

***COMMENTS ON
“SEALS OF (DIS)APPROVAL:
TELEVISION WEATHERCASTERS DEBATE THE
VALUE OF VOLUNTARY CREDENTIALS”***

**P. Grady Dixon, Michael E. Brown,
Kathleen Sherman-Morris, and Brenda L. Kirkland**

Department of Geosciences
Mississippi State University
Mississippi State, Mississippi

Abstract

A recent study on the perceptions of professional seals of approval among television weathercasters provides some insight into the rarely-studied field of broadcast meteorology. The study provides one perspective (weathercasters), but it is also important to consider the opinions of clients (viewers) and employers (news directors). While weathercasters appear to have strong feelings about each of the two major seals of approval, the viewers and news directors tend to place more importance on other factors.

Corresponding Author: Dr. P. Grady Dixon
Department of Geosciences, P. O. Box 5448,
Mississippi State, Mississippi 39762-5448.
Email: grady.dixon@msstate.edu

1. Introduction

Recently, Wilson (2006) conducted a survey-based study measuring the perceived importance and credibility of professional seals of approval among television weathercasters, which provides a useful addition to the relatively sparse academic literature on broadcast meteorology. Given the lack of research in this area, it is important that the study formalizes the perceptions of those in the field, especially with the large disconnect between scholars and professionals cited in the article (Wilson 2006). However, there are some points that require clarification and further analysis.

It is no surprise, as Wilson (2006) points out, that survey respondents tend to favor their own respective qualifications. In other words, a weathercaster with the NWA seal is more likely than someone without it to think that the seal is worthwhile. Such opinions are also likely to be affected by the demographics of the AMS and NWA, which are beyond the scope of this paper. Instead, this study is focused more on the opinions of news directors and viewers, who are not likely to be members of any professional weather organizations. It is anticipated, as alluded to by Wilson (2006), that more insight will be gained by measuring the opinions of employers (news directors) and clients (weathercast viewers).

Wilson (2006) seems to be inconsistent when referring to “alternative degree options” for television weathercasters. Due to the age and prominence of its programs, Mississippi State University (MSU) is included in the study as an example of programs that combine the science of meteorology with communication skills (Wilson 2006). Unfortunately, the article is misleading as it is focused on the Distance Learning Broadcast Meteorology Program (DL BMP) offered by MSU, which does not offer courses in broadcasting or communication and does not lead to a degree.

Rather, students that successfully complete the DL BMP earn a certificate in broadcast meteorology. It is assumed that most students already have on-the-job experience as broadcasters. While it is possible for students to apply the credits earned through the DL BMP toward a degree program (at MSU or another institution), it is expected that degree-seeking students will enroll in one of the on-campus programs. The on-campus degree programs (B.S. and M.S.) at MSU do offer training in broadcasting, communication, and all the courses required for certification by the American Meteorological Society (AMS) and National Weather Association (NWA).

2. Results of Surveys Returned by Television News Directors and Viewers

Wilson (2006) correctly points out that little has been published about television weathercasters, although the statement that “only four academic studies...have been published in the past 50 years” is not completely accurate. While there are few peer-reviewed articles appearing in professional journals, research on the subject is regularly presented, including an annual online survey of broadcast meteorologists (Reynolds 2004; Greci 2005; Reynolds 2005, 2007) and at the NWA Broadcaster Conference sessions each year at the annual meeting. Likewise, the annual Conference on Broadcast Meteorology, hosted by the American Meteorological Society, is among the forums for such research topics. Papers have also been presented at the Association of American Geographers Annual Meeting (Turner 2006), and some trade publications have included discussions of the seal of approval process and credibility (Applebaum 2003; Greppi 2004). A more expansive literature collection is available when the subject matter is treated more broadly, but the emphasis of this paper is specifically on broadcast meteorology. Sherman-Morris (2005) recently addressed relationships that the public develops with television weathercasters. According to the results of this study, conducted in the Memphis, TN, television market (2006–2007 Nielsen market rank #44), viewers are likely to respond to weather warnings based on the one-way, parasocial relationships between themselves and the weathercasters. In other words, seals of approval may mean little or become secondary if the audience develops reasons to trust, or to not trust, the weathercasters.

