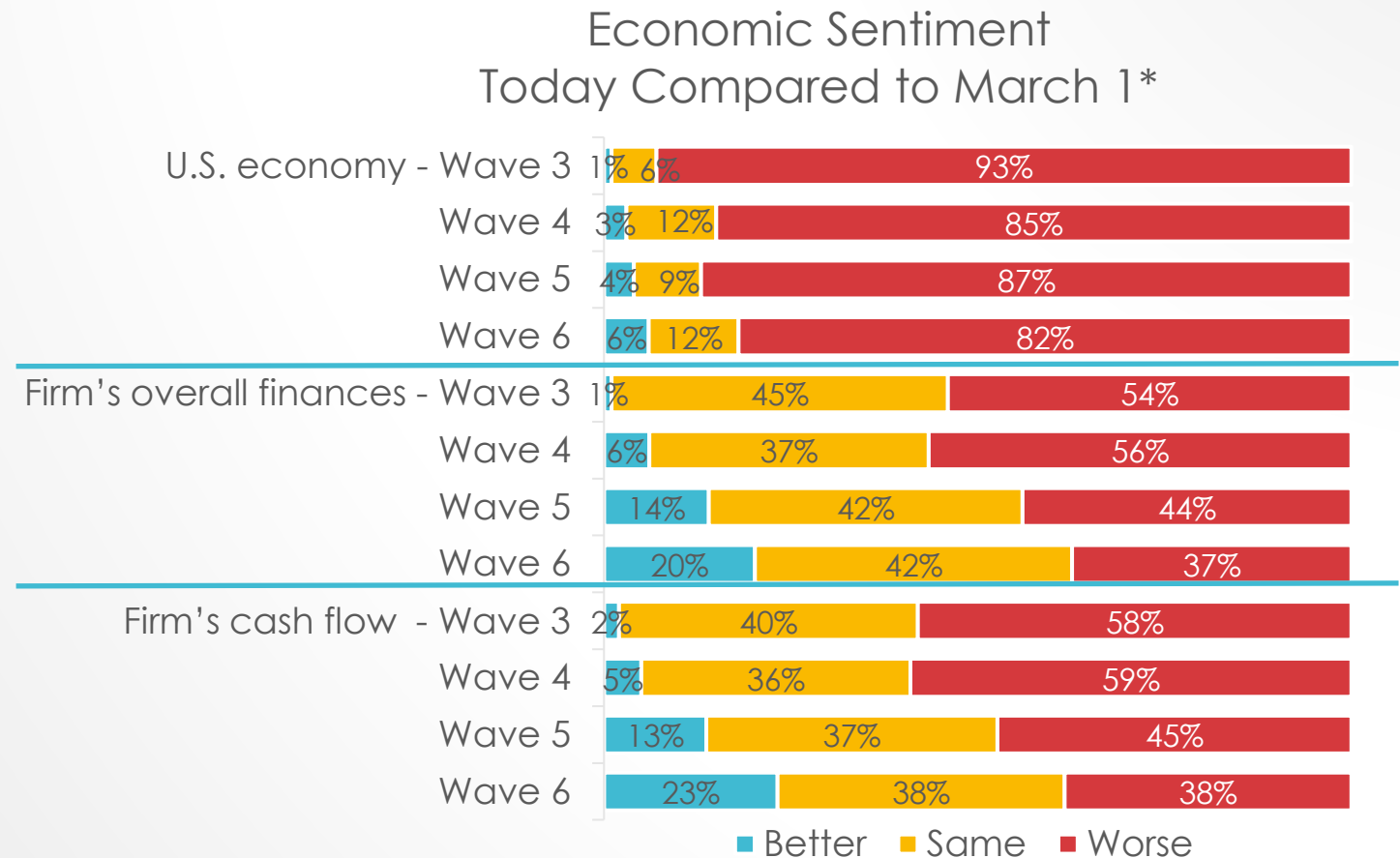
Q3. Including yourself, how many full-time equivalent employees (FTEs) do you have? If you are not sure, please provide your best estimate.

Wave 3 - n = 610, Wave 4 - n = 566, Wave 5 - n = 512, Wave 6 n = 492

ECONOMIC SENTIMENT

ALTHOUGH THE VAST MAJORITY OF FIRMS (82%) STILL FEEL THE CONDITION OF THE US ECONOMY IS WORSE COMPARED TO MARCH 1, THIS METRIC HAS DECLINED SIGNIFICANTLY SINCE WAVE 3. IN ADDITION, FIRMS ARE LESS NEGATIVE REGARDING THEIR OWN FINANCES AND CASH FLOW COMPARED TO PREVIOUS WAVES.

- As has been the case in previous waves, there is one statistically significant difference by firm size:
 - Firms with 25 or fewer FTEs are more likely than other firms to say their finances (41%) and cash flow (44%) are worse today.



Q12. Compared to March 1, how do you feel about each of the following today?

"Not sure" responses omitted from calculations

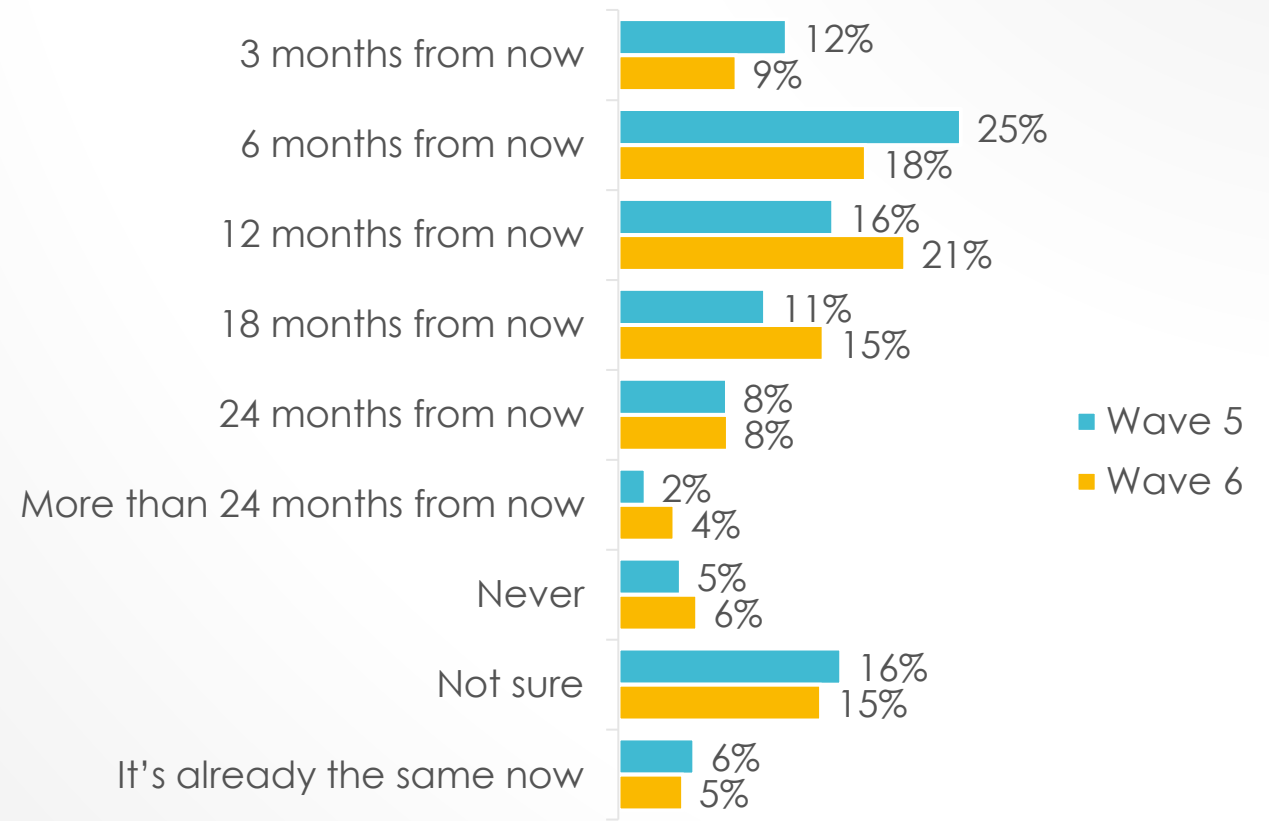
Wave 3 - n = 592 – 585, Wave 4 - n = 557 – 555, Wave 5 - n = 510 – 504, Wave 6 - n = 492 – 491

* Not asked in Waves 1 and 2

OVERALL, FIRMS ARE LESS OPTIMISTIC IN WAVE 6 ABOUT A “RETURN TO NORMAL” WITHIN SIX MONTHS COMPARED TO WAVE 5 (27% VS. 37%). CONVERSELY, MORE FIRMS FEEL IT WILL TAKE 12 TO 18 MONTHS COMPARED TO WAVE 5 (36% VS. 27%).

- Smaller firms are slightly more optimistic than larger firms. While roughly three out of ten firms with 50 or fewer FTEs feel business will return to normal within six months, only one out of ten firms with more than 200 FTEs feel the same.

