METHODOLOGY and RESULTS

The study's focus on news and public affairs reporting led to a decision to query not station owners but the people in their employ most likely to have detailed information about programming and audience assessment. News directors or public affairs programming directors thus became the target pool. Telephone interviews were conducted with these individuals at radio and television stations across the country between July and October 1998. The small population of minority-owned radio and television stations drove the sampling effort; after an interview was completed with a news director (or someone similarly titled) at a minority-owned station, an interview was attempted at a majority-owned station in the same market and of the same medium. Of 197 attempts, 92 interviews were obtained at minority-owned stations for a response rate of 46.7 percent. Of 230 attempts with majority-owned stations, 119 interviews were completed for a response rate of 51.7 percent.

For a more complete discussion of the study methodology, see Appendix II. A copy of the questionnaire is included under Appendix III.

In addition to data from the survey instrument, this study incorporates data from the Broadcast Industry Association November 1998 database. These data allowed for an investigation of the possibility that respondents differ in important ways from non-respondents (e.g., in terms of station revenue, ownership structure, or choice of format in the case of radio stations). This investigation uncovered few differences between the groups (See Appendix IV).

Comparison of minority- and majority-owned broadcast stations

This section provides a comparison of minority- and majority-owned commercial broadcast stations that broadcast news or public affairs programming, beginning with station characteristics such as size, staffing, revenue, and then moving to the more central question of how ownership is related to production of news and

public affairs programming.[4] As licensing preferences have historically been based upon race or ethnicity of a station's owner, this study focuses on station ownership throughout this section. The sample includes 71 minority-owned radio stations, 21 minority-owned television stations, 77 majority-owned radio stations and 42 majority-owned television stations. Separate analyses were performed for radio and television.

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[4] The statistics that follow will be of two types. A comparison of two categorical variables such as respondent/non-respondent by format requires a Chi-Square statistic (appearing as χ^2 in footnotes) that contrasts the pattern of distribution expected when no relationship exists between the variables with the pattern obtained in the data. When the dependent variable is continuous, such as percent of Asians in a market (which could conceivably range from zero to 100), a t-test is employed to compare the means of the two groups with reference to their sample variance and number of cases. In both cases, significance is reported as a "p" value. Small p values (conventionally, anything less than .05 or five percent) indicate the difference observed between the sample groups is unlikely to be attributable to sampling error but is more likely attributable to a true difference between population groups. Thus, when the report indicates no significant difference between groups on a given comparison, the difference observed between the samples does not rise to the necessary level to be considered statistically significant. Number of cases in a comparison will vary based on a number of factors. Sometimes a question was not put to a respondent because of responses to previous questions. For example, a television station would not have a format, thus the total number of responses to the format question reflects only the radio stations in the survey. In addition, respondents are encouraged to skip any item to which they do not know the answer. A t-test displays number of cases in terms of degrees of freedom, a number that is either N-2 when group variances are not significantly different from each other according to Levene's test or a lower number when the test needs to accommodate unequal variances (in this case, degrees of freedom are often non-integer). Footnote 5 presents a t-statistic from an analysis with unequal variance: the test involves 147 cases but only 105.81 degrees of freedom, producing a t-statistic of -2.73 and a significant p value of less than .01. Footnote 7, based on equal variances, involves an N of 147, resulting 145 degrees of freedom producing in this case a smaller t statistic (1.81) that just misses significance (p=.07). Number of cases is reported as "N" in a Chi-Square (see, for example, Footnote 13 shows a statistic concerning 148 cases that produces a significant statistical difference (12.92; p<.001)).

Station staffing characteristics

By many measures, majority-owned radio stations are bigger than minority-owned stations. Respondents from majority-owned radio stations report significantly more people in their employ: an average of 30.64 persons compared to an average of 19.17 persons at the minority-owned stations.[5] They also have significantly more people working in the news or public affairs programming division (a mean of 10.57 in majority-owned stations compared to the minority-owned stations' average of 3.28).[6] Majority- and minority-owned radio stations do not differ significantly in the proportion of the news and public affairs staff who are women (44 percent for minority-owned stations and 35 percent for majority-owned stations).[7] However, minority-owned stations do have a higher proportion of news and public affairs staff who are members of racial or ethnic minority groups. Respondents indicate that 85 percent of the staff in minority-owned stations are minorities, compared to 35 percent in majority-owned stations.[8]

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[5] $t(105.81) = -2.73$, $p<.01$

[6] $t(77.51) = -2.92$, $p<.01$

[7] $t(145) = 1.81$, $p=.07$

[8] $t(138.18) = 9.01$, $p<.001$. This last outcome must be viewed with caution, particularly with regards to the percentages of minority employees working in news or public affairs on average across the two types of stations. Eight cases were omitted from this calculation because the reported number of minority news team members was larger than the reported number of total news staffers. For these data to exist, the CATI screen for such mathematical impossibilities (that appeared to work properly on other such question sets) must have failed. While much of the data for this item (Q141) is likely valid, additional hidden errors may exist in the following form:

Question	Response
Q138: About how many people work at your station?	70
Q139: And about how many of these employees work On news or public affairs programming?	20
Q140: About how many of the news and public affairs employees are women?	5
Q141: About how many of the news and public affairs employees are members of racial and ethnic minorities, for example ...	19

Employee data from television stations did not reveal these same differences between majority- and minority-owned stations. In terms of number of station employees, majority-owned television stations average 91.51; minority-owned stations, 89.71.[9] For news and public affairs workers, majority-owned stations count an average of 36.07 while minority-owned stations count an average of 32.14.[10] Of those workers, majority-owned stations count 51 percent to be women while minority-owned stations count 54 percent to be women.[11] Of the news and public affairs workers, majority-owned stations count 34 percent to be racial and/or ethnic minority members while minority-owned stations count 40 percent of their news and public affairs staff in those categories.[12]

Station ownership, size and revenue

According to Broadcasting Industry Association data, a larger proportion - 68 percent - of majority-owned radio stations are group-owned (owner owns stations in more than one market or three or more within any one market), compared to 38 percent of minority-owned stations being group-owned.[13] This relationship does not emerge within television station data, where the vast majority are group-owned regardless of race or ethnicity of

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Where "19" in response to Q141 actually is keyed to Q138 – total staff – rather than Q139 – total news staff. As this sort of error is not likely to differ across minority- and majority-owned stations, the difference observed between the two groups is probably worth relying upon. Indeed, it comports with previous findings (see, e.g., Akousa Evans, *Are Minority Preferences Necessary? Another Look at the Radio Broadcasting Industry*, 8 Yale Law & Policy Review 380, 407-8 (1990)). But the raw percentages should be viewed with suspicion on this comparison and on those involving women and those later in the paper that relate to questions regarding employees working for the station's top-rated public affairs show.

