Interaction between citizens and the Government through ICT in the context of the COVID-19 pandemic

Covid-19 Responses for Equity Initiative

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Introducción

In recent decades, countries like Peru and Colombia have experienced significant economic growth and a considerable reduction in poverty and inequality (World Bank, 2020). However, according to Latinobarómetro (2018), 73% of Colombians and 88% of Peruvians are dissatisfied with the functioning of democracy in their countries, and 40% of Colombians and 4 % of Peruvians do not trust their governments. On the other hand, Peru and Colombia are among the countries most affected by the pandemic in Latin America; they rank third and sixth, respectively, in terms of total confirmed COVID-19 cases (accumulated).[1] Likewise, the pandemic has posed important challenges for the provision of public services and governmental support, together with an increased demand for access and use of technologies (mainly in response to voluntary and/or mandatory social distancing policies) (Galperin et al., 2020). In this context, which combines high demand for public services, high demand for access and use of telecommunications services, and a government with multiple fronts of action, the analysis of the interaction between citizens and the State is of particular relevance.

This document shows the main results of the survey conducted by the Instituto de *Estudios Peruanos (IEP)* (hereinafter, the *IEP Survey*) as part of the *COVID-19 Responses for Equity (CORE)* project. Specifically, this report analyzes the interaction between citizens and the State using ICTs in the context of the COVID-19 pandemic. For this purpose, the characteristics and contrasts are analyzed by breaking down the population according to gender, age groups, and socioeconomic level.

The main findings of the survey are presented in four chapters. The first chapter presents the extent to which information about government assistance effectively reaches the population. It then seeks to answer how and through what channels this information reaches the population before exploring the effect of the pandemic on the use of the Internet to interact with the government.

Finally, it analyzes citizens' perception of the role of the State as a promoter of internet services. The second chapter describes the e-Government systems in Peru and Colombia. Chapter 3 analyzes the main results of the ICT survey developed by the *IEP*. And, the fourth presents the authors' conclusions and policy recommendations.

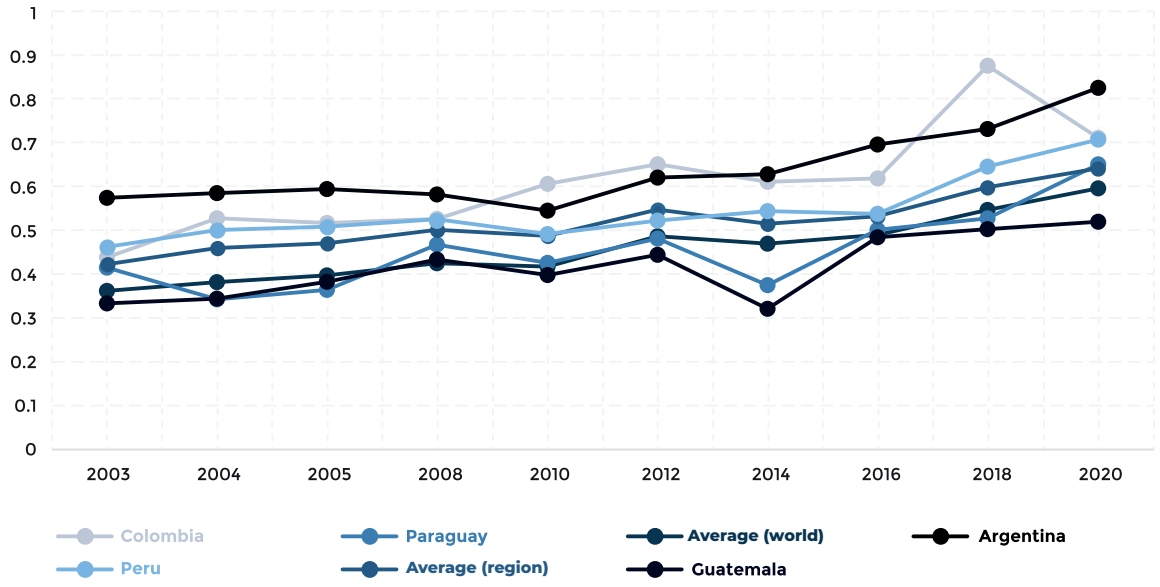
[1] See https://bit.ly/3tDwdiE

1. E-Government in Latin America: the cases of Peru and Colombia

Not all governments in the world use ICTs in the same way, just as not all have gone through the same evolutionary process with the aim of increasing their presence in the Information Society. Electronic government (or e-Government) emerges with the aim of creating efficient, effective, and transparent administrations: governments that achieve public policies with good results by taking into account their citizens' opinions. However, the current concept of "e-Government" has undergone a process in which the approach and objectives have not always been the same (Chun et al., 2010; Naser & Concha, 2011). At the beginning of 2009, e-Government was proposed as a tool to include the government and its institutions in the Information Society (in advanced stages, in the relationship between individuals, between companies, and between citizens and companies). E-Government is evolving toward initiatives that, through the use of ICTs, seek to offer online services, transactions, information and communication channels to citizens. Therefore, from this period onward, there is greater participation and interaction of citizens with the government, more transparency, and collaborative decision making.

E-Government in Latin America is still underdeveloped. According to the United Nations E-Government Survey, Latin America barely exceeds the standard E-Government Development Index (EGDI) score (UN, 2014). However, the region's average score is just slightly higher than the global average score. This fact is explained by the high level of e-Government development shown by Costa Rica in the northern subregion and Uruguay in the southern subregion.

FIGURE 1. Evolution of the E-Government Development Index, by country (2003-2020)



Source: UN E-Government Survey (2003-2020). Authors

1. E-Government in Latin America: the cases of Peru and Colombia

Figure 1 shows the evolution of the EGDI for five Latin American countries analyzed in the period 2003-2020. Two facts are stand out. First, Colombia and Peru show higher levels of e-Government development than the regional and global averages for the entire period. Second, Colombia experienced significant growth in the EGDI indicator in the 2016-2018 period, as its e-Government policies sought to improve governance, equity and peaceful reconciliation to help heal the wounds of years of internal conflict and crime (UN, 2018), although, at the end of the period, it obtained a similar level to Peru.

On the other hand, Nam (2014) and Ahmad et al. (2013) identify a set of elements that determine the type of use a person might make of e-Government activities. Nam (2014) identifies five types of determinants:

a) Psychological predispositions: This first group of factors is associated with perceptions of government services and technologies. For example, perceptions about the usefulness of the service, about the value of government information, about political participation, as well as perceptions about the ease of use of technologies.

b) Civic mindedness/Interaction with the government: This second group of factors is associated with the traditional interaction between individuals and the government. In particular, face-to-face interaction in government offices, by telephone, by letters or by other means.

c) Information channels: This group refers to the social circle or other means, through which the user learned about online government activities.

d) Trust in government: This refers to the level of trust in public institutions held by the individual, whether local, regional or national government, as well as other regulatory organizations.

e) Socio-demographic conditions/Adoption of technologies: Open Government activities occur through digital platforms, so certain levels of skills are necessary for proper use

On the other hand, Ahmad et al. (2013) refers to three factors: (a) performance expectancy, (b) effort expectancy, and (c) social influence. The first factor refers to expectations, which could be based on perceptions or actual experiences about how useful a given e-Government service could be in terms of time savings or service complexity. The second refers to the cost, in terms of effort or difficulty, involved in using a given e-Government service; for example, some services may become very difficult to learn or use, or the terms of operation may not be clear to users. The last factor refers to the social prestige associated with the service or the popularity of the service in the individual's social environment; thus, the latter two classifications of e-Government usage determinants show some elements in common, such as social relations and technology use skills.

2. IEP Survey Results

In December 2020, a telephone survey was conducted among people over 18 years of age who own a cell phone for personal use and live in urban areas in Peru and Colombia. The representativeness of this survey corresponds to national levels and urban areas. The main results in relation to the topic analyzed are presented below.

Knowledge of assistance provided by the Government in the context of the COVID-19 pandemic.

