Cybersecurity in the Workplace: Robustness Checks of the 2022 Report*

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Workplace Trends

We considered the workplace of those participants identifying themselves as workers when filling the survey.[1] Notice that we take out those responses implying that the participant was either not working during the analysed period or answering they did not know their workplace.

In general, before the pandemic, the majority of participants residing in most countries were working solely from the office except Brazil which had a significantly higher proportion of participants working solely from home before the pandemic than the rest of countries. This might have an impact on the results of the total sample, under-representing the percentage of workers working solely from the office (and over-representing the percentage of workers working solely from home) before the pandemic.

Table 1: Workplace Before the Pandemic

	All countries	Brazil	United States	Rest of countries
Working solely from home	22%	32%	19%	19%
Working solely from office	49%	34%	50%	55%
Flexible, hybrid	20%	23%	21%	18%
Decentralised work centre	9%	11%	10%	8%
N	3,948	1,009	795	2,144

The majority of participants were working solely from home during the pandemic across the sample, with similar percentages for each workplace.

Table 2: Workplace During the Pandemic

	All countries	Brazil	United States	Rest of countries
Working solely from home	61%	60%	64%	62%
Working solely from office	15%	14%	17%	15%
Flexible, hybrid	19%	19%	16%	19%
Decentralised work centre	4%	6%	3%	4%
N	3,822	1,036	726	2,060

Currently, the overall results are driven by the higher percentage of participants working solely from home in Brazil and the United States compared to the rest of the sample. If we focus on the rest of countries, we observe that our results might be under-representing the proportion of workers that are back working solely from office, and over-representing the proportion of workers that are still working solely from home. However, the percentage of participants choosing the hybrid option is practically constant across countries.

[1] We considered questions 11 and 12.1 to identify any incoherence across the answers of participants.

Table 3: Workplace Currently

	All countries	Brazil	United States	Rest of countries
Working solely from home	37%	45%	43%	31%
Working solely from office	30%	23%	26%	35%
Flexible, hybrid	27%	26%	25%	28%
Decentralised work centre	6%	6%	6%	5%
N	4,315	1,153	865	2,297

Regarding the need to access internet to work or study, participants residing across the different countries concentrated in the categories where internet access is crucial to perform their work or studies. There were some differences, for example the United States had a higher proportion of participants that never access internet to work or study, but as well a higher proportion of participants that cannot' do without it. Overall, around 68% of participants across the sample needed to access internet to work or study for most of theirs tasks or can't do it without internet.

Table 4: Need to Access Internet to Work or Study

	All countries	Brazil	United States	Rest of countries
Don't know	3%	2%	3%	2%
Never	4%	3%	8%	4%
Rarely	9%	10%	9%	9%
Minority of tasks	16%	19%	13%	16%
Most tasks	33%	37%	26%	34%
Can't do without	34%	29%	42%	34%
N	7,330	1,922	1,398	4,010

The majority of participants agreed with the statements in Table 5 across the sample except "I prefer to work/study from an office outside my home". The lower proportion of participants agreeing with this statement in the United States and Brazil might have had an impact in this overall result, but in any case it was the least popular statement across countries. We observe as well a small impact of Brazil and the United States when looking at the proportion of participants agreeing with the preferences to work/study from home and an hybrid option. When removing participants residing in these two countries, there is a slightly smaller proportion of participants selecting the home option, and a slightly higher proportion of participants selecting the hybrid option. However, these differences are only four percentage points respect the overall results.

Table 5: Agreement with Statements

	All countries	Brazil	United States	Rest of countries
Online access at home made it possible to work/study at home	87%	90%	81%	87%
I am very satisfied with the use of online systems in working/studying from home	83%	85%	78%	83%
I prefer to work/study from home	70%	74%	75%	66%
I prefer to work/study from an office outside my home	39%	35%	29%	45%
I prefer an hybrid option	63%	61%	49%	69%
N	7,330	1,922	1,398	4,010

Tables 6 to 13 contain the percentage of participants who selected the workplace that better indicate the statement on the title of each table. In general, the results across the different countries and subsamples did not show significant differences, with the majority of participants feeling more productive working/studying at home, followed by their organisation or university premises.

Table 6: "I am more productive"

	All countries	Brazil	United States	Rest of countries
Working/studying at home	60%	65%	64%	55%
Working/studying at the office or university	31%	26%	25%	37%
Working/studying at a decentralised work place	12%	12%	10%	13%
Don't know	6%	5%	5%	6%
Not applicable	4%	3%	7%	3%
N	7,330	1,922	1,398	4,010

As displayed in Table C7, the workplace where more participants felt lonely when working or studying was at home. Notice that, on the one hand, almost half of participants residing in the United States selected the option not applicable for the statement "I am lonely", being the next most popular selected option "working/studying at home". On the other, the proportion of participants selecting home was larger in Brazil than in the rest of the sample. The opposite trends in these two countries cancelled out when looking at the whole sample, as the percentages considering all countries do not change much from the percentages of all the countries except Brazil and the United States.

Table 7: "I am lonely"

	All countries	Brazil	United States	Rest of countries
Working/studying at home	43%	59%	25%	43%
Working/studying at the office or university	12%	12%	11%	12%
Working/studying at a decentralised work place	9%	8%	9%	10%
Don't know	15%	13%	13%	17%
Not applicable	24%	11%	46%	22%
N	7,330	1,922	1,398	4,010

There were less differences across workplaces when asking participants where they got more distractions. In general, as shown in Table C8, participants felt slightly more distracted at home than at the office or in a decentralised work place, but in the United States that order was reversed, feeling more distracted at the office than at home or in a decentralised work place. In any case, these differences are only of 4 percentage points.