9 $t(60) = -0.10$, $p = .92$

10 $t(61) = -0.45$, $p = .65$

11 $t(59) = 0.54$, $p = .59$

12 $t(50) = 0.62$, $p = .54$

13 $\chi^2(1, N=148) = 12.92$, $p < .001$

station owner (83 percent of majority-owned television stations are group owned while 95 percent of minority-owned television stations are group owned).[14]

BIA's measurement of "owner rank" - a formula based partly on estimates of an owner's annual revenues - was collapsed due to skewness in the data into "high" and "low" categories according to midpoint for each medium. These data revealed a difference between minority- and majority-owned radio stations but not for television. Within radio, 67 percent of the majority owners fall into the more-highly ranked category, as compared to 27 percent of minority owners.[15] By contrast, 46 percent of majority television owners and 50 percent of minority television owners fall into that higher category.[16] Within both samples of radio and television stations, however, majority owners on average own more broadcast stations (of either type) than do minority owners (for radio, majority owners own, on average, 51.21 broadcast stations while minority owners own 12.75 stations; for television, majority owners own 12.07 stations on average compared to the 7.03 stations owned by minority owners.[17]

Station gross revenues are also higher for both radio and television majority-owned stations. Majority-owned radio stations brought in an average of $4,278,500, compared to the minority-owned radio station's average of $1,786,200.[18] Majority-owned television stations brought in an average of $24,745,950 in 1997 while minority-owned television stations grossed $10,570,580.[19] These comparisons should be viewed with some caution, however, as the BIA database constructs its information using a system of estimates across markets over time that leaves many stations without data. This situation could not be improved by augmenting with the study's survey data as most respondents did not provide this information.

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14 $\chi^2(1, \underline{N}=61) = 1.49$, $\underline{p}=.22$

15 $\chi^2(1, \underline{N}=116) = 18.61$, $\underline{p}<.001$

16 $\chi^2(1, \underline{N}=57) = 0.07$, $\underline{p}=.79$

17 $\underline{t}(122.58) = -4.01$, $\underline{p}<.001$; $\underline{t}(53.87) = -2.24$, $\underline{p}<.05$, respectively

18 $\underline{t}(87.62) = -2.36$, $\underline{p}<.05$

19 $\underline{t}(44.08) = -2.57$, $\underline{p}<.01$

It should be recalled that the majority-owned stations were selected for interview from the same or similar markets as minority-owned stations providing completed interviews. This strategy was successful with both radio and television stations, as shown in an analysis of radio through Arbitron and television through Nielsen rankings,[20] and thus these differences do not appear to be attributable to market factors.

In summary, the data for radio point to significant differences in the ownership structure, human and financial resources associated with stations, with minority-owned stations registering as smaller on these measures. For television, significant differences appear only for station revenue and number of stations owned by a station's owner, once again favoring majority owners.

Station Service and Format

While most stations are broadcasting around the clock, a significant difference did emerge between majority-owned and minority-owned radio stations. Respondents at majority-owned radio stations report being on the air on average 23.18 hours per day, whereas minority-owned radio stations report service of 21.34 hours per day.[21] Majority-owned television stations run an average of 23.05 hours per day while their minority-owned counterparts average 23.43 hours per day, not a statistically significant difference.[22]

Drawing upon the BIA's assessment of radio station format and following the recoding of format described in Appendix IV (Footnote 120), 61 percent of the minority-owned radio stations can be classified as delivering minority-format programming, compared to only 14 percent of majority-owned radio stations.[23] This means that minority-owned radio stations are delivering programming classified as Black, Ethnic, Spanish or Urban - including subcategories that emphasize national, religious and linguistic perspectives - in far greater amounts than their majority-owned counterparts.

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[20] $\chi^2(1, N=134)=0.09$, $p=.76$; $\chi^2(1\ N=61)= 1.60$, $p=.21$, respectively

[21] $t(113.87)= -3.02$, $p<.01$

[22] $t(60)= 0.80$, $p=.43$

[23] $\chi^2(1, N=148)= 34.14$, $p<.001$

News Programming

As stated earlier, the sample was limited to stations that regularly broadcast news or public affairs programming. No differences emerged between minority- and majority-owned stations in the amount of news they produce overall, nor in the major types of news (local, state or regional, or national or international) they broadcast. Respondents at majority-owned radio stations reported an average of 8.9 hours of local news per week, 4.0 hours of regional news, and 6.1 hours of national or international news while their counterparts at minority-owned radio stations reported 6.4 hours of local news per week, 4.6 hours per week of regional news and 6.6 hours per week of national or international news.[24] For television, respondents at majority-owned stations reported 14.8 hours per week of local news, 5.7 hours per week regional news and 8.5 hours per week devoted, on average, to national and international news while their counterparts at minority-owned television stations reported 13.6 hours of local news, 4.3 hours of national news and 6.9 hours national and international news broadcast per week on average.[25]

Similarly, minority- and majority-owned stations are equally likely to utilize wire services (overall, 77 percent of all radio stations and 91 percent of all television stations do so).[26] Neither majority nor minority ownership differentiates radio or television in terms of how much news a station creates or produces. For radio, 40 percent of stations report creating "most" and 60 percent report creating "some" of the news they broadcast; for television, 87 percent report creating most and 13 percent report creating some of the news they broadcast.[27] Ownership also did not predict whether a station would opt to localize wire news (bring out a community angle to a story that begins as a regional, national or international story). In

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[24] $t(127) = -0.83$, $p = .41$; $t(127) = 0.47$, $p = .64$; $t(127) = 0.26$, $p = .80$, respectively

[25] $t(51) = -0.44$, $p = .66$; $t(51) = -0.56$, $p = .58$; $t(51) = -0.61$, $p = .54$, respectively

[26] $\chi^2(1, N=136) = 0.45$, $p = .50$; $\chi^2(1, N=54) = 1.24$, $p = .26$, respectively

[27] Minority versus majority ownership differentiates neither radio stations ($\chi^2(1, N=136) = 0.50$, $p = .48$) nor television stations ($\chi^2(1, N=54) = 0.12$, $p = .73$) on this factor.

radio, 69 percent of stations report localizing wire news while 90 percent of television stations report this practice.[28]

However, of stations that localize, the race or ethnicity of radio station owners successfully predicted whether a respondent would say his or her station opted to tailor a national or regional wire story to minority community concerns. Seventy-three percent of the minority-owned radio stations localize on this basis, compared to 36 percent of the majority-owned stations.[29] The same was not true of television, where, 61 percent of both the minority- and majority-owned stations localize with this concern in mind.[30]

Just over one third (35 percent) of all respondents reported that they could think of a major news story in the past three months that their station had covered but their chief competitor in news had not.[31] When asked to think about the most recent story in which this occurred, respondents from both minority-owned radio and television stations were significantly more likely than their majority-owned counterparts to say that they decided to cover this story with a particular audience in mind (15 of 22 minority-owned radio stations vs. 9 of 26 majority-owned radio stations; five of seven minority-owned vs. three of 12 majority-owned television stations).[32] Of the 15 respondents from minority-owned radio stations who gave as their reason for covering the event the fact that it would appeal to a particular audience segment, 11 indicated they were thinking of a racial or ethnic minority audience. Of the eight respondents from majority-owned stations, only one reported having a racial or ethnic minority audience in mind. For television, three of the five respondents from minority-owned stations reported thinking specifically of an

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[28] This factor produced no differences between owners for radio ($\chi^2(1, N=101) = 0.26$, $p=.61$) or for television ($\chi^2(1, N=48) = 1.47$, $p=.22$).