The IEP survey allows us to assess the extent to which information about government assistance effectively reaches the population, i.e., the level of access to relevant information associated with the COVID-19 pandemic. In particular, it reveals citizens' knowledge of the assistance provided by the government due to the pandemic (e.g., the provision of bonds/vouchers and other monetary transfers). In Peru, the Government gave low-income households financial support in the form of bonds/vouchers for up to 800 soles (US$ 266) per beneficiary household, on average (a total of 25 million beneficiary households). In Colombia, the strategy of financial assistance given vulnerable populations has focused on the Solidarity Income program, and the capacities built through its social programs (Jóvenes en Acción, Familias en Acción, among others); a total of 14.7 million people have benefited. [2]

Based on the survey, the percentage of the urban population that knows more about the assistance provided by the Government during the pandemic is higher in Peru, compared to the urban population of Colombia (88% versus 64%) **(see Figures A1, 2 and 3)**. Likewise, **Figure A1 (Appendix)** indicates that there are no significant gender differences between the two countries, although the difference is relatively greater in Colombia: 65% of women versus 63% of men.

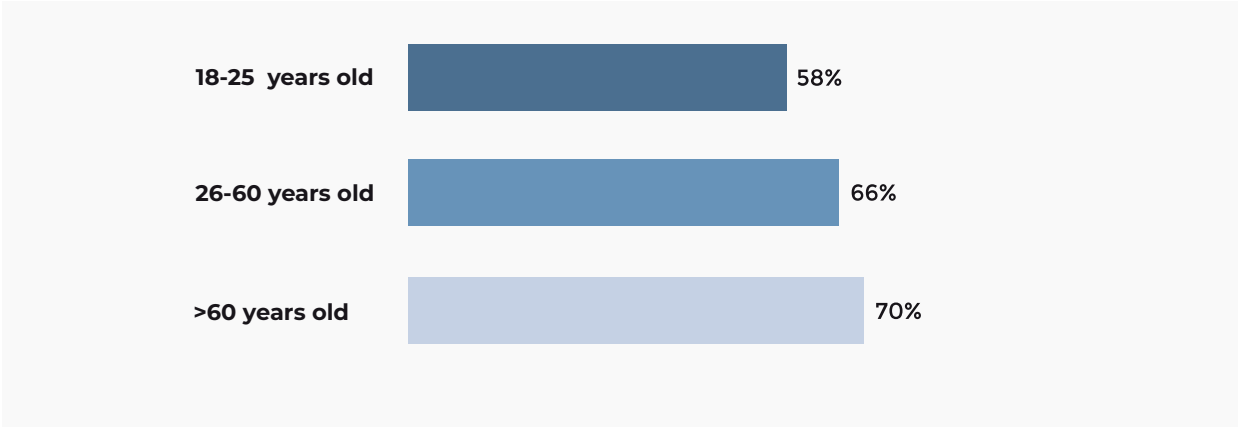
On the other hand, it is interesting to note the differences according to age groups in both countries. Figure 2 shows that, in the case of Colombia, 7 out of 10 older adults (over 60 years of age) are aware of the assistance provided by the Government in times of pandemic, which is a higher percentage relative to the other groups (58% and 66% for young people aged 18 to 25 years, and adults aged 26 to 60 years, respectively). In the case of Peru, the most informed age group is adults (91%), followed by older adults (87%) and young people (82%). These results regarding access to relevant information associated with COVID-19 in the older adult population are encouraging, but raise some questions regarding the level of exposure and access to information in the younger population. In addition, a relevant research agenda is to cross this information with public relations and dissemination strategies that governments proposed to publicize the assistance they provided in the context of the COVID-19 pandemic.

[2] See https://bit.ly/3he7AGK

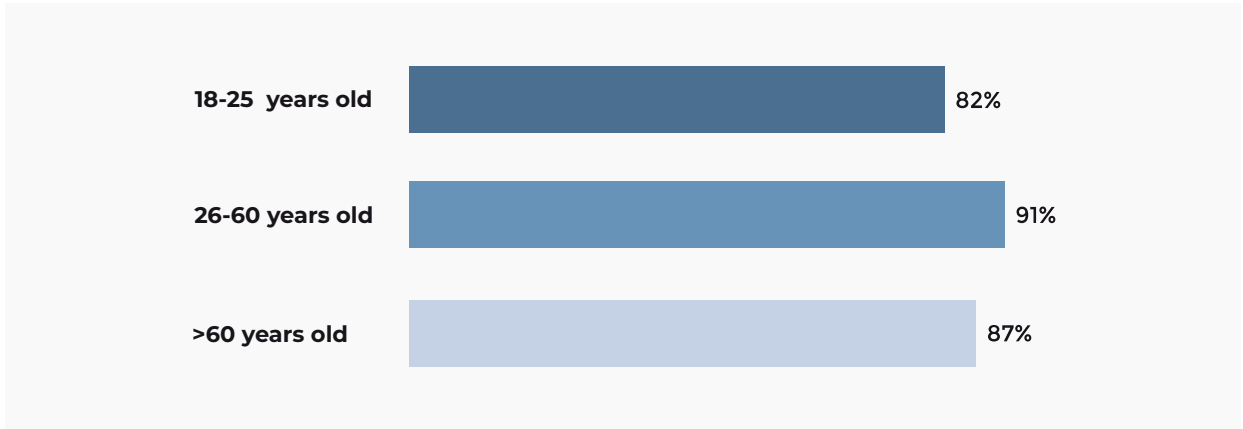
1. IEP Survey Results

Knowledge of government assistance in the context of the pandemic, by age group (% of people) - 2020

a. Colombia



b. Peru



Note: Total number of respondents in Peru = 1002 and Colombia = 1000. The number of observations reported in the figure corresponds to the total sample. The data correspond to the response to the following question: "Are you aware of the vouchers or any other type of assistance provided by the government in the context of the pandemic?"

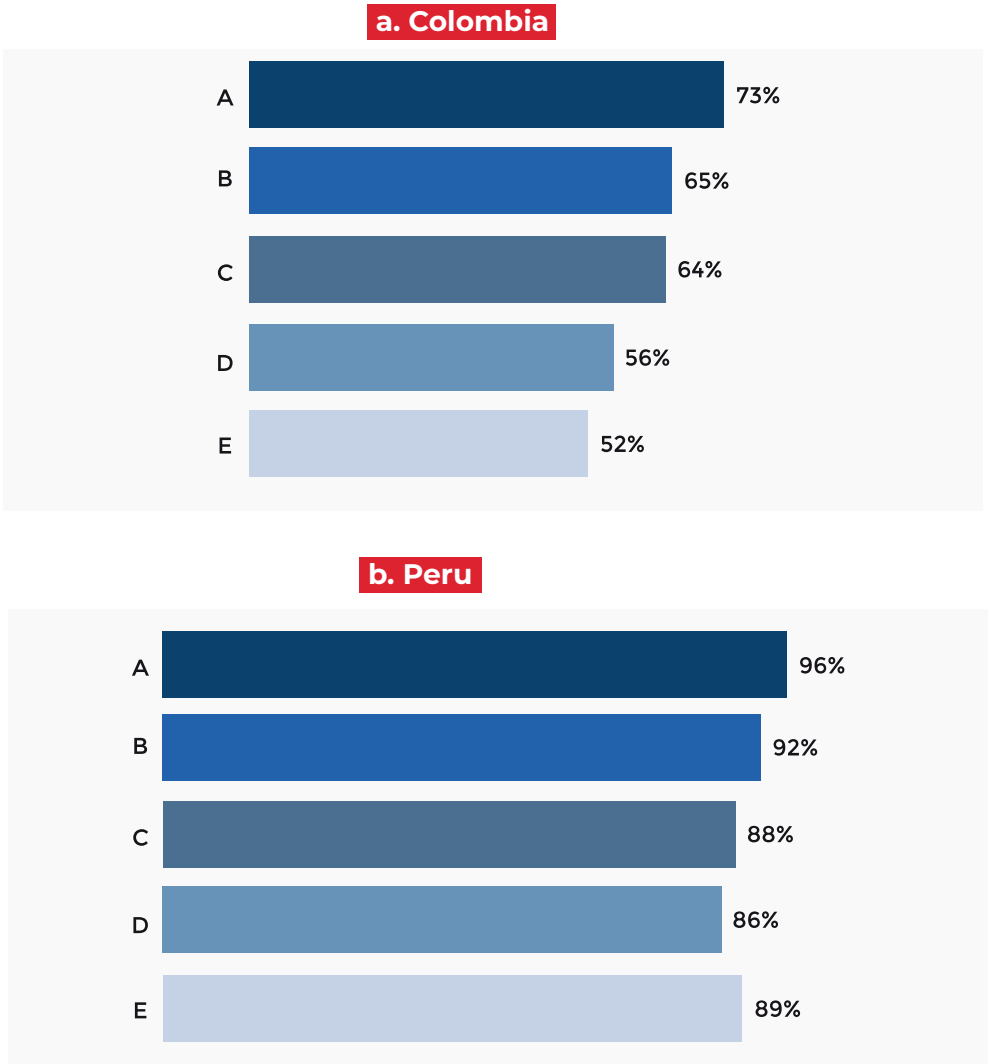
Source: IEP Survey (2020). Authors

1. IEP Survey Results

Figure 3 shows that, in both countries, people of higher socioeconomic status are those who have more information or knowledge about the assistance provided by their governments during the COVID-19 pandemic. This is somewhat paradoxical, since government assistance was mainly directed toward the population with lower economic resources. In Colombia, the reach of this type of information for levels D and E slightly exceeds 50%, while the reach is close to 90% in Peru.