Table 8: "I get more distractions"

	All countries	Brazil	United States	Rest of countries
Working/studying at home	33%	36%	27%	34%
Working/studying at the office or university	26%	24%	31%	25%
Working/studying at a decentralised work place	26%	24%	27%	26%
Don't know	11%	12%	7%	12%
Not applicable	12%	9%	18%	12%
N	7,330	1,922	1,398	4,010

When asking participants about from which workplace they perceived losing touch with important people to their work, we observe differences across countries that may have had an impact on the overall results. The most selected option across the sample was home, except for the United States where 42 percent of participants selected "not applicable".

Table 9: "I lose touch with people important to my work"

	All countries	Brazil	United States	Rest of countries
Working/studying at home	38%	38%	27%	42%
Working/studying at the office or university	12%	14%	11%	12%
Working/studying at a decentralised work place	12%	12%	10%	13%
Don't know	17%	20%	13%	17%
Not applicable	25%	20%	42%	21%
N	7,330	1,922	1,398	4,010

When asking participants about where they have more problems with communication, a growing proportion of participants selected "not applicable", and this percentage was higher in the United States than in the rest of the sample. Regarding the three workplaces considered in the survey (home, office/university, or decentralised workplace), participants across the sample perceived to have more communication problems at home than in the other workplaces except for the United States, where the differences across options was smaller.

Table 10: "I have too many problems with communication"

	All countries	Brazil	United States	Rest of countries
Working/studying at home	23%	25%	13%	25%
Working/studying at the office or university	15%	16%	17%	14%
Working/studying at a decentralised work place	16%	16%	15%	17%
Don't know	15%	16%	11%	17%
Not applicable	35%	31%	48%	31%
N	7,330	1,922	1,398	4,010

As before, when asking participants about their problems with technology at different workplaces, the most popular answer was "not applicable", and the United States had a higher proportion of participants selecting this option than the rest of the sample. While the differences across the three work places in the survey were small, participants perceived more problems with technology at home than in the other two options, except the participants residing in the United States that perceived slightly more problems in decentralised work places.

Table 11: "I experience many problems with technology"

	All countries	Brazil	United States	Rest of countries
Working/studying at home	19%	19%	13%	22%
Working/studying at the office or university	13%	12%	12%	13%
Working/studying at a decentralised work place	14%	13%	15%	15%
Don't know	15%	16%	10%	16%
Not applicable	43%	42%	55%	39%
N	7,330	1,922	1,398	4,010

When asking participants about security problems in the workplace, the option "not applicable" was the most selected across the sample, specially in the United States. While working or studying at a decentralised workplace was the most selected option, that was not the case in Brazil, where the most selected workplace was home closely followed by a decentralised workplace. However, this does not seem to impact the overall results.

Table 12: "Security is a problem"

	All countries	Brazil	United States	Rest of countries
Working/studying at home	19%	21%	13%	20%
Working/studying at the office or university	13%	14%	12%	13%
Working/studying at a decentralised work place	21%	18%	20%	22%
Don't know	17%	18%	13%	19%
Not applicable	36%	33%	49%	32%
N	7,330	1,922	1,398	4,010

When asking about where participants perceived that privacy was a problem, the most selected option was again "not applicable", again with United States having a higher proportion that the rest of the sample, although this impact to the whole sample does not seem significant. Across the three workplaces included in the sample, a decentralised workplace was the most selected except in Brazil, where again home was seen slightly more problematic than a decentralised workplace.

Table 13: "Privacy is a problem"

	All countries	Brazil	United States	Rest of countries
Working/studying at home	19%	23%	14%	19%
Working/studying at the office or university	20%	19%	22%	21%
Working/studying at a decentralised work place	25%	22%	26%	27%
Don't know	15%	15%	10%	16%
Not applicable	30%	29%	41%	27%
N	7,330	1,922	1,398	4,010

Culture in Organisations

Focusing on those participants working, the higher proportion of them across the sample worked in organisations allowing a hybrid mix of working from home and from office. This proportion was lower in the United States than in the rest of the sample, and, in addition, in the United States there was a higher proportion of participants working in organisations permitting only working from home or remotely than in the rest of the sample. However, when comparing the results with and without the United States (and Brazil), the differences are close to zero.

Table 14: Workplace Policies

	All countries	Brazil	United States	Rest of countries
Does not permit my work anywhere that is not my organisation's premises	12%	13%	10%	12%
Allows a hybrid mix of working from home and work from my organisation's premises	49%	51%	37%	51%
Permits me only to work from home or remotely	21%	19%	31%	18%
Doesn't apply to my job	11%	8%	14%	11%
Don't know	7%	8%	7%	7%
N	4,335	1,177	868	2,290

Cybersecurity Issues

In the three periods of time studied in this survey, there was a slightly higher proportion of participants residing in the United States than in the rest of the sample that experienced the cybersecurity issues included in the survey. This phenomenon could be a problem of criminals targeting the United States in particular, or it could be as well that participants residing in the United States are more aware of these issues than the rest of participants. In any case, the results of the complete sample (all countries) do not differ much from the results of the analysed subsamples.