[29] $\chi^2(1, N=69) = 9.52$, $p<.01$

[30] $\chi^2(1, N=41) = 0.002$, $p=.96$

[31] $\chi^2(1, N=136) = 0.007$, $p=.93$ for radio; $\chi^2(1, N=54) = 0.0005$, $p=.98$ for television stations

[32] $\chi^2(1, N=48) = 5.37$, $p<.05$; for television, a chi-square cannot be performed due to insufficient cell count; however, the pattern emerges in raw numbers reported above.

ethnic or racial minority audience while one of three respondents from majority-owned television stations made such a report.

A similar pattern appears when respondents considered whether they had approached a recent news story (covered by both) differently from their chief competitor in news. Forty-six percent (63 of 136) radio respondents and 63 percent (34 of 54) television respondents said yes to this question. Of those, 52 percent (33 of 63) radio respondents and 41 percent (14 of 34) television respondents said they based their different approach on having in mind a particular audience. For radio, minority-owned stations significantly more often than majority-owned stations had a racial or ethnic minority audience in mind (14 of 18 minority-owned stations gave this response as opposed to only two of 15 majority-owned stations).[33] For television this pattern did not emerge, with one of six minority-owned stations reporting this intent while two of eight majority-owned stations reported similarly.

Respondents were also asked about their mission as news directors and were given three options: Primarily to reach out to the widest possible audience, to a particular audience, or that neither goal described their mission. For radio respondents, 48 percent responded that their goal was to attract the widest possible audience, 34 percent said they aimed at a particular audience, and 18 percent said neither was their goal. For television respondents, 54 percent aimed at a wide audience, 18 aimed for a particular audience and 28 percent said neither was a goal. Among those who aimed either at a wide or at a particular audience, differences emerged between majority- and minority-owned radio stations such that majority-owned stations tended to aim for wide audiences (68 percent) while minority-owned stations tended more toward particular audiences (52 percent).[34] Majority-owned television stations also leaned toward attracting a wide audience (20 of 24 stations made this report) compared to nine of 15 minority-owned stations. A statistical comparison of majority- and minority-owned television stations was not performed due to low cell counts.

In summary, radio and television minority and majority owners show similar approaches to the amount of news broadcast, the composition of the news in terms of wire versus self-produced and

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[33] $\chi^2(1, \underline{N}=32) = 12.70, \underline{p}<.001$

[34] $\chi^2(1, \underline{N}=112) = 4.72, \underline{p}<.05$

tendency to localize. But a more specific line of questioning reveals significant differences between majority and minority owners of radio stations and a similar but not statistically significant trend among television owners. Minority radio owners are more likely to localize based on audience ethnicity, and to think of a particular racial or ethnic group when choosing to cover different events, or the same events differently, from their competition. Their different approach is reflected also in how respondents describe their job as news director, with minority-owned stations employing people who more often seek particular audiences as compared to news directors working for majority-owned stations. Again, this difference is statistically significant for radio but not for television.

Public Affairs Programming

Most stations regularly broadcast public affairs programming, but minority-owned radio stations are significantly more likely to report doing so than their majority-owned radio counterparts (87 percent vs. 70 percent).[35] For television, 76 percent of both majority- and minority-owned stations report such broadcasts.[36] (It should be recalled that stations were chosen for this survey only if they regularly broadcast news or public affairs programming.)

Respondents were also asked about types of public affairs programs they broadcast. Seventy-four percent of radio respondents said they broadcast programs concerning health or medicine while 41 percent of respondents at television stations said they do likewise. No significant differences emerged between minority- and majority-owned stations, be they radio or television, on this measure.[37] Sixty-seven percent of radio respondents said they broadcast political or current event shows other than the news while 58 percent of television respondents said they did so. For radio, no significant difference emerged between majority- and minority-owned stations, but a significantly greater proportion, 80 percent or 12 of 15, minority-owned television stations reported broadcasting this

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35 $\chi^2(1, N=146)=6.45, p<.01$

36 $\chi^2(1, N=62)=0.002, p=.96$

37 $\chi^2(1, N=111)=0.80, p=.37$; $\chi^2(1, N=46)=2.26, p=.13$, respectively

type of public affairs programming as compared to 47 percent or 14 of 39 majority-owned television stations.[38]

Asked whether a station broadcasts shows about culture, music or the arts designed to appeal especially to certain racial or ethnic minority groups, 55 percent of all radio respondents and 51 percent of all television respondents said yes. Majority- and minority-owned radio stations differ significantly, with 72 percent of minority-owned and 35 percent of majority-owned radio stations reporting they broadcast programming of this nature.[39] Television stations do not show such a difference (64 percent for minority-owned stations and 45 percent for majority-owned; while this presents a similar pattern as do the radio stations, these data miss statistical significance due to smaller numbers overall).[40] Fifty-eight percent of all radio stations report broadcasting shows about issues of concern to senior citizens and 40 percent of all television stations report a similar effort. Minority-owned radio stations were no more likely to do this than majority-owned stations, but for television, minority ownership signaled a significantly greater likelihood (60 percent or nine of 15) compared to majority ownership (30 percent or nine of 30 stations).[41]

Asked if a station does live broadcasts of community events such as government meetings or parades, 64 percent of radio respondents and 69 percent of all television respondents indicated that their station did so. Minority radio station ownership significantly predicted this response, with 73 percent of those stations carrying such live broadcasts compared to 55 percent of majority-owned radio stations.[42] For television, no such significant difference emerged, with 67 percent of minority-owned stations and 71 percent of majority-owned stations making this claim.[43]

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38 $\chi^2(1, N=111)=0.07$, $p=.79$; $\chi^2(1, N=45)=4.55$, $p<.05$, respectively

39 $\chi^2(1, N=110)=15.42$, $p<.001$

40 $\chi^2(1, N=43)=1.43$, $p=.23$

41 $\chi^2(1, N=111)=0.29$, $p=.59$; $\chi^2(1, N=45)=3.75$, $p<.05$

42 $\chi^2(1, N=146)=4.88$, $p<.05$

43 $\chi^2(1, N=62)=0.11$, $p=.74$

Respondents were next asked if, during the past year, they had broadcast special programming related to certain holidays or events in addition to any news coverage of those events. Some of these questions produced differences according to station ownership. Events of concern to African Americans were reported to be broadcast by 59 percent of all radio stations and 38 percent of all television stations. Among radio stations, minority ownership significantly predicted this response as 71 percent of these stations said they aired such broadcasts versus 47 percent of their majority-owned counterparts.[44] For television stations, the relative proportions - 71 percent of minority-owned stations versus 56 percent of majority-owned stations - were not significantly different from each other.[45]

Programming of special interest to Native Americans follows a similar pattern. Twenty-one percent of all radio stations and 22 percent of all television stations report this programming. Twenty-nine percent of minority-owned radio stations report this programming versus 13 percent of majority-owned radio stations, a significant difference.[46] As with African American programming, television does not differ significantly by ownership (for minority-owned stations, 20 percent or four of 20 stations report this programming as compared to 22 percent or nine of 40 majority-owned stations make a similar report).[47]

