GEORGIA'S LOCAL NEWS ECOSYSTEM

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SUMMARY

This report provides an overview of media coverage in the state of Georgia. The Center for Media Engagement, commissioned by the Georgia News Collaborative, analyzed nearly 200,000 articles published online between September 15 and October 15, 2022, by 227 media sources in Georgia. We were interested in the topics covered and the locations and organizations mentioned by county.

Our analysis found that the topics Georgia residents identified as most important were not the topics most covered by local media outlets. Georgia residents mentioned *inflation*, *abortion*, and *preserving democracy / election laws* as top issues of importance, but local news media covered the *economy and jobs*, *education,* and *health care* the most. This suggests that additional coverage on the topics Georgia residents identified may be warranted.

Looking at county locations and organizations mentioned in coverage helped us identify counties that were underrepresented relative to their population size. In many cases, when a county was underrepresented, it was not due to the absence of a local media source. For most counties, we identified a media outlet that specialized in the area. Rather, outlets serving the area may have insufficient reporting resources.

This report is one part of a two-part analysis of the Georgia media landscape. The other portion, completed by The Pivot Fund, describes how changes in the overall media landscape affect Georgia and provides insight from stakeholder interviews and a poll of Georgia Press Association members. Their analysis complements the work here, especially in its explanation of demographic and market shifts and its description of outlets serving BIPOC and other underserved communities. We hope that these reports can help to guide those interested in understanding and bolstering Georgia's local media ecosystem.

KEY TAKEAWAYS

The Center for Media Engagement's analysis identified several news topics and several counties that may benefit from more coverage in the state of Georgia.

Topic Coverage

- The most-covered topics in Georgia media were the *economy and jobs*, *education,* and *health care*.

- Polls of Georgia residents conducted during a similar time period found that *inflation*, *abortion,* and *preserving democracy / election laws* were among the most important issues to Georgia residents.

- Media coverage was not fully in alignment with the issues that Georgia residents found most important, suggesting that additional coverage of those topics could be particularly valuable.

- The Georgia Recorder had a smaller volume of articles relative to other sites, but a higher percentage of coverage for several topics that Georgia residents indicated were important.

County Coverage

The analysis sought to identify counties that were underrepresented relative to their population size. Note that our estimates of how much coverage each county receives are imprecise because we: 1) did not analyze all media sources in the state, 2) looked only at locations and organizations mentioned frequently in the coverage, and 3) used tools that imprecisely detect locations and organizations. We account for the imprecision, at least in part, by estimating ranges of how often counties are covered in the media. We also conducted additional research to identify any media outlets not included in our analysis that serve the counties where our initial analysis signaled that they may be underrepresented.

- In many cases where a county was underrepresented, it was not due to the absence of a local media source. Most of Georgia's counties have a local source serving either the most populous part of the county or the county in its entirety. Solely from the perspective of geographic coverage, this signals a need for more reporters as opposed to a need for additional news outlets. It is important to emphasize, however, that other lenses (e.g., whether BIPOC communities are served) could signal the need for more outlets or expanded coverage.

- In a few cases where counties were underrepresented, we were not able to identify a county-focused media source. This warrants additional investigation as our methods of identifying sources (detailed in the Methodology section at the close of this report) were unable to identify all media sources serving a county. For these counties, we recommend examining whether there are sources serving the county that we did not include in our analysis and whether local residents feel underrepresented by the media. Examples of counties where we did not identify a local source include Glascock, Talbot, Terrell, Clay, Quitman, and Taliaferro.

- The Atlanta Journal-Constitution (AJC) is an important source of information state-wide. Our data suggest that the source had at least one article referencing a location or organization in nearly all of the state's 159 counties. For 99 counties, the AJC published over 20 articles referencing a location or organization in the county.

IN-DEPTH FINDINGS

The Center for Media Engagement, commissioned by the Georgia News Collaborative, analyzed news stories published between September 15 and October 15, 2022, by 227 Georgia news organizations. The firm Marquee Data helped us to copy the text of articles from each news organization's website, known as "scraping." In total, we analyzed 187,397 scraped articles from Georgia news websites and 141 Facebook posts from three outlets with content available only on Facebook. There was considerable variation in how many articles were scraped for each site (from 1 to 23,793 articles), with 83% of the sources we analyzed posting 25 or more articles during the study period.

Topics Covered in Georgia Media

Each news article was analyzed for whether it included words and phrases related to one of 15 different topics. The 15 topics were selected by reviewing polls of the issues important to Georgia residents. We then examined how many articles on each news site mentioned each topic.

As shown in the chart below, the *economy and jobs* were mentioned most often by news outlets.[1] Terms related to these topics appeared, on average, in 36% of the articles per site. This was followed by the topics of *education* (26%), *health care* (24%), and *crime* (19%). The chart below includes the results across all of the articles we scraped. If we look only at articles that mention a specific and frequently referenced Georgia location or organization, the results were virtually identical.[2]

