

Local Climate Change Reporting: Assessing the Impacts of Climate Journalism Workshops

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(Manuscript received 10 August 2021, in final form 23 December 2021)

ABSTRACT: Prior research suggests that climate stories are rarely reported by local news outlets in the United States. As part of the Climate Matters in the Newsroom project—a program for climate-reporting resources designed to help journalists report local climate stories—we conducted a series of local climate-reporting workshops for journalists to support such reporting. Here, we present the impacts of eight workshops conducted in 2018 and 2019—including participant assessments of the workshop, longitudinal changes in their climate-reporting self-efficacy, and the number and proportion of print and digital climate stories reported. We learned that participants found value in the workshops and experienced significant increases in their climate-reporting self-efficacy in response to the workshops, which were largely sustained over the next 6 months. We found only limited evidence that participants reported more frequently on climate change after the workshops—possibly, in part, due to the impact of coronavirus disease 2019 (COVID-19) on the news industry. These findings suggest that local climate-reporting workshops can be a useful but not necessarily sufficient strategy for supporting local climate change reporting. Further research is needed to illuminate how to support local climate reporting most effectively.

SIGNIFICANCE STATEMENT: As part of an NSF-funded project to support local climate change news reporting, we conducted a series of eight journalist workshops. Here we evaluate their impacts. Participants gave the workshops strong positive ratings and experienced significant increases in climate-reporting self-efficacy. There was only limited evidence, however, that the workshops led to more frequent reporting on climate change—a conclusion muddled by the impacts of coronavirus disease 2019 (COVID-19) on the news industry. These findings suggest that local climate-reporting workshops may be a useful strategy but that additional research is needed to strengthen the approach.

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KEYWORDS: Social Science; North America; Climate change; Societal impacts

1. Introduction

The more people hear about an issue in the news, the more likely they are to consider the issue to be important (Shanahan 2016; King et al. 2017). Over the past two decades, in American prestige newspapers and on national-level television news networks, climate change stories have been reported at modest but growing levels; however, rates of coverage in local news outlets appear to be lower (Nacu-Schmidt et al. 2021; Timm 2021; Weathers 2013). In fact, one-half of Americans say they read or hear about global warming in the news less than once per month (Leiserowitz et al. 2020). Given that Americans who understand that climate change is already creating harmful consequences in their communities and across the United States are more likely to support societal responses to climate change and take action themselves, more robust news coverage of climate change could be expected to bolster public will for climate solutions (Krosnick et al. 2006; Roser-Renouf et al. 2014).

Local news professionals are well positioned to help Americans better understand climate change (Bloodhart et al. 2015;

Maibach et al. 2016; Feygina et al. 2020; Menezes 2018; Myers et al. 2020; Romero-Canyas et al. 2019). Local reporting can connect people's first-hand experiences to the abstract processes that constitute global climate change thereby enhancing engagement with the issue (Weber 2010; Spence and Pidgeon 2010; Myers et al. 2012; Ford and King 2015).

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Climate Matters in the Newsroom (CMN) is a program for climate-reporting resources created in 2018 to encourage and enable an increase in local, science-based, climate reporting nationwide. CMN provides journalists with localized reporting resources and with the opportunity to participate in local climate-reporting workshops. These workshops bring together experts in various topics of relevance to climate change as a local issue (e.g., public opinion, climate impacts, and clean energy) to engage in discussions with journalists interested in reporting on climate change at the local level. CMN is an extension of a Climate Matters resource program designed specifically to support television (TV) weathercasters as local climate reporters (Myers et al. 2020; Placky et al. 2015)

This paper evaluates the impacts of eight local climate-reporting workshops hosted by CMN in 2018 and 2019. Specifically, we examined participants' assessments of the workshops, the workshops' impact on participants' climate-

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DOI: 10.1175/WCAS-D-21-0117.1

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reporting self-efficacy, and the workshops' impact on the amount of participants' subsequent climate reporting over the following year.

