Religious Congregations' Technological and Financial Capacities on the Eve of the COVID-19 Pandemic

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Received: 23 April 2021 / Accepted: 12 October 2021 / Published online: 2 November 2021
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Abstract

Background The COVID-19 pandemic dramatically upended religious life and placed significant strain on religious congregations. However, the effects of the pandemic were likely not felt evenly across the religious landscape.

Purpose We used data from the fourth wave of the National Congregations Study, gathered on the eve of the coronavirus pandemic in 2018–19, to identify the kinds of congregations that may have been especially vulnerable to the challenges of the COVID-19 pandemic.

Methods Using bivariate and multiple regression analysis, we examined two aspects of congregations' preparedness for the pandemic: technological infrastructure and financial stability.

Results We found that, while many congregations were technologically and financially equipped for a time of social distancing and economic recession, there were stark inequalities in levels of preparedness among congregations on the basis of race, class, size, urban/rural location, religious tradition, and the age of congregations' parishioners. In particular, Catholic congregations and congregations with older attendees tended to lack streaming or online communication capacities, and both rural and small congregations had more limited technological infrastructure and less financial cushion. Somewhat surprisingly, predominantly Black congregations were more likely to have worship streaming systems set up prior to the pandemic, though these congregations were more likely to lack other kinds of technological and financial infrastructure.

Conclusions and Implications Though COVID-19's full impact on congregations will not be known for several years, these results highlight variations in congregations' readiness for the pandemic's challenges, and they show that COVID-19's impact likely has not been felt equally across the religious landscape.

Keywords Congregations · COVID-19 · Technology · Finances · National Congregations Study

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Introduction

The COVID-19 pandemic upended social life, including religious life (Baker et al. 2020). Communal indoor worship in religious congregations can facilitate the spread of the novel coronavirus (Hamner et al. 2020), and attendees at religious congregations are disproportionately older people who are at higher risk to the disease (Voas and Chaves 2016; Zhou et al. 2020). These factors forced American religious congregations, like many establishments worldwide, to cease in-person activities in March 2020. This unprecedented event posed two major challenges to congregations and religious leaders: the challenge of maintaining a religious community with little-to-no in-person gathering, and the challenge of remaining financially solvent in the midst of a pandemic-caused recession.

Collective worship is congregations' core activity, and worshipping together promotes solidarity in religious communities (Baker 2010; Draper 2014). As COVID-19 forced religious congregations to suspend most in-person activities, religious leaders were required to find other ways of maintaining their religious communities, mainly via communication technologies. Prior to the pandemic, many congregations were using technology to stream or record worship services and communicate information to members (Roso et al. 2020). Prior to COVID-19, many scholars investigated how religious leaders and parishioners can maintain religious communities and engage in religious practices online using new communication technology (Drescher 2011; Campbell 2012; Gorrell 2019). With this technology, congregants can participate in worship services and religious life virtually, and congregations can keep in contact with members while physically apart through a web or social media presence—considerations that became especially salient with the onset of the COVID-19 pandemic.

While such technologies were becoming increasingly ubiquitous prior to the pandemic, there was still considerable variation among congregations in their levels of technological infrastructure (Thumma 2012). Congregations that already were employing sophisticated communication technologies in their worship and organizational practices, such as having an online presence, streaming capabilities, or staff members with technological expertise, likely had an advantage in sustaining a worshipping community with the onset of the sudden requirement for social distancing (Seabright and Raiber 2020).

The financial downturn also presented challenges to congregations. With the worldwide recession and widespread job loss brought about by the COVID-19 pandemic (Bartik et al. 2020), contributions to many religious congregations were reduced (Barnett et al. 2020). Although there is some indication that many congregations have been surprisingly resilient to the economic fallout of the recession, long-term strain on congregation's cash reserves may put some in financially precarious positions going forward (Bird 2021; Manion and Strandberg 2020). Income from other sources, such as rent from outside groups who were not using the building during the pandemic, or loose plate offerings from visitors to worship services that have not been occurring, also probably were reduced for many congregations. Moreover, even some people who have not been financially stressed during the pandemic may

have given less because they felt less connected to a congregation that is not meeting in-person (Stonebraker 2015).

In the face of several possible sources of pandemic-caused financial pressure on congregations, some were better positioned than others to cope with the financial effects of the pandemic. Having an endowment or substantial savings, having an electronic donation system already in place, and not being completely dependent on donations or rental income likely are features that would better enable a congregation to manage the financial pressures caused by the pandemic.

Financial resources and technological infrastructure are not distributed evenly across the religious landscape. In addition to establishing the extent of technological and financial capacity among congregations as a whole, we examine differences in these capacities by size, urban/rural location, religious tradition, and parishioner race, age, and social class. Previous research on differences in worship styles (Chaves 2004; Edwards 2009; Roso et al. 2020), congregational giving and finances (Hoge et al. 1996; Chaves and Miller 1999; Finke et al. 2006; Smith et al. 2008), congregational technology use (Thumma 2012), and digital divides and inequalities in American society (DiMaggio et al. 2004; Dewan and Riggins 2005; Gell et al. 2015; Blank and Groselj 2015) suggest that these features of congregations likely are related to their technological capacity, financial viability, or both.