Average Percent of Articles per Georgia News Site Mentioning Each Topic
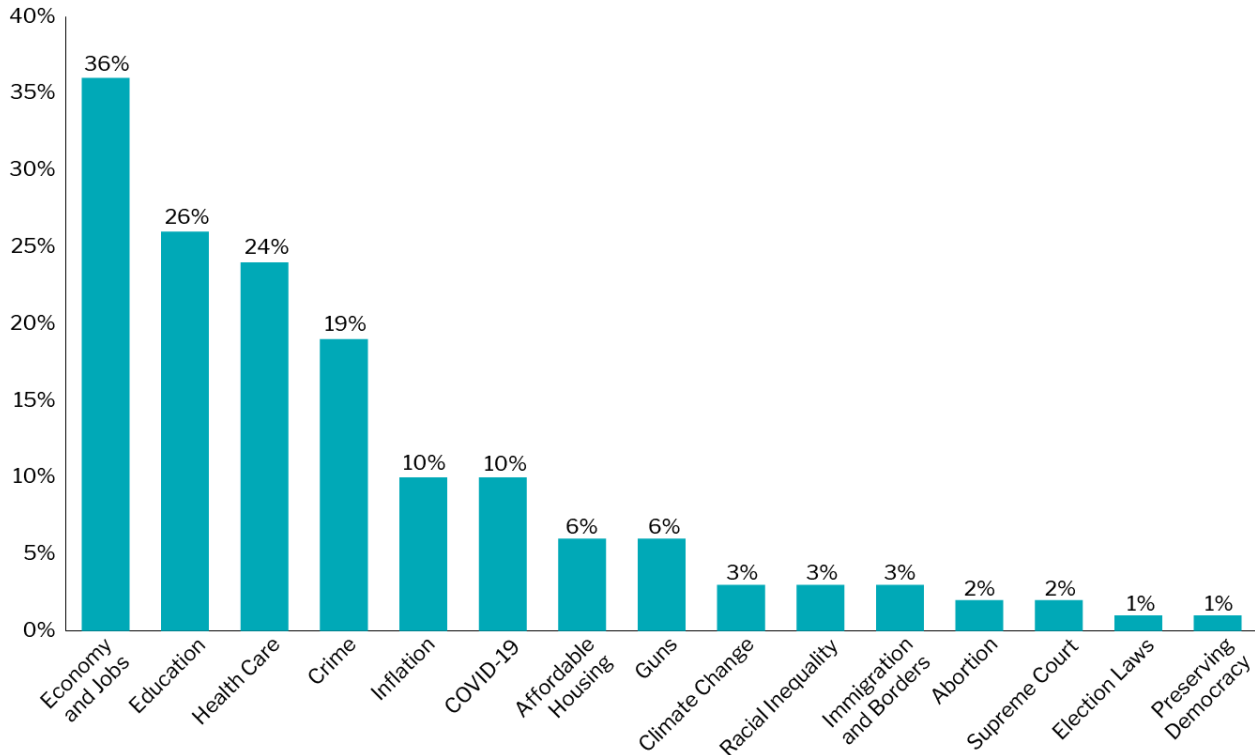
Data from the Center for Media Engagement

Whether the amount of topical coverage is appropriate requires developing a standard for what coverage *should be*. This is bound to vary by context, by person, and by media outlet.

One possible standard is to evaluate whether the coverage aligns with the issues the public believes to be important. If the media cover a topic proportionately less frequently than the public mentions it as important, this may represent an opportunity for more coverage.

To understand whether Georgia media coverage speaks to issues of public concern, we compared the results of our media analysis to the issues people nominated as important in polling data collected around the same time. We reviewed four polls, the details of which are described in the Methodology section.
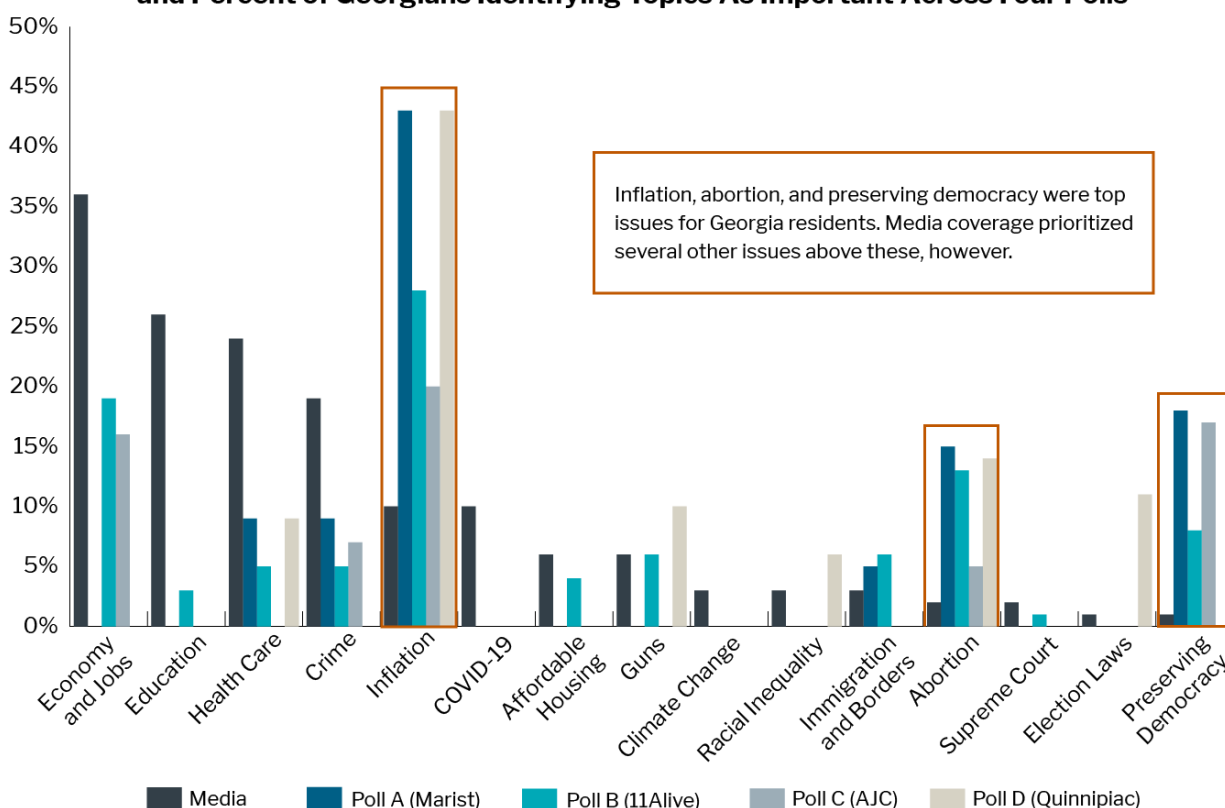
We note that any comparison between polling data and media coverage is imperfect. In this case, the question wording and response options varied across the polls (e.g., some polls asked respondents about important issues facing the country and others asked specifically about Georgia), some of the polls were of subpopulations of Georgia (e.g., likely voters as opposed to all residents), and the polls were not fielded across the entire time period of our media analysis. There also is a reciprocal relationship, where media coverage can influence which issues people name as important. Nonetheless, the comparison provides some data on whether media coverage aligned with issues the public felt were important.