2. Background and research questions

Journalism can play an important role in helping citizens understand important issues of relevance to their well-being, including climate change (King et al. 2017; Shanahan 2016). In the United States, the climate reporting of national news outlets has been documented extensively. The amount of climate change coverage in elite newspapers has grown considerably over the past two decades, but climate change coverage on national television news remains scant (Boykoff and Luedecke 2016; Gavin 2017). Although there has been minimal research on climate change reporting in local news outlets, the limited evidence suggests there may be relatively little of this type of reporting (Timm 2021; Weathers 2013). Some studies suggest that local news coverage has considerable potential to be an important source of climate change information (Schäfer and Painter 2024).

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Most Americans get their news from local outlets (Pew Research Center 2020), and local outlets are perceived as more trusted and less partisan than national outlets (Druckman 2015; Guess et al. 2018; Lupia 2013). Local news outlets are one of the few places, if not the only place, where most Americans have the opportunity to learn about the local relevance of climate change, including impacts, projections, and solutions (Ford and King 2015). Locally focused climate reporting has potential to heighten public engagement because framing climate change as a local issue is associated with greater concern and mitigation intentions (Hart and Nisbet 2012; Jones et al. 2017; Romero-Canyas et al. 2019). Several studies have demonstrated that local climate change reporting can help make climate change more personally relevant to audiences (Bloodhart et al. 2015; Feygina et al. 2020; Myers et al. 2020; Zhao et al. 2014).

A number of increasing pressures on local news outlets—including corporate consolidation, changing revenue streams and business models, the “24/7” news cycle, and increasing competition from a changing media landscape—pose challenges to local climate reporting (Franklin 2014). These challenges have led to structural changes in television and print news organizations, resulting in less in-depth reporting and shorter deadlines for news stories (Dutton 2009; Higgins-Dobney and Sussman 2013; Siles and Boczkowski 2012; Wahl-Jorgensen et al. 2016). Being asked to do more with less, many newsrooms have downsized or eliminated specialized beats like science and the environment (Porter 2020). As a result, science and environment stories are increasingly reported by generalists who often spend the majority of their time covering other beats (Detjen et al. 2000; Gibson 2017; Gibson et al. 2016; Menezes 2018; Wilson 2000). Lacking a specialized or nuanced knowledge of climate change, journalists are less equipped to recognize areas of expert consensus and where disagreements exist, which can increase the likelihood of misleading coverage (Fahy 2017; Nisbet and Fahy 2015). To help journalists cover complex scientific topics like climate change,

efforts are being made to produce and distribute science reporting resources and provide journalists with training in science reporting techniques (Hoy 2019; Maibach 2021; Menezes 2018; Smith et al. 2018).

CMN was launched with the intention to support local journalists in overcoming the challenges they face reporting on climate change. The reporting resources program is an extension of Climate Matters,¹ a National Science Foundation-funded project that has supported TV weathercasters to report local climate change stories to local audiences since 2010 (Maibach 2021). By curating sources of data and expertise, producing localizable climate data and TV-ready graphics for use on air, and promoting peer-to-peer spread of climate-reporting practices, Climate Matters has made reporting climate stories easier for weathercasters (Maibach 2019). Modeled on successful workshops produced for Climate Matters participants, the CMN program produces reporting resources and workshop-format training experiences for the broader community of interested journalists. In response to the barriers to climate reporting identified in formative research with journalists (Maibach et al. 2018a,b,c,d), the workshops aim to enhance participants' knowledge of climate science, local impacts, and solutions, increase their self-efficacy (confidence) to report on local aspects of climate change, and advance their local climate-reporting skills.

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Here, we explore three research questions (RQ) to evaluate the impact of CMN workshops:

- 1) RQ1: Do workshop participants feel the training is helpful to them?
- 2) RQ2: Do workshop participants have an increase in their self-efficacy to report local climate stories?
- 3) RQ3: Do workshop participants report climate stories more frequently following the workshops?