This literature suggests that congregations that are smaller, located in rural areas, are in a more liturgical tradition such as Catholicism, are predominantly Black, have older members, and have more lower income members will be less likely to have both the financial and technological infrastructure that could help mitigate the social and economic effects of the COVID-19 pandemic. Some early research on how religious leaders have responded to COVID-19 has already shown that responses and readiness to face the pandemic differed across religious tradition (Sulkowski and Ignatowski 2020) and rural/urban location (Village and Francis 2020; Johnston et al. 2021), but there is still limited research conducted on a broadly representative sample documenting which congregations were more vulnerable to the effects of COVID-19 on the eve of the pandemic. In this article we examine the ways that these congregational characteristics intersect and overlap with one another to identify the congregations that appear to be most vulnerable in a time of social distancing and its associated financial challenges. We use the fourth wave of the National Congregations Study—a nationally representative survey of religious congregations conducted shortly before the COVID-19 pandemic induced mass shutdowns in the United States—to establish a baseline of how prepared congregations were to meet the communication and financial challenges posed by the pandemic.

Methods

Data

We use data from the fourth wave of the National Congregations Study (NCS-IV), collected in 2018–19 (Chaves et al. 2020b). The 2018 General Social Survey (GSS)—an in-person survey of a nationally representative sample of

non-institutionalized, English- or Spanish-speaking adults conducted by NORC at the University of Chicago (Smith et al. 2019)—asked respondents who reported attending a religious congregation at least once a year where they attend. The congregations which were named constitute a nationally representative sample of congregations. NORC then contacted these congregations and interviewed a key informant, typically a clergy person, about the congregation's people, programs, and characteristics. The GSS-generated sample was supplemented with re-interviews of a representative subset of congregations that participated in the NCS-III. The NCS-IV response rate, calculated in line with the RR3 response rate developed by the American Association for Public Opinion Research (2016), was 69%; the cooperation rate was 74%. The NCS-IV contains data from 1262 congregations. The probability that a congregation appears in the NCS-IV sample is proportional to its size. Using weights to retain or undo this overrepresentation of larger congregations corresponds to viewing the data either from the perspective of attendees at the average congregation or from the perspective of the average congregation, without respect to its size. Since we are interested primarily in the latter perspective, all analyses use the WT_ALL4_CONG_DUP weight in the NCS cumulative dataset. See the NCS codebook (Chaves et al. 2020a), available at <https://sites.duke.edu/ncsweb>, for additional methodological details.

Measures

Technology

We use four sets of technology measures. (1) Congregational *online presence* was measured as a binary variable that was coded "1" if the congregation reported having a website, a Facebook page, or any other kind of social media account. Congregations without a website, Facebook page, or social media account were coded "0." (2) The *head clergy person's online presence* was measured in a similar way to congregational online presence. Congregations were coded "1" if they reported that their head clergy person used a personal Facebook page to communicate with the congregation, used some other social media to communicate with the congregation, or maintained a blog. Congregations with head clergy who did not report using any social media pages or blogs to communicate with their congregation were coded "0." (3) Congregations' use of technology to make the *worship service virtually accessible* was similarly measured as a binary variable that was coded "1" if the congregation broadcast or live-streamed its most recent worship service, if any part of the most recent worship service was recorded so people could listen or watch at a later time, or if a recording of the congregation's main worship service was available on their website. This variable was coded "0" if a congregation did none of those three things. (4) Congregations' *staff resources devoted to technology* was likewise measured as a binary variable combining answers to multiple questions. Key informants were asked if any paid ministerial staff members specialized in worship-related technology or in technology other than worship-related technology, and they were asked if any paid staff member spends more than 25% of their work time

managing the congregation's social media presence, website, or apps. A congregation was coded "1" on this variable if it had any of these types of staff members and "0" if it did not have any of these types of staff members.¹

Finances

We employed several measures to assess congregations' financial stability leading into the pandemic. The NCS-IV asked congregations many questions about their income and finances, including what the congregation's budget was for the past year, what their annual income for the past year was, and how much income the congregation received from individual donations in the past year. We used the latter two of these to calculate the percentage of congregations that received all of their income from individuals. The NCS-IV also asked two questions about the savings of religious congregations: whether they had any savings, endowment, or other reserve funds, and how much money was in these accounts. We calculated the amount in congregations' savings accounts as a percent of their congregational budget from the most recent fiscal year. The NCS-IV also asked if congregations reported having an electronic system to receive donations. Finally, we examined congregational income that was potentially lost from building rentals. The NCS-IV asked if the congregation received any income from the rent of their building or property in the last fiscal year and, if so, how much. For congregations with rental income, we computed the percentage of their total income in the last year that came from that source.