Programming of interest to women, such as programs dealing with women's health, presents a slightly different pattern. Sixty-nine percent of all radio stations and 62 percent of all television stations report programming of particular interest to women. For radio, minority-owned stations are significantly more likely to offer this programming (81 percent of minority-owned stations versus 57 percent of majority-owned stations).[48] For television, minority-owned stations report this programming 47 percent (nine of 19 stations) of the time while majority-owned stations report

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[44] $\chi^2(1, N=143)=8.29, p<.01$

[45] $\chi^2(1, N=60)=1.30, p=.25$

[46] $\chi^2(1, N=144)=5.34, p<.05$

[47] $\chi^2(1, N=60)=0.049, p=.82$

[48] $\chi^2(1, N=145)=9.82, p<.001$

this programming 69 percent of the time (27 of 39 stations), not a statistically significant difference.[49]

Forging a similar pattern to that presented with women's programming are the data with respect to programming of particular interest to Hispanic audiences. For radio, 39 percent offer this coverage while 45 percent of all sampled television stations report doing so. Minority-owned radio stations dominate here, with 54 percent reporting coverage of particular interest to Hispanics while only 25 percent of majority-owned radio stations do so.[50] For television, in a trend that just misses statistical significance, 54 percent or 22 of 41 majority-owned stations report programming for Hispanic interest while only 29 percent or six of 21 minority-owned stations do so.[51]

Coverage of religious events or holidays was reported by a majority of stations, with 61 percent of both radio and television offering such programming. Station ownership did not significantly differentiate on this question, with 67 percent of minority-owned radio stations compared to 56 percent of majority-owned radio stations featuring such programming.[52] For television, 76 percent or 16 of 21 minority-owned stations offer religious programming as compared to 52 percent or 21 of 40 majority-owned stations, a comparison that misses statistical significance.[53]

Two programming areas - shows of particular interest to Asians and special programming about political or civic holidays - resulted in clearly non-significant differences by station ownership. Only 10 percent of all radio stations and 23 percent of television stations report offering programming of particular interest to Asians.[54] Political programming fares better

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[49] $\chi^2(1, N=58)=2.59, p=.11$

[50] $\chi^2(1, N=142)=12.54, p<.001$

[51] $\chi^2(1, N=62)=3.53, p=.06$

[52] $\chi^2(1, N=144)=1.72, p=.19$

[53] $\chi^2(1, N=61)=3.24, p=.07$

[54] Majority versus minority ownership does not differentiate radio station responses ($\chi^2(1, N=144)=0.45, p=.50$) nor television responses ($\chi^2(1, N=62)=0.027, p=.87$) to this item. The NTIA report for 1998 listed only five stations - all radio -

overall, with 52 percent of radio stations and 29 percent of television stations reporting such coverage, yet no differentiation by ownership.[55]

Respondents were asked if stations ever broadcast programs in a language other than English. Thirty-one percent of radio stations and 19 percent of television stations report such broadcasts. This question broke down along ownership lines for radio stations, with minority-owned stations significantly more often reporting such broadcasts (43 percent)and majority-owned stations reporting a lower percentage of non-English broadcasts (20 percent).[56] For television, 29 percent or six of 21 minority-owned stations and 15 percent or six of 41 stations report such broadcasts, not a significant difference.[57] Nearly every case of alternative language programming involved Spanish. Two stations (one minority- and one majority-owned) program in Asian languages; majority-owned stations broadcast in Polish and Italian (one each) and minority-owned stations broadcast in Navajo and Haitian (one each).

Most respondents could name the news or public-affairs show they broadcast that draws the largest audience. These tended to be described in mainstream terms, yet sizeable numbers were reported as appealing especially to women and minorities. While for neither radio nor television does station ownership predict whether this popular show held special appeal for women (just over a quarter of each group agreed it did),[58] minority-owned radio stations reported more often that their most popular show appealed especially to minority audiences (69 percent compared to 30 percent of the majority-owned stations). While no significant

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owned by Asians.

[55] Again, ownership does not predict differences among radio stations ($\chi^2(1, N=142)=2.35$, $p=.12$) or among television stations ($\chi^2(1, N=62)=0.003$, $p=.95$) on this item.

[56] $\chi^2(1, N=146)=9.13$, $p<.01$

[57] $\chi^2(1, N=62)=1.73$, $p=.19$

[58] $\chi^2(1, N=134)=1.62$, $p=.20$; $\chi^2(1, N=56)=0.22$, $p=.64$

difference emerged between minority- and majority-owned television stations.[59]

In terms of staffing this most-popular show, minority-owned radio stations report significantly smaller numbers of on-air employees (2.03 compared to the majority-owned stations' average of 3.28), a difference that does not emerge in the data from television stations (6.85 compared to 5.62, respectively).[60] Station ownership appears to bear no relation to ratio of women to men on-air for this popular program,[61] but minority-owned radio stations report significantly greater proportions of on-air personnel who are members of minority groups. On average 89 percent of the on-air staff in minority-owned radio stations are members of ethnic or racial minority groups, compared to just one-third (33 percent)for the majority-owned radio stations.[62] No such difference emerges for television stations, who report 47 percent minority on-air staff at minority-owned stations versus 30 percent at majority-owned stations.[63]

As another measure of their approach to public affairs programming, respondents were asked if their stations used call-in formats for any of their public affairs shows. The use of call-in formats represents an important feedback mechanism by which audience members can contribute to conversations about topics that interest them. Most stations report using such formats, with 77 percent of all radio stations versus 45 percent of all television stations making this report. Ownership predicts this response for radio but not for television, as 86 percent of minority-owned radio stations as compared to 68 percent of majority-owned radio stations use call-in formats and

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59 $\chi^2(1, N=135) = 20.81$; $p<.001$ and $\chi^2(1, N=58) = 0.77$; $p=.38$, respectively

60 $t(103.79) = -2.23$, $p<.05$; $t(58) = 1.08$, $p=.29$, respectively

61 $t(120) = 1.70$, $p=.09$; $t(52) = -0.28$, $p=.78$, respectively

62 $t(112.83) = 9.18$, $p<.001$. See, however, Footnote 8.

63 $t(52) = 1.67$, $p=.10$. However, see Footnote 8.

43 percent (nine of 21) minority-owned television compared to 46 percent (19 of 41) majority-owned television use this format.[64]

Stations define themselves principally through their programming, but they are also visible to their audiences through their participation in community events or projects where they may help sponsor or underwrite certain events. While 91 percent of all radio and 90 percent of all television stations reported such community participation, and minority-owned radio stations were more likely to participate in projects targeted to women or minority groups (92 percent vs. 70 percent), this difference did not emerge for television (84 percent versus 92 percent).[65]

For radio stations, then, a significant difference emerges such that minority-owned stations pay special attention in public affairs broadcasting to events or issues of greater concern to ethnic or racial minority audiences. They report putting greater effort toward live coverage of government meetings; to issues concerning women, particularly health issues; and to broadcasts in languages other than English. The public affairs show that draws a station's largest audience is one that minority-owned radio stations say more often than majority-owned radio stations appeals to a minority audience and is staffed by a greater proportion of minority on-air talent. In addition, minority-owned radio stations feature call-in formats, which enhance audience participation, and are more likely to themselves take part in minority-related events in their community than are their majority-owned counterparts. For television, some of these trends appear, though many fail to reach statistical significance. In two instances, minority ownership significantly predicts greater attention to political/current events coverage and issues of special concern to senior citizens, findings absent in radio.