Anticipation of Business Returning to Normal*



* Not asked prior to Wave 5

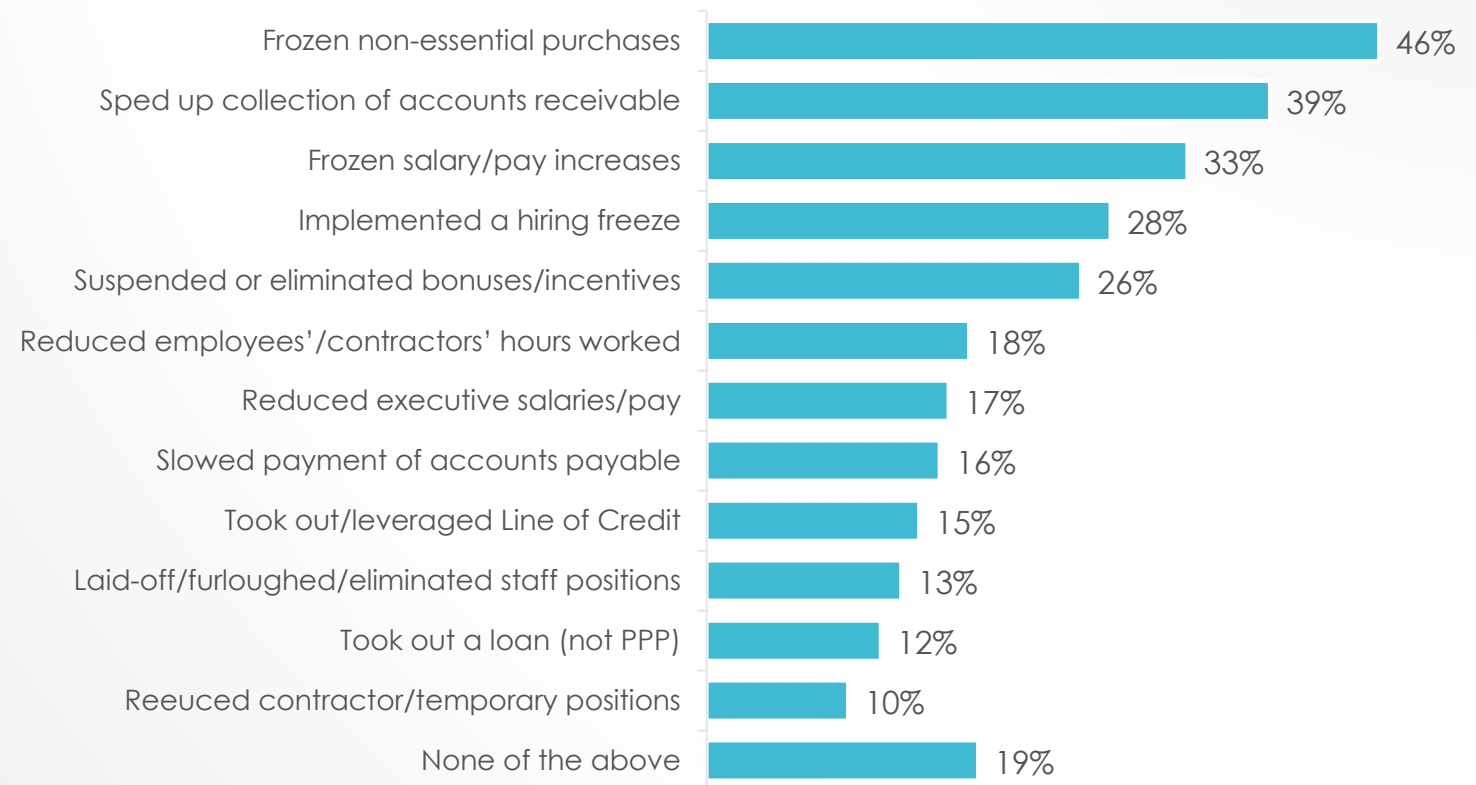
Q18. When do you anticipate your business will return to normal, meaning the way it was before the current pandemic?
Wave 5 - n = 507, Wave 6 - n = 485

BUSINESS IMPACTS

THE TOP ACTIONS FIRMS HAVE TAKEN TO SHORE UP THEIR FINANCES SINCE MARCH 1 ARE FREEZING NON-ESSENTIAL PURCHASES (46%), SPEEDING UP COLLECTIONS (39%) AND FREEZING SALARY/PAY INCREASES (33%).

- Although this question was asked in Waves 4 and 5, the differences are not statistically significant from Wave 6.
- As in previous waves, firms with more than 200 FTEs are more likely to have taken most of these actions.
- Few firms have taken the following actions:
 - Reduced staff salaries/pay 8%
 - Suspended or eliminated retirement benefit contributions (7%)
 - Paused/deferred stock buy-backs (3%)
 - Permanently closed office(s) (1%)

Most Common Actions Taken Since March 1 to Shore up Finances*



* Not asked in Waves 1, 2 and 3

Q5. Which of the following cost cutting/cash management actions, if any, has your firm taken since March 1, 2020?

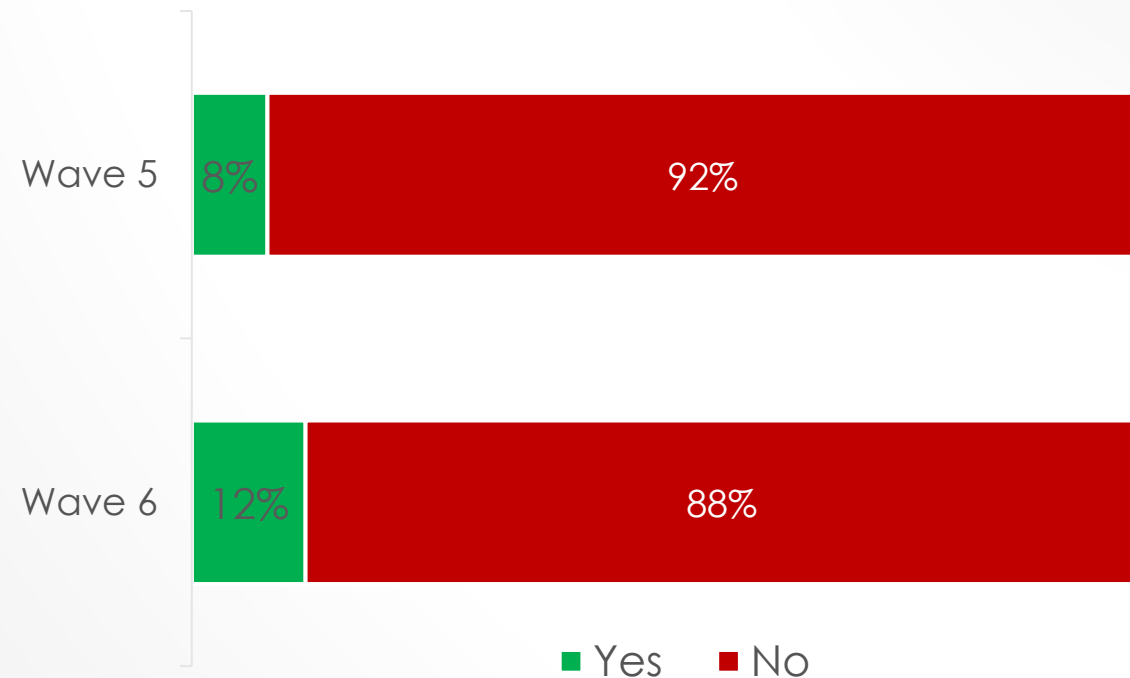
Select All That Apply

Wave 6 - n = 491

SLIGHTLY MORE FIRMS REPORT WORKING ON NEW PROJECTS DIRECTLY RELATED TO THE COVID-19 PANDEMIC RESPONSE COMPARED TO WAVE 5 (12% VS. 8%).

- Larger firms are more likely to be working on new projects directly related to COVID-19 compared to smaller firms.
 - 0 to 25 FTEs = 5% “Yes”
 - 26 to 50 FTEs = 13%
 - 51 to 200 FTEs = 21%
 - 201 to 500 FTEs = 27%
 - 501 or more FTEs = 21%

Incidence of Working on New Projects Directly Related to COVID-19 Response*



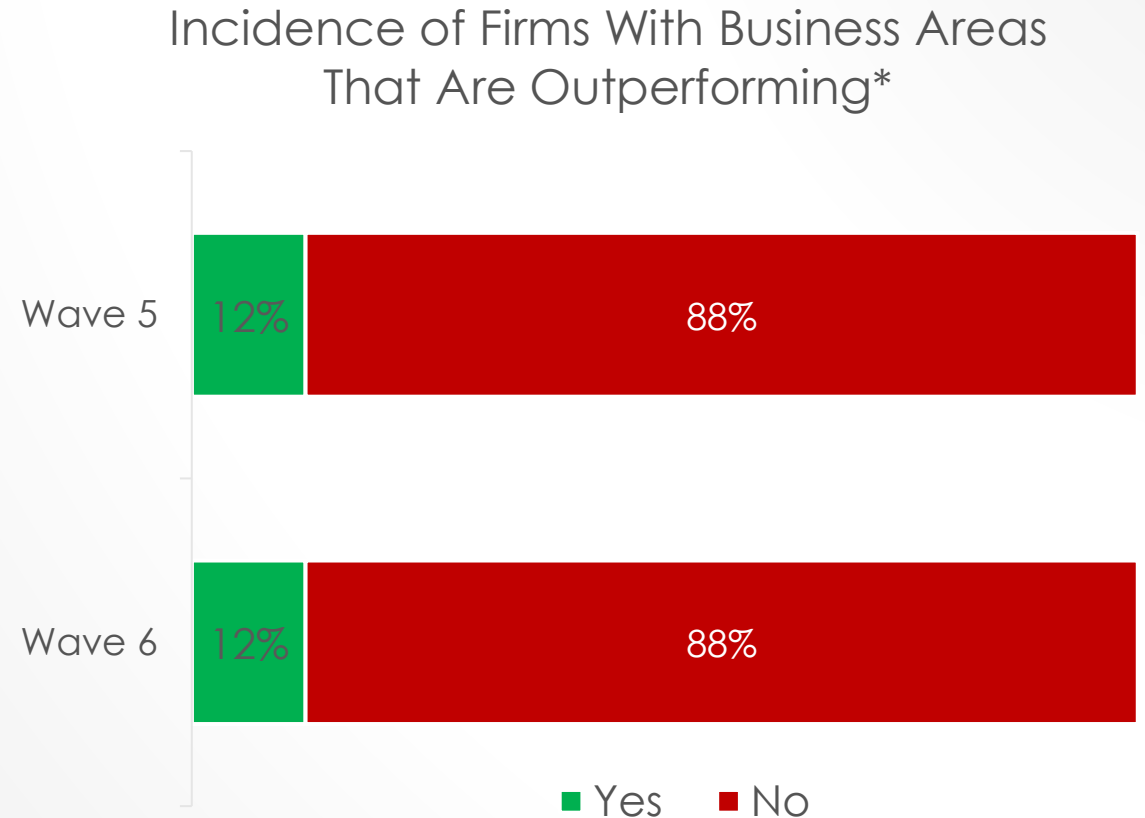
* Not asked prior to Wave 5

Q16. Is your firm working on, or has it worked on, any NEW projects or expanded projects directly related to supporting the COVID-19 pandemic response?

Wave 5 - n = 504, Wave 6 - n = 486

ABOUT ONE OUT OF EIGHT FIRMS (12%) REPORT HAVING BUSINESS AREAS THAT ARE OUTPERFORMING NOW. THIS IS THE SAME AS IN WAVE 5.