Independent Variables

To assess what kinds of congregations were more vulnerable to the COVID-19 challenges, we examined their size, rural/urban location, religious tradition, and the race, age, and social class makeup of their congregants. For size, we compared congregations with fewer than 100 regularly participating adults to congregations with at least 100 adults. Congregations were considered rural if they were located in a census tract that was majority rural. For simplicity, we limited our examination of religious tradition differences to a comparison of Catholic and non-Catholic congregations. Given what we know about denominational differences in worship styles and financial practices, this contrast seemed most likely to reveal important differences across congregations in technology and financial status beyond those that are attributable to differences in size, race, class, urban–rural location, or parishioner age. For race, we compared predominantly Black congregations to other congregations, defining a congregation as predominantly Black if 80% or more of its members were Black or if it was part of an historically African American denomination. There are not enough predominantly Hispanic or Asian congregations in the NCS sample to examine them separately. To measure the age makeup of congregations, we

¹ The NCS gathered data about other technologies, such as visual projection in worship services, that are not directly relevant to reaching people who are not physically present. We do not examine that sort of technology use in this article.

Table 1 Summary statistics *Source:* National Congregations Study, 2018–19

	Percent of congregations/ median value	Number of non- missing values
<i>Technological Infrastructure</i>		
Website, Facebook, or other social media	87%	1251
Head clergy person has social media or blog	46%	1174
Streamed worship	20%	1254
Recorded worship	50%	1253
Posted recordings of worship online	32%	1245
Streamed, recorded, or posted recordings of worship	57%	1245
Staff member dealing with technology	9%	1241
<i>Finances</i>		
Annual income	\$105,000	941
100% of income from individuals	62%	902
Annual budget	\$100,000	932
Endowment or savings account	67%	1170
Amount in endowment or savings (for those with savings or endowment)	\$50,000	592
6 months of budget in savings (% of all congregations)	26%	855
12 months of budget in savings (% of all congregations)	18%	855
Electronic donation system	48%	1250
Receives income from renting	35%	1104
Income from renting (for those with rental income)	\$6,000	369
% of income from renting (for those with rental income)	10%	343
<i>Size</i>		
Fewer than 100 adults	73%	1262
<i>Location</i>		
Located in a rural census tract	25%	1262
<i>Religious Tradition</i>		
Roman Catholic	6%	1262
<i>Member Demographics</i>		
Predominantly Black	22%	1262
More than 40% of adults age 60 or older	50%	1230
More than 20% of adults make \$35 k or less annually	50%	1026

All percentages are weighted using the WT_ALL4_CONG_DUP weights in the NCS cumulative dataset. Financial variables have more missing data than other variables

used the NCS question asking key respondents to report the percentage of regular adult attendees who were over the age of 60. We compared congregations that were above the median (40%) on this measure to congregations that were at or below the median. To measure class, we used the NCS question asking for the percentage of regularly attending adults living in households that make under \$35,000 a year. We

compared congregations that were above the median (20%) on this measure to congregations that were at or below the median. Table 1 reports summary statistics for all the measures used in our analysis.

Statistical Analyses

To assess inequalities in pandemic preparedness across congregations, we examined how congregations of different types varied in their technological and financial infrastructure. We mainly focus on bivariate relationships, but since the congregational characteristics we examine are related to each other (for example, rural congregations are, on average, smaller than urban congregations), we also estimated multiple regression equations containing all of the independent variables to investigate whether the bivariate differences we observe are spuriously produced by other congregational characteristics. The results of these regression analyses are reported in the [Appendix](#).

Results and Discussion

Technological Infrastructure

The social distancing forced by this highly communicable disease placed a spotlight on congregations' technological infrastructure. Congregations needed to find novel ways to maintain their religious community in the era of social distancing, which meant using communication technologies. By looking at the technological infrastructure congregations had before COVID-19, we learn how many and which types of congregations were best equipped to connect with their congregants during the pandemic. We examined congregations' technological infrastructure prior to the pandemic in four key areas: (1) congregations' and (2) clergy's online presence, (3) online worship services, and (4) the presence of specialized staff to manage the congregation's technology.

Congregations' Online Presence

Websites and social media can help congregational leaders keep in contact with their parishioners even when the congregation is no longer meeting in-person. A large majority of congregations had some way of connecting with their parishioners electronically pre-COVID-19. Nearly 9 in 10 congregations (87%) had a website, Facebook page, or some other form of social media account prior to the pandemic. However, the use of this technology was not equal across the religious landscape.

As Fig. 1 shows, although a strong majority of congregations in every subgroup had an online presence, congregations without an online presence were disproportionately smaller, rural, predominantly Black, and had more low-income members. While a web presence was nearly universal among larger congregations (96% of congregations with 100 or more adults had some web presence), only 83% of

Source: National Congregations Study, 2018-19.
Note: An asterisk (*) indicates that a difference is statistically significant at least at the .05 alpha-level.