3. Methods

a. Workshops and participants

Eight workshops, each about 8 h long and featuring fast-paced instruction and interactive facilitation, were conducted between June 2018 and November 2019 ($N = 214$ journalists). The workshops generally covered topics related to climate change, including public opinion data, impacts on public health, the local impacts on the environment, the local solutions to climate change, and insights to make climate stories engaging. However, each workshop was organized and presented localized information relevant to where the workshop took place.² Journalists from various backgrounds, level of experience, news environments, and positions within the newsroom typically attended each workshop. Of the workshop

¹ For more information about Climate Matters, see <https://www.climatechangecommunication.org/weathercasters/>.

² To give the reader a better sense of what the workshops typically encompass, the agenda for the workshop held at the University of North Carolina, Chapel Hill, in September of 2019 can be found at https://www.climatecommunication.org/wp-content/uploads/2016/08/UNC-CH-Workshop-Agenda-Final_links.pdf.

TABLE 1. Workshop evaluation results. To evaluate the helpfulness of CMN workshops, workshop participants were asked to respond to a postworkshop survey with the above items; *n* reflects the aggregated sample across all eight workshops.

	<i>n</i>	<i>M</i>	<i>SD</i>
The workshop was well suited to meet my needs as a journalist	136	2.21	0.83
The workshop helped me better understand climate change as it relates to my job	135	2.24	0.87
The workshop helped me better understand climate change as it relates to my community	132	2.02	1.03
The workshop helped me feel more confident in reporting on climate change	133	2.22	0.85
The workshop helped me feel more confident in my ability to find sources of local climate change information	134	2.31	0.87
The workshop helped me feel more confident in using Climate Matters materials in my reporting	134	2.25	0.88
I intend to use Climate Matters materials in my reporting over the next year	134	2.25	0.97
I intend to report local climate change stories more frequently over the next year than I did over the past year	97	2.23	0.96
I will recommend this workshop to colleagues if it is offered again	100	2.57	0.83

participants who had published at least one story in print (*n* = 59) or online (*n* = 124), about one-half of them, 50.8% and 52.4%, respectively, had published at least one climate change story during the year previous to the workshops. Workshop invitations were distributed by CMN organizers, CMN-partnered journalism societies, and cosponsoring organizations (e.g., journalism departments of colleges local to the workshop or science center) with the aim of attracting approximately 20–25 participants per workshop.

b. Measures

To gather feedback, assess participant’s views on the workshop, and measure their climate-reporting self-efficacy, online surveys were distributed via email using Qualtrics,³ a survey software package. Up to two automated reminders to complete the survey were sent with each wave of the survey.

1) PARTICIPANT FEEDBACK

To address RQ1, participants were asked to respond to nine Likert-type statements, scaled from –3 (strongly disagree) to +3 (strongly agree), to assess how helpful the workshops were to them. A total of 136 participants, a response rate of 63.6%, responded to these items (see Table 1).

2) SELF-EFFICACY

To address RQ2, participants’ climate-reporting self-efficacy was assessed using a repeated-measures design. These data were collected 1 week before, immediately after, and 6 months after the workshop. Five items were measured that asked participants about their confidence in their understanding of 1) local climate impacts and 2) local climate solutions well enough to cover them, their ability to cover local climate change stories in an 3) interesting and 4) engaging way, and 5) their ability to convince their manager to allow them to cover local climate change stories. Responses were measured on a continuous scale (from 0 = *not at all confident* to 100 = *extremely confident*). Question wording and descriptive statistics for each item can be found in Table 2. The five items were averaged to calculate an overall self-efficacy score ($\alpha = 0.76$), by averaging all answers provided by participants.

³ For more information about Qualtrics, see <https://www.qualtrics.com/>.

3) NUMBER OF STORIES

To address RQ3, we examined the number of climate stories published by workshop participants (*N* = 56 428) by collecting and comparing their print (*n* = 13 771) and digital (*n* = 42 657) stories reported the year prior to and following the workshop. Our analysis is focused exclusively on print and digital stories because we did not have full access to radio and television stories. (The number of stories produced—all stories and climate stories—by medium are shown in Table 4.) To test differences in climate reporting before and after the workshops, we compared the proportion of climate change stories with the total number of stories produced across all journalists.