- Larger firms are more likely to have business areas that are outperforming.
 - 0 to 25 FTEs = 5% "Yes"
 - 26 to 50 FTEs = 13%
 - 51 to 200 FTEs = 16%
 - 201 to 500 FTEs = 28%
 - 501 or more FTEs = 54%



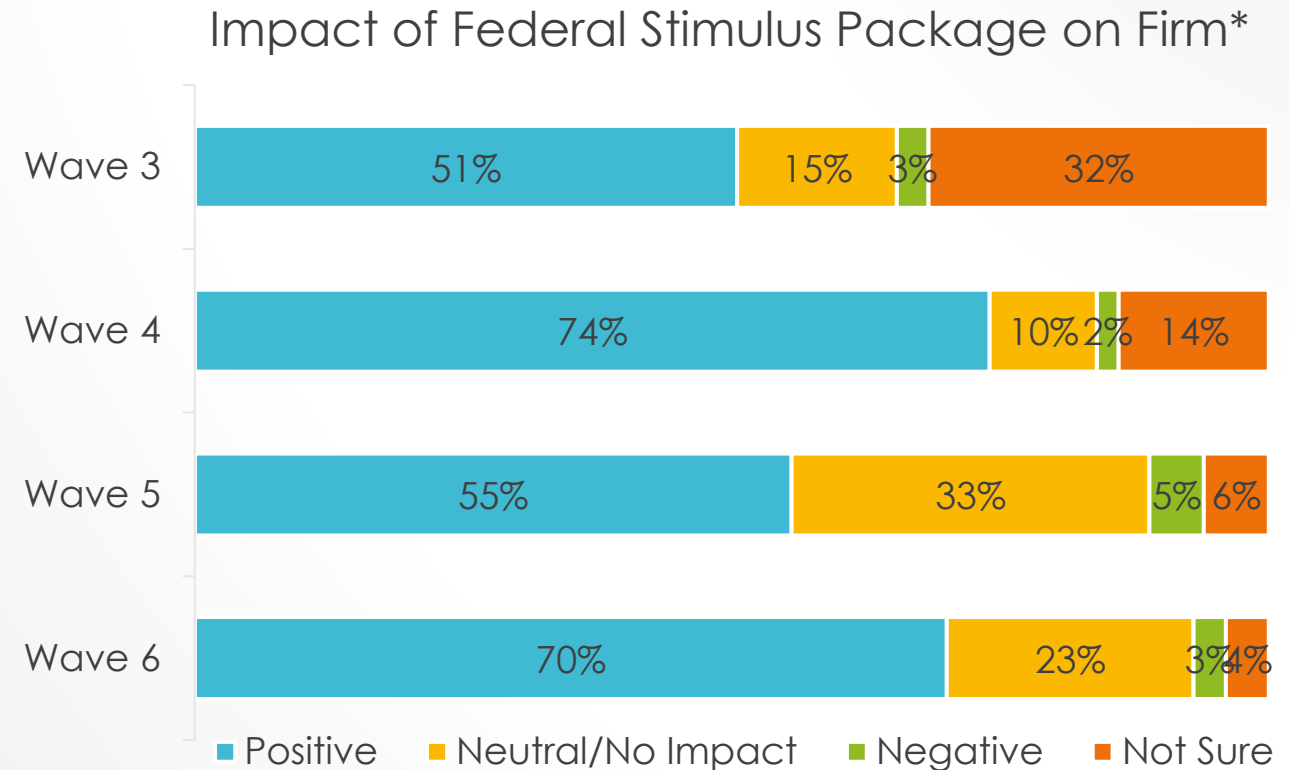
* Not asked prior to Wave 5

Q17. Are there any areas of your business where you are outperforming (as opposed to seeing declines or holding steady)?
Wave 5 - n = 503, Wave 6 - n = 485

IMPACT OF FEDERAL STIMULUS PROGRAM

PERCEPTIONS OF THE CARES ACT HAVE FLUCTUATED SINCE IT WAS FIRST ASKED IN WAVE 3. POSITIVE PERCEPTIONS ARE BACK UP AGAIN COMPARED TO WAVE 5 (70% VS 55%) AND ARE ALMOST AT THE SAME LEVEL DURING WAVE 4 (74%).

- In Waves 3 and 4, the question was asked slightly differently. It asked what impact the stimulus package “will have” as opposed to “has had.”
- Details of differences by firm size are on the following slide.

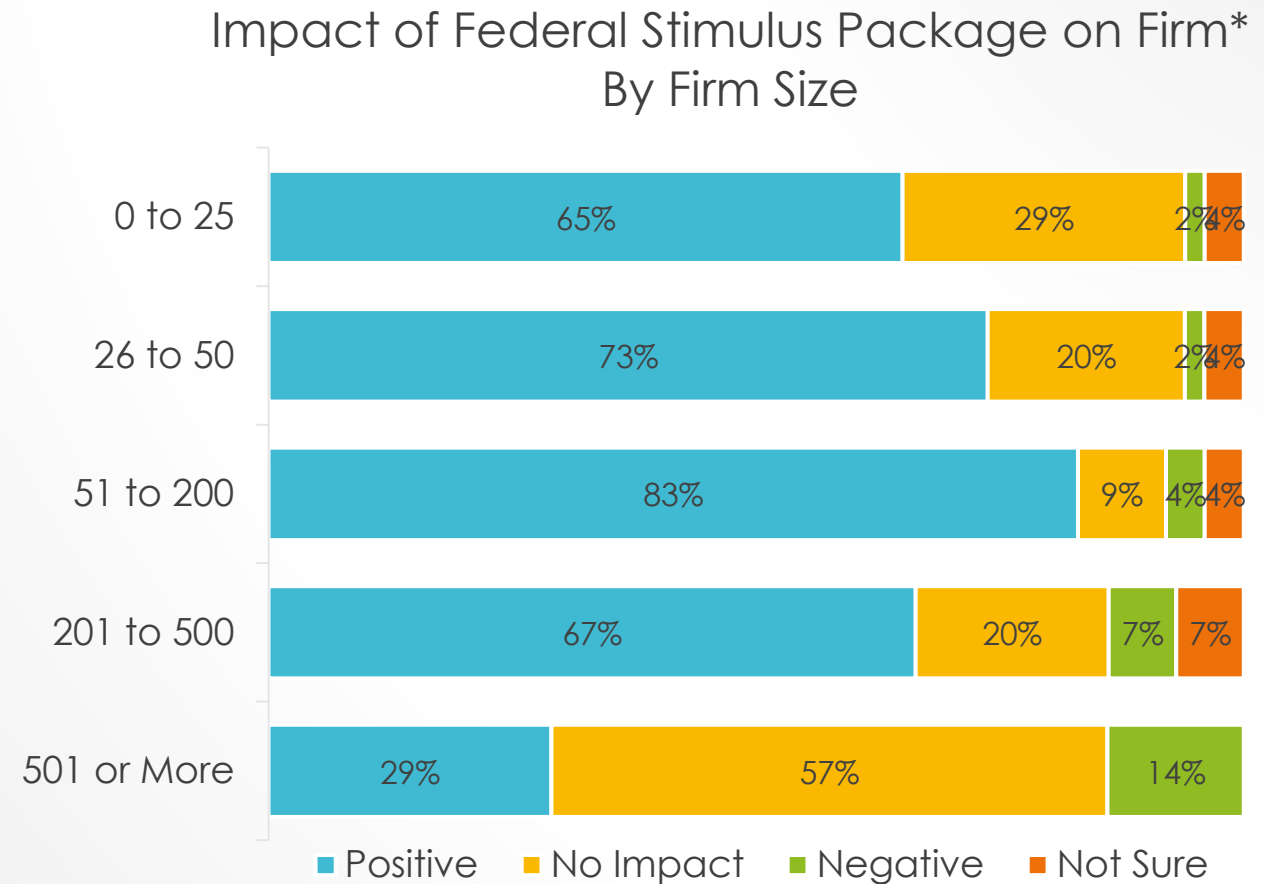


* Not asked in Waves 1 and 2

Q6. How has the U.S. Government's coronavirus stimulus package (CARES Act) signed into law on March 27, 2020 affected your firm, if at all? Has the impact been...?
Wave 3 - n = 598, Wave 4 - n = 560, Wave 5 - n = 506, Wave 6 - n = 491

POSITIVE PERCEPTIONS OF THE CARES ACT INCREASE AS FIRM SIZE INCREASES UP TO 200 FTEs, AFTER WHICH POSITIVE PERCEPTIONS DECLINE.

- Firms with more than 500 FTEs are *much less likely* to say the stimulus package has had a positive impact (29%) and *more likely* to say it has had no impact (57%), probably due to the focus of the package being on smaller businesses.



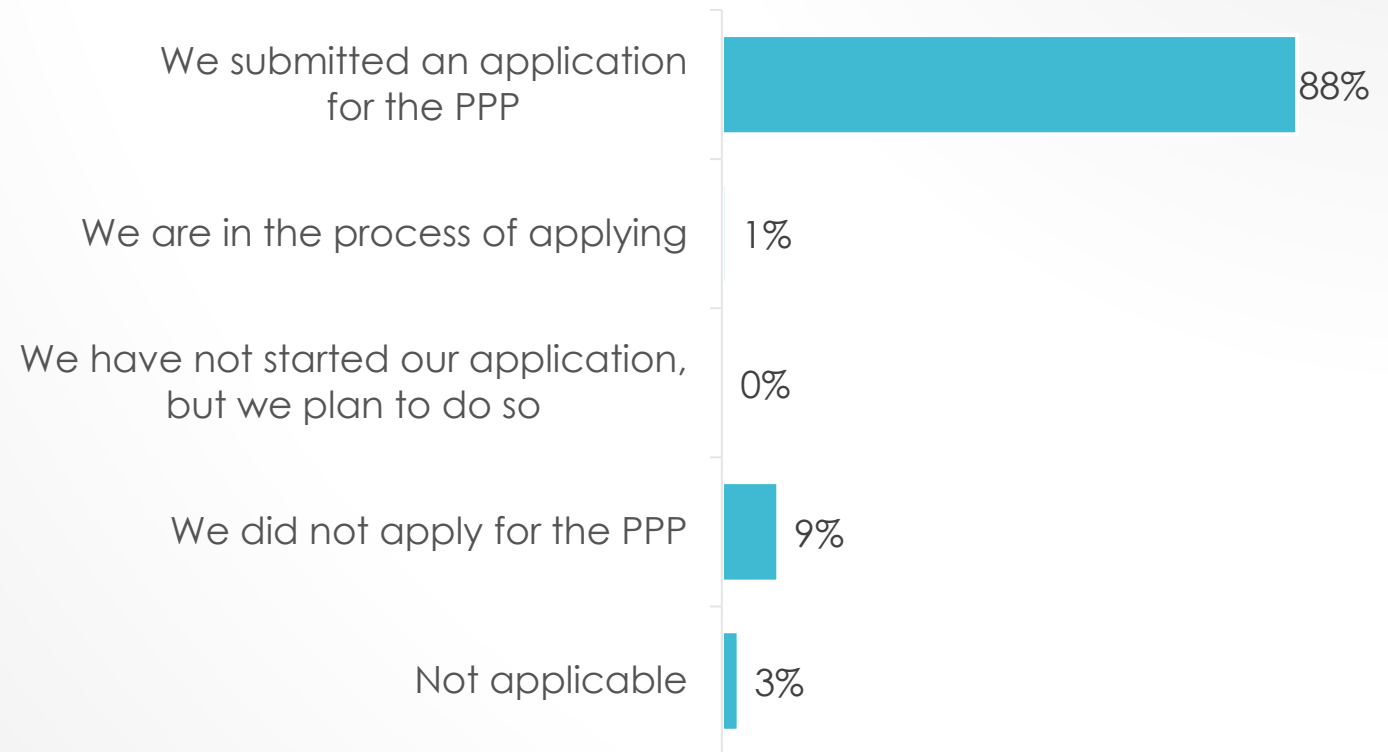
Q6. How has the U.S. Government's coronavirus stimulus package (CARES Act) signed into law on March 27, 2020 affected your firm, if at all? Has the impact been...?