For some issues, the percentage of the public finding a topic important exceeded the percentage of articles about the topic.

- The polls consistently found that *inflation, abortion,* and *preserving democracy / election laws* were among the top issues for Georgia residents. Media coverage prioritized several other issues above these, however.

- There are also some indications that *guns, racial inequality,* and *immigration and borders* were more often mentioned by the public than were covered in the media. Public interest was not as consistent across the polls, however, and there were smaller gaps between the poll results and the percentage of coverage for these topics.

Inflation, abortion, and *preserving democracy / election laws* could be potential areas of focus for new niche outlets or for new, or more strongly resourced, beats at existing media outlets.

Topics By Percent of Georgia Media Coverage and Percent of Georgians Identifying Topics As Important Across Four Polls

Inflation, abortion, and preserving democracy were top issues for Georgia residents. Media coverage prioritized several other issues above these, however.

Legend: Media | Poll A (Marist) | Poll B (11Alive) | Poll C (AJC) | Poll D (Quinnipiac)

Data from the Center for Media Engagement

We wanted to identify news organizations that focused on each topic. The following table lists outlets with the highest percentage of articles mentioning each topic.

The analysis was conducted in two ways. First, we looked at the 187 sites where we were able to scrape 25 or more articles across the one-month period of this study.[3] When setting the threshold at 25 or more articles, most of the sites identified as having a high percentage of articles dedicated to a topic were those where we scraped between 25 and 100 articles. This is because sites with more than 100 articles tended to cover a more diverse set of topics, resulting in a smaller percentage of articles for each topic. To determine which outlets focused on topics in another way, we separately analyzed the 137 sites with 100 or more articles scraped during the time period.[4]

The results confirm that for most topics, there are outlets that dedicate a significant portion of their coverage to the topic. *Inflation*, for example — one of the issues where there was a substantive and persistent difference between the poll results and media coverage — had several outlets that provided focused coverage: Georgia Recorder, The Macon Newsroom, Cobb County Courier, and La Voz Latina.

Looking across the results, Georgia Recorder stands out as an outlet with a smaller volume of articles relative to other sites, but with a higher percentage of coverage for seven of the 15 topics we examined.

Top Two Georgia Sites Offering the Most Coverage per Topic

Topic	Outlets with the Highest Percentage of Content (25+ articles scraped)	Outlets with the Highest Percentage of Content (100+ articles scraped)
Abortion	Georgia Recorder (23%) Georgia Trend Magazine (22%)	WABE 90.1 FM (12%) The Atlanta Voice (10%)
Affordable Housing	Atlanta Civic Circle (38%) SaportaReport (29%)	SaportaReport (29%) Cobb County Courier (23%)
COVID-19	The Clayton Crescent (55%) Arts ATL (41%)	SaportaReport (28%) The Atlanta Voice (19%) WABE 90.1 FM (19%)
Climate Change	Georgia Recorder (25%) Cobb County Courier (21%)	Cobb County Courier (21%) --
Crime	The Clayton Crescent (61%) WCHM FM 96.7 (54%)	The Telegraph & Macon (53%) Atlanta Black Star (43%)
Economy and Jobs	Hypepotamus (97%) Augusta Business Daily (94%)	Augusta Business Daily (94%) LaGrange Daily News (69%)
Education	Capitol Beat (100%) Mercer (73%)	Cobb County Courier (56%) The Telegraph & Macon (54%)
Election Laws	Georgia Recorder (11%) --	-- --
Guns	Georgia Outdoor News Magazine (28%) Columbus Ledger-Enquirer (23%)	The Augusta Chronicle (19%) WJCL-TV 22 (ABC) (18%)
Health Care	Georgia Recorder (57%) Georgia Trend Magazine (57%)	Brantley Beacon (49%) Alma Times (48%)
Immigration / Border Security	Global Atlanta (20%) El Nuevo Georgia (13%)	WCLK FM 91.9 (10%) --
Inflation	Georgia Recorder (48%) The Macon Newsroom (34%)	Cobb County Courier (27%) La Voz Latina (25%)
Preserving Democracy	Georgia Recorder (21%) --	-- --
Racial Inequality	Atlanta Tribune (22%) Atlanta Daily World (22%)	Atlanta Daily World (22%) Atlanta Black Star (10%)
Supreme Court	Georgia Recorder (23%) Georgia Trend Magazine (20%)	WABE 90.1 FM (12%) --

Data from the Center for Media Engagement

Notes: Top two sites for each topic (or three if there are ties) among sites with 10% or more of coverage focused on the topic. -- = No outlet mentioned the topic in 10% or more of their articles.