Another important point shown in **Figure 3** is that the socioeconomic level gap with respect to the scope of information on government assistance is greater in Colombia: the difference between socioeconomic level A and socioeconomic level E is 21%, while in the case of Peru, the difference is 7%. This result is important because it shows the levels of heterogeneity in access to information between the different socioeconomic levels in both countries.

FIGURE 3. Knowledge of government assistance in the context of the pandemic, by socioeconomic level (% of people) - 2020



Note: Total number of respondents in Peru = 1002 and Colombia = 1000. The number of observations reported in the figure corresponds to the total sample. The data correspond to the response to the following question: "Are you aware of the vouchers or any other type of assistance provided by the government in the context of the pandemic?"

Source: IEP Survey (2020). Authors

1. IEP Survey Results

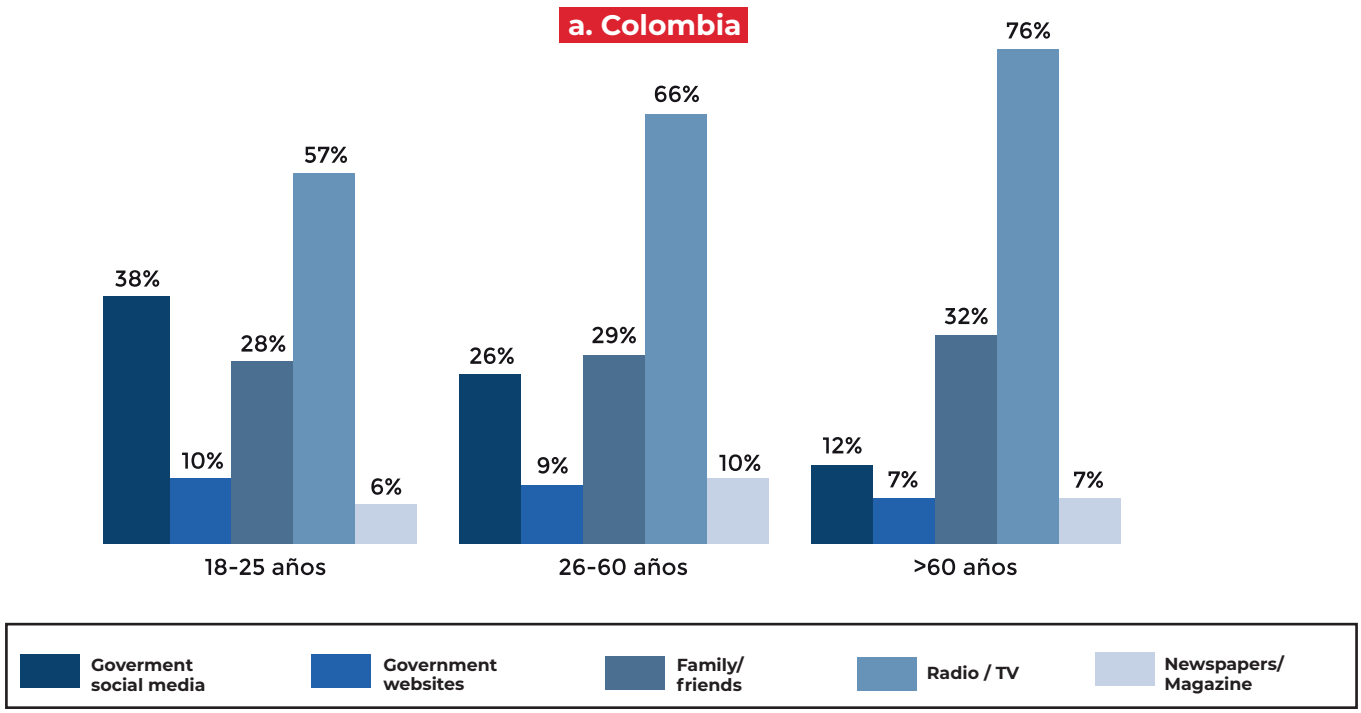
Information channels used by citizens to obtain information about government assistance/-bonds during the pandemic

In this section, we analyze how the population accesses information about government assistance provided in the context of the COVID-19 pandemic, which is relevant because it allows us to identify the main challenges in order to focus the provision of public information through the media outlets most used by the population.

Figures A2 (annex), 4 and 5 show that the media outlets most used by the population to obtain information on government assistance is radio and/or television. These media outlets, which are considered 'traditional' along with newspapers (Dimmick & Albarran, 1994; Chyi & Lasorsa, 2002; Hilt & Lipsschultz; 2004), significantly outperform the so-called new technologies (such as social media platforms or government websites) (Deleersnyder et al., 2002), with which the following contrast emerges: despite the significant advances in telecommunications access and coverage through new technologies (mobile telephony and internet) seen in both countries in recent decades, the population prefers to continue using traditional information channels like radio, television or their family/friend networks to access government information.[3]

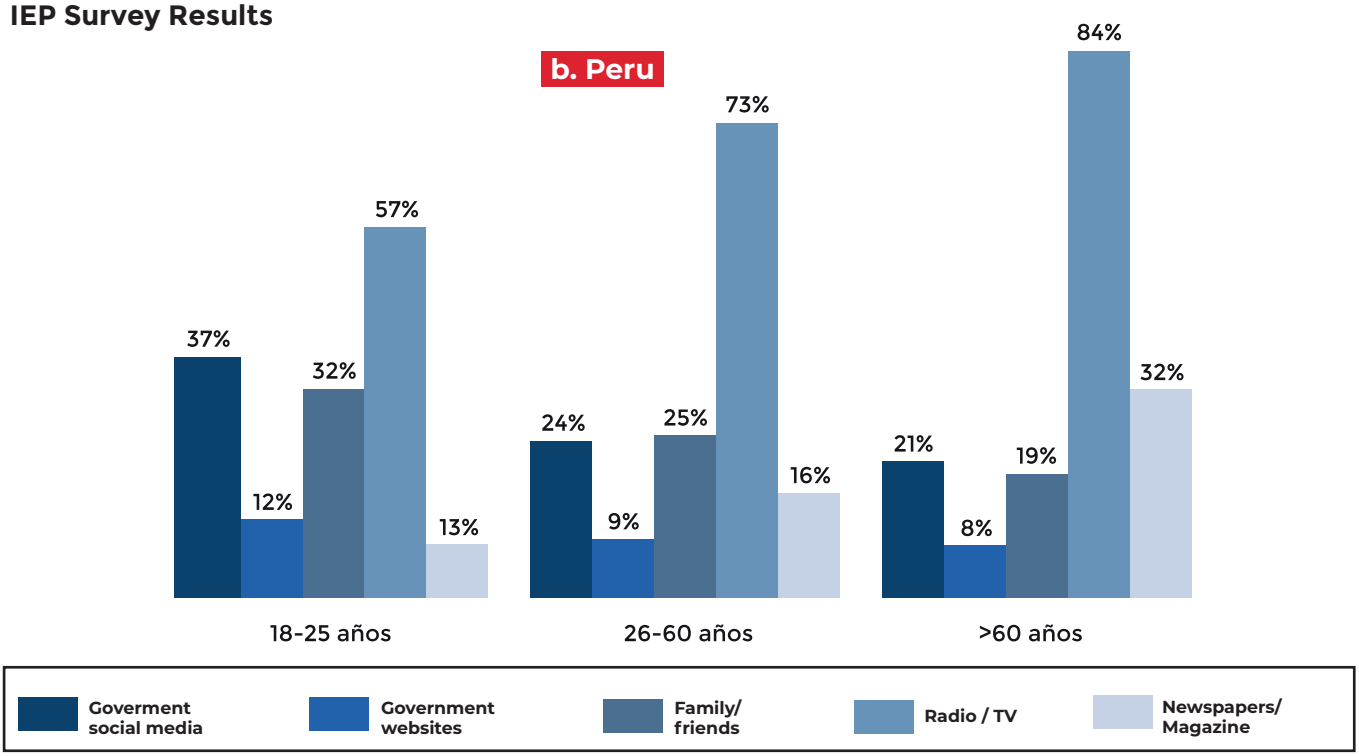
Regarding differences between social groups, **Figure A2** shows that there are no significant differences between men and women in both countries. On the other hand, Figure 3 indicates that young people have a greater preference for new technologies (social media platforms and government websites) to obtain information, unlike adults and older adults, who prefer, to a greater extent, radio and television. This greater preference for traditional media may generate delays in access to information for older adults, since information is transmitted more quickly through the Internet and its applications. An admissible explanation can be attributed to the ease of use of traditional information and communication media: older adults find it easier to operate a radio or TV than a computer or cell phone (Barrantes & Cozzubo, 2015).