Wave 6 - n = 491

NEARLY NINE OUT OF TEN FIRMS (88%) APPLIED FOR THE SMALL BUSINESS ADMINISTRATION (SBA) PAYCHECK PROTECTION PROGRAM (PPP).

- Firms with 25 or fewer FTEs are the least likely to have submitted an application.
 - 0 to 25 FTEs = 83% "Submitted application"
 - 26 to 50 FTEs = 89%
 - 51 to 200 FTEs = 95%
 - 201 to 500 FTEs = 93%
 - 501 or more FTEs = Not Applicable

Status of Applying for SBA PPP* - Among Firms With 500 or Fewer FTEs -



* Not asked in Waves 1, 2 or 3. Question asked in Wave 4 and 5 are too different to directly compare.

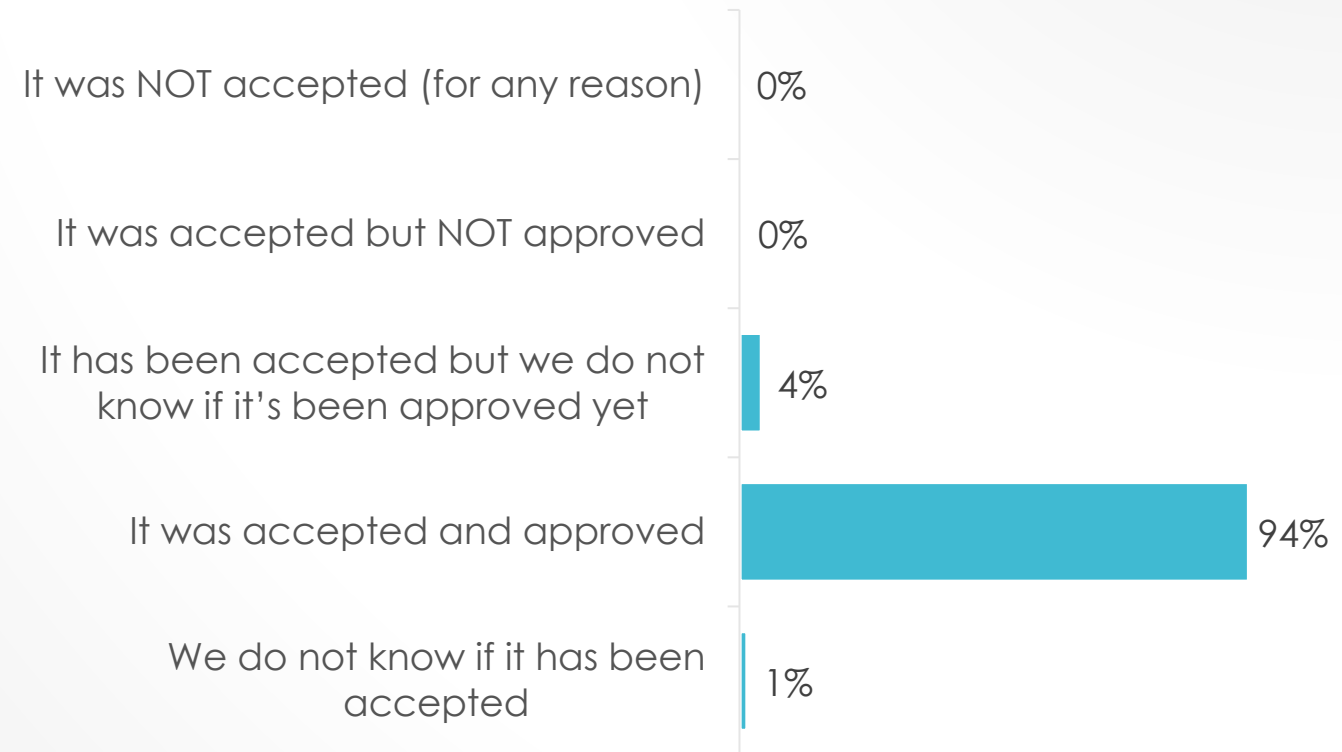
Q7. Which of the following best describes your firm's status regarding the Paycheck Protection Program (PPP) authorized by Congress as part of the CARES Act?

Wave 6 - n = 476

AMONG FIRMS SUBMITTING AN APPLICATION, NEARLY ALL (94%) SAY IT WAS ACCEPTED AND APPROVED. MOST OF THE REST (4%) ARE WAITING ON APPROVAL.

- Firms with 25 or fewer FTEs are the least likely to have received approval (so far).
 - 0 to 25 FTEs = 90% "Accepted & approved"
 - 26 to 50 FTEs = 98%
 - 51 to 200 FTEs = 96%
 - 201 to 500 FTEs = 100%
 - 501 or more FTEs = Not Applicable

Status of PPP Application*
- Among Firms Submitting Application -



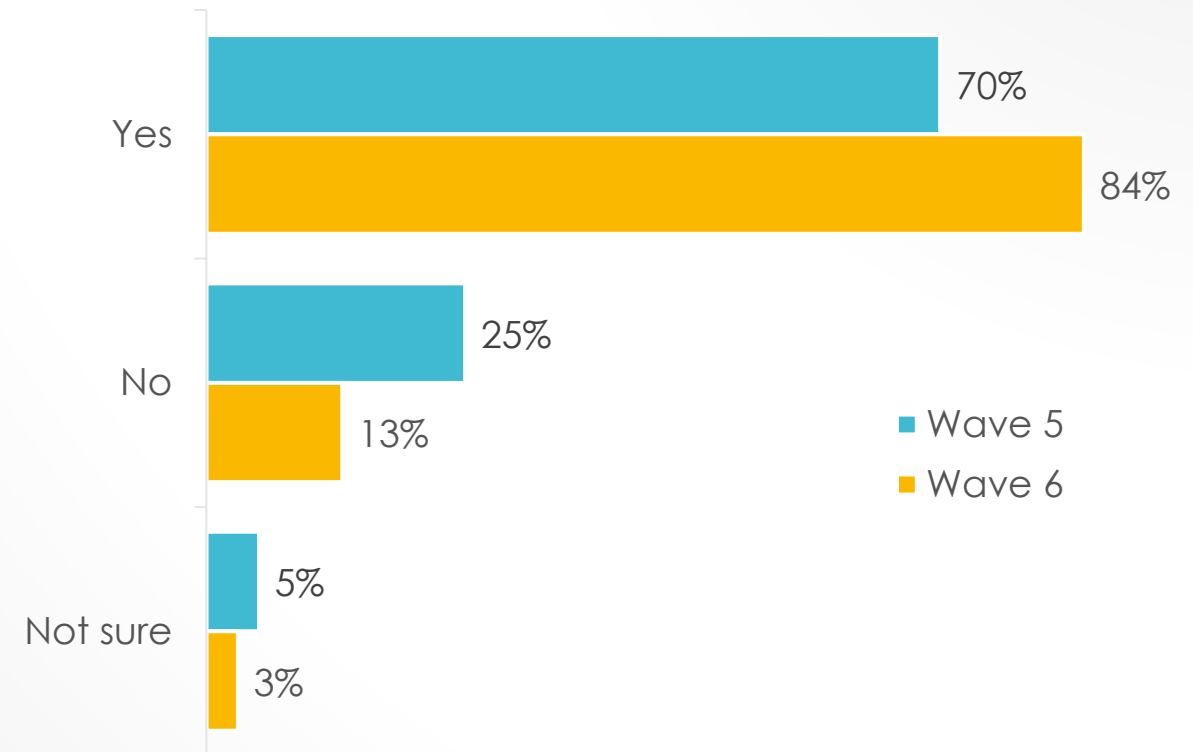
* Not asked in Waves 1, 2, 3 or 4. Question asked in Wave 5 is too different to directly compare.

Q8. Which of the following best describes the status of your PPP application?
Wave 6 - n = 418

AMONG FIRMS WHOSE APPLICATION WAS APPROVED, 84% HAVE RECEIVED THE FUNDS IN THEIR BANK ACCOUNT COMPARED TO 70% IN WAVE 5.