Intended Audience and Audience Assessment

Respondents were asked if their station attempted to attract a particular audience; 73 percent of all radio respondents and 57 percent of all television respondents said their station did. Of the 107 radio respondents who said "yes" to this question, 68

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64 $\chi^2(1, N=146)=6.10$; $p<.01$; $\chi^2(1, N=62)=.068$; $p=.79$, respectively

65 $\chi^2(1, N=130)=10.58$; $p<.001$; $\chi^2(1, N=56)=0.77$; $p=.38$, respectively

percent of those working at a minority-owned station said that their station tries to attract a Black or Hispanic audience compared to 50 percent of the respondents at majority-owned stations reporting efforts to attract a similar audience.[66] This significant difference is not reflected among television stations, where 29 percent or four of 14 minority-owned stations and 20 percent or four of 20 majority-owned stations sought a Black or Hispanic audience. A statistical comparison was not performed due to small numbers.

A commonly used tool for assessing audiences is the commercial information offered by such groups as Nielsen (for television) and Arbitron (for radio). According to respondents, majority-owned radio stations are significantly more likely to use such a service than minority-owned radio stations (75 percent of majority owners versus 49 percent of minority owners), a difference that does not emerge among television stations (where nearly every station reports using Nielsen data: 93 percent among majority-owned versus 91 percent among minority-owned stations).[67]

An alternative or supplement to subscribing to Nielsen or Arbitron is to do audience research in-house, and most respondents (63 percent of radio and 66 percent of television stations) reported such a practice. Station ownership did not correlate with presence or absence of this activity.[68]

Fewer than half of respondents reported hiring programming consultants. This expensive but potentially effective practice is correlated with radio but not for television station ownership, with 40 percent of majority-owned radio stations

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[66] $\chi^2(1, N=107) = 31.42$; $p<.001$. This measure should not be confused with previously reported data on station format. A station may have a majority format yet intend to attract a minority audience, or may have a minority format in hopes of attracting non-minority audience members.

[67] $\chi^2(1, N=144) = 9.88$; $p<.01$; $\chi^2(1, N=62) = 0.09$; $p=.76$, respectively

[68] $\chi^2(1, N=141)=0.01$; $p=.92$; $\chi^2(1, N=61)=2.47$; $p=.12$, respectively

having hired these consultants, compared with 30 percent of minority-owned radio stations.[69]

Audience Feedback

Station ownership does not predict reported frequency of contact initiated by audience members about news or public affairs programming although this contact appears to be more frequent for television than for radio. For television, audience contact occurs at least several times a week - with many reporting call-ins or letters nearly every day - for 79 percent of stations while only 59 percent of radio stations report this level of contact. However, the type of program (news or public affairs) that generates the most audience feedback does vary between minority- and majority-owned radio stations, a difference absent for television stations. Whereas 80 percent of the respondents from minority-owned radio stations identify most audience feedback coming in response to public affairs programming (compared to 50 percent of majority-owned radio stations so indicating), it is news programming that prompts an equally strong response from both minority-owned and majority-owned television stations (95 percent minority-owned and 84 percent majority-owned stations say this is where the bulk of their audience response focuses).[70]

Majority-owned radio stations are more likely to report receiving calls from audience members offering suggestions or ideas for programs (43 percent of majority-owned stations report this happens "frequently" compared with 21 percent of minority-owned stations), a difference not reflected among television stations.[71] Praise, however, appears to come more often to minority-owned radio stations, with 65 percent responding this happens frequently compared with 42 percent of the majority-owned stations doing so; again, a difference that is not reflected

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69 $\chi^2(1, N=140) = 5.51$; $p<.05$; $\chi^2(1, N=60) = 1.13$; $p=.29$, respectively

70 $\chi^2(1, N=127) = 12.74$; $p<.001$; $\chi^2(1, N=57) = 1.52$; $p=.22$, respectively

71 $\chi^2(2, N=130) = 7.11$; $p<.05$; $\chi^2(2, N=58) = 3.84$; $p=.15$, respectively

among television stations.[72] Finally, neither radio nor television stations demonstrate an ownership difference (though for radio the trend is similar to those reported above and just misses significance) when questioned about reliance upon audience feedback as a way of knowing the audience and what it wants. One-third of minority-owned radio stations report relying frequently upon audience feedback in contrast to 18 percent of majority-owned radio stations, while for television stations a similar trend (40 percent or eight of 20 minority-owned stations reporting frequent reliance versus 26 percent or 10 of 38 majority-owned stations) does not result in a significant difference.[73]

Decision-Making Processes at the Station

Station ownership – minority or majority – strongly predicts whether a radio station owner holds a management position with the station. Of radio stations sampled, 66 percent of minority owners are reported to play a direct role at their radio station compared to 32 percent of majority owners.[74] A similar significant difference does not appear among television station owners, 90 percent of whom are reported to have no management role in their stations.[75]

Respondents identified up to seven positions held by owners (e.g., general manager, station manager, program director). The number of hats worn by minority owners of radio stations, while tending to be greater than the average worn by majority owners, misses statistical significance. Minority owners averaged 2.00 positions, while majority owners averaged 1.44.[76] Such a comparison is not possible for television owners, given the scarcity of owners who play any managerial role at their stations.

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72 $\chi^2(2, N=132) = 7.13$; $p<.05$; $\chi^2(2, N=58)=0.13$; $p=.94$; respectively

73 $\chi^2(2, N=133) = 5.23$; $p=.07$; $\chi^2(2, N=58) = 1.44$; $p=.49$, respectively

74 $\chi^2(1, N=147) = 16.23$; $p<.001$

75 $\chi^2(1, N=62)=0.77$; $p=.38$

76 $t(69) = 1.87$; $p=.07$

Regardless of whether an owner works at a station, he or she could impact how a station's newsroom operates. Thus all respondents were asked to comment on this potential for owner involvement. While neither radio nor television respondents reported differences between minority and majority station owners in terms of setting the overall direction of news and public affairs, radio owners appeared to be more involved than their television counterparts (34 percent of radio owners were reported to be "very involved" and 29 percent were seen as "somewhat involved"; 13 percent of television owners were seen as very involved while 33 percent were seen as somewhat involved).

For radio, the greater presence by minority owners at the station is reflected in specific tasks in the newsroom. Minority-owned radio stations report their owners tend to be significantly more involved in suggesting topics and stories (62 percent are very or somewhat involved compared to 40 percent of the majority owners), doing on-air editorials (39 percent are very or somewhat involved compared to 10 percent of the majority owners), attending daily news meetings (30 percent versus five percent) and in hiring news and public affairs staff (59 percent versus 44 percent).[77] Small numbers of involved television owners - be they majority or minority - prevent a statistical comparison of the owners on these items.