FIGURE 4. Channels of information on government assistance in the context of a pandemic, by age (% of people)



[3] The above point should be viewed with caution, as an analysis of which media outlets have a lower relative cost for producing and publishing fake news is needed. In other words, it is not enough to generate policies that improve access to information. Policies that improve the quality of information are also needed (Gaskins & Jerit, 2012). It is also advisable that the characteristics of the different information and communication media used to share content be included in the analysis, since some may be better understood and, therefore, have a greater reach within the population (Gaskins & Jerit, 2012). (Cordella, 2001).

1. IEP Survey Results

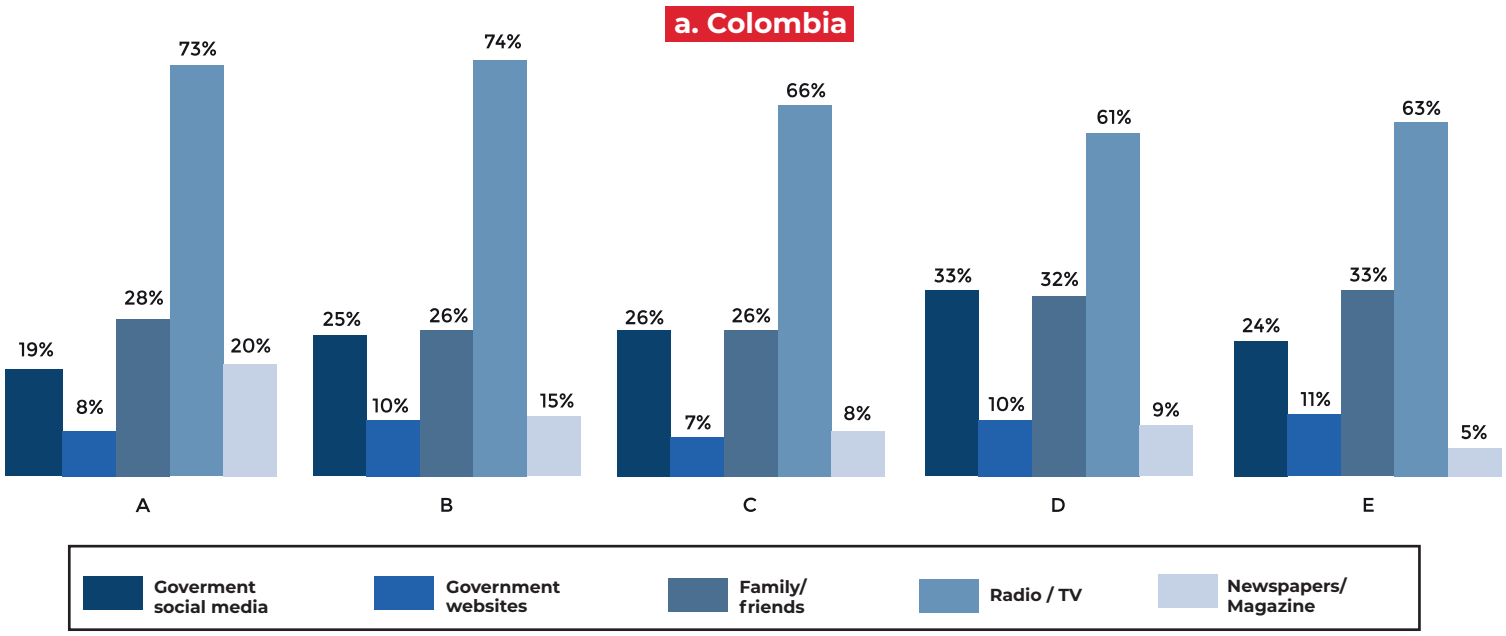


Note: Total number of respondents in Peru = 1002 and Colombia = 1000. The total number of observations reported in the figure corresponds to the total number of people who stated that they were aware of the assistance provided by the Government in the context of a pandemic. The data correspond to the response to the following question: "Are you aware of the vouchers or any other type of assistance provided by the government in the context of the pandemic?"