We computed the table again, but this time looked only at articles that also included a frequently mentioned Georgia location or organization in the article as a way to approximate local coverage. Many of the results were similar, although there were changes in which outlets emerged as covering the issues. For instance, of outlets with 100+ articles scraped, Georgia Public Broadcasting had the highest percentage of articles about abortion when we looked only at articles mentioning a Georgia location or organization, whereas it was not a top two site when we looked at all coverage.

Top Two Georgia Sites Offering the Most Coverage per Topic

(articles including frequently mentioned Georgia locations and organizations only)

Topic	Outlets with the highest percentage of content (25+ articles scraped)	Outlets with the highest percentage of content (100+ articles scraped)
Abortion	Georgia Recorder (26%) Georgia Trend Magazine (22%)	Georgia Public Broadcasting (17%) WABE 90.1 FM (15%)
Affordable Housing	SaportaReport (31%) Cobb County Courier (25%)	SaportaReport (31%) Cobb County Courier (25%)
COVID-19	The Clayton Crescent (57%) Arts ATL (44%)	SaportaReport (29%) Georgia Public Broadcasting (18%)
Climate Change	The Clayton Crescent (22%) Georgia Recorder (21%)	Cobb County Courier (22%) --
Crime	The Clayton Crescent (59%) WCHM FM 96.7 (56%)	Cobb County Courier (54%) WSB AM 750 (44%)
Economy and Jobs	Augusta Business Daily (99%) Atlanta Business Chronicle (97%)	LaGrange Daily News (70%) The Citizens (Rockdale & Newton) (67%)
Education	Capitol Beat (100%) Mercer (85%)	Cobb County Courier (61%) The Telegraph & Macon (58%)
Election Laws	Georgia Recorder (10%) --	-- --
Guns	Georgia Outdoor News Magazine (38%) Augusta Chronicle (21%)	Augusta Chronicle (21%) WJCL-TV 22 (ABC) (20%)
Health Care	Georgia Recorder (64%) Georgia Trend Magazine (56%)	Cobb County Courier (45%) McDuffie Progress (37%)
Immigration / Border Security	El Nuevo Georgia (11%) --	-- --
Inflation	Georgia Recorder (51%) The Macon Newsroom (38%)	Cobb County Courier (26%) La Voz Latina (26%) WABE 90.1 FM (25%)

Table continues on next page

Topic	Outlets with the highest percentage of content (25+ articles scraped)	Outlets with the highest percentage of content (100+ articles scraped)
Preserving Democracy	Georgia Recorder (18%) --	-- --
Racial Inequality	Atlanta Black Star (15%) Atlanta Daily World (14%)	WUGA FM 91.7 (10%) --
Supreme Court	Georgia Trend Magazine (20%) Georgia Recorder (18%)	-- --

Data from the Center for Media Engagement

Notes: Top two sites for each topic (or three if there are ties) among sites with 10% or more of coverage focused on the topic. -- = No outlet mentioned the topic in 10% or more of their articles.

County Coverage in Georgia Media

We next analyzed the locations and organizations referenced in media coverage to understand how often various counties were covered.

Two notes on this analysis are critical. First, **county coverage estimates are imprecise**. In order to analyze nearly 200,000 articles in a timely manner, we needed to use computational approaches. These approaches allowed us to analyze text at scale, but they are imperfect. We looked at locations and organizations identified by a widely used classifier (spaCy), as opposed to individually looking at the words in each article. Although the classifier allows us to detect places in the coverage, it also errs in some instances by, for example, counting people as places or vice versa. We also looked only at locations mentioned 10 or more times throughout the coverage and at organizations mentioned 10 or more times throughout the articles. We include technical details in the Methodology section, but offer a few examples of the imprecision here:

- There is a Santa Claus, Georgia (population 204). The town was rarely, if ever, mentioned in coverage based on our manual validation. The jolly holiday figure who delivers toys, however, was mentioned. We, therefore, did not count mentions of "Santa Claus" as mentions of a Georgia location. This means that our analysis misses the rare instances in which articles referenced the location in Georgia.

- In our manual validation, mentions of Shiloh typically referenced the high school in Gwinnett County. In a few articles, however, mentions of Shiloh referenced actress Angelina Jolie's child or the town of Shiloh, Georgia (population 415) in Harris County. As mentions of Jolie's child and the town in Harris County were infrequent in our manual validation, we counted all instances of "Shiloh" as Gwinnett County mentions. This means that we over-counted coverage of Gwinnett County.

- In most cases, a mention of Boston referred to the major metropolitan area of Boston, Massachusetts. As such, we did not count the word Boston as referring to a location in Georgia. This method excluded any mention of the much smaller location of Boston, Georgia (population 1,209).

To take this type of imprecision into account, we include a range of possible coverage estimates. Based on our analysis, we anticipate that 95% of the time, the true value for the county coverage will fall within the range of values indicated by the bars in the charts. We include details about how we arrived at these estimates in the Methodology section at the close of this report.

Second, **there's no objective standard as to how much coverage there *should be* about each county**. We hope this report can spark conversation about what distribution is ideal – and yield an appreciation that the answer likely differs across people, across newsrooms, and across circumstances. We offer a few possible theories on ideal coverage amounts:

- Perhaps all counties should be covered equally and any imbalance signals a problem.

- Perhaps counties should be covered in proportion to their population size. This would mean that counties with more people should receive more coverage than counties with fewer people. We use this standard in the sections that follow. Our analysis is based on how much coverage each county actually received. This strategy cannot say whether all counties, for instance, are underrepresented. Rather, it gives an indication of which counties are less covered relative to other counties with similar populations.