The stories produced by workshop participants were collected using Kinetiq⁴—a subscription-based news media tracking service. To assemble our dataset, we first identified and collected all print and digital stories published by workshop participants in the year prior to and after each workshop using the journalist’s names and the search terms “a,” “an,” “the,” and “or.” We then determined which of those stories were about climate change; to be considered a climate change story, the text of the article must contain the terms “global warming” or “climate change.” Last, we determined whether each story was an original story (i.e., published for the first time) or a repeat (i.e., published previously), yielding two metrics: total number of stories published and number of original stories published.

4. Results

a. RQ1: Workshop feedback

In general, participants felt the workshops were helpful. Participant’s assessments averaged an overall weighted mean rating of 2.25 across all workshop evaluation measures [standard deviation (SD) = 0.90], including statements such as “The workshop helped me feel more confident in my ability to find sources of local climate change information” (*M* = 2.31; *SD* = 0.87), and “I will recommend this workshop to colleagues if it is offered again” (*M* = 2.57; *SD* = 0.83). The complete set of assessment statements and their average ratings are in Table 1.

⁴ For more information about Kinetiq, see <https://kinetiq.tv/>.

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TABLE 2. Question wording, means, and standard deviations of preworkshop, immediately postworkshop, and 6-months postworkshop self-efficacy measures.

	Preworkshop			Postworkshop			6-months postworkshop		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
How confident are you that you understand local climate change impacts well enough to cover them?	124	63.02	23.56	132	80.64	14.47	76	80.51	15.90
How confident are you that you understand local climate change solutions well enough to cover them?	124	52.73	23.02	132	73.97	16.32	76	73.08	20.14
How confident are you in your ability to cover local climate change stories in a way that will interest your audience?	124	61.46	23.69	132	78.55	16.92	76	74.78	20.07
How confident are you that you will have the time necessary to cover local climate change stories in an engaging manner?	122	51.15	26.93	131	69.07	22.25	76	59.03	26.13
How confident are you that you can convince your management (editor, news director, etc.) to allow you to cover local climate change stories?	121	69.65	28.91	130	76.87	22.02	74	68.42	29.55

b. RQ2: Self-efficacy

Prior to the workshops, as shown in Table 2 above, overall, participants had moderate levels of climate-reporting self-efficacy on the five-item scale ($M = 59.76$; $SD = 18.47$). A paired-samples *t* test showed that they had a significant increase in self-efficacy immediately following the workshop ($M = 76.12$; $SD = 13.17$), with $t(98) = 10.77$ and $p < 0.001$. A separate paired samples *t* test showed that significant increases in self-efficacy remained 6 months after the workshops ($M = 71.55$; $SD = 16.27$), as compared with preworkshop scores ($M = 62.22$; $SD = 17.20$), with $t(54) = 4.48$ and $p < 0.001$.

With one exception, this same pattern of findings was evident for all five component measures in the self-efficacy scale (see Table 3). The exception was that participant’s confidence in their ability to convince management to allow them to cover

local climate change stories was not significantly increased 6 months after the workshop, as compared with the baseline.

c. RQ3: Comparison of climate change coverage before and after workshop

The total number of print and digital climate stories published increased postworkshop. In print, the average number of climate stories published by journalists the year before the workshops increased from 3.71 ($SD = 7.64$) to 5.43 ($SD = 15.04$). The number of digital climate stories following the workshops also increased, from an average of 14.65 ($SD = 48.18$) climate stories to 16.93 ($SD = 43.40$). However, the proportion of climate change stories as compared with all stories published declined, by 0.33% for print stories and by 2.02% for digital stories (see Table 4). None of these changes were found to be statistically significant.

TABLE 3. Paired-sample *t* tests between preworkshop (“pre”), immediately postworkshop (“post”), and 6-months postworkshop self-efficacy measures. Here, CI is confidence interval and *df* is degrees of freedom.

