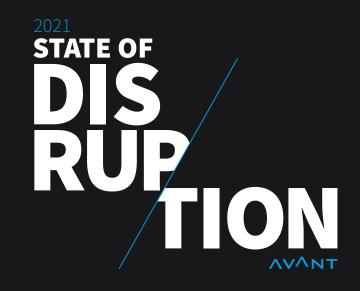
2021 **STATE OF AVANT**







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The Greek philosopher, Heraclitus, famously said, "The only constant in life is change." In 2017, noted futurist and entrepreneur Peter Diamandis amended that statement for our times:

"The only constant is change, and the rate of change is increasing." ¹

In an enterprise climate where disruption is the norm, businesses live or die by their ability to meet constantly evolving conditions. Those that stay ahead of change — that anticipate it, evolve with it, and even help facilitate it — experience lasting success. Those that fail to adapt don't stay afloat. In recent years, we've seen longstanding retail chains crushed by ecommerce, traditional booksellers supplanted by Amazon, and successful entertainment companies sunk by streaming. In short: **Transform or die.**

But what does the imperative to transform mean for enterprise tech decision making? And what does the rate of technology change look like across industries and company sizes?

Measuring Disruption

Purchasers of Information Technology have moved beyond the mindset in which their knee-jerk reaction is to adopt the latest whiz-bang technology.

Today's buyer is looking to build revenues, reduce expenses, amplify the efficiency of the team, or make the company's assets more secure. Technologies that serve one or more of those objectives tend to prosper. Those that don't fit those objectives either fade rapidly into memories, or translate to niche products with limited deployment footprints. With progress limited only by the ingenuity of the designers of these technologies, products, and services, successful technologies displace older ones, leaving enterprise technology decision makers to decide whether to adopt them, how to adopt them, and when to adopt them.

This report is a critical tool in making those determinations based on the feedback and experiences of your peers.

Transformation will continue to be necessary, but the executives who most competently make these transitions will reap the most rewards from their efforts. What does the imperative to transform mean to these enterprise technology decision makers? What does the rate of change look like across industries and company sizes?

This report is designed to answer those questions.

Methodology and Survey Logistics

AVANT polled 500 U.S.-based enterprise decision makers at either the C-suite or Management/VP-level in IT, security or finance. To qualify for the survey, respondents had to be involved in choosing or helping their organization to implement new data network, voice or compute infrastructure technology including buying/ selecting new tools and services. Respondents include statistically significant subsets from the following five industries: Manufacturing, Financial Services, Healthcare/Medical, Ecommerce and Consulting/Business Services. Additionally, in order to ensure that the results of the survey are representative of the distribution of establishments in the U.S., a weighting scheme was applied based on number of employees in the respondent company. For a more detailed demographic breakdown and explanation of our weighting method, please reference "Respondent Demographics" section.

How to Interpret the Term "Growth"

Much of the data provided in this report measures "growth." This begs the question, "What kind of growth?"

In the context of this report, "growth correlates to the recent usage reported by respondents as compared to their anticipated level of usage over the near term. This translates to the growth in "disruption" against legacy technologies, the identities of which vary based on the specific technology displacing the older ones. This ultimately refers to shifts in investment, focus, interest, and, ultimately, user seats and general uptake. In other words, this is the "AVANT State of Disruption Report."

Our study revealed several key findings, including:

SD-WAN

Nearly half of the respondents intend to grow their usage of SD-WAN. About 46% of companies plan to increase SD-WAN usage 2021 and an additional 14% anticipate "significant" increases to SD WAN usage by the end of 2021. This is particularly true among companies in the \$50 million to \$500 million revenue range.

TRUSTED ADVISORS

Trusted Advisors continue to escalate in importance as technology decisions become more complex and the integration of applications becomes more comprehensive. Nearly two thirds of the respondents report working with Trusted Advisors in support of their IT decision-making process while 63% of respondents who do not work with Trusted Advisors consider their companies to be technology laggards.

UCAAS

Customer interest in UCaaS surged 86% at the outset of the Coronavirus/Covid-19 pandemic. About 51% of the companies deal with bandwidth issues at certain sites when moving to UCaaS.

MPLS

About 44% of companies say they would increase their MPLS usage by the end of 2021. An additional 15% expects to significantly increase MPLS usage.

Nearly 60% of respondents expect to increase or significantly increase their use of MPLS.