Competition with Others in Market

Respondents from minority-owned stations describe their station's approach in the marketplace in terms that do not significantly differ from their majority counterparts. For all radio stations sampled, 17 percent take a head-to-head approach to competition within the market; 32 percent take a market segmentation approach; and 51 percent describe their approach as somewhere in between these two strategies. For television, 29 percent favor a head-to-head competition approach, 24 percent try for a segment of the market and 48 percent attempt something in between.

Respondents were asked to estimate how their audience compared to the market as a whole in terms of income or wealth. Majority-owned radio stations tended to estimate their audience to be "more wealthy than average" significantly more often than did minority-owned stations. More than one third (38 percent) of respondents from the majority-owned radio stations characterized

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[77] $\chi^2(2, \underline{N}=148) = 9.06$, $\underline{p}<.01$; $\chi^2(2, \underline{N}=148) = 16.95$, $\underline{p}<.001$; $\chi^2(2, \underline{N}=148) = 15.75$, $\underline{p}<.001$; $\chi^2(2, \underline{N}=148) = 15.35$, $\underline{p}<.001$, respectively

their audience as wealthier than average compared to the market, while only 20 percent of minority-owned radio station respondents did the same.[78] For television, the trend is similar but not significant, with 29 percent (12 of 41) majority-owned television stations and 16 percent (three of 19) minority-owned television stations classify audience on average as wealthier than the market average.[79]

Respondents were asked whether advertisers consider the station's audience to be different from the overall market in terms of purchasing habits. Station ownership did not significantly differentiate on this question. Overall, 57 percent of radio respondents agreed, compared to 46 percent of those at television stations. Those who answered "yes" to this question were asked if they would attribute this perceived difference to any of three factors: advertiser perception of audience income, gender or cultural background. No differences emerged by station ownership for income or gender for either radio or television data. However, for those who said advertisers consider their station's audience to differ from the market, radio station ownership did correlate with perception that advertisers were focusing on their audience's cultural background, with 93 percent of minority-owned stations perceiving this to be the case compared to 56 percent of majority-owned stations.[80] A similar trend (five of six minority-owned stations versus six of 15 majority-owned stations) was not statistically significant for television.

Respondent Characteristics

Most respondents were news or public affairs directors; others listed their role as programming director, general manager or some title that indicated decision-making authority over programming content.

Most respondents - 204 of 211 - gave a response when asked their ethnicity (Hispanic or non-Hispanic). Respondents' ethnicity was correlated with radio station ownership but not television station ownership, with 37 percent of Hispanics as respondents in minority-owned radio stations as compared to 17 percent in

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78 $\chi^2(1, \underline{N}=139) = 5.29; \underline{p}<.05$

79 $\chi^2(1, \underline{N}=60) = 1.26; \underline{p}=.26$

80 $\chi^2(1, \underline{N}=74) = 13.75; \underline{p}<.001$

majority-owned radio stations.[81] For television station respondents, 16 percent or three of 19 working for minority-owned stations were Hispanic versus 12 percent or five of 41 at majority-owned stations.

Race of respondent was also queried, with offered categories being White, American Indian or Alaskan Native, Black or African American, Native Hawaiian or other Pacific Islander, Asian, or something else. Respondents could indicate more than one category. Of the 202 who responded as to their race, 110 indicated being White. Race of respondent correlated with radio station ownership in that respondents were White in 71 percent of the majority-owned stations compared to just 17 percent of the minority-owned stations.[82] For television, racial diversity is less prevalent. Majority-owned television stations have 78 percent or 32 of 41 White respondents as compared to 68 percent or 13 of 19 White respondents working for minority-owned television stations, not a significant difference.[83]

Station ownership did not predict whether the news director was male or female.[84] Seventy-five percent of the radio station respondents and 68 percent of those at television stations were male.

Summary of bivariate results

This series of individual comparisons has highlighted some important differences in the news and public affairs programming of minority- and majority-owned stations that regularly broadcast some news or public affairs programming; in particular, radio stations. Despite the fact that minority-owned stations report having fewer resources at their disposal, they report delivering a wider variety of news and public affairs programming and more ethnic and racial diversity in on-air talent, although some of these differences achieve statistical significance within only one medium. Minority-owned radio stations do more public affairs programming, perhaps because they reportedly spend more time thinking about particular audience subgroups' interests and needs. In particular, they appear to focus on ethnic and racial

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81 $\chi^2(1, N=144) = 7.70; p<.01$

82 $\chi^2(1, N=142) = 42.09; p<.001$

83 $\chi^2(1, N=60) = 0.64; p=.42$

84 $\chi^2(1, N=145) = 0.18; p=.67; \chi^2(1, N=62) = 0.10; p=.75$

minorities. While both minority radio and television station owners own fewer stations per person, it is only the minority radio station owners who appear to be more integrated in their stations, holding more titles and becoming more actively involved in decision-making regarding news and public affairs. Television owners are, for the most part, not involved in their stations' day-to-day programming decisions. In short, from choosing a program format that appeals to minority audiences through a range of decisions pertaining to news and public affairs, minority-owned radio stations and, to a lesser extent, television stations, depart from their majority-owned counterparts.

The differences between radio and television responses may be due to a number of factors that separate the two media. In some cases, it appears that smaller numbers of cases for television accounts for the difference between significant and non-significant findings. Often, however, the data seem to spell a truly different pattern traceable to sharp differences in ownership structure. Finally, the single area of potential confound due to non-response bias appears most powerfully among the majority-owned television stations (the minority-owned non-respondent stations being too few for comparison). This factor - market size - puts respondents in smaller markets than non-respondents and leaves open the question as to whether data generated for television stations is representative of all minority-majority comparisons in the population.

These questions regarding the findings for television aside, the data from radio stations show support for the FCC's historic programs promoting minority ownership of broadcast stations in an industry historically dominated by Whites. These data show minority radio station owners are more directly involved in day-to-day programming, that they hire for such positions as news and public affairs director people who are racial and/or ethnic minorities, and that together, these decision-makers create programming that is particularly tailored to minority audience interests and needs.

A Multivariate Approach to Predicting Programming Diversity

A number of significant differences (especially for radio) have emerged between minority-owned stations and majority-owned stations in their programming of ethnically or racially diverse content, as well as in some of their station characteristics such as ownership structure or staffing composition. But does the race or ethnicity of the station owner continue to be a significant predictor of minority-oriented programming once

ownership structure or racial or ethnic composition of the staff are factored in? In other words, perhaps the observed differences in programming might really be a function of ownership structure (group or not group owned) or, alternatively, a function of the racial or ethnic composition of the staff. Either way, once these variables are controlled for, race or ethnicity of owner could offer very little additional predictive power.

The final analyses presented here attempt to answer the question of how these elements interrelate and which, once the others are accounted for, remain significant predictors of programming diversity.