- Firms with 25 or fewer FTEs are the least likely to have received funds (so far).
 - 0 to 25 FTEs = 76% "Yes"
 - 26 to 50 FTEs = 94%
 - 51 to 200 FTEs = 88%
 - 201 to 500 FTEs = 93%
 - 501 or more FTEs = Not Applicable

Received SBA PPP Funds*
- Among Firms With Approved Application -

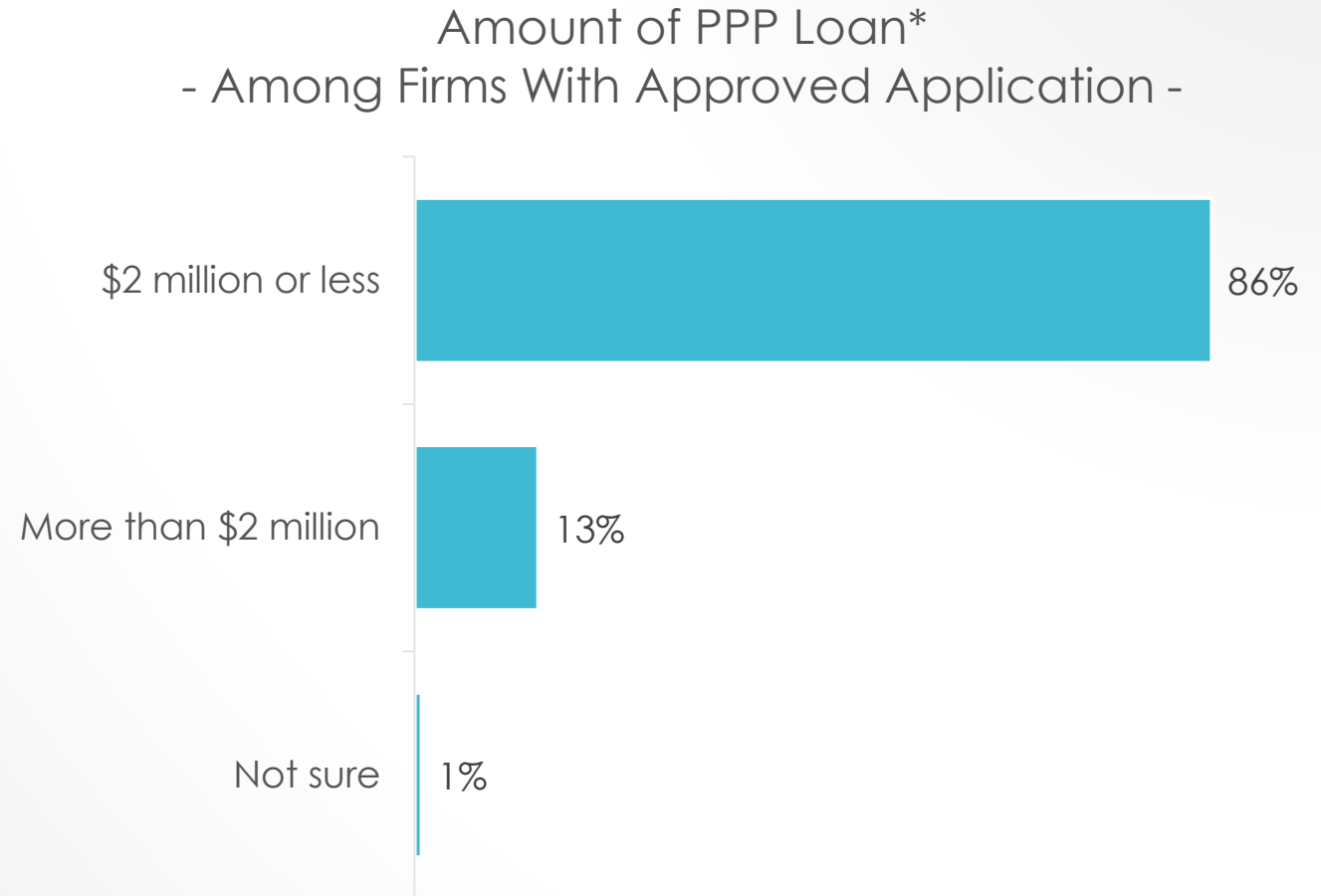


* Not asked prior to Wave 5.

Q9. Have you received the PPP funds in your bank account?
Wave 5 - n = 299, Wave 6 - n = 389

THE VAST MAJORITY OF FIRMS RECEIVED \$2 MILLION OR LESS FOR THEIR PPP LOAN. HOWEVER, 96% OF FIRMS WITH MORE THAN 200 FTES RECEIVED A LOAN FOR MORE THAN \$2 MILLION.

- Nearly all firms with 50 or fewer FTEs (99%) received a loan amount of \$2 million or less.
- For firms with 51 to 200 FTEs, 75% received a loan amount of \$2 million or less, while 23% received a loan for more than \$2 million.
- Nearly all firms with 201 to 500 FTEs (96%) received a loan for more than \$2 million.



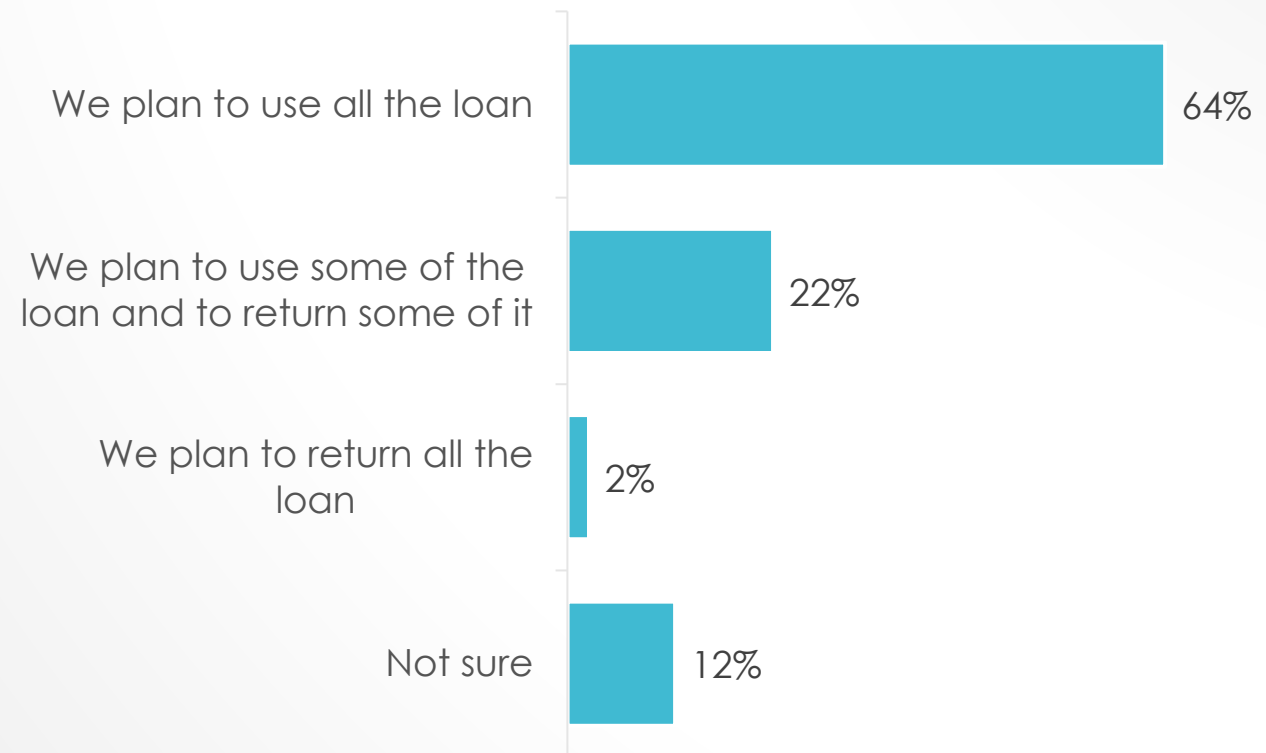
* Not asked in previous Waves.

Q19. Was the amount of your approved PPP loan more than or less than \$2 million?
Wave 6 - n = 390

ABOUT TWO-THIRDS (64%) OF FIRMS PLAN TO USE ALL OF THEIR PPP LOAN, WHILE 22% PLAN TO USE SOME OF IT AND TO RETURN THE REST. ONLY 2% PLAN TO RETURN ALL OF THE LOAN.

- As firm size increases, plans to use all of the loan decrease.
 - 0 to 25 FTEs = 71% "Use All"
 - 26 to 50 FTEs = 68%
 - 51 to 200 FTEs = 54%
 - 201 to 500 FTEs = 43%
 - 501 or more FTEs = Not Applicable

Intended use of PPP Loan*
- Among Firms With Approved Application -



* Not asked in previous Waves.

Q20 Which of the following best describes your intended use of the PPP loan?
Wave 6 - n = 390

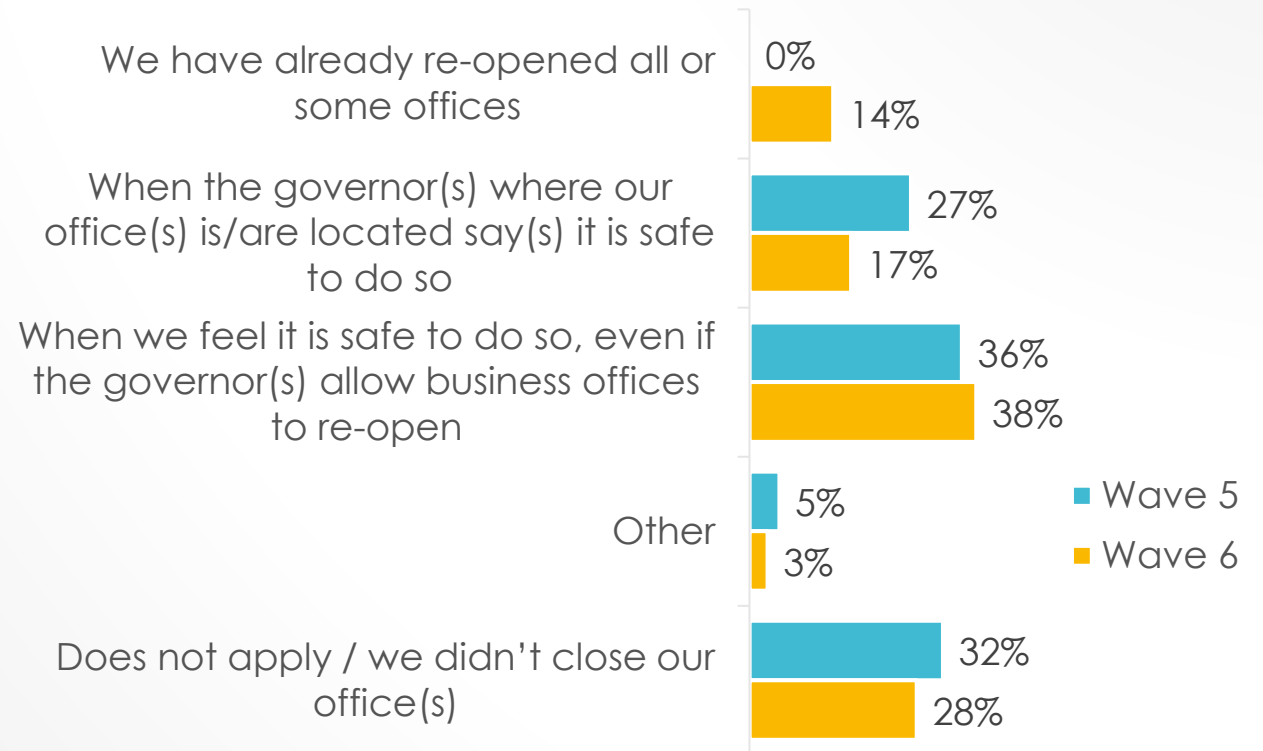
PLANS TO RE-OPEN OFFICES

FOURTEEN PERCENT OF FIRMS HAVE ALREADY RE-OPENED AT LEAST SOME OF THEIR OFFICES, WHILE 28% SAID THEY NEVER CLOSED TO BEGIN WITH. OF THE REMAINING FIRMS, MOST SAY THEY WILL RE-OPEN WHEN THEY FEEL IT IS SAFE TO DO SO (38%).