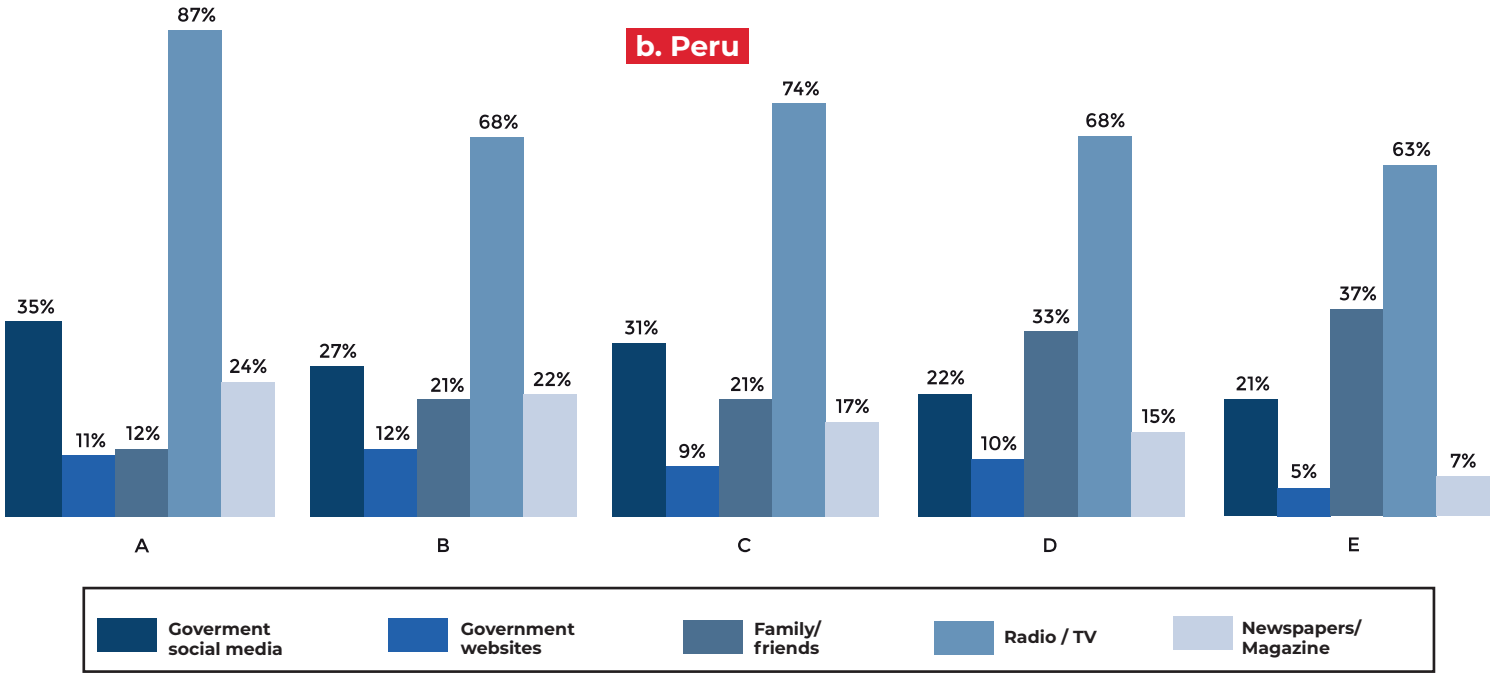
Source: IEP Survey (2020). Authors

A similar result occurs when analyzing differences by socioeconomic level **(see Figure 5)**. People with higher purchasing power (socioeconomic level A) used social media and government websites to a greater extent to access information on government assistance in the context of pandemic, while those with lower purchasing power used more traditional media such as radio, television or newspapers. Similarly, a possible explanation for this result may be that people with higher resources tend to have better digital skills (ITU, 2018); in addition, the affordability barrier plays a crucial role when comparing differences at the socioeconomic level: access to information through a non-traditional media outlet is not higher because of the lower relative costs of traditional media.

FIGURE 5. Channels of information on government assistance in the context of a pandemic, by socioeconomic level (% of people)



1. IEP Survey Results



Note: Total number of respondents in Peru = 1002 and Colombia = 1000. The total number of observations reported in the figure corresponds to the total number of people who stated that they were aware of the assistance provided by the Government in the context of a pandemic. The data correspond to the response to the following question: "Are you aware of the vouchers or any other type of assistance provided by the government in the context of the pandemic?"

Source: IEP Survey (2020). Authors

Changes in internet use during the pandemic to interact with the Government

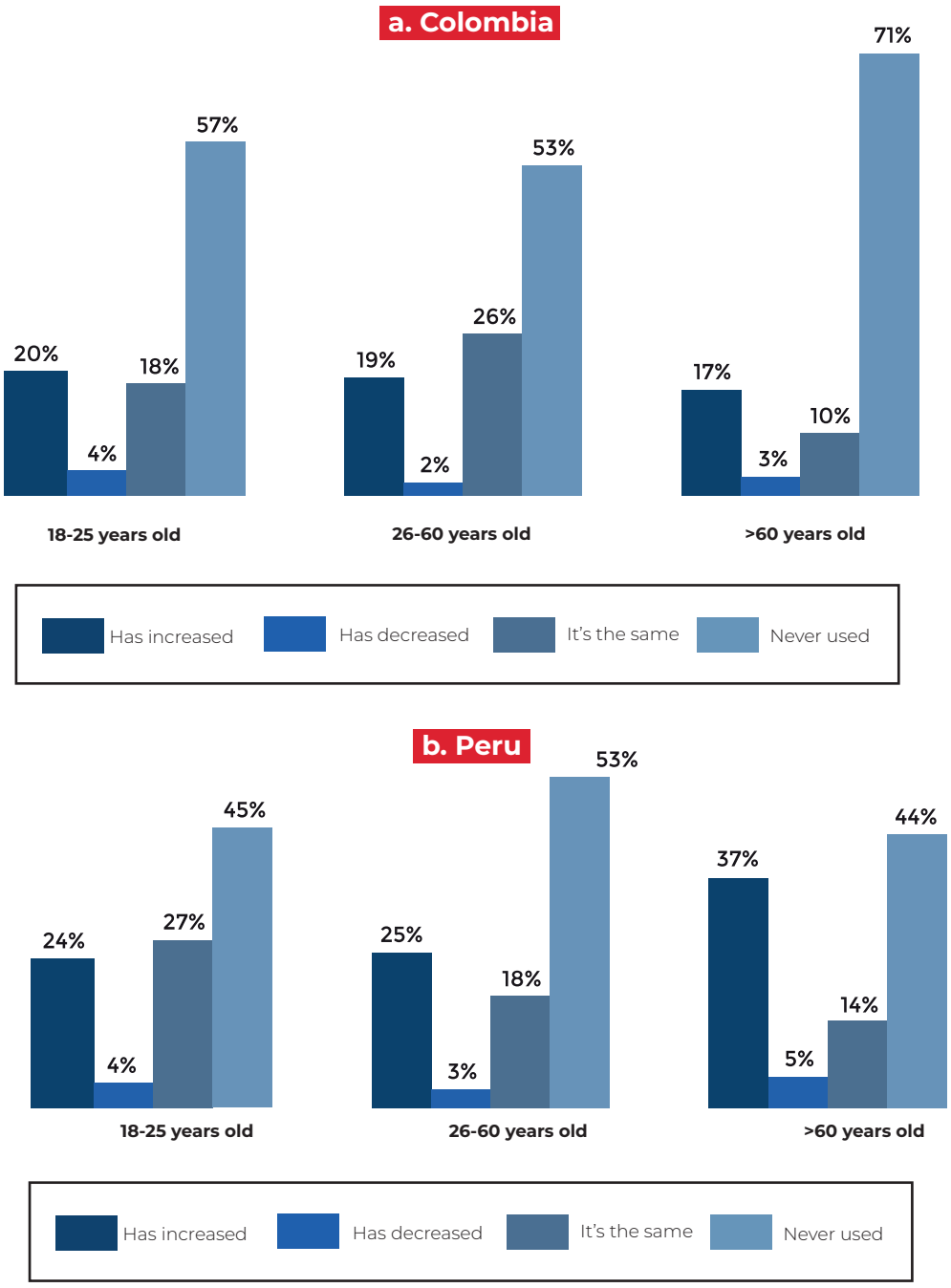
The COVID-19 pandemic has generated important social changes, but it has also brought to light others that were already known. Social distancing policies have highlighted the importance of ICTs to perform everyday tasks, such as working, studying, or paying taxes. For this reason, this section analyzes how the use of the Internet to interact with the government has changed. In particular, we analyze the extent to which personal use of the Internet to carry out government procedures has changed and examine the differences among the different social groups.[4]

Figure A3 (appendix) shows that the proportion of people who use the Internet to carry out some activity related to the government (e-Government) is higher in Peru than in Colombia. Moreover, the percentage of men and women who have never used e-Government services is higher in Colombia than in Peru. In addition, **Figure A3 (Annex)** shows that the use of the Internet for e-Government activities has increased more in Peru than in Colombia.

On the other hand, the differences by age group shown in Figure 6 show that in the case of Colombia, older adults are the least connected to the government through the Internet (7 out of 10 people have never used e-Government services). In the case of Peru, half of the group of adults (people between 26 and 60 years of age) have never used the Internet to interact with the government. Likewise, 4 out of 10 older adults in Peru claimed to have increased their use of the Internet to interact with the government as a result of the pandemic, compared to older adults in Colombia, where the ratio is 2 out of 10 older adults.

[4] In this document, we refer to this activity as e-Government services or the use of the Internet to interact with the government. (o e-Government).

FIGURE 6. Changes in the use of the Internet to interact with the government, by age group (% of people) - 2020



Note: Total number of respondents in Peru = 1002 and Colombia = 1000. The total number of observations reported in the figure corresponds to the total number of Internet users. The data correspond to the response to the following question: "Would you say that, compared to before the pandemic, your personal use of the internet for the following activity has increased/decreased/is the same/I've never used it for that purpose? Government-related procedures. For example, procedures at Reniec, Banco de la Nación, Sunat, etc. (Peru); procedures at the National Registry of Civil Status, Bank of the Republic, Superintendence of Industry and Commerce, etc."