CCAAS

CCaaS adoption is currently being fast-tracked. In addition to the fact that businesses rapidly moved to a work-from-home model at the outset of Coronavirus/ Covid-19, we believe that, in many cases, growth is being driven by enhanced capabilities delivered by artificial intelligence and the resulting positive impact on customer satisfaction. The highest uptake and growth for CCaaS is currently in the Healthcare/ Medical vertical with an anticipated 40% rate of displacement.

SECURITY

Roughly 70% of respondents fear that a successful security breach could cause them to lose their jobs.

Digital Transformations

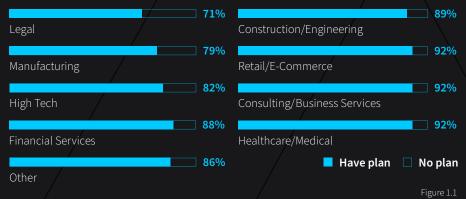
Digital transformation maps to increased reliance on information technology as a means of solving real-world business problems, and as a means of building a competitive advantage.

We've now reached a point where companies in most verticals have developed their plan for digital transformation, even in circumstances where they might not be fully deployed.

Among the highlights, Consulting/Business Services, Healthcare/ Medical, Retail/eCommerce, and Financial Services are the most likely to have a plan for digital transformation. This is largely about the need for efficiency and accuracy, and sometimes the sheer volumes of data generated within these vertical markets.

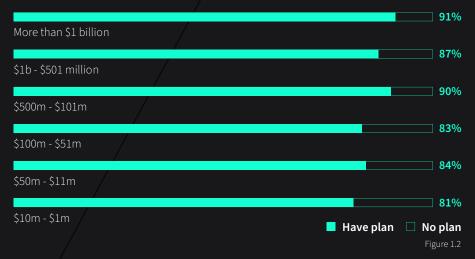
When viewed by company size, respondents from smaller organizations tended to be the ones that still need to build a plan. Figure 1.1 shows the percentage of survey respondents whose companies have a defined digital transformation plan in place as opposed to the companies that do not.

Industry vs plans for digital transformation



The following shows the same comparison by end customer revenue band, as opposed to vertical market. Note the correlation between company size and the likelihood of having a defined digital transformation plan in place.

Digital transformation plans by revenue



Role of the Trusted Advisor

More than 40% of respondents believe that their internal teams are less than highly qualified to plan, manage, optimize, and troubleshoot the full range of their IT infrastructure.

Companies in this condition are most likely to seek the services of a Trusted Advisor, in whole or in part, depending upon their specific circumstances. Is your internal team fully qualified to plan, manage, optimize, and troubleshoot your entire IT infrastructure?

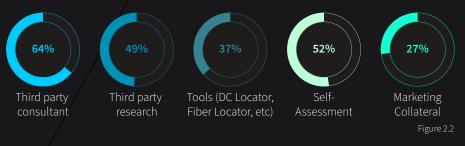
		58%	
Highly Qualified			
	38%		
Somewhat Qualified			
4%			
Somewhat Unqualified			Figure 2.1

Nearly two thirds of the respondents report working with Trusted Advisors in support of their IT decision-making process. An additional 37% use tools commonly made available by Trusted Advisors.

Half the time, the Trusted Advisors assist with selecting and operationalizing new technologies, though the ultimate go/no-go decision is made internally by company IT teams. This participation spans a variety of cloud, security, and network-related functions.

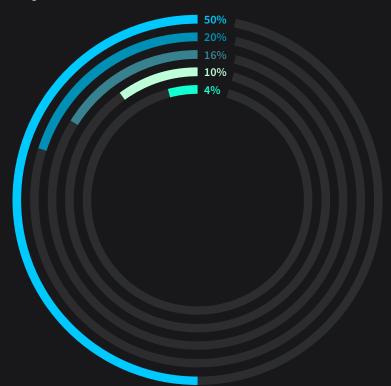
As technologies continue to grow more complex, especially in terms of integration with other products and services, the role of the Trusted Advisor is likely to increase over time.

Resources to Support IT Decision-Making



In most cases, Trusted Advisors play a key role in the assessment process with variable levels of participation in decision-making and execution.