	<i>M</i>	<i>SD</i>	Std. error	95% CI	<i>t</i>	<i>df</i>	Significance
How confident are you that you understand local climate change impacts well enough to cover them?							
Post-pre	17.08	18.69	1.88	13.35–20.81	9.09	98	0.000
6-months post-pre	13.31	19.82	2.67	7.95–18.67	4.98	54	0.000
How confident are you that you understand local climate change solutions well enough to cover them?							
Post-pre	20.10	20.01	2.01	16.11–24.09	9.99	98	0.000
6-months post-pre	18.00	19.11	2.58	12.83–23.17	6.99	54	0.000
How confident are you in your ability to cover local climate change stories in a way that will interest your audience?							
Post-pre	16.49	20.43	2.05	12.41–20.56	8.03	98	0.000
6-months post-pre	8.56	22.94	3.09	2.36–14.76	2.77	54	0.008
How confident are you that you will have the time necessary to cover local climate change stories in an engaging manner?							
post-pre	19.81	25.10	2.55	14.76–24.87	7.78	96	0.000
6-months post-pre	7.46	27.02	3.64	0.15–14.76	2.05	54	0.046
How confident are you that you can convince your management (editor, news director, etc.) to allow you to cover local climate change stories?							
Post-pre	7.84	23.36	2.38	3.11–12.58	3.29	95	0.001
6-months post-pre	-1.02	22.39	3.10	From -7.25 to 5.21	-0.33	51	0.744

TABLE 4. Pre- and postworkshop total number of stories and climate change stories.

	Total No. of stories	<i>M</i>	Median	SD	Total No. of climate change stories	<i>M</i>	Median	SD
<i>Preworkshop</i>								
Print (<i>n</i> = 59)	4840	82.03	12.00	122.08	219	3.71	1.00	7.64
Digital (<i>n</i> = 124)	17660	142.42	79.50	206.09	1816	14.65	1.00	48.18
<i>Postworkshop</i>								
Print (<i>n</i> = 69)	8931	129.43	20.00	263.00	375	5.43	0.00	15.04
Digital (<i>n</i> = 122)	24997	204.89	85.50	468.60	2066	16.93	1.00	43.40

Paired-samples *t* tests were performed to determine whether the changes in the mean proportions of all climate change stories in print and digital, and unique climate change stories in print and digital, were significant after the workshops. Some workshop participants had published no stories either before the workshop or after. These participants were not used in this analysis; the analysis was limited to journalists who published news stories both before and after the workshops—98 who published digital stories and 38 who published print stories. None of the differences was statistically significant (Table 5).

5. Discussion

To summarize, workshop participants found value in the training, and they experienced a sustained increase in their climate-reporting self-efficacy, but their amount of climate reporting did not increase. This is a perplexing finding given the large body of research that finds that increases in self-efficacy are likely to lead to increases in behavior (Bandura 1986). To further investigate this unexpected finding, we conducted additional analysis to investigate the possibility that the coronavirus disease 2019 (COVID-19) pandemic may have affected the outcome of our workshops.

The impacts of COVID-19 on American life cannot be understated. Provisional data estimate that as many as 380,000 Americans died as a result of COVID-19 in 2020 (Kramer 2021), effectively reducing the life expectancy at birth for Americans by more than 1 yr (Andrasfay and Goldman 2021). Beyond the loss of human life, the economic impacts on the American news industry were tremendous. In 2020, 37,000 Americans who work in the news media industry were laid off, furloughed, or experienced pay reductions (Tracy 2020) and one-third of American newsrooms experienced layoffs (Walker 2021); in the first year of the pandemic,

65 U.S. newsrooms permanently closed (Harris 2021). Ultimately, this only worsened a steady downward trend, in which the number of jobs in American newsrooms fell by 26% between 2008 and 2020 (Walker 2021).

The impact of the pandemic on newsrooms was devastating, and the impact on news content was arguably just as dramatic, if not more so. Between October 2018 and March 2020, there were record amounts of climate change reporting; by mid-March of 2020, climate change reporting had plummeted (Nacu-Schmidt et al. 2021). In North America, climate change and global warming news coverage fell by 37% from August 2019 to August 2020 (Nacu-Schmidt et al. 2021).