Table 15: Cybersecurity Issues Before the Pandemic

	All countries	Brazil	United States	Rest of countries
Received obscene or abusive e-mails	21%	19%	23%	22%
Received a virus, spyware or other malicious software	20%	20%	21%	19%
Saw unsolicited cruel or hateful comments or images online	12%	10%	16%	12%
Been harassed or bullied online	9%	7%	12%	9%
Been a victim of a scam or fraud online	11%	7%	17%	11%
Been a victim of online identity theft	5%	3%	11%	5%
Believed someone accessed your social network or e-mail account	11%	8%	21%	10%
Personal data or passwords stolen or hacked	9%	5%	20%	8%
Computer or other digital device stolen	5%	3%	11%	4%
Tricked into opening a fraudulent message or attachment	13%	11%	16%	12%
Tricked into providing personal information online	8%	6%	10%	8%
Lost data that was on my computer or other device	7%	4%	14%	6%
Other problem	1%	1%	1%	1%
Haven't faced any cybersecurity problems	31%	36%	29%	30%
Don't know	12%	14%	9%	12%
N	7,330	1,922	1,398	4,010

During the pandemic, there was a higher percentage of participants residing in the United States selecting many of the cybersecurity issues included in the survey. For example, more participants in the United States than the rest of the sample had their personal data of passwords stolen or hacked, or believed someone accessed their social network or e-mail account. However, when comparing the percentages of each cybersecurity issue with all the countries and the rest of the countries (without Brazil and the United States), we do not see relevant differences.

Table 16: Cybersecurity Issues During the Pandemic

	All countries	Brazil	United States	Rest of countries
Received obscene or abusive e-mails	27%	24%	29%	29%
Received a virus, spyware or other malicious software	24%	26%	24%	23%
Saw unsolicited cruel or hateful comments or images online	15%	13%	19%	14%
Been harassed or bullied online	10%	8%	14%	10%
Been a victim of a scam or fraud online	19%	15%	30%	17%
Been a victim of online identity theft	8%	4%	17%	6%
Believed someone accessed your social network or e-mail account	16%	11%	30%	14%
Personal data or passwords stolen or hacked	13%	6%	30%	11%
Computer or other digital device stolen	5%	3%	11%	3%
Tricked into opening a fraudulent message or attachment	17%	14%	23%	16%
Tricked into providing personal information online	10%	9%	15%	9%
Lost data that was on my computer or other device	7%	4%	16%	6%
Other problem	1%	1%	1%	1%
Haven't faced any cybersecurity problems	22%	24%	18%	22%
Don't know	9%	11%	6%	9%
N	7,330	1,922	1,398	4,010

After the pandemic, when the survey was completed (currently), we observe again that a higher proportion of participants residing in the United States selecting most of the cybersecurity issues included in the survey. Curiously, receiving obscene or abusive e-mails and receiving a virus,

spyware or other malicious software have almost the same percentages across the different columns in the three periods of time (Tables 15-17).

Table 17: Cybersecurity Issues Currently

	All countries	Brazil	United States	Rest of countries
Received obscene or abusive e-mails	29%	26%	29%	30%
Received a virus, spyware or other malicious software	24%	26%	24%	24%
Saw unsolicited cruel or hateful comments or images online	15%	14%	20%	14%
Been harassed or bullied online	9%	8%	12%	9%
Been a victim of a scam or fraud online	20%	16%	29%	18%
Been a victim of online identity theft	6%	3%	16%	5%
Believed someone accessed your social network or e-mail account	16%	11%	31%	14%
Personal data or passwords stolen or hacked	13%	6%	32%	10%
Computer or other digital device stolen	5%	2%	13%	4%
Tricked into opening a fraudulent message or attachment	17%	14%	23%	16%
Tricked into providing personal information online	9%	7%	15%	9%
Lost data that was on my computer or other device	8%	4%	16%	6%
Other problem	1%	1%	1%	1%
Haven't faced any cybersecurity problems	24%	26%	22%	25%
Don't know	8%	10%	4%	8%
N	7,330	1,922	1,398	4,010

Regarding how effective participants perceive those online protection measures included in the survey, Table 18 shows the percentage of participants strongly agreeing with them across the sample. There was a lightly higher percentage of participants residing in the United States that strongly agreed with these protective measures, but this difference does not seem to have a relevant impact on the total result.

Table 18: Participants Strongly Agreeing with the Effectiveness of these Protection Measures

	All countries	Brazil	United States	Rest of countries
Keeping family members away from work devices	26%	23%	34%	24%
Using a sliding webcam cover	33%	30%	40%	31%
Using strong passwords	67%	65%	71%	65%
Carefully managing your passwords	67%	65%	72%	66%
Keeping operating systems and software up to date	60%	63%	67%	57%
Using secure networks when connecting to the Internet	64%	66%	68%	62%
Being careful to avoid phishing and scam e-mails	67%	62%	73%	66%
Sharing virtual meetings URL securely	48%	53%	49%	45%
Using licenced (not pirated) software	57%	61%	59%	54%
Not sharing personal information on social media	62%	64%	68%	60%
Checking the authenticity of people who contact you online	60%	63%	65%	58%
Not visiting websites that look suspicious	62%	65%	67%	60%
Using two- or multi-factor authentication	56%	58%	59%	53%
Blocking pop-up ads	52%	49%	56%	51%
Managing records of your Internet use like "cookies"	47%	48%	51%	45%
N	7,330	1,922	1,398	4,010

Participants across the sample seem to follow the same trend, using mainly only personal devices when working from home. Notice that Brazil had a slightly higher proportion of participants using only personal devices, and the United States had a slightly higher proportion of participants using a mix of corporate and personal devices. However, the results on the total sample are not significantly affected by this difference.