Fig. 1 Congregations with a website, Facebook page or other social media page

congregations with fewer than 100 people had any online presence. There was a similar pattern for rural and predominantly Black congregations. Only three-fourths (75%) of rural congregations had an online presence compared to over 90% of urban and suburban congregations, and only 76% of predominantly Black congregations had a web presence while 90% of non-predominantly Black congregations did. There also were class differences: 93% of congregations with below-average numbers of low-income members had some sort of online presence, compared to only 82% of congregations with a higher share of congregants from lower income brackets. All of these differences are statistically significant at least at the 0.05 alpha-level. Catholic churches and congregations with more older people were less likely to have an online presence, but these differences are not statistically significant. Multiple regression analysis (the results of which are in the first column of Appendix Table 2) confirm that these bivariate differences are not reducible to other congregational characteristics. They each independently correlate with a congregation's online presence on the eve of the pandemic, even when controlling for other things, although the coefficient attached to rural location is significantly different from zero only at the 0.10 alpha-level.

Examining the intersections between these variables gives even more insight into congregational inequalities in technological infrastructure. The NCS sample size constrains our ability to examine all the intersections of these variables, but some patterns are clear. For example, only 46% of rural Black congregations had an online presence, compared to 89% of other congregations, a staggering 43 percentage point gap ($t=3.77$; $p<0.001$). Predominantly Black churches in rural census tracts were the only subgroup of congregations that we examined where the majority did not have any online presence. Maintaining a vibrant religious community without meeting in-person may have been especially challenging for these congregations.

Clergy Online Presence

In addition to reaching parishioners through congregational websites and social media accounts, religious leaders also use their personal social media accounts and blogs to communicate with parishioners. Just under half (46%) of congregations' head clergy used a Facebook page, other social media account, or blog in his or her work. While this means that about half of all congregations' head clergy did not use any kind of social media to communicate with congregants in 2018–19, there were no differences in this rate across congregations of different sizes, locations, or demographics.

Online Worship

Once the pandemic struck, congregations needed to be able to stream or record and post their worship services in order to maintain their worshiping communities. Prior to the pandemic, a slight majority (57%) of congregations already were streaming, recording, or posting their services online. That number increased dramatically after March 2020 (Seabright and Raiber 2020). Still, examining the situation before that provides a window into what kinds of congregations already had the infrastructure

Source: National Congregations Study, 2018-19.

Note: An asterisk (*) indicates that a difference is statistically significant at least at the .05 alpha-level.

Fig. 2 Congregations that streamed, recorded, or posted worship services online

Source: National Congregations Study, 2018–19.

Note: An asterisk (*) indicates that a difference is statistically significant at least at the .05 alpha-level.

Fig. 3 Catholic churches less likely to stream or record services

to move seamlessly to an online-only format, and which types of congregations needed to scramble to figure out how to get these systems up and running.

As Fig. 2 shows, many of the variables we examined made a noticeable difference in congregations' online worship capacity on the eve of the pandemic. Looking first at size, nearly three quarters (74%) of congregations with over 100 adults had some sort of streaming or recording system prior to the pandemic, but only half (50%) of smaller congregations had such a system in place ($t=5.43$; $p<0.001$). This is perhaps related to the diffusion of a technology-focused megachurch style to medium-size churches in America (Ellingson 2007). Such churches were already engaging in "online religion" (Farrell 2011) to some extent prior to the pandemic, so shifting to doing services completely online would have been less of a hurdle. In contrast, many smaller congregations needed to quickly scramble to go online or else lose the ability to maintain religious services during the pandemic.

Interestingly, and perhaps surprisingly, predominantly Black congregations were *more* likely to have streamed, recorded, or posted their worship services to their website in 2018–19. In contrast to expectations based on research concerning the digital inequalities in American society (DiMaggio et al. 2004; Dewan and Riggins 2005; Blank and Groselj 2015), about two-thirds of Black Protestant congregations streamed, recorded, or posted their services (67%), compared to just over half (54%) of other congregations that had at least one of these systems in place ($t=1.96$; $p=0.05$). Additional analyses, not shown here but available upon request, reveal that this difference only exists among urban and suburban congregations. Predominantly Black congregations in rural census tracts were no more likely to have streamed or recorded worship services than predominantly white congregations in rural tracts.

More liturgical traditions used this technology at much lower rates. Catholics in particular were exceptionally unlikely to have streaming or recording systems set up. Figure 3 shows the percentage of Catholics and non-Catholics that had

worship technologies related to online services. Only 3% of Catholic congregations had streamed a recent service (compared to 21% of non-Catholics), only 12% had recorded a recent service (compared to 52% of non-Catholics), and only 22% had streamed, recorded, *or* posted recordings of recent services, while 59% of non-Catholics had. All of these differences are statistically significant at least at the 0.001 alpha-level. Catholic congregations also may have been less likely to post recordings of their services online (19% to 33%), but this difference is not statistically significant at the 0.05 level ($p=0.055$). This lack of streaming or recording among Catholic congregations probably reflects a liturgical tradition in which receiving the sacraments requires physical presence. In any tradition, watching from home is different from physically attending a worship service, but for Catholics the power and purpose of the event are especially diminished when shifted online. Consequently, Catholic churches were particularly ill-equipped to shift to exclusively virtual worship.