Usage: Services of Trusted Advisors



- Trusted Advisors make recommendations to internal teams
- Trusted Advisors specify to internal teams for decision/execution
- Trusted Advisors control all technology decisions and functions
- Trusted Advisors provide general consultation
- Trusted Advisors provide limited consultation in specific areas

Figure 2.3

76%	67%	59 %
Cloud-based computer services	Cloud-based and/or Managed Security Providers	Data Network
54%	41%	32%

Figure 2.4

Customers particularly turn to Trusted Advisors for assistance with cloud services and selection criteria and consulting related to managed setrvice providers (MSPs). Other infrastructure and application issues are similarly addressed through Trusted Advisors, as shown in Figure 2.4.

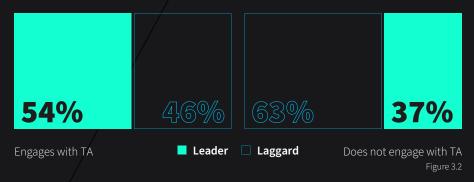
Leaders vs Laggards

Among those surveyed, two groups emerged: Leaders (those who see themselves as ahead of their competitors in terms of innovation) and Laggards (those who feel they are behind).

Construction/Engineering and High Tech lead the league in this selfperception, with 61% classifying themselves as Leaders in each case. Professionals in the Healthcare/Medical field were most likely to see their companies as Laggards. Traditionally, this vertical is slower in adoption due to security and compliance-related issues.

Distribution of Leaders & Laggards Within Each Industry 56% 44% Retail/E-Commerce 49% 51% Manufacturing 61% 39% High Tech 35% 65% Healthcare/Medical 45% 55% **Financial Services** 47% 53% Consulting/Business Services 61% 39% Construction/Engineering 52% 48% Leader Laggard Other

Leaders, Laggards & Trusted Advisors



SD-WAN

More than half of the respondents (60%) expect to increase, or significantly increase, their usage of SD-WAN by the end of 2021.

A wide variety of vertical markets are adopting SD-WAN at approximately the same rates, as shown in Figure 4.1. These numbers represent an increase in budget as well, as in the number of seats to be served by SD-WAN.

For more information on SD-WAN, please download our AVANT 6-12 Report at **www.goavant.net/sdwan-report**

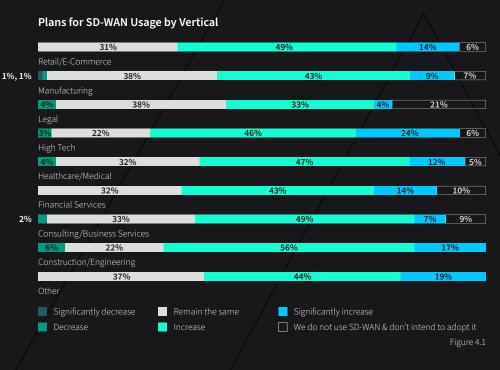
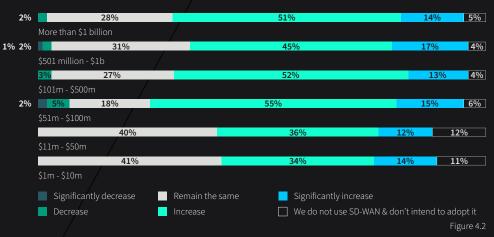


Figure 4.2 shows expansion of SD-WAN usage based on end customer revenue bands.

Plans for SD-WAN Usage by Revenue

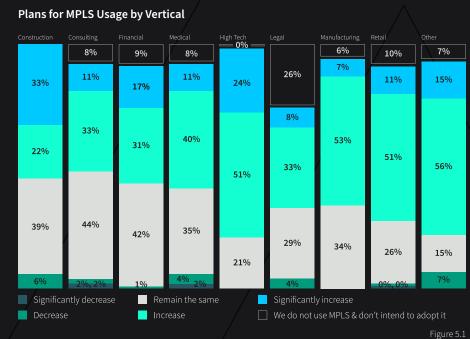


MPLS

Despite the growth of SD-WAN, MPLS continues to grow, despite the fact that MPLS is often the technology being displaced by SD-WAN.

Across the board, 59% of respondents expressed the intention to increase their use of MPLS by the end of 2021, while only a small fraction expected to decrease their use of MPLS.

In many cases, MPLS continues to be the technology-of-choice at the core of the network while SD-WAN is used closer to the edge. However, as SD-WAN continues to make inroads, its position near the core of the network is likely to amplify over time.