- Perhaps counties should be covered differently depending on the presence of powerful institutions, like the state capitol or major industry headquarters. Under this theory, Fulton County should receive more coverage than its population size might warrant because of the presence of the state capitol.

Our goal in this report is not to determine a normative standard. Instead, we hope to provide insight into coverage by county to inform those who are having conversations about how often Georgia counties should be covered.

Amount of Coverage by County

We started by looking at all 159 counties and the amount of coverage that they received. In the chart below, the horizontal axis represents the 2020 county population size and the vertical axis represents how many articles we identified that included at least one:

- County location mentioned 10 or more times throughout all the coverage, or
- Organization based in the county mentioned 10 or more times throughout the articles.

Articles that mentioned multiple counties were included in the count of each county referenced. The dotted line in the chart indicates how much coverage we would expect if there were a linear relationship between the population size and the amount of coverage.

As seen in the chart, we estimate that 17,591 articles referenced locations and organizations in Fulton County. Since we did not manually analyze all of the scraped articles, we generated a range of possible values within which we have high confidence that the actual number of articles mentioning Fulton County locations and organizations falls. This is indicated by the bars, which provide a range of the possible number of articles referencing a particular county. For example, we estimate that between 12,314 and 19,958 articles include frequently mentioned locations and organizations in Fulton County.

As our estimate and the corresponding range as indicated by the bars fall above the dotted line (the line indicating how much coverage we would anticipate based on population size and the amount of coverage each county receives), our analysis indicates that Fulton County received significantly more coverage than would be expected based on its population. Part of the reason this occurs is because we included mentions of Atlanta as part of Fulton County, even though Atlanta spans multiple counties, including Cobb, DeKalb, and Gwinnett. We did so because not only does Fulton have the largest population, it also includes many of Atlanta's major centers of industry and government.

Georgia Counties By Population Size and Media Coverage
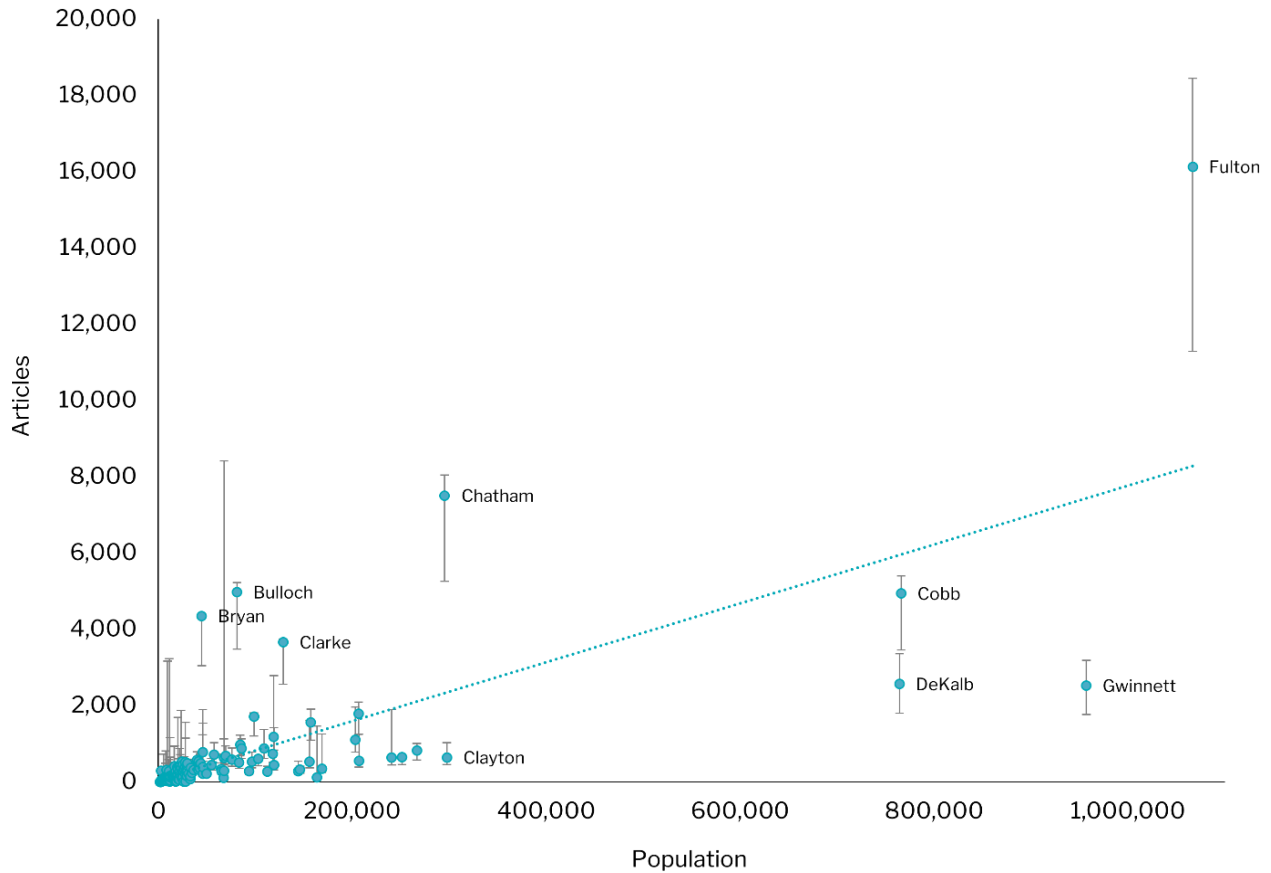
Data from the Center for Media Engagement

Note: Media coverage is determined based on locations mentioned 10 or more times throughout the coverage and organizations mentioned 10 or more times throughout the articles.