As a concept, programming diversity has no single clear definition. Scholars speak of diversity across the radio or television dial and of diversity within a single channel or station. Diversity has also been studied as an issue of content, sometimes in terms of format or program type, sometimes in terms of demographics of those featured within programs, and sometimes as a question of ideas and viewpoints expressed. It has been investigated as an issue of audience selection rather than the menu offered to the audience at any given moment. See Napoli (1999) for a discussion.[85] We combined a number of these elements to conceptualize programming diversity as any programming efforts related to race or ethnicity. We measured this concept using questionnaire responses that queried a station's efforts to include ethnic or racial perspectives in programming, to shape broadcast content with ethnic or minority audiences in mind, to engage in community activities geared toward women or minorities, or to include racial or ethnic minorities in on-air positions. For radio, responses to 13 such questions were combined into a single measure, where stations would receive a 0 if they registered no programming diversity on any of the 13 items, and a 13 if news directors responded affirmatively to all diverse programming aspects. Across all radio stations, the mean response was 4.54.[86]

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[85] Philip M. Napoli, *Deconstructing the Diversity Principle,* 49 J. Comm. 7 (1999)

[86] Items that made up the dependent measure of programming diversity for radio were: Q16 (localization based upon appeal of story to ethnic or racial subgroup within audience); Q23 (for story competition didn't cover, was target audience ethnic or racial minority); Q28 (for story covered differently from competition, was target audience ethnic or

Television programming diversity was similarly measured, with the addition of one question pertaining to children's educational programming.[87] Thus, a television station's score could range from 0 to 14. Across all television stations, the mean response was 4.79.

The chief independent variable in our study is race/ethnicity of station owner (minority or majority). This variable has, as already noted, surfaced as a significant correlate of a variety of programming and station characteristics. To challenge or, perhaps to clarify, the relationship between ownership and these other factors, we examine a host of variables that could act as intermediaries or as the true causal factors driving a station's level of programming diversity. One such factor is the involvement of the owner, measured on a 7-element scale. The level of involvement of station owner included how active the owner was perceived to be in decisions concerning hiring, scheduling, setting overall direction, topic selection, editorial production, daily news meetings, and communicating news values to the staff. Owner involvement may affect a station's programming diversity as an intermediary between station owner's race or ethnicity; in other words, minority owners may be philosophically committed or economically constrained to adopt such practices. Or, we may find that any involved owner will push for diversity

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racial minority); Q40 (does station cover culture, music or arts to target ethnic or racial minority audience); Q51 (does station broadcast in language other than English); Q57 (does station participate in community events targeted toward women or minorities); Q60 (does station broadcast programming about holidays, etc., of interest to Hispanics in particular); Q61 (does station broadcast programming about holidays, etc., of interest to African Americans in particular); Q62 (does station broadcast programming about holidays, etc., of interest to Asian Americans in particular); Q63 (does station broadcast programming about holidays, etc., of interest to Native Americans in particular); Q66 (is station's intended audience racial or ethnic minority?); Q106b (does most popular news or public affairs show aired by station appeal especially to ethnic or racial minorities); Q108 (for that most popular show, is there on-air talent representing ethnic or racial categories). Cronbach's Alpha (a measure of the reliability of the scale) equals 0.734.

[87] The added item, Q116, dealt with whether any characters or hosts of children's programming were members of ethnic or racial minorities. Alpha equals 0.646.

regardless of race or ethnicity. Putting both potential independent variables into one common model will help determine the relative strengths of both.

Another factor is the race and ethnic composition of the staff, including the news and public affairs director. The ratio of minority members of a station's news and public affairs staff (a measure that could range from zero to one) was added to the measure of respondent race or ethnicity (zero for Whites, one for racial or ethnic minority members) to create an index that ranged between zero and two. Once again, adding this element to the model will help answer the question of the true role of owners' race and ethnicity in station programming. Do owner characteristics affect programming diversity chiefly through the intermediary of newsroom personnel? Or, apart from owner race or ethnicity, could another explanation (based solely on newsroom staffing) emerge to account for differences in programming outcomes?

Finally, we examine two other factors that could affect a station's ability to diversify its programming should those efforts prove time- or money-consuming. These are station revenue and ownership structure (group-owned or not). Each of these measures was selected for its potential to help clarify why programming in a majority or minority-owned station would differ, and to query whether some other factor – aside from race or ethnicity of owner – was not the real predictor of programming diversity (for example, a measure related to the station's resources).

Table 1 presents the descriptive statistics for each of the independent variables presented above, plus statistics for the dependent measure of programming diversity.

Table 1: Summary statistics for dependent and independent measures

Measure	Sample	Mean	Standard Deviation	(N)
Programming Diversity	Radio Television	4.54 4.79	2.76 2.55	148 63
Owner Race/ Ethnicity+	Radio Television	0.48 0.33	0.50 0.48	148 63
Owner Involvement	Radio Television	7.85 4.16	5.70 3.43	147 63
Staffing Diversity	Radio Television	1.19 0.60	0.85 0.59	139 51
Station Revenue	Radio Television	3,145,636 20,283,333	5,960,958 27,219,158	110 54
Ownership Structure+	Radio Television	0.53 0.87	0.50 0.34	148 61

+ Owner Race/Ethnicity and Ownership Structure are 0/1 variables, with racial/ethnic minority owners and group-owned stations coded as 1.

Table 2 presents how, for radio, programming diversity breaks down across categories of each independent variable. For independent variables that consist of continuous measures, data were split at the median so as to illustrate differences in condensed tabular form. Table 3 presents the same information for television.

Table 2: Separate comparisons between each independent variable and the dependent measure of programming diversity for radio

	Mean	s.d.	(N)
Owner Race			
Minority	6.14	2.15	71
Majority	3.06	2.43	77
Owner Involvement			
Higher	5.14	2.75	71
Lower	4.04	2.65	76
Staffing			
More Diverse	6.03	2.33	70
Less Diverse	2.90	2.13	69
Station Revenue			
Higher	4.36	2.80	55
Lower	4.62	2.80	55
Structure			
Group-owned	4.27	2.82	79
Not group-owned	4.86	2.68	69

Table 3: Separate comparisons between each independent variable and the dependent measure of programming diversity for TV

	Mean	s.d.	(N)
Owner Race			
Minority	5.24	2.88	21
Majority	4.57	2.37	42
Owner Involvement			
Higher	5.08	2.53	26
Lower	4.59	2.58	37
Staffing			
More diverse	5.50	2.13	28
Less diverse	3.52	2.06	23
Station Revenue			
Higher	5.30	2.18	27
Lower	4.26	2.94	27
Structure			
Group-owned	4.66	2.55	53
Not group-owned	5.62	2.82	8

To test the effect of each independent variable while controlling for the others, a stepwise multiple regression analysis[88] was performed for radio and television separately. All variables except race or ethnicity of owner were first entered into the statistical model so that their explanatory power could be seen. Then race or ethnicity of owner was entered to see if, once these other related variables were factored in, race or ethnicity had any further predictive power.

Table 4 presents the results for the analysis of radio stations. The four variables entered in the first step of the analysis accounted for more than one-third of the variance in programming diversity (R^2[89] equals 0.384), but only one variable among the

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[88] Multiple regression analysis, a widely used statistical tool, models the mean of a response variable (in this case, programming diversity) as a function of several explanatory variables. For a user-friendly text on the subject, consult Fred L. Ramsey & Daniel W. Schafer, THE STATISTICAL SLEUTH, Duxbury Press (1997)

[89] R-squared (R^2), or coefficient of determination, is the percentage of the total response variation explained by the explanatory variables. Statisticians acknowledge that the

group contributes significantly to that result – the diversity of newsroom staff. As ethnic or racial diversity of a newsroom increases, so does programming diversity.