For us, this prompted the question: Were there discernible impacts of the workshops on climate reporting prior to the pandemic? To answer that question, we further analyzed the climate-reporting data to assess workshop impacts for participants in the first cohort of four workshops—who participated in a workshop more than 1 yr prior to the pandemic—as distinct from participants in the second cohort of four workshops (who participated in a workshop in the months before the start of the pandemic). Participants in the first cohort reported significantly more digital climate stories after the workshops as compared with before the workshops—including their total number and their unique number of digital climate stories reported, but there was no significant change in the amount of their climate reporting in print (Table 6). Participants in the second cohort showed no significant change in reporting in either print or digital (Table 7). These findings suggest that the pandemic—for a number of reasons—may have undermined the impact of the workshops on climate-reporting behavior.

Extensive prior research has demonstrated that self-efficacy beliefs have a powerful influence on people’s behavior (see Schwarzer 2014), including the behavior of professionals in a variety of occupations such as teaching (Tschannen-Moran and McMaster 2009) and nursing (Manojlovich 2005); strong

TABLE 5. Paired-sample *t* tests between digital and print climate change story proportions for all workshops. All measures are proportions of climate change stories for both digital and print. Unique stories refer to proportions of climate change stories for which the proportions are calculated by omitting stories duplicated in multiple outlets from the analysis.

	<i>M</i>	SD	Std. error	95% CI	<i>t</i>	df	Significance
Digital post–pre	0.035	0.217	0.022	From –0.009 to 0.078	1.572	97	0.119
Unique digital post–pre	0.023	0.168	0.017	From –0.011 to 0.056	1.33	97	0.187
Print post–pre	–0.015	0.242	0.039	From –0.095 to 0.064	0.056	37	0.697
Unique print post–pre	–0.015	0.241	0.039	From –0.094 to 0.064	0.250	37	0.702

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TABLE 6. Paired-sample *t* tests between digital and print climate change story proportions for workshops 1–4 (pre-COVID19). All measures are proportions of climate change stories for both digital and print. Unique stories refer to proportions of climate change stories for which the proportions are calculated by omitting stories duplicated in multiple outlets from the analysis.

	<i>M</i>	<i>SD</i>	Std error	95% CIs	<i>t</i>	<i>df</i>	Significance
Digital post–pre	0.055	0.183	0.026	0.002–0.109	2.093	47	0.042
Unique digital post–pre	0.031	0.107	0.016	From –0.001 to 0.063	2.012	47	0.050
Print post–pre	0.049	0.213	0.044	From –0.043 to 0.140	1.094	22	0.286
Unique print post–pre	0.049	0.212	0.044	From –0.043 to 0.141	1.107	22	0.280

perceptions of self-efficacy foster the performance of the relevant behavior (Bandura 1986). Therefore, the success of our workshops in building and sustaining participants' climate-reporting self-efficacy suggests that such workshops have the potential to promote climate change reporting over time. Six months after the workshops, participants remained more confident in their ability to explain the local impacts and solutions to climate change, to do so in an engaging manner, and to have the time necessary to cover climate change stories. Yet, over the same period, participants lost their increased sense of confidence in their ability to convince their management to allow them to cover climate stories. This suggests that additional training focused on overcoming the lack of news management support—an important structural barrier—may be a useful addition to workshops going forward.

The limited evidence of reporting behavior change suggests the need for further research—to better understand the impact of workshops as currently designed, to design more effective workshops, and to identify additional ways of supporting climate reporting. Our current evaluation was limited in two important ways. First, and most important, we did not have a control or comparison group; rather, we compared change over time in a cohort of trainees. If possible, future evaluations of climate-reporting workshops for journalists should incorporate a control group into their design. Second, we were able to monitor only print and digital stories reported. Future evaluations should endeavor to include the full range of stories reported—including, and perhaps especially, TV and radio. With an eye toward offering climate-reporting training to a larger number of interested journalists at a lower cost per person trained, the CMN team recently designed and pilot tested an alternative form of training: an online, self-paced course called Climate Reporting Master Class;⁵ this form of training requires evaluation.