We next isolated subsets of Georgia's 159 counties based on their populations of:

- 700,000 or more
- 150,000-300,000
- 50,000-150,000
- 20,000-50,000
- Less than 20,000

Note that there aren't counties with populations of 300,000-700,000.

Coverage of Georgia Counties with Populations of 700,000 or More

As shown in the prior chart, Fulton received more coverage and DeKalb, Gwinnett, and Cobb received less coverage than anticipated based on their population size. To determine whether more coverage of DeKalb, Gwinnett, and Cobb is needed, we recommend analyzing whether people in these counties identify with Atlanta. If they do, then around 10,000 articles that mentioned Atlanta (and are currently considered as only representing Fulton) would apply to these counties as well and more coverage may not be necessary. If local residents do not identify with Atlanta, however, a case could be made that more coverage is warranted.

We identified which outlets serve these high-population (700,000+) counties that were covered less often than we would anticipate given their population. There are two ways to do this analysis, each with different strengths. One strategy is to determine outlets that have the most articles mentioning locations and organizations within each county. This method allows us to see which outlets have the most coverage overall. Because some sites publish a large number of articles on their site (e.g., large news organizations, outlets that post many Associated Press articles, outlets that include content from co-owned outlets, etc.), this number can be high not because the news organization focuses on a particular county, but simply because the outlet publishes a high volume of articles. A second strategy is to look at sites that have a high *percentage* of articles about the county. This analysis favors smaller, more geographically targeted outlets. In the table below, we present both strategies and exclude sources where we scraped fewer than 25 articles.

Note that we present these findings without the range of values, as indicated by the bars included in the charts. It should be acknowledged, therefore, that these percentages are only approximations of how often counties are mentioned.

As seen in the table below, Gwinnett, DeKalb, and Cobb all have a news source that specializes in the county overall or in the most populous part of the county. These news sites include the Gwinnett Daily Post for Gwinnett County, Decaturish and The Champion Newspaper (DeKalb Free Press) for DeKalb County, and Marietta Daily Journal and Cobb County Courier for Cobb County. This analysis suggests under-coverage did not occur because the county does not have a news source serving it, but because the sources in each county are not producing as much coverage about the county as we would anticipate relative to their population size.

News Organizations Serving Georgia Counties Underrepresented in Coverage: Population 700,000+

(among sites where we were able to scrape 25+ articles)

| County	Outlets with Highest Number of Articles Mentioning County	Outlets with Highest Percentage of Articles Mentioning County
Gwinnett	Gwinnett Daily Post (934) Atlanta Journal-Constitution (227)	Gwinnett Daily Post (62%) Creative Loafing Atlanta (27%)
DeKalb	Atlanta Journal-Constitution (272) WAGA-TV 5 Fox (133)	Decaturish (93%) The Champion Newspaper (DeKalb Free Press) (93%)
Cobb	Marietta Daily Journal (1503) South Fulton Neighbor (611)	Cobb County Courier (81%) Georgia Trend Magazine (33%)

Data from the Center for Media Engagement

Coverage of Georgia Counties with Populations of 150,000-300,000

The following chart shows counties with a population size of 150,000-300,000 and how much coverage they received. Chatham County, home to the populous city of Savannah, received proportionally more coverage than would be expected based on its population size.

Based on this chart, Clayton, Forsyth, and to some extent Cherokee[5] are the largest counties in this population range that received less coverage than we would anticipate based on their population size. We note again that these counties are in the greater Atlanta area. We repeat our recommendation that investigating whether people in these counties see themselves as part of Atlanta is critical to understanding whether they are underrepresented, as coverage estimates excluding Atlanta would suggest.

Georgia Counties by Population Size and Media Coverage
(Population 150,000-300,000)
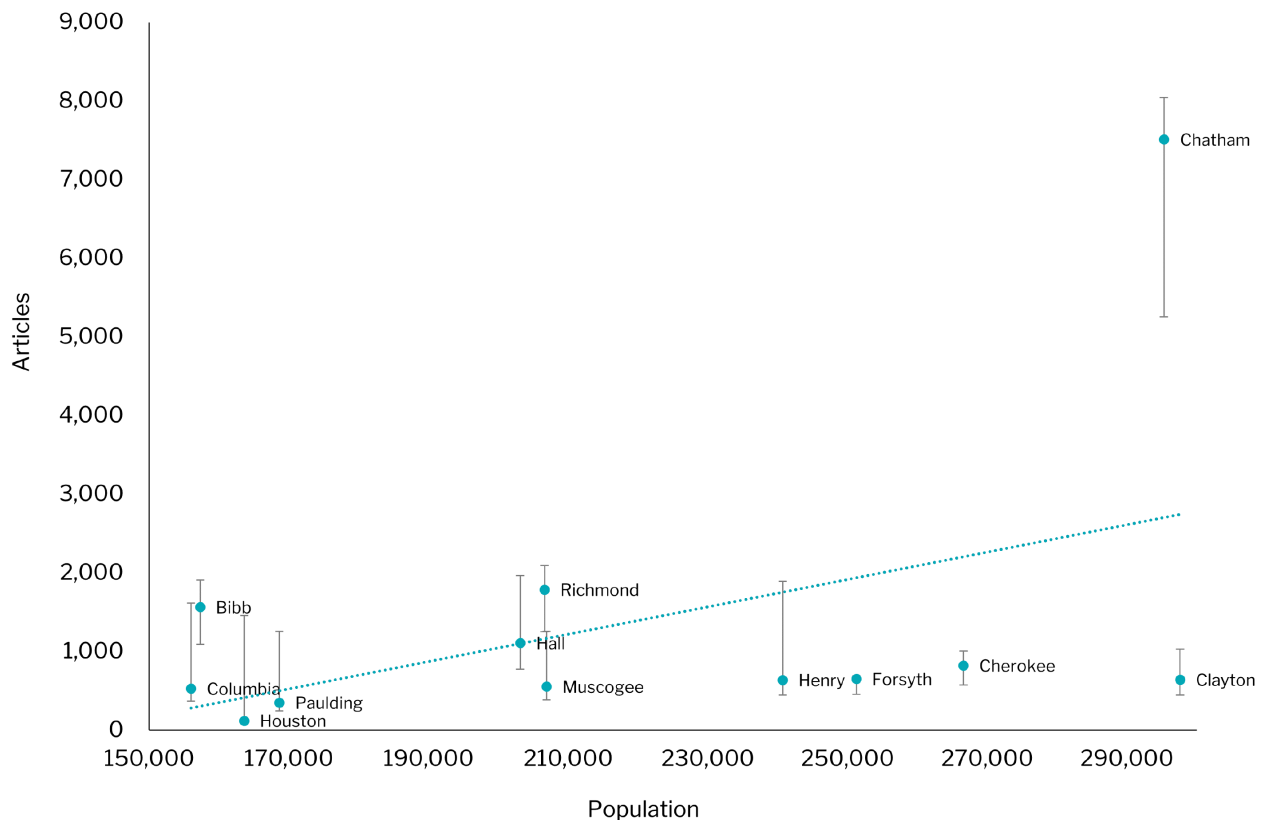
Data from the Center for Media Engagement