Table 19: Devices Used when Working from Home

	All countries	Brazil	United States	Rest of countries
Only personal devices	55%	60%	51%	53%
Devices provided by your employer	16%	13%	14%	18%
A mix of corporate and personal devices	26%	24%	31%	25%
Don't know	4%	4%	4%	4%
N	4,335	1,177	868	2,290

There is variance across the sample on the proportion of participants with employers implementing the measures detailed in Table 20. Curiously, there is a slightly lower proportion of participants in Brazil and the United States with employers implementing some of these measures than in the rest of countries. For example, less than 50 percent of participants residing in Brazil have employers providing multifactor authentication measures, although it is pretty close. Overall, these differences do not seem to have a relevant impact on the total results.

Table 20: Participants Working in Organisations with these Online Measures

	All countries	Brazil	United States	Rest of countries
Provides antivirus software	64%	63%	60%	67%
Provides a corporate Virtual Private Network (VPN) for your use	53%	52%	52%	55%
Makes corporate applications accessible to you only via encrypted communication channels	55%	54%	53%	57%
Provides you access to IT support	65%	62%	62%	69%
Has clear policies for responding to any security incidents or personal data breaches	63%	60%	61%	65%
Provides training on good cybersecurity practices for staff	57%	55%	54%	59%
Has policies on working from home or remotely	63%	60%	63%	64%
Provides secure videoconferencing software	59%	59%	54%	61%
Provides corporate centralised storage solutions and Internet resources to share working files	59%	58%	52%	62%
Provides multifactor authentication	56%	48%	58%	60%
Provides a securely configured device, such as a laptop	57%	51%	51%	62%
Has me use software that is pre-approved by the organisation	61%	57%	60%	63%
N	4,335	1,177	868	2,290

Some Factors Shaping the Prevalence of Different Cybersecurity Issues

The most common age range across participants in group 0 is 25-34 years old. The proportion of participants aged 18-24 is higher in Brazil (29%) and lower in the United States (9%) respect the rest of countries (19%), but that does not affect the overall result (19%). Similarly, the proportion of participants aged 35-44 is higher in the United States (34%) and lower Brazil (18%) than the rest of countries (27%), not affecting the result with all countries (27%).

Table 21: Age Distribution of Participants in Group 0

	All countries	Brazil	United States	Rest of countries
18-24	19%	29%	9%	19%
25-34	43%	39%	41%	44%
35-44	27%	18%	34%	27%
45-54	9%	10%	13%	8%
55-64	2%	3%	2%	2%
65-74	0%	0%	1%	0%
75-84	0%	0%	0%	0%
85 +	0%	0%	0%	0%
Prefer not to answer	0%	1%	1%	0%
N	1,032	188	193	651

As shown in Table 22, the most common age range across participants in group 1 is, again, 25-34 years old, although the proportions are smaller across countries than in group 0. Moreover, for those participants residing in the United States, the most prominent age group is 35-44 years old.

Table 22: Age Distribution of Participants in Group 1

	All countries	Brazil	United States	Rest of countries
18-24	19%	24%	10%	17%
25-34	35%	37%	28%	37%
35-44	30%	26%	41%	29%
45-54	10%	8%	13%	10%
55-64	3%	3%	4%	3%
65-74	0%	0%	1%	0%
75-84	0%	0%	1%	0%
85 +	0%	0%	0%	1%
Prefer not to answer	2%	2%	3%	3%
N	651	238	110	303

In group 2, the proportion of participants aged 25-34 and 35-44 is very similar across the sample, containing above 70% of participants (see Table 23).

Table 23: Age Distribution of Participants in Group 2

	All countries	Brazil	United States	Rest of countries
18-24	11%	12%	8%	12%
25-34	38%	36%	32%	41%
35-44	35%	34%	42%	32%
45-54	12%	14%	15%	11%
55-64	2%	3%	2%	2%
65-74	1%	0%	2%	0%
75-84	0%	0%	0%	0%
85 +	0%	0%	0%	0%
Prefer not to answer	1%	1%	0%	1%
N	423	77	101	245

Table 24 describes the percentage of participants in group 0 (WFH during the pandemic, from office before) selecting each industrial sector across countries. While the financial and professional services has a high proportion of participants across the sample, the United States has a higher proportion of participants selecting health services and public service than the rest of the sample, that has higher proportions of participants working in commerce and education. However, the results in the United States does no impact the total outcomes.

Table 24: Distribution of Industries in Group 0

	All countries	Brazil	United States	Rest of countries
Agriculture, forestry and mining	3%	3%	1%	3%
Construction	5%	5%	6%	5%
Energy	3%	1%	2%	4%
Commerce	11%	19%	8%	10%
Transport and shipping	2%	2%	3%	2%
Education	10%	10%	6%	12%
Financial and professional services	16%	14%	16%	16%
Food, drink and tobacco	4%	2%	5%	4%
Other industries	6%	4%	5%	7%
Health services	7%	4%	13%	7%
Hotels, tourism and catering	3%	3%	4%	3%
Public service	7%	4%	9%	7%
Mechanical and electrical engineering	6%	6%	6%	5%
Media, culture and graphical	5%	10%	4%	4%
Postal and telecommunications services	6%	7%	8%	5%
Don't know	6%	6%	4%	6%
N	1,032	188	193	651

As shown in Table 25, commerce and financial and professional services have a high proportion of participants in group 1 (working from home during and before the pandemic) across the sample. The proportion of participants working in commerce is higher in Brazil than in the rest of the sample, although this has a minor effect on the total results. The proportion of participants in the United States working in health services, public service, and media, culture and graphical sectors seem to be slightly higher than the rest of the sample, but this is not affecting the total results. This could be driven as well by the smaller number of participants in group 1 residing in the United States than Brazil or the rest of the countries group.