When the race or ethnicity of the station owner is added to the equation, explained variance increases significantly (R^2 equals 0.429; Adjusted R^2[90] equals 0.417). Status of owner as a racial or ethnic minority member or group persists as a factor leading to greater programming diversity independent of the previous significant factor. None of the other factors – station revenue, ownership structure of the station, or degree of involvement of the owner - emerge as statistically significant.[91]

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context of a study has much to do with expectations for R-square. Considering the challenges of measuring complex concepts in social science, Ramsey & Schafer characterize an R-square of 50% as "remarkably good."

[90] Adjusted R-square is a conservative version of R-square that includes a penalty for additional explanatory variables.

[91] Regressions were performed using SPSS set to pairwise deletion with entry at the .05 level. Results indicate no difference whether the model was tested using stepwise entry of variables, forced entry of all Block 1 variables followed by forced entry of the main independent variable in Block 2, or (not shown in tables 4 and 5) when variables were released from the equation using the backward function of SPSS. In addition, natural log transformations were performed for the dependent measure, for the measure of station revenue and for owner involvement. These, combined with a transformed measure of staffing diversity (collapsed into three categories - no, some, or maximal inclusion of ethnic or racial minority staff members), were subjected to additional regression tests. No significant departures from Tables 4 and 5 were observed.

Table 4: Results of Regression for Radio Sample

Variable		Forced Entry Beta	Stepwise Beta
Block 1:	Owner Involvement	0.035	0.065
	Staffing Diversity	0.457***	0.445***
	Station Revenue	0.088	0.106
	Ownership Structure	0.044	0.07
Block 2:	Owner Race/Ethnicity	0.310**	0.274**

** indicates p-value below .01; *** indicates p-value below .001

Table 5 presents the results for the analysis of television stations. Following the same procedure outlined above, the results demonstrate that staffing diversity significantly and positively correlates with programming diversity (R^2 equals 0.2233). When entered in the second block, owner race/ethnicity fails to join the equation. No other factor is significant.

Table 5: Results of Regression for Television Sample

Variable		Forced Entry Beta	Stepwise Beta
Block 1	Owner Involvement	-0.217	-0.199
	Staffing Diversity	0.437**	0.473**
	Station Revenue	0.215	0.147
	Ownership Structure	-0.074	-0.021
Block 2	Owner Race/Ethnicity	0.150	0.080

** indicates p-value below .01

Thus, television stations did not follow the same pattern as radio stations. While both samples showed a significant relationship in the regression for staffing diversity - the more the staff was made up of racial or ethnic minority members, the more diverse the programming - only radio stations showed a significant additional explanatory power for station owner race or ethnicity. For radio stations, ownership predicted programming in that minority owners were more likely to be associated with diversity.

Three other measures that might have helped explain any link between owner race and ethnicity and programming diversity did not significantly enter the model for radio or for television. As noted above within bivariate analyses, involvement of the owner in day-to-day station activities related to news and public affairs programming was correlated, for radio but not for television, with race or ethnicity of station owner where minority owners tended to be more involved with their stations than were majority owners. Despite this association, no relationship appeared in the regression to independently link owner involvement to programming diversity.

The other two failed measures - group ownership and station revenue - were attempts to capture the concept of a station's ability to budget for diversity programming efforts. As such, these measures leave something to be desired. For example, a group-owned station may be able to draw resources from the group, or may be constrained in its ability to budget resources at the local level. Similarly, high station revenues may reflect a policy of cost-cutting or may represent resources upon which a newsroom could draw. Broadcast revenue issues are complex, particularly when viewed in a minority context.[92]

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[92] See, e.g., Raymond Suarez and Robert Cull, CAPITAL FORMATION AND INVESTMENT IN MINORITY BUSINESS ENTERPRISES IN THE TELECOMMUNICATIONS INDUSTRIES, U.S. Department of Commerce (1995); Joann Anderson, project director

SUMMARY and CONCLUSIONS

The question that directed this study was whether race or ethnicity of a broadcast station's owner has a meaningful influence on the contribution by that station to broadcast spectrum programming diversity. While particularly for radio there were many indicators of such a relationship at the bivariate level, it is the multivariate analysis reported in the final portion of the results section that offers the most challenging and focused test of our research question.

Programming diversity - a complex measure comprising 13 or 14 indices of station attention to minority audience needs - varied greatly across stations. One television and 11 radio stations scored zero, indicating no effort to program to appeal especially to racial or ethnic minority audience members. One radio station scored a 12 on the scale where 13 was the maximum; on their 14-point scale, the two highest-scoring television stations earned 11 points each. The fundamental question posed by this study is whether minority-owned stations exhibit more of this type of programming diversity than their majority-owned counterparts. For radio, the answer is yes. In addition, radio stations (regardless of who owns them) are more likely to program for diversity if their news staffs include ethnic and racial minority composition.

For television, only the latter measure - staffing diversity - is associated with greater programming diversity. The more the station's staff includes members of racial or ethnic minorities, the more diverse appears the programming from that station, on average. But ethnicity or race of station owner did not emerge as a significant factor.

Added to the regression were three additional measures that could have significantly improved the explanatory power of the model, yet none did. As discussed above, owner involvement did not significantly predict programming diversity. For reasons likely linked to measurement ineffectiveness, neither did ownership structure nor station revenue. Future research could attempt more precise measures of a station's ability to budget resources for creative and audience-specific programming, a concept that

may truly belong in a model of how ownership characteristics affect programming diversity.

Beyond the measure of race- and ethnicity-linked programming diversity, a number of other aspects of a station's programming were associated with station owner race or ethnicity. For radio, minority-owned station were significantly more likely to present programming in the areas of women's concerns and live coverage of government meetings. They were significantly more likely than their majority-owned counterparts to adopt a minority format in their music programming. For television, minority-owned stations were significantly more likely than their majority-owned counterparts to air programming related to current events and issues of special concern to senior citizens.

Policy Implications

For television, owner race does not appear to be linked with programming content oriented toward issues of concern to minorities. Perhaps the failure of the television data to mirror radio data in all respects is due, at least in part, to the smaller numbers of interviews that were conducted. In addition, the greater public visibility of persons involved in television news-gathering efforts may predispose the television industry to a greater sensitivity to differential audience needs. Finally, the lone signal of a potential response bias occurred with the television data, as respondents were significantly more often from smaller markets than were non-respondents.

For both television and radio, the data show a connection between the racial composition of staff and the content of programming; as racial and ethnic minorities compose more of a radio station's staff, greater attention to minority issues is the result.

Additionally for radio, this study provides considerable empirical support for historic assumptions linking owner race and ethnicity to diversity of the broadcast spectrum. Minority-owned stations, on average, focused more of their news and public affairs programming on issues and events of presumed interest to minority audience members.