We looked at which outlets provided the most coverage of counties that were underrepresented relative to their population size. We did this based on both the total number of articles and on the highest percentage of articles.

Each of the three underrepresented counties has at least one news source that is primarily focused on the county. Clayton County has The Clayton Crescent, Forsyth County has Forsyth County News, and Cherokee County has the Canton Cherokee Tribune (Cherokee Tribune & Ledger-News). Other outlets beyond those that we analyzed also serve these counties, such as Home Rule News which serves Fulton and Clayton counties.

News Organizations Serving Georgia Counties Underrepresented in Coverage: Population 150,000-300,000
(among sites where we were able to scrape 25+ articles)

County	Outlets with Highest Number of Articles Mentioning County	Outlets with Highest Percentage of Articles Mentioning County
Clayton	Atlanta Journal-Constitution (87) WAGA-TV 5 (Fox) (67)	The Clayton Crescent (95%) Georgia Trend Magazine (20%)
Forsyth	Forsyth County News (113) Atlanta Journal-Constitution (64)	Forsyth County News (67%) Monroe County Reporter (25%)
Cherokee	Canton Cherokee Tribune & Ledger-News (211) Rome News-Tribune (62)	Canton Cherokee Tribune & Ledger-News (23%) Creative Loafing Atlanta (AAN) (16%)

Data from the Center for Media Engagement

As shown in the Georgia Counties by Population Size and Media Coverage chart, several other counties were possibly underrepresented relative to their population size, but the imprecision in our estimates makes it difficult to know for sure. For these counties, the range of possible values falls both above and below the dotted line, the line representing an estimate of how much coverage each country should receive relative to its population size and based on the actual coverage of similarly sized counties. This means that it is possible that the county was under-covered. These include Henry, Muscogee, Hall, Paulding, and Houston counties. For these counties, we conducted further investigation into the availability of local media outlets.

- Henry County is served by the Henry Herald, with 77 articles mentioning locations or organizations in the county. It also is served by the Henry County Times, which was not included in our original list of sources. The source does not post articles daily but does post several within a week.

- Muscogee County is covered by WTVM-TV 9 (ABC), with 184 articles that mentioned the county, and WRBL News 3 (CBS), with 168 articles. It also is served by the Columbus Ledger-Enquirer, with 20 articles that mentioned the county. Other outlets serving the county include The Courier Eco Latino, Davis Broadcasting, and the Columbus Times; the first two were not included in our analysis and the latter one wasn't scraped as it was an e-edition.

- Hall County is served by the Gainesville Times, with 166 articles that mentioned the county, and Braselton News, with 47 articles that mentioned the county.

- Paulding County received the highest number of mentions in the Marietta Daily Journal, a newspaper based in the neighboring county, with 79 articles that mentioned Paulding. The county was also mentioned in Dallas New Era articles, but our scrape only turned up five articles. We also scraped the Paulding Neighbor, a weekly newspaper, but the site is affiliated with the Marietta Daily Journal site and yielded 14 articles that mentioned the county in the Paulding Neighbor subdomain.

- Houston County is served by The Houston Home Journal, but we weren't able to scrape the site because of the structure of the archives. A review of the site indicated that it published approximately 5-6 articles twice per week. The county also is home to NotiVisión Georgia, an outlet included in our research, but that had minimal content available for scraping.

Based on this review, each county has at least one news source that caters to it. It is possible that Henry County would benefit from additional reporting given that we only identified 77 articles that mentioned the county whereas other counties with smaller populations had more articles. It is also possible that Paulding County would benefit from having more reporting from a source within the county if its residents feel underserved by the Marietta Daily Journal.

We also make special note of Columbia County as the Columbia County News-Times closed in February of 2023; the publication indicated that public notices would be published in The Augusta Chronicle. The Augusta Chronicle did cover Columbia County, and we detected 99 articles that mentioned places in Columbia County. We also did not have any indication that the coverage fell below what we would anticipate based on the county population. Other outlets that cover the county, such as The August Press, are included in our analysis. The Pivot Fund's report goes into more detail about these outlets.