- There are no significant differences between firm size when it comes to having already opened.
- Larger firms are more likely to re-open when they feel it is safe, not when the governor allows it.
 - 0 to 25 FTEs = 31% "When we feel it's safe"
 - 26 to 50 FTEs = 34%
 - 51 to 200 FTEs = 48%
 - 201 to 500 FTEs = 67%
 - 501 or more FTEs = 50%

* Not asked prior to Wave 5.

When Firms Plan to Re-open Offices*



Q11. Which of the following best describes when you will re-open your firm's offices?

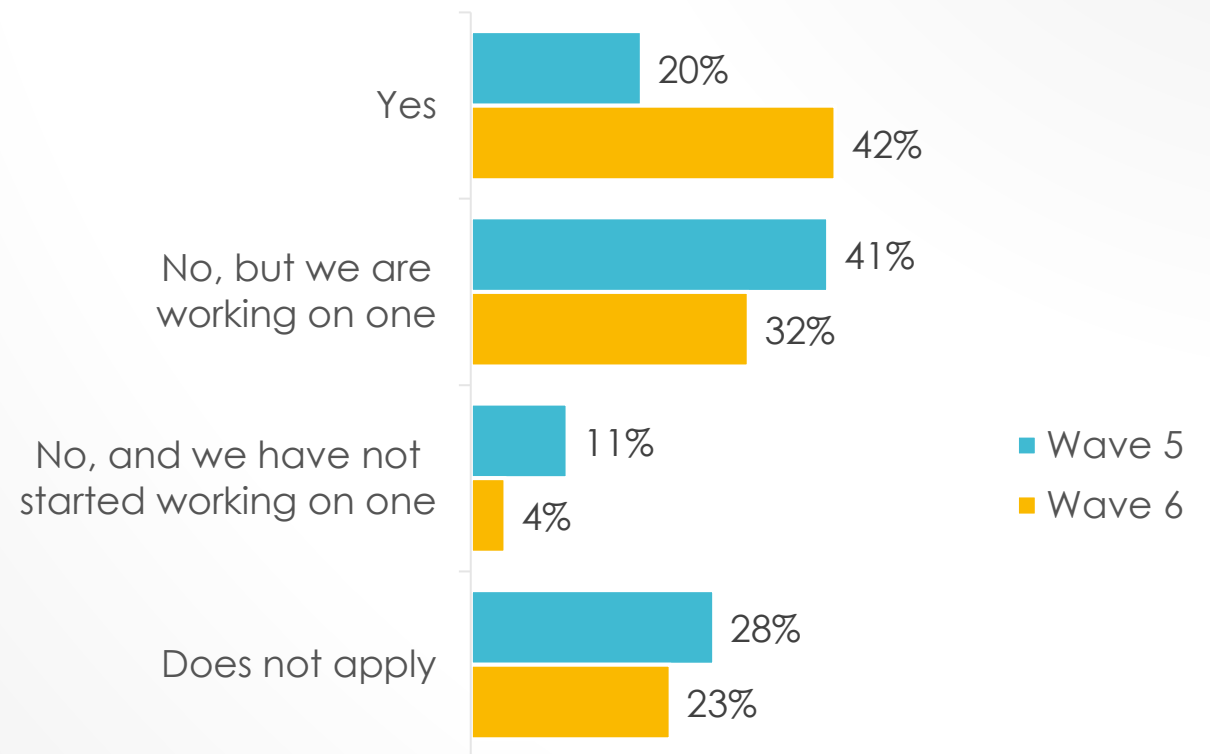
Wave 5 - n = 503, Wave 6 - n = 489

THE NUMBER OF FIRMS THAT HAVE CREATED A PLAN FOR RE-OPENING HAS MORE THAN DOUBLED (20% TO 42%) IN THE PAST TWO WEEKS.

- After removing firms for whom this question does not apply, firms with more than 25 FTEs are slightly more likely to either have a plan or to be working on one.
 - 0 to 25 FTEs = 89% “Have or working on one”
 - 26 to 50 FTEs = 98%
 - 51 to 200 FTEs = 99%
 - 201 to 500 FTEs = 100%
 - 501 or more FTEs = 100%

* Not asked prior to Wave 5.

Have Plan for Re-Opening Office to Ensure the Safety of Staff*



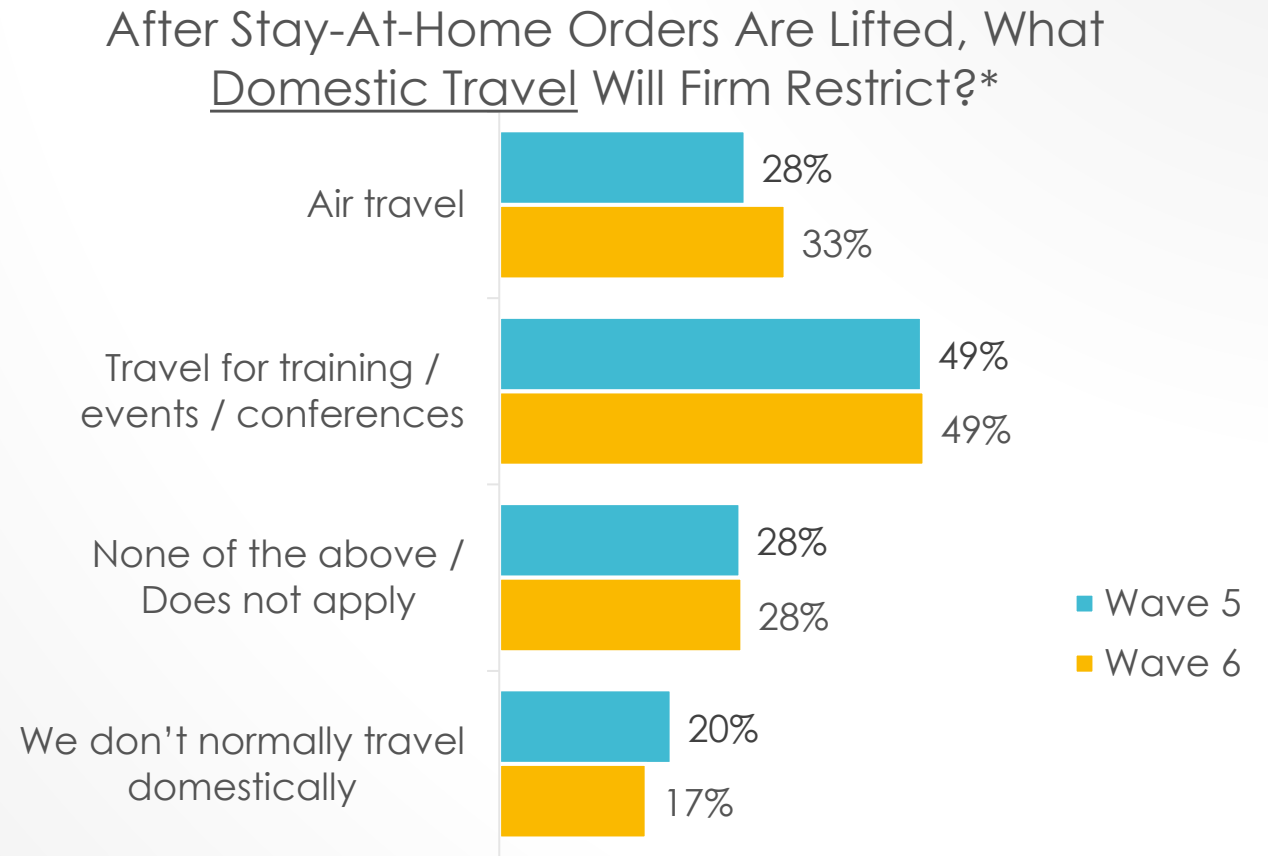
Q12. Has your firm developed a plan for re-opening its office(s) to ensure the safety of the staff?

Wave 5 - n = 503, Wave 6 - n = 490

NEARLY HALF OF FIRMS (49%) SAY THEY WILL RESTRICT OR PROHIBIT DOMESTIC TRAVEL FOR TRAINING/EVENTS/CONFERENCES AFTER STAY-AT-HOME ORDERS ARE LIFTED. ANOTHER THIRD (33%) SAY THEY WILL RESTRICT AIR TRAVEL. THESE RESULTS ARE NEARLY THE SAME AS IN WAVE 5.

- Larger firms are more likely to restrict domestic travel for training/events/conferences and air travel.
 - 0 to 25 FTEs = 42% (Events), 28% (Air)
 - 26 to 50 FTEs = 43%, 31%
 - 51 to 200 FTEs = 61%, 38%
 - 201 to 500 FTEs = 72%, 52%
 - 501 or more FTEs = 93%, 50%

* Not asked prior to Wave 5.