Table 25: Distribution of Industries in Group 1

	All countries	Brazil	United States	Rest of countries
Agriculture, forestry and mining	4%	5%	2%	2%
Construction	5%	5%	4%	3%
Energy	1%	2%	0%	0%
Commerce	16%	23%	6%	6%
Transport and shipping	2%	2%	1%	1%
Education	6%	4%	1%	4%
Financial and professional services	12%	11%	7%	6%
Food, drink and tobacco	5%	5%	1%	3%
Other industries	5%	5%	2%	3%
Health services	8%	4%	9%	4%
Hotels, tourism and catering	1%	1%	1%	1%
Public service	7%	5%	7%	3%
Mechanical and electrical engineering	3%	3%	1%	2%
Media, culture and graphical	7%	8%	6%	3%
Postal and telecommunications services	6%	10%	4%	2%
Don't know	10%	9%	8%	4%
N	651	238	110	303

Table 26 describes the percentage of participants in group 2 (working from office during and before the pandemic), the smallest group of the three analysed, selecting each industrial sector across countries. A relevant proportion of participants work in health services across the sample, but in general the distribution for the United States seem slightly different from the rest of the countries. For example, the proportion of participants working in commerce was lower in the United States than the rest of the sample, and the proportion of participants working in construction was higher in the United States than in the rest of the sample. Again, this could be driven by the small numbers of participants considered in each country group in group 2. In any case, the results in the United States do not seem to have an impact on the overall results for group 2.

Table 26: Distribution of Industries in Group 2

	All countries	Brazil	United States	Rest of countries
Agriculture, forestry and mining	3%	6%	4%	1%
Construction	8%	3%	16%	6%
Energy	3%	0%	2%	5%
Commerce	9%	14%	1%	11%
Transport and shipping	5%	4%	3%	7%
Education	4%	0%	2%	6%
Financial and professional services	8%	6%	11%	7%
Food, drink and tobacco	11%	10%	18%	8%
Other industries	6%	8%	5%	6%
Health services	15%	18%	11%	16%
Hotels, tourism and catering	4%	0%	6%	4%
Public service	10%	16%	8%	9%
Mechanical and electrical engineering	3%	0%	1%	5%
Media, culture and graphical	2%	3%	3%	2%
Postal and telecommunications services	3%	4%	2%	3%
Don't know	6%	8%	8%	5%
N	423	77	101	245

As shown in Table 27, the distribution of participants in group 0 across the different occupations is similar across the sample, with some small differences. For example, the proportion of managers, directors and proprietors in Brazil seem to be higher than the rest of the sample, slightly impacting on the overall results. And the proportion of participants with occupations related to sales and costumer service was higher in the United States than the rest of the sample, without affecting the overall results.

Table 27: Distribution of Occupation in Group 0

	All countries	Brazil	United States	Rest of countries
Don't know	4%	5%	3%	4%
Managers, directors and proprietors	19%	30%	15%	16%
Science, research, engineering and technology professionals	16%	12%	15%	17%
Health, social care and caring personal professionals	6%	5%	9%	5%
Business, media and public service professionals	7%	4%	8%	8%
Teaching and other educational professionals	8%	8%	4%	9%

Administrative and secretarial occupations	16%	18%	13%	16%
Sales and customer service occupations	16%	10%	23%	16%
Trades in different sectors	4%	3%	7%	4%
Culture, media, sports, leisure, travel, and related occupations	3%	3%	1%	3%
Protective service, community and civil enforcement occupations	1%	0%	0%	1%
Other occupations	2%	2%	3%	1%
N	1,032	188	193	651

Again, the distribution of occupations of participants in group 1 (see Table 28) is similar across the sample, with Brazil having a higher proportion of managers, directors, and proprietors, and the United States having a higher proportion of participants in occupations related to sales and costumer service occupations than the rest of the sample. Moreover, there is a lower proportion of participants in educational professions in Brazil and the United States than in the rest of countries, having a slight impact on the overall results.

Table 28: Distribution of Occupation in Group 1

	All countries	Brazil	United States	Rest of countries
Don't know	8%	7%	9%	8%
Managers, directors and proprietors	18%	26%	15%	13%
Science, research, engineering and technology professionals	10%	11%	7%	12%
Health, social care and caring personal professionals	8%	5%	12%	9%
Business, media and public service professionals	8%	6%	6%	9%
Teaching and other educational professionals	4%	1%	1%	8%
Administrative and secretarial occupations	12%	17%	7%	10%
Sales and customer service occupations	19%	14%	31%	19%
Trades in different sectors	5%	5%	5%	5%
Culture, media, sports, leisure, travel, and related occupations	3%	3%	5%	3%
Protective service, community and civil enforcement occupations	1%	2%	1%	1%
Other occupations	3%	4%	0%	3%
N	651	238	110	303

As Table 29 displays, the most common occupations across participants in group 2 are related to health, sales and costumer service. There were differences across the sample, potentially driven by the lower number of participants in group 2. For example, compared to the rest of countries, the proportion of administrative and secretarial occupations was higher in Brazil and smaller in the United States, without affecting the overall result. Moreover, the proportion of participants in sales, costumer service, and trades in different sectors is higher in the United States than in the rest of the sample, slightly inflating the overall results for these two categories. Finally, the proportion of participants working in science was smaller in the United States than the rest of the country, without a significant impact on the overall results.