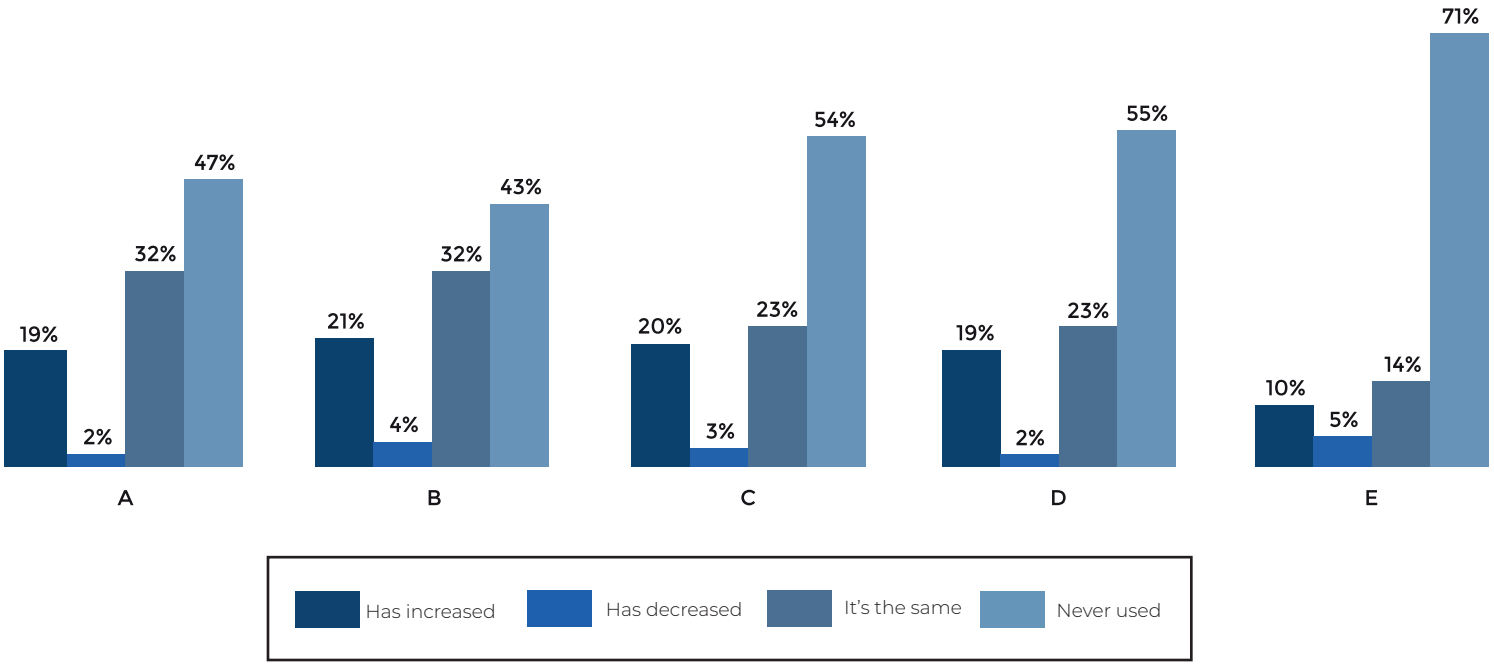
Source: IEP Survey (2020). Authors

Finally, **Figure 7** shows the changes in the use of the Internet to interact with the government by socioeconomic level. The statistics reported in the IEP survey indicate that the percentage of people who have never used the Internet to carry out procedures with the government is very high in both countries studied. This is evidence of deficiencies in the e-Government systems that aim to modernize the relationship between the government and its citizens. Likewise, the percentage of non-users of e-Government services increases the lower the socioeconomic level; this increases the disadvantages of the most vulnerable population, which is even more worrisome in the current context.

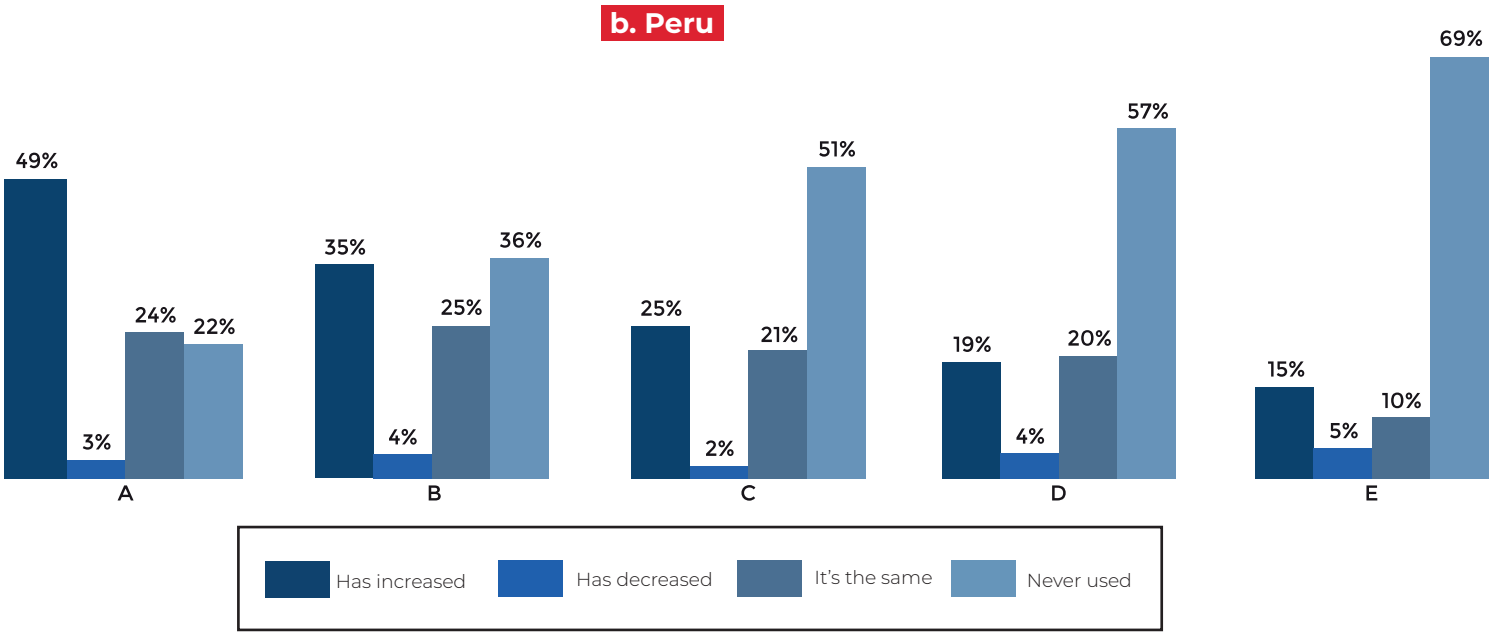
On the other hand, if we analyze only the levels of people who have reported having increased their use of the Internet to interact with the government, income inequality is a very noticeable barrier in the case of Peru: while in the highest socioeconomic level (level A), 49% have increased their use of the Internet for this activity, only 15% of the lowest socioeconomic level (level E) has. In the case of Colombia, it is important to note that the increase in the use of the Internet to interact with the government is similar in all socioeconomic levels, except the lowest level.

FIGURE 7. Changes in the use of the Internet to interact with the government, by socioeconomic group (% of people) - 2020

a. Colombia



1. Resultados de la encuesta IEP



Note: Total number of respondents in Peru = 1002 and Colombia = 1000. The total number of observations reported in the figure corresponds to the total number of Internet users. The data correspond to the response to the following question: "Would you say that, compared to before the pandemic, your personal use of the internet for the following activity has increased/decreased/is the same/I've never used it for that purpose?" Government-related procedures. For example, procedures at Reniec, Banco de la Nación, Sunat, etc. (Peru); procedures at the National Registry of Civil Status, Bank of the Republic, Superintendence of Industry and Commerce, etc.