Plans for MPLS Usage by Revenue

\$51m - \$100m 1% 8% 6% 6% 11% 13% 10% 12% 21% 14% 13% 19% 42% 36% 51% 47% **50%** 35% 37% 35% 20% 30% 33% 31% 6% Significantly decrease Significantly increase Remain the same Decrease Increase We do not use MPLS & don't intend to adopt it

UCaaS

During the early stages of the Coronavirus/Covid-19, interest in UCaaS spiked by 86% over last year's levels.

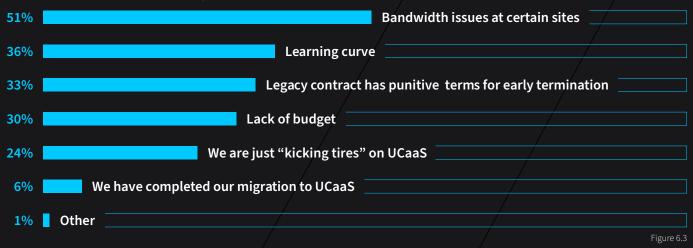
Unified Communications as a Service (UCaaS) continues to gain momentum, both for general market reasons (e.g. widespread cloud adoption) as well as for safety reasons given the onset of the Coronavirus/Covid-19. During the early stages of the Coronavirus/ Covid-19, interest in UCaaS spiked by 86% over last year's levels.

Based on responses from our survey, UCaaS is enjoying high growth with overall usage of the technology, and expansion of seats, expected to increase substantially over the next year. While the consensus of the overall analyst community points to continued high growth, there is a wide range of findings for current penetration.

For more information on UCaaS, please download our AVANT 6-12 Report at <u>www.goavant.net/ucaas-report</u>



When companies choose to defer moving to UCaaS, that decision is most often based on bandwidth concerns, as opposed to a rejection of UCaaS, itself. In fact, most of those companies plan to move to UCaaS within one year.



Reasons Some Companies Still Use Legacy Telephone Systems

Timeframe for UCaaS Adoption				1%
	76%		20%	3%
Retail/E-Commerce				
	72 %		18%	3% 7%
Manufacturing				
50%		25%	8%	16%
Legal				
	78%		13%	3% 6%
High Tech				
	61%	19	% 10%	10%
Healthcare/Medical			1%	
58	3%	2	7%	14%
Financial Services				
46%		42%		4% 8%
Consulting/Business Services				
	82%			18%
Construction/Engineering				
	80%		10%	10%
Other				
Within 12 months	📕 /1 - 3 years	More than 3 ye	ears [No plans
				Figure 6.4

CCaaS

Contact Center as a Service, better known as CCaaS, is a cloud-based technology that facilitates inbound calls over a variety of channels, such as voice, text, and chatbot.

Features typically includes Automatic Contact Distributor (ACD) and Interactive Voice Response (IVR) to support effective routing. The platforms also integrate with CRM, ERP, and other types of back-end systems. They are also increasing their ability to leverage Artificial Intelligence (AI) and Machine Learning (ML).

According to our survey, CCaaS is being widely adopted by a full range of vertical industries with strong growth numbers.



Timeframe for CCaaS Adoption

	74%	 	13	%	5% 8%
Retail/E-Commerce					
	63%		18%	4%	14%
Manufacturing					
54%	6	13% 4%		29%	
Legal					
	75%		12	2%	13%
High Tech					
5	8%	12%	13%		17%
Healthcare/Medical					
48%		33%		3%	16%
Financial Services					
44%		37%		4%	14%
Consulting/Business Services					
	61%		23%		11% 5%
Construction/Engineering					
	69%		17%	4	% 10%
Other					
Within 12 months	📕 1 - 3 years	More than 3 y	rears	٦	No plans
		intere aname y		L	Figure 7.3

laaS

Infrastructure-as-a-service (IaaS) is a cloud-based capability that delivers virtualized computing online.

Like many cloud-based services, IaaS can scale up or scale down based on the current business requirements, with billing on a pay-asyou-go basis. IaaS, which is managed by a cloud service provider, can reduce costs and complexity associated with a legacy data center. However, selection, installation, configuration, and management of software, including operating systems and middleware, remain the responsibility of the customer.

IaaS technology is in the midst of substantial growth, based on feedback from our survey respondents.



When companies choose to retain their on-premises solutions, security concerns leads the list of objections at 56%, while customization capability and bandwidth issues represent distant second and third places.