Table 29: Distribution of Occupation in Group 2

	All countries	Brazil	United States	Rest of countries
Don't know	5%	4%	4%	6%
Managers, directors and proprietors	12%	17%	9%	12%
Science, research, engineering and technology professionals	8%	8%	3%	10%
Health, social care and caring personal professionals	14%	17%	12%	14%
Business, media and public service professionals	4%	0%	7%	4%
Teaching and other educational professionals	3%	0%	1%	4%
Administrative and secretarial occupations	16%	26%	6%	16%
Sales and customer service occupations	17%	14%	28%	14%
Trades in different sectors	7%	4%	16%	4%
Culture, media, sports, leisure, travel, and related occupations	4%	0%	4%	4%
Protective service, community and civil enforcement occupations	4%	3%	1%	5%
Other occupations	7%	8%	10%	5%
N	423	77	101	245

The percentage of participants in group 0 experiencing each cybersecurity issue in Table 30 is similar across the sample, with some exceptions that do not seem to affect the total results. For example, Brazil had a higher percentage of participants than the rest of the sample selecting that they haven't faced any cybersecurity problems, but, on the other extreme, Brazil had a lower percentage of participants who believed someone accessed their social network, had their personal data or passwords stolen or hacked, or lost data in their devices. Compared to the rest of the sample, a lower proportion of participants residing in the United States recalled receiving obscene or abusive e-mails. However, the United States had a higher proportion of participants than the rest

of the sample selecting other issues, such as having their personal data or passwords stolen or hacked, have been a victim of online identity theft, or a scam or fraud online.

Table 30: Current Cybersecurity Issues in Group 0

	All countries	Brazil	United States	Rest of countries
Received obscene or abusive e-mails	33%	33%	28%	34%
Received a virus, spyware or other malicious software	29%	28%	27%	30%
Saw unsolicited cruel or hateful comments or images online	17%	15%	21%	16%
Been harassed or bullied online	9%	8%	12%	8%
Been a victim of a scam or fraud online	19%	17%	27%	17%
Been a victim of online identity theft	6%	1%	17%	4%
Believed someone accessed your social network or e-mail account without your permission	20%	13%	28%	19%
Personal data or passwords stolen or hacked	14%	3%	33%	12%
Computer or other digital device stolen	6%	2%	16%	4%
Tricked into opening a fraudulent message or attachment	22%	23%	27%	21%
Tricked into providing personal information online	12%	13%	18%	10%
Lost data that was on my computer or other device	9%	2%	19%	8%
Other problem	0%	0%	1%	0%
Haven't faced any cybersecurity problems	22%	26%	19%	21%
Don't know	3%	3%	2%	4%
N	1,032	188	193	651

As shown in Table 31, the percentage of participants in group 1 experiencing each cybersecurity issue is similar across the sample, with the largest proportions of participants experiencing receiving obscene or abusive e-mails, malicious software, and being victims of a scam online. We observe as well that a large percentage of participants answering that they did not face any cybersecurity problem. This category can include those participants who do not recall experiencing any cybersecurity issue, and those who experienced one but it did not imply any problem. Again, there is a higher percentage of participants residing in the United States selecting each cybersecurity issue than in the rest of the sample, without having an impact on the overall results.

Table 31: Current Cybersecurity Issues in Group 1

	All countries	Brazil	United States	Rest of countries
Received obscene or abusive e-mails	32%	29%	38%	32%
Received a virus, spyware or other malicious software	26%	31%	23%	23%
Saw unsolicited cruel or hateful comments or images online	12%	12%	17%	11%
Been harassed or bullied online	10%	7%	14%	11%
Been a victim of a scam or fraud online	22%	14%	35%	22%
Been a victim of online identity theft	6%	3%	11%	7%
Believed someone accessed your social network or e-mail account without your permission	16%	12%	25%	15%
Personal data or passwords stolen or hacked	10%	7%	22%	8%
Computer or other digital device stolen	6%	3%	13%	5%
Tricked into opening a fraudulent message or attachment	16%	15%	17%	15%
Tricked into providing personal information online	7%	5%	12%	8%
Lost data that was on my computer or other device	6%	3%	13%	5%
Other problem	1%	1%	0%	1%
Haven't faced any cybersecurity problems	23%	22%	27%	21%
Don't know	8%	9%	2%	10%
N	651	238	110	303

When looking at the current cybersecurity issues perceived by participants in group 2 (see Table 32), one of the most popular issues (received obscene or abusive e-mails) have lower percentages of participants in Brazil and the United States than in the rest of countries, slightly impacting on the total results. The United States has as well a lower percentage of participants than the rest of the sample selecting some issues like receiving a virus or being tricked into opening a fraudulent message. However, the percentage of participants selecting each issue tends to be higher in the United States than in the rest of the sample, having a small impact on the overall results. For example, the most important impact would be on the percentage of participants selecting being a victim of online identity theft, which is 6 percent for the total sample but 2 percent without Brazil (4%) and the United States (19%). In any case, the number of participants in group 2 is small, specially when we split them across countries, so these results could be driven by the small numbers effect.