a. News director surveys

Wilson (2006) suggests that a next possible step in this research area is to measure “news directors’ beliefs and understandings about the seals.” In 2005, MSU graduate students in broadcast meteorology sent approximately 800 surveys to news directors, with Likert-type questions about the two seals. Surveys were mailed to every market in the United States, representing every state except Delaware. A total of 104 responses to the survey were received. Based on a question in the survey, responses could be categorized by market size. Of the responses received, 27.4% were from markets 1–50, 28.4% of responses were from markets 51–100, 30.5% of responses were from markets 101–150, 11.6% were from markets 151–200 and 2.1% were from markets higher than 200. These represent response rates between 8.5% and 18%, with the greatest response coming from markets 101–150. The responses were also geographically diverse, with the

highest percentage returned from the Midwest (36.5%), followed by 22.1% from the Southeast.

Respondents were asked if the AMS (NWA) seal, or having the ability to obtain it, is an important criterion for hiring a broadcast meteorologist (Fig. 1). Average responses were significantly higher ($p < 0.00$) for the AMS seal (3.90) than the NWA seal (3.10). They were also asked, in two separate questions, whether the AMS (NWA) seal is more important than the NWA (AMS) seal (Fig. 1). The difference between the average responses to these two questions is even greater. Many news directors agree that the AMS seal is more important than the NWA seal (3.55) and disagree that the NWA seal is more important than the AMS seal (1.97). Again, this difference is statistically significant ($p < 0.00$).

Even though news directors agree that seals are important, and show some preference for the AMS seal, most news directors do not think that either seal is the most important criterion for hiring the right person for the job (Fig. 1). Nevertheless, significant differences still persist between the two seals. This could be attributed to the simple fact that the AMS seal was instituted many years prior to the NWA seal, thus a number of people are more familiar with the AMS seal. There is less disagreement among news directors that the AMS seal (2.33) is “the most important criterion for hiring a broadcast meteorologist” than that the NWA seal (1.91) is the most important criterion ($p < 0.00$). When listed in the context of other qualifications, such as personality, good communication skills, and knowledge of meteorology, news directors are equally likely to hire a person if he or she lacked the ability to obtain either the AMS seal or the NWA seal (Fig. 1).

b. Viewer surveys

Other research, completed as part of a M.S. thesis at MSU, examined the importance of the seal of approval to the general public (Pope 1992). Despite the fact that these results are more than 15 years old, they are relevant for two reasons. First, despite the large growth of cable operations and the Weather Channel during the 1990s, local television weather continues to be the dominant source of information during severe weather, including tornadoes and hurricanes (Mitchem 2003; Paul et al. 2003; U.S. Army Corps of Engineers 2003; Sherman-Morris 2005). Secondly, and perhaps most importantly, no similar study has been published since that time. Future

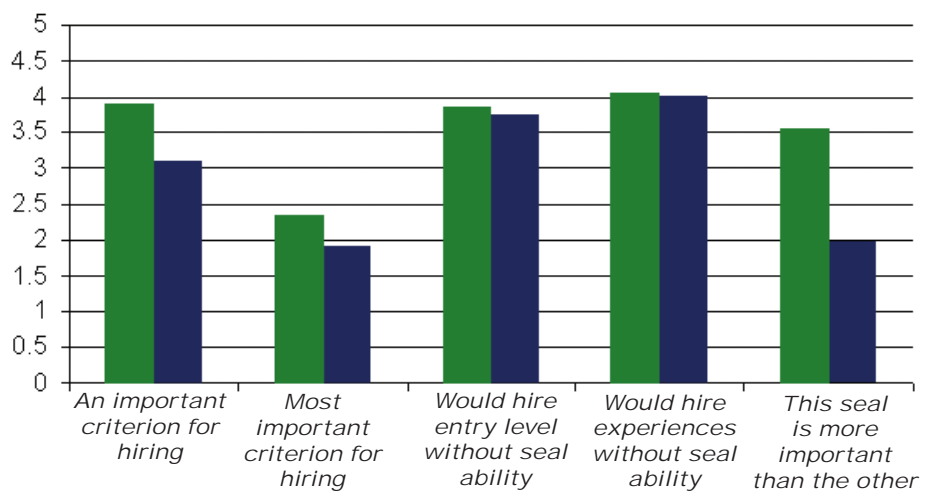


Fig. 1. Average results of survey, conducted by MSU graduate students, which questioned news directors about the importance of AMS and NWA seals of approval. Answers range from “strongly disagree” (0) to “strongly agree” (5). Green bars represent responses about the AMS seal. Blue bars represent responses about NWA seal.

studies, such as that alluded to by Wilson (2006), will certainly gain insight if they are compared to this initial project.