Multiple regression analyses (contained in the second column of Appendix Table 2) confirm that the size, race, and the Catholic-versus-non-Catholic differences are not reduceable to other variables. On the other hand, the differences evident in Fig. 2 associated with the average age of congregations' parishioners are not statistically significant when other congregational characteristics are controlled, mainly because Catholic churches and smaller congregations—both of which stream less—also tend to be older. Still, it is worth noting that, even if having more elderly parishioners is not a statistically significant predictor of streaming worship services when other things are controlled, the fact remains that congregations with more older members were less likely to have the technological infrastructure in place to shift their services online.

As with online presence, examining the intersections of these variables reveals certain kinds of congregations that were especially unprepared to shift their operations online. Congregations with fewer than 100 members and congregations with older members were both less likely to have any sort streaming or recording technology, but congregations that were smaller *and* had older members were especially unlikely. Among such congregations, only 45% had any sort of streaming or recording system in place compared to over 64% of other congregations ($t=3.229$, $p=0.001$). The absence of streaming and recording capabilities prior to the pandemic likely posed a significant challenge for these congregations.

Specialized Staff

Having a paid staff member who spends at least part of his or her work time focused on technology represents a significant investment in developing and sustaining congregational technology and another kind of resource that congregations could draw on when the pandemic struck. These staff members can maintain social media pages to keep congregants informed, ensure that online worship services run smoothly, and manage technological upgrades to better connect people during the pandemic.

Only about one in ten (9%) congregations had a staff member specializing in congregational technology. While having such a staff person was rarer and represents a much more significant investment than just having a website or Facebook page, the differences across congregations in having such a staff member were similar

Source: National Congregations Study, 2018–19.
Note: An asterisk (*) indicates that a difference is statistically significant at least at the .05 alpha-level.

Fig. 4 Congregations with a staff member devoted to technology

to differences in having an online presence of any sort. As Fig. 4 shows, smaller, rural, predominantly Black congregations, congregations with older members, and congregations with more people with lower incomes were significantly less likely to have such a staff person. Only 4% of predominantly Black congregations, 3% of small congregations, 2% of rural congregations, 6% of congregations with older members, and 6% of congregations with more members with lower incomes had such a staff person, compared to 10% of not predominantly Black congregations, 22% of large congregations, 11% of urban/suburban congregations, 11% of congregations with younger members, and 11% of congregations with more members with higher income. All of these differences are statistically significant at least at the 0.05 alpha level. While most congregations did not have a staff person dedicating significant time to technology, those that did were disproportionately larger, concentrated in urban or suburban areas, non-Black, and had more young and high-income members. With one exception, these differences remain significant at least at the 0.10 alpha-level in multiple regression analyses containing all of these variables. (See the third column in Appendix Table 2.) The exception is that, controlling for other things, there is not a significant difference between congregations with more and fewer lower income members. This is mainly because congregations with more low-income members also tend to be smaller, and congregation size is the most important predictor of having a technology staff member.

In contrast with other measures of technological infrastructure, this is one area where Catholic parishes had an advantage: 17% of Catholic churches had a staff person dedicated to technology while only 8% of non-Catholic churches did ($t=2.541$, $p=0.01$). However, this difference disappears in multiple regression analyses because it is produced by the fact that Catholic churches are much bigger, on average, than non-Catholic congregations, and, as already noted, having a staff member devoted to technology is largely driven by congregational size. Moreover, reflecting the liturgical difference we mentioned earlier, even Catholic churches with a technology staff person generally lacked streaming technology to help shift worship services online. Only a quarter (27%) of Catholic congregations *with* a staff person dedicated to technology had any sort of streaming, recording, or web posting capabilities prior to the pandemic.

Inequality in having a staff-member devoted to technology was even more pronounced when examining the intersections of different categories. While the percentages of predominantly Black, rural, and smaller congregations that had a technology staff person were all low, they reach truly microscopic levels when viewed in combination. For example, *none* of the congregations interviewed by the NCS that were both rural and predominantly Black had a staff member devoted to technology, but 9% of other congregations did ($t=2.946$, $p=0.003$). The story was similar for small, rural congregations and small, predominantly Black congregations. In both cases, fewer than one in a hundred congregations had a staff member devoted to technology (0.2% and 0.4% respectively), but more than one in ten other congregations had such a staff member (11% and 10% respectively)—substantial and statistically significant differences ($p<0.001$). Staff devoted to technology were a rarity for all congregations, but they were virtually non-existent among these sorts of congregations.