Table 32: Current Cybersecurity Issues in Group 2

	All countries	Brazil	United States	Rest of countries
Received obscene or abusive e-mails	30%	26%	26%	33%
Received a virus, spyware or other malicious software	24%	30%	14%	26%
Saw unsolicited cruel or hateful comments or images online	13%	13%	16%	13%
Been harassed or bullied online	6%	5%	10%	4%
Been a victim of a scam or fraud online	15%	13%	23%	12%
Been a victim of online identity theft	6%	4%	19%	2%
Believed someone accessed your social network or e-mail account without your permission	17%	10%	27%	15%
Personal data or passwords stolen or hacked	11%	3%	25%	8%
Computer or other digital device stolen	3%	0%	5%	3%
Tricked into opening a fraudulent message or attachment	13%	16%	8%	15%
Tricked into providing personal information online	8%	8%	11%	6%
Lost data that was on my computer or other device	6%	8%	9%	4%
Other problem	1%	3%	0%	0%
Haven't faced any cybersecurity problems	27%	23%	31%	27%
Don't know	6%	8%	4%	7%
N	423	77	101	245

Table 33 displays the total number of cybersecurity issues selected by those participants in group 0 in key different position of the distribution. We observe a similar pattern across the sample, with the number of selected issues shifting from 0 to 1 during the pandemic for those participants in the 25th position of the distribution, and having the majority of participants in the middle of the distribution (positions 25th to 75th) increasing the number of selected issues during the pandemic. Brazil has a distribution with a smaller variance than the rest of countries where the median value (number of different issues of the participant in the 50th position) does not change across periods, while the United States has a larger variance. Only the distribution in the US seems to have an impact on the period currently, inflating the median value to 2 in the overall sample rather than 1 in the rest of countries.

Table 33: Number of Different Issues in Group 0

		All countries	Brazil	United States	Rest of countries
Participant in the bottom of the distribution	Before the pandemic	0	0	0	0
	During the pandemic	0	0	0	0
	Currently	0	0	0	0
Participant in the 25th position	Before the pandemic	0	0	0	0
	During the pandemic	1	1	1	1
	Currently	1	0.5	1	1
Participant in the 50th position	Before the pandemic	1	1	1	1
	During the pandemic	2	1	2	2
	Currently	2	1	2	1
Participant in the 75th position	Before the pandemic	2	2	3	2
	During the pandemic	3	2	4	3
	Currently	3	2	4	3
Participant in the top of the distribution	Before the pandemic	12	6	12	12
	During the pandemic	12	10	12	12
	Currently	12	7	12	12
N		1,032	188	193	651

Table 34 displays the total number of cybersecurity issues selected by those participants in group 1 in key different position of the distribution. We observe the same distribution across the sample except for the United States, where the variance of the range of cybersecurity issues seem to increase over time. However, this does not seem to have an impact on the overall results.

Table 34: Number of Different Issues in Group 1

		All countries	Brazil	United States	Rest of countries
Participant in the bottom of the distribution	Before the pandemic	0	0	0	0
	During the pandemic	0	0	0	0
	Currently	0	0	0	0
Participant in the 25th position	Before the pandemic	0	0	0	0
	During the pandemic	0	0	0	0
	Currently	0	0	0	0
Participant in the 50th position	Before the pandemic	1	1	1	1
	During the pandemic	1	1	1.5	1
	Currently	1	1	2	1
Participant in the 75th position	Before the pandemic	2	2	3	2
	During the pandemic	2	2	3	2
	Currently	2	2	4	2
Participant in the top of the distribution	Before the pandemic	12	12	12	12
	During the pandemic	12	7	12	12
	Currently	12	9	12	12
N		651	238	110	303

Table 35 displays the values of those participants in group 2 that are key to explain the distribution of the number of different cybersecurity issues that they have perceived over time. We do not observe much differences across the sample. The variance in the distribution for United States seems to increase with time, but that does not affect the overall distribution.

Table 35: Number of Different Issues in Group 2

		All countries	Brazil	United States	Rest of countries
Participant in the bottom of the distribution	Before the pandemic	0	0	0	0
	During the pandemic	0	0	0	0
	Currently	0	0	0	0
Participant in the 25th position	Before the pandemic	0	0	0	0
	During the pandemic	0	0	0	0
	Currently	0	0	0	0
Participant in the 50th position	Before the pandemic	1	1	1	1
	During the pandemic	1	1	1	1
	Currently	1	1	1	1
Participant in the 75th position	Before the pandemic	2	2	2	2
	During the pandemic	2	2	3	2
	Currently	2	2	3	2
Participant in the top of the distribution	Before the pandemic	11	5	10	11
	During the pandemic	11	7	11	11
	Currently	11	7	7	11
N		423	77	101	245

Regarding the volume of perceived cybersecurity problems over periods, Table 36 shows that nearly the majority of participants in group 0 answered more during the pandemic. Compared to the rest of countries (46%), a higher proportion of participants residing in Brazil provided this answer – with a lower proportion of participants answering more before the pandemic and more after the pandemic. Similarly, a higher proportion of participants residing in the United States than in the rest of countries perceived more problems after the pandemic – with a lower proportion of answers in categories no difference and more before the pandemic. However, none of these particularities had a major impact on the overall results.

Table 36: 'When did you experience more cybersecurity problems?' in Group 0

	All countries	Brazil	United States	Rest of countries
I don't know	3%	2%	3%	3%
No difference	21%	21%	16%	22%
More before the pandemic	12%	9%	8%	14%
More during the pandemic	49%	58%	50%	46%
More after the pandemic (currently)	16%	9%	24%	15%
N	940	162	178	600

As shown in Table 37, around one third of participants experienced more cybersecurity problems during the pandemic across the sample, but around the same proportion of participants did not notice a difference across periods. The United States seems to have a slightly different distribution of answers, with participants noticing more cybersecurity problems during and after the pandemic. However, these differences do not seem to have a major impact on the overall results.