Source: IEP Survey (2020). Authors

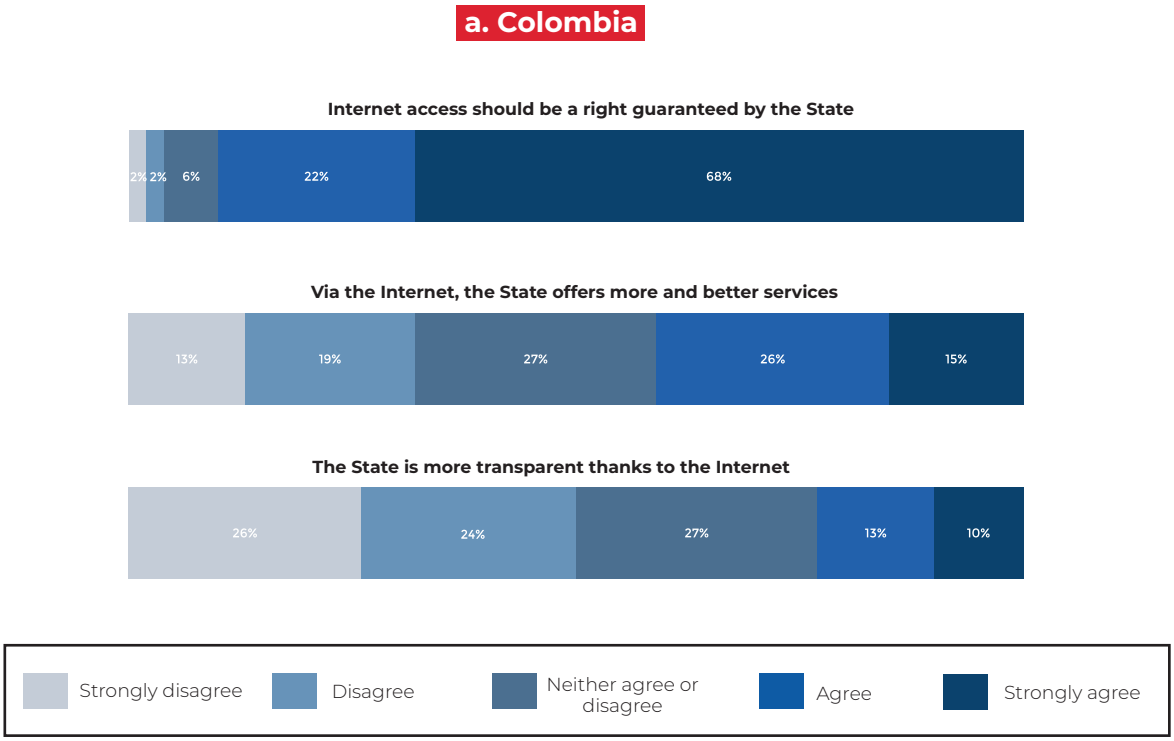
Citizens' perception of the role of the State in the provision of internet services

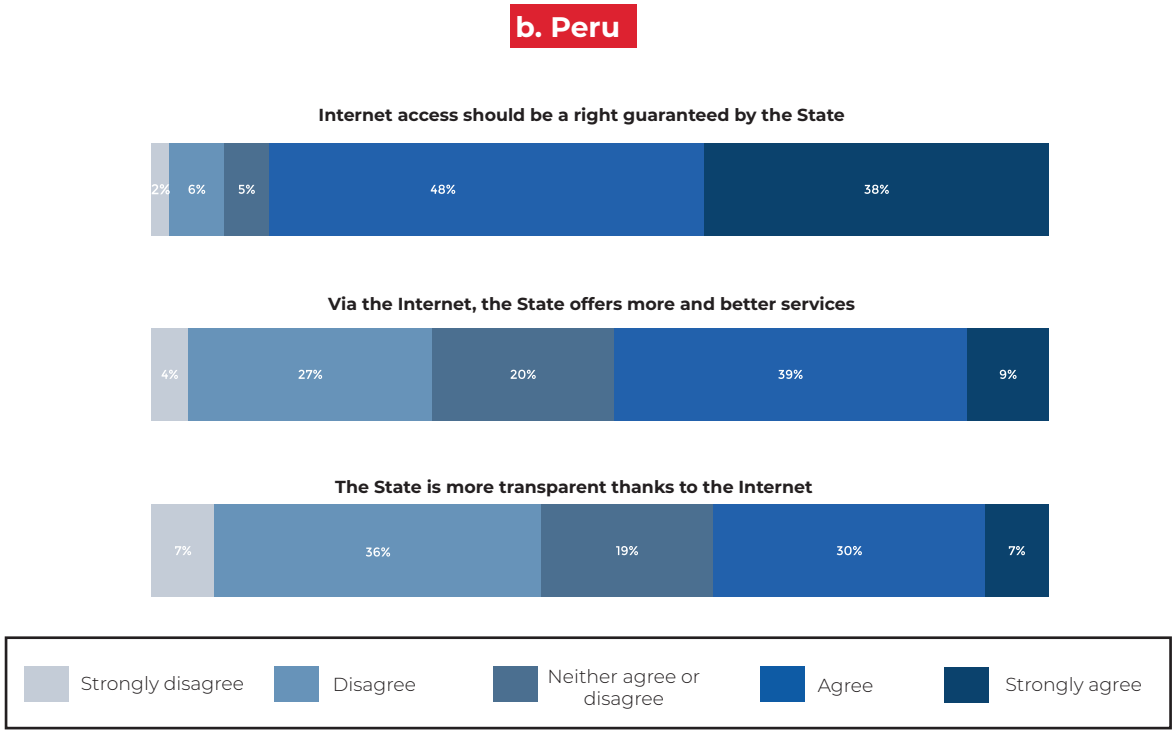
The *IEP* survey allows us to evaluate citizens' perceptions regarding the importance of the Internet and the role of the State in the provision and use of this service. For this purpose, the survey considers the perception of three dimensions regarding the relationship between the State and internet services: (i) internet service as a social right, (ii) the efficiency of the State in providing public services through the Internet, (ii) the level of transparency of the State on the Internet.

Figure 8 shows three relevant facts. First, the importance attributed by the population of Colombia and Peru to internet service as a right that should be guaranteed by the State: 9 out of 10 people in Peru and Colombia believe that their governments should guarantee internet access as a right of the population in order to promote universal access policies. Secondly, the percentage of people who agree with the use of the Internet by the government as part of its function of providing services is higher in Peru (48% versus 41% in Colombia), which highlights the importance that the population in that country attributes to the role that the State and its functions should have in the management of technologies. Thirdly, the survey results show that there is a broad rejection of the level of transparency achieved through technology by the governments in both countries: in Colombia, 5 out of 10 think that the government lacks transparency on the Internet, and in Peru, 4 out of 10 are of the same opinion

2. IEP Survey Results

FIGURE 8. Citizens' perception of the role of the State in the provision of Internet services (% of people) - 2020





Note: Total number of respondents in Peru = 1002 and Colombia = 1000. The number of observations reported in the figure corresponds to the total sample. The data correspond to the response to the following question: On a 5-point scale, where 1 means Strongly Disagree and 5 means Strongly Agree, can you indicate how strongly you agree or disagree with the following statements?"

Source: IEP Survey (2020). Authors

4. Conclusions and recommendations

Often, the State' s presence and engagement with its citizens occurs through public services, so if they are absent or of poor quality, trust quickly disintegrates and progress toward sustainable development fails. What is the point of sophisticated platforms and digitized government entities with near-perfect e-Government systems if the majority of their citizens do not take advantage of these services? The COVID-19 pandemic exposed the existing social and digital inequalities, which, while already known, have become more starkly evident. Government-citizen interaction must be strengthened in the current context, and technologies can offer an alternative to improve the efficient provision of public services, increase transparency and reduce the costs of access to public information, and foster social inclusion.

To achieve the desired improvement, it is important that governments make an effort to change the mindset, not only of their public officials (modernization of the State alone), but also to promote the adoption and use of ICTs by their citizens. They can support one another and improve the Information Society systems in each country, especially developing ones (UN, 2018).