Financial Stability

Beyond preventing congregations from meeting in-person, the pandemic also caused a steep and sudden economic downturn that threatened the financial stability of many kinds of organizations, including congregations. Some congregations were forced to reduce spending, draw on savings accounts, delay or cancel capital campaigns, and pursue other belt-tightening measures. Examining the financial status and stability of congregations at the onset of the pandemic provides a window into which types of congregations were best positioned to manage the pandemic's economic toll. We examine three features of congregations' financial situation prior to the pandemic: (1) having a savings account or endowment, and the percent of a congregation's annual budget contained in such accounts; (2) the ability to receive financial donations electronically; and (3) the amount of rental income they received in the previous year.

Savings

One way to buffer against the downturn in revenue is through an endowment or savings account. Congregations with such funds are better positioned to weather an economic storm. In 2018–19, one third (33%) of congregations had no savings account of any kind. Moreover, only one in four congregations (26%) had enough savings to cover six months of their annual budget, and only one in five (18%) had savings equal to or greater than one year of their annual budget.

Many congregations were financially vulnerable on the eve of the pandemic, but some were more vulnerable than others. As Fig. 5 shows, small congregations, congregations with more socioeconomically disadvantaged attendees, and predominantly Black congregations were most likely to lack savings. Thirty-six percent of smaller congregations lacked any savings, compared to only 25% of larger congregations ($t=2.704$, $p=0.007$). Similarly, 39% of socioeconomically disadvantaged congregations had no savings, compared to only 25% of more well-off congregations ($t=2.518$, $p=0.012$). Strikingly, predominantly Black congregations were by far the least likely to have any savings. Almost half (48%) of predominantly Black congregations had no savings account or endowment, while only 30% of non-predominantly Black congregations lacked savings of some sort ($t=2.644$, $p=0.008$). Neither rural/urban location nor religious tradition (Catholic vs. non-Catholic) makes a difference here.

The inequalities in congregations' financial situations come into even sharper focus when we examine the size of congregations' financial cushions. Approximately one in three (30%) non-predominantly Black congregations had six months of their operating budget in a savings account, and about one in five (21%) had twelve months. By comparison, only about one in ten (12%) predominantly Black congregations had six months of savings, and only about one in fifteen (7%) had a year's financial cushion ($t=2.397$, $p=0.017$; $t=2.006$, $p=0.045$, respectively). Similarly, 40% of congregations at or below the median number of low-income members had a six-month financial cushion, and 29% had twelve months. In contrast, only 14% of congregations with more than the median number of low-income members had

Source: National Congregations Study, 2018–19.
Note: An asterisk (*) indicates that a difference is statistically significant at least at the .05 alpha-level.

Fig. 5 Congregations without a savings account

a six-month financial cushion, and only 8% had a twelve-month cushion ($t=3.927$, $p<0.001$; $t=4.526$, $p<0.001$, respectively). Thus, though only a minority of all religious congregations had a substantial financial cushion in 2018–19, predominantly Black congregations and congregations with more low-income people were especially unlikely to have such a cushion.

Multiple regression analyses (presented in Appendix Table 3) show that the race and size differences in having any savings, having a 6-month cushion, and having a 12-month cushion are no longer statistically significant when controlling for having more lower-income members, which retains its strong effect on the size of a congregation's financial cushion. This is because the low savings rates of Black and small congregations partly reflect the fact that such congregations also are more likely to have more low-income members. Two-thirds (67%) of Black congregations and half (50%) of small congregations had more than the median number of low-income people. Hence, congregants' income is the key predictor of a congregation's financial well-being, and congregations that tend to have fewer well-off people—such as small and predominantly Black ones—therefore have less financial cushion.

The financial situation of congregations that were both predominantly Black *and* had more low-income members was especially precarious in 2018–19. Only 6% of such congregations had six months of savings, and only 4% had a year's financial cushion. Among all other congregations, 29% had six months of their budget in savings, and 20% had a year's budget in savings ($t=3.005$, $p=0.003$; $t=2.194$, $p=0.029$, respectively). As mentioned earlier, two-thirds (67%) of predominantly Black congregations had more than the median number of low-income people. Taking all this together, predominantly Black congregations were especially vulnerable to the economic impact of the COVID-19 pandemic, in large part because they tend to have more lower-income members.

Electronic Donations

The economic recession means many people lack the funds to donate to congregations as they did in the past, and the inability to meet in-person means that congregations need to rely on methods other than passing the collection plate to get donations. Congregations are highly dependent on individual donations for revenue, with six in ten (62%) reporting that all of their income comes from individual donations. The ability to receive donations electronically can help maintain a steady revenue stream without meeting in-person since it makes it easy for parishioners to contribute without mailing something or leaving their homes. However, only half (48%) of congregations had such an electronic system set up prior to the pandemic. Further, the congregations that were the most dependent on individual donations were also the least likely to be able to receive donations electronically. Among congregations that were entirely dependent on individual donations for their income, only 43% had an electronic donation system set up prior to the pandemic, a percentage that increases to 59% for congregations that were not completely reliant on individual donations ($t=2.422$, $p=0.016$).