Table 37: 'When did you experience more cybersecurity problems?' in Group 1

	All countries	Brazil	United States	Rest of countries
I don't know	3%	2%	2%	5%
No difference	33%	34%	21%	37%
More before the pandemic	12%	13%	9%	13%
More during the pandemic	35%	36%	37%	32%
More after the pandemic (currently)	17%	15%	31%	13%
N	522	187	91	244

Table 38 shows the perception of problems for group 2, which are similar to those in group 1. However, compared to the rest of countries, the proportion of participants in group 2 not perceiving differences across periods is lower in Brazil and the United states, deflating the overall result for this option. These two countries have a higher proportion of participants selecting the option more before the pandemic than the rest of the countries, but the effect on the overall results is minimal.

Table 38: 'When did you experience more cybersecurity problems?' in Group 2

	All countries	Brazil	United States	Rest of countries
I don't know	5%	5%	2%	6%
No difference	34%	29%	25%	40%
More before the pandemic	13%	16%	18%	10%
More during the pandemic	31%	34%	33%	30%
More after the pandemic (currently)	17%	16%	22%	15%
N	343	62	88	193

Regarding the online protection measures offered by participants' employers in group 0 (see Table 39), the percentage of participants selecting each measure is over 60% across the sample except for Brazil, that seems to have lower percentages than the rest of the sample in some of the measures, such as the provision of multifactor authentication or a securely configured device. However, even the less popular online measure in Brazil (providing multifactor authentication) has the majority of participants selecting it (53%).

Table 39: Online Protection Measures from your Employer, Group 0

	All countries	Brazil	United States	Rest of countries
Provides antivirus software	74%	68%	75%	75%
Provides a corporate Virtual Private Network (VPN) for your use	62%	58%	65%	62%
Makes corporate applications accessible to you only via encrypted communication channels	63%	59%	62%	65%
Provides you access to IT support	77%	70%	78%	79%
Has clear policies for responding to any security incidents or personal data breaches	73%	66%	76%	75%
Provides training on good cybersecurity practices for staff	67%	60%	69%	68%
Has policies on working from home or remotely	74%	71%	77%	74%
Provides secure videoconferencing software	68%	67%	69%	68%
Provides corporate centralised storage solutions and Internet resources to share working files	69%	64%	69%	71%
Provides multifactor authentication	65%	53%	72%	67%
Provides a securely configured device, such as a laptop	67%	58%	66%	69%
Has me use software that is pre-approved by the organisation	72%	65%	75%	74%
N	1,022	184	191	647

As shown in Table 40, there is more variance in the responses in group 1 across the sample than in group 0, and a lower proportion of participants selecting them. There is a higher percentage of participants residing in Brazil selecting some of the measures than the rest of the table, such as providing antivirus software or a VPN. Meanwhile, there is a lower percentage of participants residing in the United States selecting some measures than the rest of the sample, such as providing multifactor authentication or a securely configured device. Overall, these results seem to slightly inflate the total results for three measures: providing antivirus software, a VPN, and software pre-approved by the organisation.

Table 40: Online Protection Measures from your Employer, Group 1

	All countries	Brazil	United States	Rest of countries
Provides antivirus software	56%	65%	49%	51%
Provides a corporate Virtual Private Network (VPN) for your use	47%	53%	50%	42%
Makes corporate applications accessible to you only via encrypted communication channels	50%	54%	48%	47%
Provides you access to IT support	55%	57%	54%	53%
Has clear policies for responding to any security incidents or personal data breaches	55%	61%	50%	51%
Provides training on good cybersecurity practices for staff	50%	53%	43%	50%
Has policies on working from home or remotely	57%	62%	48%	55%
Provides secure videoconferencing software	54%	55%	48%	55%
Provides corporate centralised storage solutions and Internet resources to share working files	53%	55%	47%	54%
Provides multifactor authentication	54%	53%	48%	57%
Provides a securely configured device, such as a laptop	50%	53%	43%	51%
Has me use software that is pre-approved by the organisation	54%	61%	53%	50%
N	637	234	107	296

Focusing now on group 2, again the proportion of participants selecting each measure is lower than group 0, and we observe variance across the sample (see Table 41). For example, there is a lower proportion of participants residing in Brazil and the United States selecting that their employers provide antivirus software than the rest of countries, slightly reducing the overall result (65% without Brazil and the United States, 60% with all countries). The rest of differences across the sample do not impact the overall results.

Table 41: Online Protection Measures from your Employer, Group 2

	All countries	Brazil	United States	Rest of countries
Provides antivirus software	60%	57%	52%	65%
Provides a corporate Virtual Private Network (VPN) for your use	45%	50%	44%	44%
Makes corporate applications accessible to you only via encrypted communication channels	47%	49%	45%	48%
Provides you access to IT support	57%	59%	52%	59%
Has clear policies for responding to any security incidents or personal data breaches	54%	55%	56%	53%
Provides training on good cybersecurity practices for staff	50%	49%	48%	51%
Has policies on working from home or remotely	47%	50%	53%	44%
Provides secure videoconferencing software	47%	53%	47%	44%
Provides corporate centralised storage solutions and Internet resources to share working files	47%	53%	43%	48%
Provides multifactor authentication	47%	39%	52%	48%
Provides a securely configured device, such as a laptop	47%	45%	43%	50%
Has me use software that is pre-approved by the organisation	52%	54%	51%	51%
N	417	76	100	241