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Annex

Figure A1. Knowledge of government assistance in the context of a pandemic, by gender (% of people) - 2020

a. Colombia

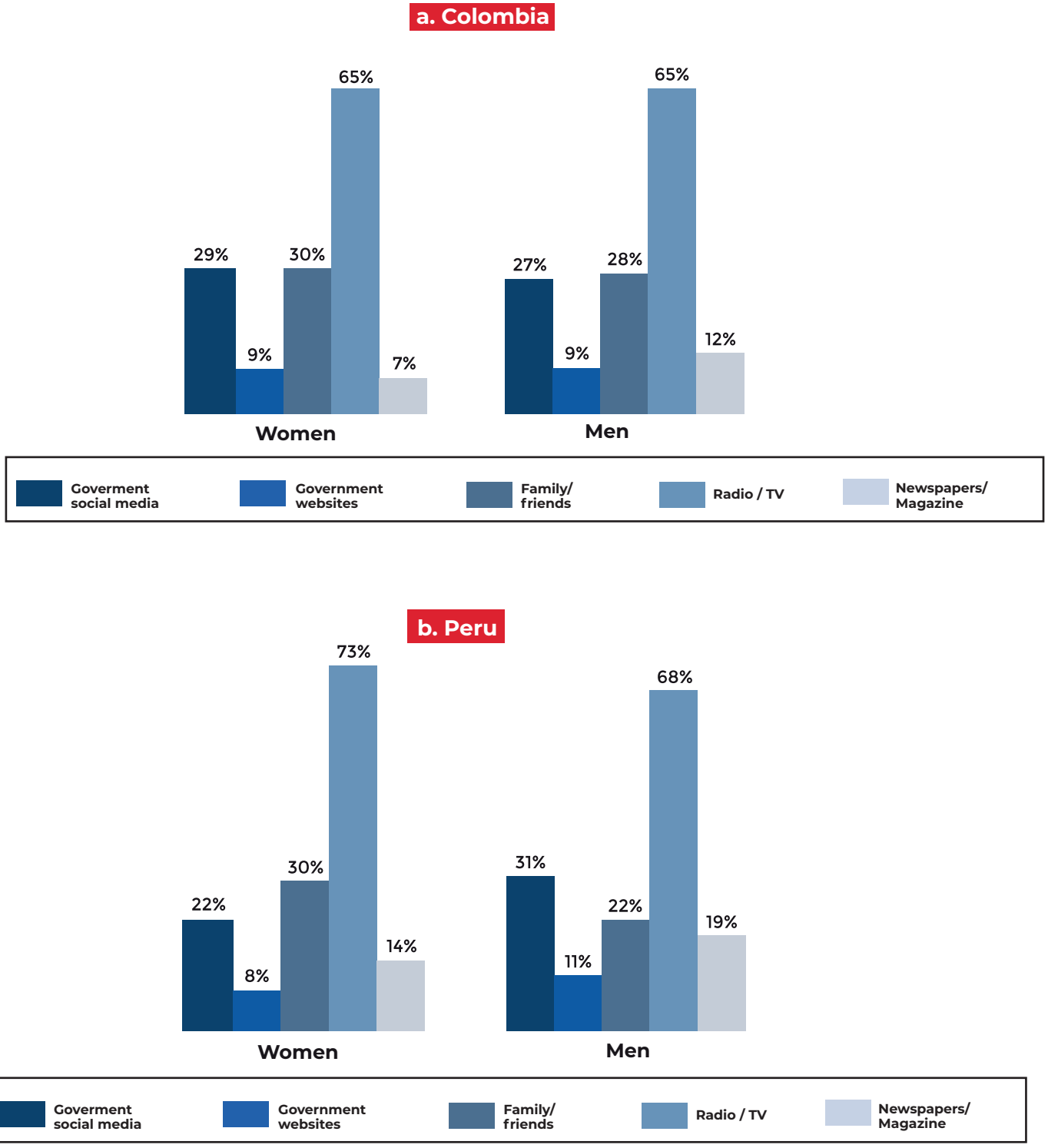
b. Peru

Note: Total number of respondents in Peru = 1002 and Colombia = 1000. The number of observations reported in the figure corresponds to the total sample. The data correspond to the response to the following question: "Are you aware of the vouchers or any other type of assistance provided by the government in the context of the pandemic?"

Source: IEP Survey (2020). Authors

Annex

Figure A2. Channels of information on government assistance in the context of a pandemic, by age (% of people)

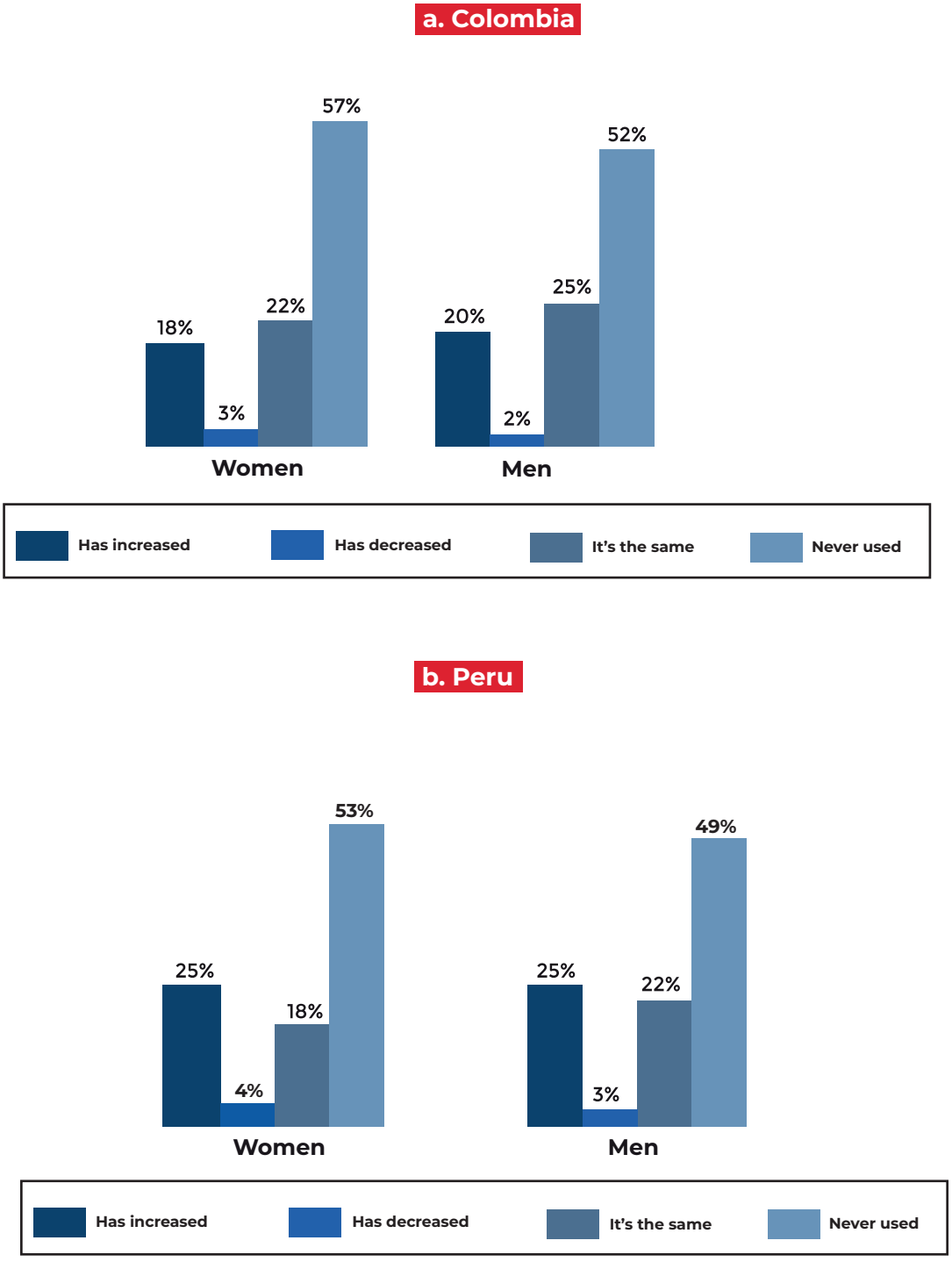


Note: Total number of respondents in Peru = 1002 and Colombia = 1000. The total number of observations reported in the figure corresponds to the total number of people who stated that they were aware of the assistance provided by the Government in the context of a pandemic. The data correspond to the response to the following question: "Are you aware of the vouchers or any other type of assistance provided by the government in the context of the pandemic?"

Source: IEP Survey (2020). Authors

Annex

Figure A3. Changes in the use of the Internet to interact with the government, by gender (% of people) - 2020



Note: Total number of respondents in Peru = 1002 and Colombia = 1000. The total number of observations reported in the figure corresponds to the total number of Internet users. The data correspond to the response to the following question: "Would you say that, compared to before the pandemic, your personal use of the internet for the following activity has increased/decreased/is the same/I've never used it for that purpose? Procedures with the State, for example, in Reniec, Banco de la Nación, Sunat, etc."

Source: IEP Survey (2020). Authors