Pope (1992) mailed 3000 surveys, with 484 responses, to individuals in 10 markets of different sizes and asked them to separately rate a number of television weathercaster characteristics, such as personality, broadcasting ability, and meteorological knowledge, using a scale from most important to least important. While differences were found among markets, overall, the greatest number of respondents (46.3%) found a seal of approval “least important.” Race and gender were the only two characteristics that a greater percentage of respondents said were “least important” (Pope 1992). Pope (1992) also found that the majority of respondents (62.9%) did not know whether the weathercaster had a seal of approval or not. Some markets showed more knowledge of this than others. When asked a follow-up question of who issued the weathercaster’s seal of approval, the majority believed it came from the AMS. It was not determined whether this public perception was true. When asked whether the viewer believed “there was a difference between the AMS and NWA seals,” the vast majority responded that they did not know (85.3%). The public’s lack of knowledge regarding differences between the AMS and the NWA seals was evident in all 10 markets as no more than 22% of respondents in any market (the number of returned surveys for each market ranged from 35 to 61) claimed to know if there were differences between the two seals (Pope 1992). Further, no more than 4% of the respondents in any market claimed that either seal was better than the other (Pope 1992). Nevertheless, we acknowledge that professional

certifications, such as the seals of approval, help promote more qualified individuals and should ultimately aid in the protection of the general public, and hopefully, the general public has become more educated on the subject during the past 15 years.

3. Summary and Conclusions

Wilson (2006) provides a helpful addition to the sparse research literature about broadcast meteorology. It is interesting and useful to see the reputations of the two primary seals of approval along with the views of their holders. Further, it seems even more enlightening when contrasted with a similar set of questions answered by television news directors and viewers. Ultimately, while this study and Wilson (2006) show that weathercasters and news directors tend to view the AMS seal as being somewhat “better” than the NWA seal, similar results based on surveys of the general public have not been published. Perhaps these perceptions will change with the implementation of the NWA’s new seal qualifications (effective 1 September 2007). Regardless, the results of this study suggest that viewers do not place much importance on the professional seals of their preferred weathercasters. Perceptions might also be related to the fact that, according to the website of each organization, the AMS membership (12,000+) is more than four times that of the NWA (~2900). Similarly, the AMS recognizes 885 active seals and 547 inactive seals while the NWA recognizes 508 active and 44 inactive seals. The reasons for the differences in membership and awarded seals are well beyond the scope of this paper.

Low response rates were a limitation in both of the studies discussed in this paper. While papers have been published in academic journals with response rates as low as 3.6% (Boser and Green 1997), it is certainly preferable to have response rates above 50% before making generalizations about the population (Babbie 1998). However, response rates to mail surveys are often poor, typically ranging from 5% to 40% (Wimmer and Dominick 2005). While the information presented is valuable in filling the large hole that exists in research about broadcast meteorologists, readers should be careful in making generalizations.

Broadcast meteorologists are commonly finding employment in nontraditional venues (e.g., internet websites and wireless phone services), and the qualifications and experiences of weathercasters in these areas have yet to be studied. It should be noted that the percentage of television weathercasters that claim to have degrees in Meteorology or Atmospheric Sciences has remained virtually unchanged in the past 25 years, with 52% in 1982, and 54% presently (Lazalier 1982; Wilson

2006). Therefore, it is assumed that a large proportion of weathercasters (on television and other media) do not pursue degrees in meteorology or atmospheric sciences (likely due to current job obligations). It is doubtful that anyone will argue that a certificate in meteorology makes a person more qualified than someone with a degree (from MSU or any other university) in the discipline. However, some education in weather-related topics is certainly better than none.

Authors

Dr. Grady Dixon received his B.S. in Geosciences from Mississippi State University in 2000, his M.S. in Geography from University of Georgia in 2002, and his Ph.D. in Geography from Arizona State University in 2005. He has been an assistant professor in the Department of Geosciences at Mississippi State University for 2 years. His research interests are applied meteorology and climatology, specifically mesoscale phenomena.