As Fig. 6 shows, congregations with more older parishioners, rural congregations, and smaller congregations were significantly less likely in 2018–19 to be able

Source: National Congregations Study, 2018-19.
Note: An asterisk (*) indicates that a difference is statistically significant at least at the .05 alpha-level.

Fig. 6 Congregations able to receive electronic donations

to receive donations electronically. Fifty-four percent of congregations with fewer people over age 60 were able to receive electronic donations, while only 42% of congregations with more people over age 60 were able to ($t=2.041$, $p=0.042$). This difference is even larger when looking at size and location differences. Small congregations and rural congregations were half as likely to be able to receive financial donations electronically as their larger and urban or suburban counterparts. While 76% of congregations with 100 or more regularly attending adults and 55% of suburban or urban congregations were able to receive electronic donations, only 38% of congregations with fewer than 100 regularly attending adults and only 27% of rural congregations had that capacity ($t=8.252$, $p<0.001$; $t=3.929$, $p<0.001$, respectively). While, in the data, predominantly Black congregations and socioeconomically disadvantaged congregations were also less likely to be able to receive donations electronically, these differences are not statistically significant. In a multiple regression (shown in the first column of Appendix Table 4), urban location and larger size remain significant predictors of ability to receive electronic donations. However, age composition is not significantly related to ability to receive electronic donations once other variables are controlled, mainly because smaller congregations also tend to have older memberships.

While small congregations and rural congregations were both vulnerable to COVID-19 in their relative inability to receive financial donations electronically, small *and* rural congregations were at an even greater disadvantage. Among congregations that are both small and rural, only 23% were able to receive donations through electronic means, compared to 55% of other congregations ($t=3.836$, $p<0.001$).

Rental Income

Donations from individuals are not the only source of income for congregations. Prior to COVID-19, many congregations received income from renting their building to other groups that are not meeting, and therefore not paying rent, during the pandemic. In 2018–19, about a third (35%) of congregations received some income from renting their building in the last year. Of those congregations, an average of 10% of their income came from renting. Thus, beyond declines in individual giving, about a third of congregations were vulnerable to losing an average of a tenth their income from uncollected rent.

Some types of congregations relied more heavily on rental income than others. For example, although smaller congregations were less likely to rent their buildings, they were more dependent on rental income when they did. While 39% of congregations with 100 or more regularly attending adults received rental income, that income made up only about 6% of their annual budgets. By contrast, while only 26% of congregations with less than 100 regularly attending adults received rental income, that income made up 12% of their budget ($t=3.100$, $p=0.002$; $t=2.249$, $p=0.025$, respectively). The multiple regression results presented in the second and third columns of Appendix Table 4 show this same pattern when other variables are controlled.

Reliance on rental income is also related to parishioner age. When they rented, congregations with more or fewer older members received about the same percentage of total income from that source, but congregations with more parishioners over the age of 60 were particularly likely to have rental income in 2018–19: 37% compared to only 22% of congregations with younger members ($t=3.164$, $p=0.002$). This pattern again remains when other variables are controlled, as shown in the second and third columns of Appendix Table 4. Thus, smaller congregations that rent their buildings and congregations with more older members may have been hit particularly hard by the loss of rental income during the pandemic.

Conclusions and Implications

We have shown that, on the eve of the COVID-19 pandemic, congregations differed substantially in capacities that became especially relevant when the pandemic struck. Technological infrastructure was particularly lacking among Catholic churches and congregations with older attendees, but the congregations in the most perilous position were rural, small, predominantly Black, and those with more low-income people. These congregations generally had more limited technological infrastructure and more financial vulnerability than other congregations. A notable exception to this generalization is that predominantly Black congregations were more likely than non-Black congregations to be streaming their worship services prior to the pandemic, even as they were less technologically equipped in other ways. Overall, our findings highlight how the American religious landscape continues to be stratified in consequential ways.

We examined congregations' technology and financial situations separately, but congregations that were least prepared in one of these areas often were also least prepared in the other. This is of course because it requires money to develop and maintain some kinds of technological infrastructure, and, from the other direction, certain technological capabilities, such as the ability to receive donations electronically, can help congregations financially. Indeed, a study of Catholic parishes in three dioceses found smaller declines in giving during the pandemic among churches offering online mass and among those with electronic giving, though only the former was statistically significant (Manion and Strandberg 2020). Congregations' technological and financial capacities are intertwined.

While our findings show important ways in which religious congregations were stratified in their technological and financial infrastructure, the primary limit of this study is that we do not yet know whether or how these pandemic-eve inequalities shaped congregations' ability to serve their people and maintain their religious communities during the pandemic. Many congregations, even the least technologically savvy and financially secure of them, adapted quickly to the new reality created by the pandemic. Many clergy and lay leaders quickly learned how to use Zoom and YouTube, how to set up an electronic donation system and encourage people to use it, and where to reduce spending in response to a revenue shortfall (MacDonald et al. 2020; Francis and Village 2021).