Reasons Some Companies Still Use Legacy Systems

56%			
Security concerns			
35%			
Customization			
34%			
Bandwidth issues at certain sites			
33%			
Management/oversight concerns			
21%			
Learning curve			
17%			
Preference for CAPEX vs. OPEX			
16%			
We are just "kicking tires" on IaaS			
6%			
We have completed our migration to	laaS		Figure 8.

Colocation

Colocation, (colo), is a based on a large multi-tenant data center where equipment, space, and bandwidth are rented to business customers.

These centers provide servers, storage, networking infrastructure, physical security, power, climate control and space for all of the above. A variety of related services can also be purchased as a means of offloading complexity and potentially reducing costs.

Penetration is fairly evenly dispersed among key verticals, although growth is clearly stronger in some segments than in others.



Survey respondents who are less inclined to adopt colocation most frequently cite security concerns as their primary reasons. However, a number of other issues also factor into the equation, as shown on the chart below.

Reasons Some Companies Still Use Legacy Systems

55%		
Security concerns		
38%		
Customization		
35%		
Management/oversight concerns		
33%		
Bandwidth issues at certain sites		
17%		
We are just "kicking tires" on colocation		
12%		
Preference for CAPEX vs. OPEX		
6%		

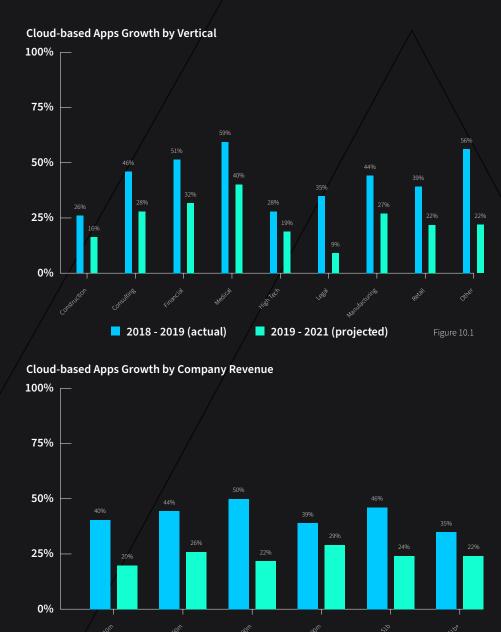
We have completed our migration to colocation

Figure 9.3

Cloud-based Applications

While the adoption of cloud-based applications has been well under way for quite some time, growth numbers continue to rise.

These applications run the gamut from basic office-style tools to advanced ERP, CRM, etc. Uptake is relatively even across the various vertical markets. Failure to adopt is usually linked to security concerns, although that objection continues to fade.



2019 - <u>2021 (projected)</u>

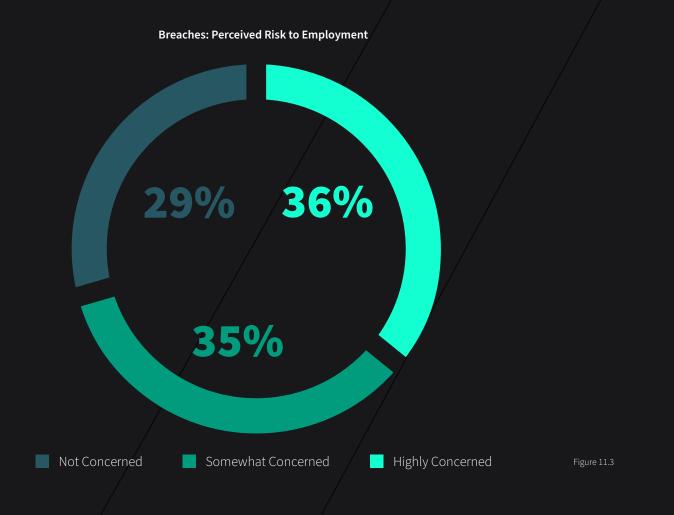
2018 - 2019 (actual)

Security

Years of escalating cyberattacks combined with widespread messaging around the importance of IT security have clearly paid dividends. Overall, only 4% of the survey respondents acknowledge a lack of preparedness.