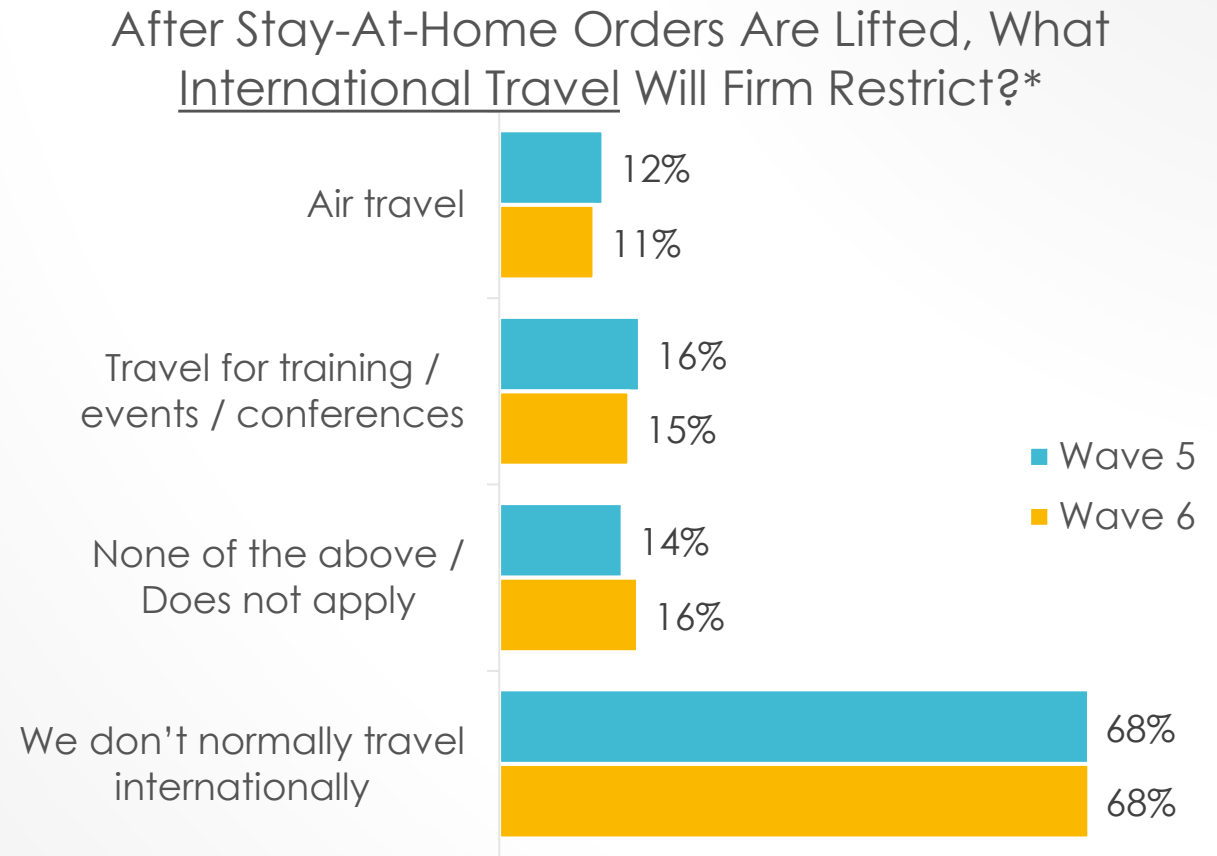


Q14. Once stay-at-home orders are lifted for your location(s), which of the following, if any, will your company restrict or prohibit when it comes to domestic travel? Select All That Apply
Wave 5 - n = 493, Wave 6 - n = 481

ABOUT ONE OUT OF SEVEN FIRMS (15%) SAY THEY WILL RESTRICT OR PROHIBIT INTERNATIONAL TRAVEL FOR TRAINING/EVENTS/CONFERENCES AFTER STAY-AT-HOME ORDERS ARE LIFTED. ANOTHER 11% SAY THEY WILL RESTRICT AIR TRAVEL. THESE RESULTS ARE NEARLY THE SAME AS IN WAVE 5.

- Larger firms are more likely to restrict international travel for training/events/conferences and air travel.
 - 0 to 25 FTEs = 11% (Events), 8% (Air)
 - 26 to 50 FTEs = 13%, 9%
 - 51 to 200 FTEs = 12%, 9%
 - 201 to 500 FTEs = 48%, 41%
 - 501 or more FTEs = 50%, 36%

* Not asked prior to Wave 5.



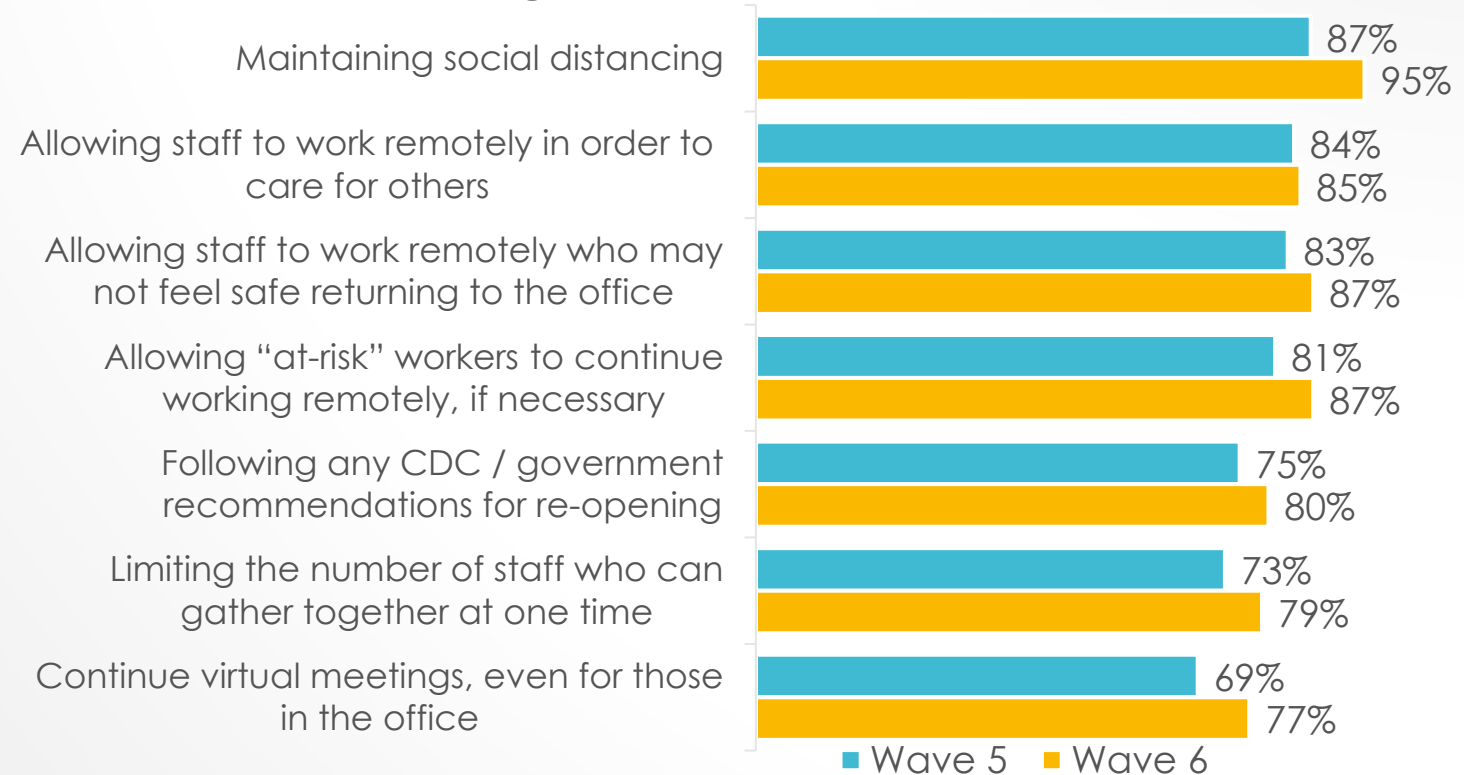
Q15. Once stay-at-home orders are lifted for your location(s), which of the following, if any, will your company restrict or prohibit when it comes to international travel? Select All That Apply
Wave 5 - n = 499, Wave 6 - n = 477

THE VAST MAJORITY OF FIRMS PLAN TO IMPLEMENT A LARGE NUMBER OF SAFETY MEASURES ONCE THEY RE-OPEN THEIR OFFICES. TOP AMONG THESE ARE MAINTAINING SOCIAL DISTANCING (95%) AND ALLOWING STAFF TO WORK REMOTELY TO CARE FOR OTHERS (85%).

- More firms intend to implement various safety measures than in Wave 5.
- Although the percentages may differ somewhat, the top safety measures that firms plan to take are the same regardless of firm size.
- The only significant differences are that firms with 25 or fewer staff are *less likely* to implement most measures including:
 - Allowing “at-risk” workers to continue working remotely, if necessary (76%)
 - Following any CDC/government recommendations for re-opening (66%)
 - Limiting the number of staff who can gather together at one time (71%)

* Not asked prior to Wave 5

Top Safety Measures Firms Plan to Take
When Re-Opening Offices*
- Among Those Who Have/Will Have Plan -

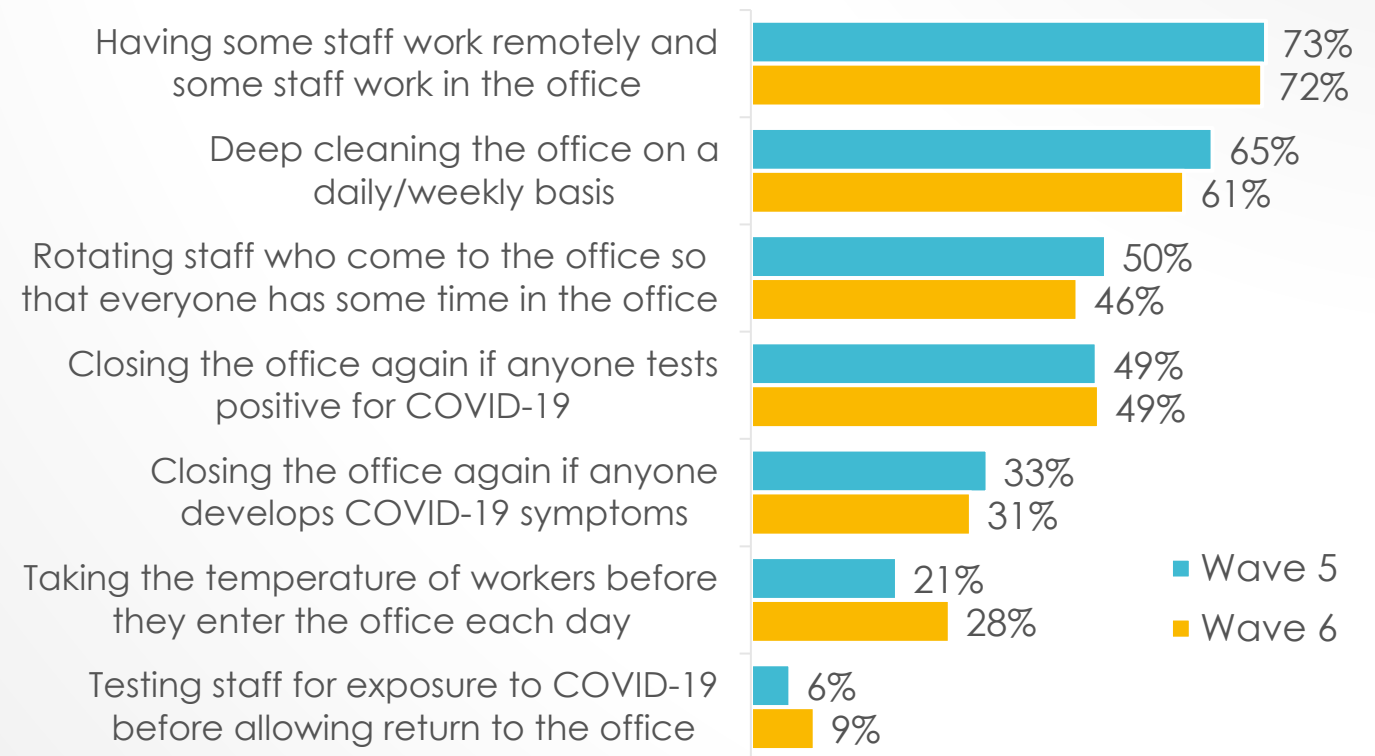


Q13. Which of the following safety measures are part of your plan to re-open office(s)? Select All That Apply
Wave 5 - n = 306, Wave 6 - 358

FEWER FIRMS ARE LIKELY TO IMPLEMENT THE SAFETY MEASURES ON THIS SLIDE, ALTHOUGH A MAJORITY PLAN TO CONTINUE VIRTUAL MEETINGS EVEN FOR THOSE IN THE OFFICE (77%) AND CONDUCT A DEEP CLEANING OF THE OFFICE ON A REGULAR BASIS (65%).