Dr. Michael E. Brown is an associate professor in the Department of Geosciences at Mississippi State University, the assistant state climatologist for the state of Mississippi, and the academic advisor to the local NWA/AMS chapter. His research interests focus on land-use atmosphere interactions and severe storm environment climatologies. Mike holds a B.S. degree in Meteorology from Western Illinois University, a M.S. degree in Geosciences from Mississippi State University, and a Ph.D. in Geography from The University of North Carolina, Chapel Hill.

Dr. Kathy Sherman-Morris is an assistant professor in the Department of Geosciences at Mississippi State University. She received her B.S. in Social Studies Education with a geography minor from Mansfield University in 1997, her M.S. in Geosciences from Mississippi State University in 1999, and her Ph.D. in Geography from Florida State University in 2006. Her research interests include hazards perception, mass media coverage and effects, and viewer interaction with the television weathercaster.

Dr. Brenda L. Kirkland is an assistant professor in the Department of Geosciences at Mississippi State University. She earned B.S. (geology) and B.A. (German) degrees from University of Texas at Austin. She also received her M.S. from Texas A&M University (1986) and her Ph.D. from Louisiana State University (1992), both in geology. Her research focuses on the role of microbes and organic material in the precipitation of carbonate minerals.

References

- Applebaum, M., 2003: Yes, I am a weatherman and I play one on TV. *Brandweek*, 44, 30.
- Babbie, E., 1998: *The Practice of Social Research*. Wadsworth Publishing Company, 592 pp.
- Boser, J. A., and K. Green, 1997: Research on mail surveys: Response rates and methods in relation to population group and time. Proceedings of the 26th Annual Meeting of the Mid-South Educational Research Association, Memphis, TN.
- Grenci, L., 2005: Broadcast meteorology: Real science or data shoveling? *Bull. Amer. Meteor. Soc.*, 86, 1537-1539.
- Greppi, M., 2004: Job forecast: Degrees on the horizon. *Television Week*, 23, 24-25.
- Lazalier, J., 1982: A report on the results of a television weather survey. *Natl. Wea. Dig.*, 7, 5-10.
- Mitchem, J. D., 2003: An analysis of the September 20, 2002 Indianapolis tornado: Public response to a tornado warning and damage assessment difficulties. Quick Response Report #161, Natural Hazards Research Applications and Information Center, 482 UCB, Boulder, CO 80308-0482.
- Paul, B. K., V. T. Brock, S. Csiki, and L. Emerson, 2003: Public response to tornado warnings: A comparative study of the May 4, 2003 tornadoes in Kansas, Missouri, and Tennessee. Quick Response Report #165, Natural Hazards Research Applications and Information Center, 482 UCB, Boulder, CO 80308-0482.
- Pope, C. A., 1992: Viewer perceptions of severe weather and broadcast meteorologists. Master's Thesis, Department of Geology and Geography, Mississippi State University, 492 pp. [Available from MSU Mitchell Memorial Library at <http://nt.library.msstate.edu>].
- Reynolds, M. A., 2004: Broadcast meteorology—where do we stand in 2004? Preprints, 33rd Conference on Broadcast Meteorology, New Orleans, LA, Amer. Meteor. Soc.,
- , 2005: Broadcast meteorology—how are we doing in the year 2005? Preprints, 34th Conference on Broadcast Meteorology, Washington, CD, Amer. Meteor. Soc.,
- , 2007: Broadcast meteorology—how are we doing in 2006? Survey results. Preprints, 35th Conference on Broadcast Meteorology, San Antonio, TX, Amer. Meteor. Soc.,
- Sherman-Morris, K., 2005: Tornadoes, television and trust—a closer look at the influence of the local weathercaster during severe weather. *Environmental Hazards*, 6, 201-210.
- Turner, R., 2006: The ever-changing weatherman: Representing technical authority in 20th century America. 102nd Meeting of the Association of American Geographers, Chicago, IL.
- U.S. Army Corps of Engineers, cited 2007: Hurricane Lili post storm assessment. [Available online at http://chps.sam.usace.army.mil/USHESdata/Assessments/Lili_Isadore/lili_start_frame.htm.]
- Wilson, K., 2006: Seals of (dis)approval: Television weathercasters debate the value of voluntary credentials. *Natl. Wea. Dig.*, 30, 100-107.
- Wimmer, R. D., and J. R. Dominick, 2005: *Mass Media Research: An Introduction*. Thomson Wadsworth, 484 pp.

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