However, the inequalities we documented suggest that these adaptations would have been easier, and perhaps more successful, for some types of congregations than for others. Some early research on congregations following the onset of the pandemic has indicated that many of the sources of stratification we identified in pre-COVID-19 data shaped congregations' ability to adjust to a COVID-19 reality. For example, Seabright and Raiber (2020) found that smaller congregations maintained lower levels of online presence than larger congregations even in the midst of the pandemic, and Johnston et al. (2021) found that switching to online worship was particularly challenging for rural congregations that lacked experience and dedicated staff to help manage the transition.

Beyond examining how congregations adapted to the pandemic in the short-term, future research also should investigate what, if any, long-term marks the pandemic will leave on congregations. Will online access to worship services remain ubiquitous when the pandemic is over? How many congregations, of what sorts, will be compelled to permanently reduce their operating budgets, or even close, because they do not fully recover from the pandemic's economic consequences? Answering these and other questions about the pandemic's medium-to-long-term impact on American religion will require ongoing research.

Appendix: Multiple Regression Analyses

See Tables 2, 3, 4.

Table 2 Logistic regressions predicting use of technology in congregations, 2018–19 *Source:* National Congregations Study, 2018–19

	Website or social media	Streaming, recording, or web posting	Staff member devoted to technology
(Constant)	5.460*** (0.824)	1.542*** (0.239)	− 0.624** (0.222)
Size: Fewer than 100 Adults	− 1.921** (0.698)	− 1.720*** (0.068)	− 1.859*** (0.402)
Location: Rural	− 0.703^ (0.395)	− 0.004 (0.304)	− 1.272*** (0.384)
Tradition: Catholic	− 1.761* (0.880)	− 2.395*** (0.476)	0.091 (0.262)
Race: Predominantly Black	− 0.990* (0.433)	0.931** (0.348)	− 0.767^ (0.412)
Age: Above Median Number of Seniors	− 1.210** (0.428)	− 0.365 (0.267)	− 0.528^ (0.317)
Class: Above Median Number of Lower-Income People	− 0.828* (0.399)	0.227 (0.408)	− 0.391 (0.321)
n	1021	1015	1016

Values reported are logistic regression coefficients with standard errors in parentheses; ^ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3 Logistic regressions predicting congregational savings, 2018–19 *Source:* National Congregations Study, 2018–19

	No savings	Six month financial cushion	Twelve month financial cushion
(Constant)	− 1.319*** (0.247)	− 0.370 (0.243)	− 1.047*** (0.289)
Size: Fewer than 100 Adults	0.361 (0.253)	− 0.271 (0.319)	− 0.014 (0.340)
Location: Rural	− 0.012 (0.311)	− 0.213 (0.375)	− 0.078 (0.393)
Tradition: Catholic	0.495 (0.626)	− 0.467 (0.420)	− 0.537 (0.422)
Race: Predominantly Black	0.518 (0.331)	− 0.716 (0.513)	− 0.929 (0.674)
Age: Above Median Number of Seniors	− 0.219 (0.261)	0.559 (0.374)	0.562 (0.398)
Class: Above Median Number of Lower-Income People	0.510^ (0.260)	− 1.334*** (0.401)	− 1.511*** (0.354)
n	978	759	759

Values reported are logistic regression coefficients with standard errors in parentheses; ^ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4 Logistic and linear regressions predicting use of income sources in congregations, 2018–19 *Source:* National Congregations Study, 2018–19

	Able to receive electronic donations (logistic)	Receive income from renting (logistic)	Percent of total income from renting, for those with rental income (OLS)
(Constant)	1.545*** (0.251)	– 0.447* (0.212)	0.106** (0.036)
Size: Fewer than 100 Adults	– 1.670*** (0.249)	– 0.729** (0.245)	0.086* (0.037)
Location: Rural	– 0.847* (0.348)	– 0.269 (0.361)	– 0.053 (0.037)
Tradition: Catholic	– 0.407 (0.449)	0.013 (0.446)	– 0.012 (0.020)
Race: Predominantly Black	0.346 (0.374)	– 0.624 (0.428)	0.043 (0.050)
Age: Above Median Number of Seniors	– 0.289 (0.279)	0.752** (0.276)	– 0.082 (0.054)
Class: Above Median Number of Lower-Income People	– 0.046 (0.287)	– 0.313 (0.268)	– 0.012 (0.031)
n	1015	1003	306

Values reported are coefficients from logistic or OLS regression with standard errors in parentheses; $\wedge p < 0.1$, $*p < 0.05$, $**p < 0.01$, $***p < 0.001$

Acknowledgements Previous versions of this article were presented at the Boisi Center at Boston University's Conference on Pandemic and Religion and the 2021 Annual Conference of the International Society for the Sociology of Religion.

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