- There are no statistically significant differences on these measures compared to Wave 5 with one exception:
 - More firms are now planning to take the temperature of workers before they enter the office (28% vs 21%) compared to Wave 5.

Other Safety Measures Firms Plan to Take
When Re-Opening Offices*
- Among Those Who Have/Will Have Plan -



* Not asked in previous Waves

METHODOLOGY – WAVE 1

- The Institute for Association and Nonprofit Research (IFANR) invited individuals from among the database list of member companies provided by the American Council of Engineering Companies (ACEC) to participate in this survey. One invitation was sent per member company.
 - Data collection occurred on March 17 and 18, 2020.
 - A total of 3,456 invitations were emailed, although 294 bounced and 17 opted-out, resulting in a total of 3,145 potential respondents.
 - Individuals who did not respond to the first email were sent one follow-up reminder.
 - In all, 794 individuals responded to the email invitations for an overall **response rate of 25%**.
- Individuals could respond using a laptop/desktop computer, tablet or smartphone; 12% of respondents completed the survey using a mobile device.
- Throughout the report for Wave 1 meaningful, statistically significant differences are noted by geographic region.

METHODOLOGY – WAVE 2

- The Institute for Association and Nonprofit Research (IFANR) invited individuals from among the database list of member companies provided by the American Council of Engineering Companies (ACEC) to participate in this survey. One invitation was sent per member company.
 - Data collection occurred on March 24 and 25, 2020.
 - A total of 3,438 invitations were emailed, although 298 bounced and 20 opted-out, resulting in a total of 3,120 potential respondents.
 - Individuals who did not respond to the first email were sent one follow-up reminder.
 - In all, 738 individuals responded to the email invitations for an overall **response rate of 24%**.
- Individuals could respond using a laptop/desktop computer, tablet or smartphone; 11% of respondents completed the survey using a mobile device.
- Throughout this report meaningful, statistically significant differences are noted by number of FTEs.

METHODOLOGY – WAVE 3

- The Institute for Association and Nonprofit Research (IFANR) invited individuals from among the database list of member companies provided by the American Council of Engineering Companies (ACEC) to participate in this survey. One invitation was sent per member company.
 - Data collection occurred on March 31 and April 1, 2020.
 - A total of 3,417 invitations were emailed, although 298 bounced and 9 opted-out, resulting in a total of 3,110 potential respondents.
 - Individuals who did not respond to the first email were sent one follow-up reminder.
 - In all, 610 individuals responded to the email invitations for an overall **response rate of 20%**.
- Individuals could respond using a laptop/desktop computer, tablet or smartphone; 10% of respondents completed the survey using a mobile device.
- Throughout this report meaningful, statistically significant differences are noted by number of FTEs.

METHODOLOGY – WAVE 4

- The Institute for Association and Nonprofit Research (IFANR) invited individuals from among the database list of member companies provided by the American Council of Engineering Companies (ACEC) to participate in this survey. One invitation was sent per member company.
 - Data collection occurred on April 7 and 8, 2020.
 - A total of 3,407 invitations were emailed, although 291 bounced and 9 opted-out, resulting in a total of 3,107 potential respondents.
 - Individuals who did not respond to the first email were sent one follow-up reminder.
 - In all, 566 individuals responded to the email invitations for an overall **response rate of 18%**.
- Individuals could respond using a laptop/desktop computer, tablet or smartphone; 10% of respondents completed the survey using a mobile device.
- Throughout this report meaningful, statistically significant differences are noted by number of FTEs.

METHODOLOGY – WAVE 5

- The Institute for Association and Nonprofit Research (IFANR) invited individuals from among the database list of member companies provided by the American Council of Engineering Companies (ACEC) to participate in this survey. One invitation was sent per member company.
 - Data collection occurred on April 21 and 22, 2020.
 - A total of 3,395 invitations were emailed, although 301 bounced and 11 opted-out, resulting in a total of 3,083 potential respondents.
 - Individuals who did not respond to the first email were sent one follow-up reminder.
 - In all, 512 individuals responded to the email invitations for an overall **response rate of 17%**.
- Individuals could respond using a laptop/desktop computer, tablet or smartphone; 9% of respondents completed the survey using a mobile device.
- Throughout this report meaningful, statistically significant differences are noted by number of FTEs.

METHODOLOGY – WAVE 6

- The Institute for Association and Nonprofit Research (IFANR) invited individuals from among the database list of member companies provided by the American Council of Engineering Companies (ACEC) to participate in this survey. One invitation was sent per member company.
 - Data collection occurred on May 5 and 6, 2020.
 - A total of 3,384 invitations were emailed, although 305 bounced and 8 opted-out, resulting in a total of 3,071 potential respondents.
 - Individuals who did not respond to the first email were sent one follow-up reminder.
 - In all, 492 individuals responded to the email invitations for an overall **response rate of 16%**.
- Individuals could respond using a laptop/desktop computer, tablet or smartphone; 10% of respondents completed the survey using a mobile device.
- Throughout this report meaningful, statistically significant differences are noted by number of FTEs.

STATISTICAL NOTES

- Statistically significant differences are evaluated at a 95% confidence interval (for a description of tests used, please see the Appendix).
- There is no margin of sampling error as this was a census of all individuals in the ACEC database.
- Although every effort was taken to minimize survey bias, there is no way to completely 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

APPENDIX

TESTS OF SIGNIFICANCE FOR MEANS

F-test

When the mean is displayed for a row variable, MarketSight first runs an Analysis of Variance (ANOVA) using an F-test. Doing so tests the hypothesis that the means of multiple normally distributed populations, all having the same variance, are equal.

MarketSight tests whether or not the row variable's means are equal to one another for all columns in the crosstab. Rejecting the test hypothesis implies that at least one of the column means is significantly different from the others.

Fisher's Least Significant Difference (LSD) test

If the statistics option to "Correct for Type I errors in all comparisons" is disabled, MarketSight will run Fisher's LSD test for both Pairwise tests and Contrast tests of means. MarketSight only runs Fisher's LSD test if the ANOVA F-test first rejects the null hypothesis that all column means are equal to one another.

Fisher's LSD test is a relatively powerful test because it uses the pooled variance estimate from the F-test, thus taking advantage of the increased sample size of all columns in the crosstab. Pooling the variance is valid because MarketSight explicitly tests for equality of variance among all columns prior to running the associated F-test.

Although the test is more powerful than either the Tukey HSD or Scheffé tests, it is more susceptible to Type I error when running multiple simultaneous tests.

TESTS OF SIGNIFICANCE FOR MEANS (CONT'D)

Scheffé test

If the statistics option to "Correct for Type I errors in all comparisons" is enabled, MarketSight will run the Scheffé test for Contrast tests of means. MarketSight only runs the Scheffé test if the ANOVA F-test first rejects the null hypothesis that all column means are equal to one another.

The Scheffé test is a conservative test for running multiple Contrast tests of Means which controls the overall Type I error rate for all possible contrasts based on the selected Confidence Level.

Tukey-Kramer tests

MarketSight will run Tukey-Kramer test for Pairwise tests of means. MarketSight only runs Tukey-Kramer test if the ANOVA F-test first rejects the null hypothesis that all column means are equal to one another.

Tukey-Kramer test is a conservative test for running multiple Pairwise comparisons of Means. It controls the overall Type I error rate across a number of related Pairwise tests based on the selected Confidence Level.

TESTS OF SIGNIFICANCE FOR PROPORTIONS

Chi-squared

When a Row Variable displays the Column % or Count option for individual Values, MarketSight runs a Chi-squared test. This test examines whether there is a relationship between the Column Variable(s) and the Row Variable.

Chi-squared tests involve a comparison of "actual" cell counts to "expected" cell counts in a crosstab.

The expected count for each cell is derived from a Row Variable's actual counts as follows: multiply the cell's row total by its column total, then divide by the sum total of all observations.

If the actual cell counts for one or more cells differ materially from their expected counts, the Chi-squared test may produce a statistically significant result which implies there is a relationship between the Column Variable(s) and the Row Variable.

A modified version of a Chi-Squared test is run for Multiple Response Variables.

TESTS OF SIGNIFICANCE FOR PROPORTIONS (CONT'D)

Fisher's Exact

For 2x2 crosstabs with small sample sizes, the Chi-squared test may be unreliable. Therefore, MarketSight runs an alternate test, Fisher's Exact Test, if more than 20% of the cells in a 2x2 crosstab have an expected cell count less than 5, or if any cells in a 2x2 cross-tab have an expected cell count less than 1.

Fisher's Exact Test calculates the true probability of observing a particular set of actual cell counts in a 2 x 2 crosstab, assuming that row and column totals are held constant.

Fisher's Exact Test is not run for Multiple Response Variables.

z-test

MarketSight runs Z-tests for both Contrast and Pairwise tests of Column Proportions. A Z-test is used to test for a difference between two column proportions. The column proportions involved in the test are the cell counts divided by their respective column totals.

A Z-test is only run when the cells being compared have actual counts greater or equal to 5 and the column sample size minus the actual cell counts is greater than or equal to 5. If these data sufficiency conditions are not met, MarketSight runs Fisher's Exact Test instead.

A modified version of a Z-test is run for Multiple Response Variables.

THANK YOU!



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