Future research should also consider how to account for the broad array of factors that influence journalists' reporting behavior. As the hierarchy of influences framework emphasizes, the content of news media is a product of many significant influences that are completely outside the control of the individual journalist (Shoemaker and Reese 2014). For example, researchers may want to consider influences like the preferences of editors and managers or the availability of time and resources, which are known to vary across newsrooms and can influence if, and how, journalists are able to cover

climate change (Gibson et al. 2016). In addition, researchers may want to consider how often journalists engage with the training materials provided or how often they engage with other journalists who attended the same training sessions. Smith et al. (2018) have already found the latter to be important for journalists who were involved in their science communication workshops. To paint a fuller picture of the impact of workshops or other forms of training, or other ways of supporting science journalism, multimethod assessments should be considered.

The findings from the current study should be viewed in context of the results of the Climate Matters program, which successfully increased climate reporting by TV weathercasters more than 50-fold over its first 6 yr in full operation (Maibach 2021). Unlike other journalists, weathercasters are a tight-knit community of practice. They may also possess more autonomy in the news they cover and create, being constrained to a narrow range of topics (Henson 2009). In addition, weathercasters and meteorologists receive very similar training when it comes to learning their profession, tending toward a science-based training in earth and atmospheric sciences (Maibach et al. 2016). In contrast, as an occupational group, journalists are not nearly as homogeneous in role, expectations, or work (Schudson 2011). For example, nearly all weathercasters belong to one or both of the two professional societies that support their occupation, while there is a much wider array of professional journalism associations that function around beat, format, or other constituencies of journalists.

Developing ways to create a community of practice among local journalists interested in reporting on climate change may prove to be an important strategy for stimulating increased amounts of climate reporting among nonweathercaster journalists. In fact, the Local Media Association has recently begun to pursue this very premise through a newly forming climate-reporting collaborative (Local Media Association 2021). Collaboratives like those being pursued by the Local Media Association are designed to address “a chronic challenge in climate reporting, the need for robust understanding of science and related fields, by connecting reporters more easily with the information and sources they need to tell thorough and accurate stories” (Porter 2020, p. 13). Moreover, local climate-reporting collaboratives may be an efficient and effective means of creating a community of practice of climate reporters in a given geographic location as well as across geographies with similar climatic and sociocultural conditions. As such, creating climate-reporting collaboratives is likely to be an important strategy for creating reporting

⁵ For more information about Climate Reporting Master Class, see www.climatereportingmasterclass.com.

TABLE 7. Paired-sample *t* tests between digital and print climate change story proportions for workshops 5–8 (during COVID19). All measures are proportions of climate change stories for both digital and print. Unique stories refer to proportions of climate change stories for which the proportions are calculated by omitting stories duplicated in multiple outlets from the analysis.

	<i>M</i>	<i>SD</i>	Std error	95% CIs	<i>t</i>	df	Significance
Digital post–pre	0.014	0.245	0.035	From –0.055 to 0.084	0.415	49	0.680
Unique digital post–pre	0.015	0.213	0.030	From –0.046 to 0.075	0.496	49	0.622
Print post–pre	–0.113	0.257	0.077	From –0.251 to 0.081	–1.71	14	0.110
Unique print post–pre	–0.114	0.257	0.084	From –0.256 to 0.029	–1.71	14	0.109

conditions conducive to sustained and adaptive local climate reporting.

6. Conclusions

The Climate Matters in the Newsroom workshops were positively received and had a sustained benefit in the form of increased self-efficacy for covering local climate stories, but they had relatively limited impact on climate-reporting behavior—although some of this may have been due to the extraordinary influence of the COVID-19 pandemic. Given the potential value of increased local climate change reporting, further research should be conducted to more fully assess and optimize the influence of workshops and other forms of training and to identify other effective strategies for supporting journalists and news organizations interested in doing such reporting.

Acknowledgments. This work was supported by the National Science Foundation under Grant DRL 1713450.

Data availability statement. The dataset used for this study are available upon request from the corresponding author, Dr. William A. Yagatic (wayagati@gmail.com).

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