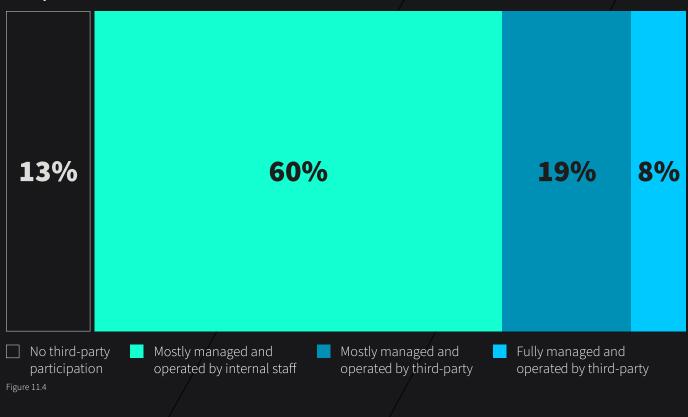
	Droporodpose for Cub	orotto alchy Vartical		
	Preparedness for Cyb			
	3%	57%	40%	
	Retail/E-Commerce			
۳۵		64%	34	%
	Manufacturing			
	4% 8%	50%	38%	
	Legal			
۳۵	4%	50%	45%	
	High Tech			
٤%		70%		28%
	Healthcare/Medical			
L%	4% 39	%	56%	
	Financial Services			
	4%	53%	42%	
	Consulting/Business Services			
		56%	44%	
	Construction/Engineering			
	4%	52%	44%	
	Other			
	Extremely Unprepared	Somewhat Unprepared	Somewhat Prepared	
	Extremely Unprepared	Somewhat Unprepared	Somewhat Prepared	
	Extremely Unprepared	Somewhat Unprepared	Somewhat Prepared	
			Somewhat Prepared	
	Preparedness for Cyb	erattack by Revenue		
٤%	Preparedness for Cyb		Somewhat Prepared	
٤%	Preparedness for Cyb More than \$1 billion	erattack by Revenue 51%	48%	
1%	Preparedness for Cyb More than \$1 billion	erattack by Revenue		
٤%	Preparedness for Cyb More than \$1 billion 8% \$501 million - \$1b	erattack by Revenue 51% 56%	48%	
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	Preparedness for Cyb More than \$1 billion 3% \$501 million - \$1b 3% \$101m - \$500m	erattack by Revenue 51% 56%	48% 41%	Figure 1
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	Preparedness for Cyb More than \$1 billion 3% \$501 million - \$1b 3% \$101m - \$500m \$51m - \$100m \$% \$11m - \$50m 4% 6% \$1m - \$10m	erattack by Revenue 51% 56% 56% 62% 53% 54%	48% 41% 41% 36% 41% 36%	6
	Preparedness for Cyb More than \$1 billion 3% \$501 million - \$1b 3% \$101m - \$500m \$51m - \$100m \$51m - \$100m \$11m - \$50m \$11m - \$50m	erattack by Revenue 51% 56% 56% 62% 53%	48% 41% 41% 36% 41% 36%	Figure 1

Slightly more than 60% expressed concern that a data breach could bring about termination of their employment. This is not particularly surprising, given that people who fail at jobs for which they were specifically hired frequently experience a lack of job security.



Sixty percent of the respondents report that their security management is handled primarily by their internal teams, but only 13% manage their security with no third-party participation whatsoever. Most companies feel like they are either highly qualified, or somewhat qualified to handle security on their own.

For more information on security, please download our AVANT 6-12 Report at **www.goavant.net/security-report**



Security: Internal vs. Outsourced

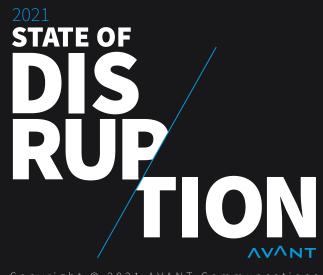
Weighting Statement

Most often in survey research, the distribution of respondent characteristics, like age and company size, differs from what is known to be the true distribution of the population from which it came.

If characteristics of the true distribution are known, it is appropriate to weight the survey sample to reflect the true distribution.

In order to ensure that, the results of the AVANT State of Disruption survey are representative of the distribution of establishments in the US, a weighting scheme was applied based on the number of employees in the respondent company. The population data was taken from the number of firms, number of establishments, employment, and annual payroll for the United States. For some size categories it was necessary to interpolate between categories in order to match the employment categories of the sample. Other adjustments were made in order to eliminate firms with under 10 employees from the weighting scheme since they were deemed to be irrelevant to the analysis.

The weights applied were relatively small. Sensitivity testing revealed that in most aspects of the analysis, the results from the weighted and unweighted samples were not significant. We believe, however, that weighting the sample will make it easier to interpret results for future comparable studies.



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