To summarize the results of county coverage for Georgia counties with populations of 150,000 and above, we created a map to showcase coverage in each county.

The legend below corresponds to the ranges of possible values.

Less Coverage than Anticipated
(relative to other counties with similar population size)

Counties where the full range of possible values falls below the dotted line (the line indicates that coverage is equal to what we would anticipate given the population size).

- No outlets identified
- At least one outlet included
- Outlets identified, but not included in the search

Range of Possible Values Includes Less Coverage than Anticipated
(relative to other counties with similar population size)

Counties where the range of possible values falls both above and below the dotted line indicating that the county receives adequate coverage. This means that it is possible that these counties are underrepresented relative to other counties with similar population size.

- No outlets identified
- At least one outlet included
- Outlets identified, but not included in the search

No Deficit of Coverage Detected
(relative to other counties with similar population size)

Counties where the full range of possible values falls above the dotted line.

- Source availability assumed

The following distinctions have implications for next steps.

- "No outlets identified": We did not identify any outlets that specialized in the county or in a populous region within the county. Next steps should involve evaluating whether there were sources serving the area that our methods missed. If none are identified, then the county is in need of media coverage.

- "At least one outlet included": We included at least one outlet that served the county or a populous region within the county in our analysis. The next steps for these counties include evaluating whether existing sources would benefit from additional resources that would allow them to boost the amount of coverage they give to the county.

- "Outlets identified, but not included in the search" includes outlets that could not be scraped or outlets that were not included in our original search, but that we later identified as serving the area. This means that there are more articles about the county than we have included in our search and the county is not as underrepresented as it appears in the chart.

As seen in the following map, counties surrounding Fulton stand out as having less coverage than we would anticipate based on their population size. As previously mentioned, the extent of under-coverage depends on how much residents of these counties identify with Atlanta.

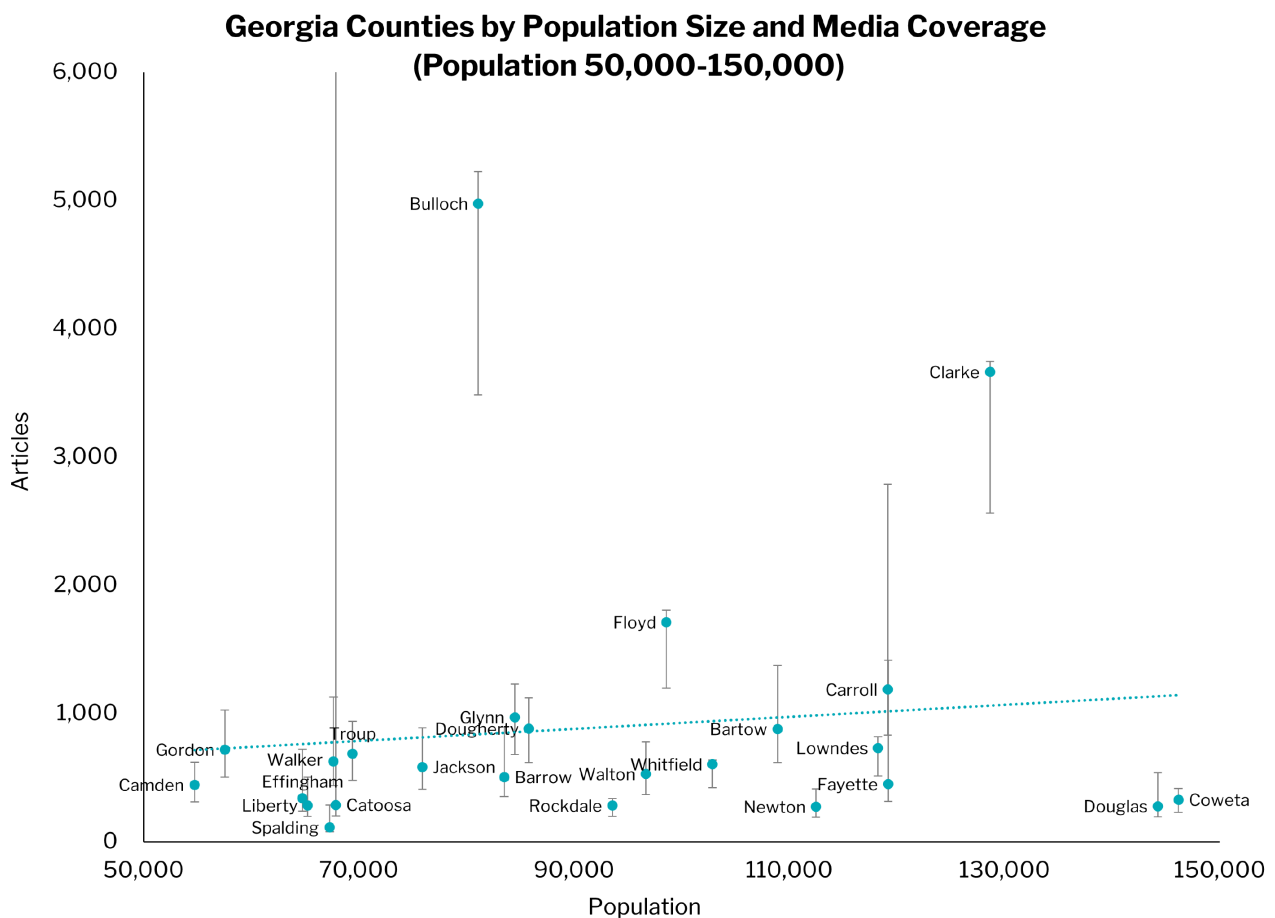**Georgia Map of Media Coverage (Counties with Population 150,000+)**
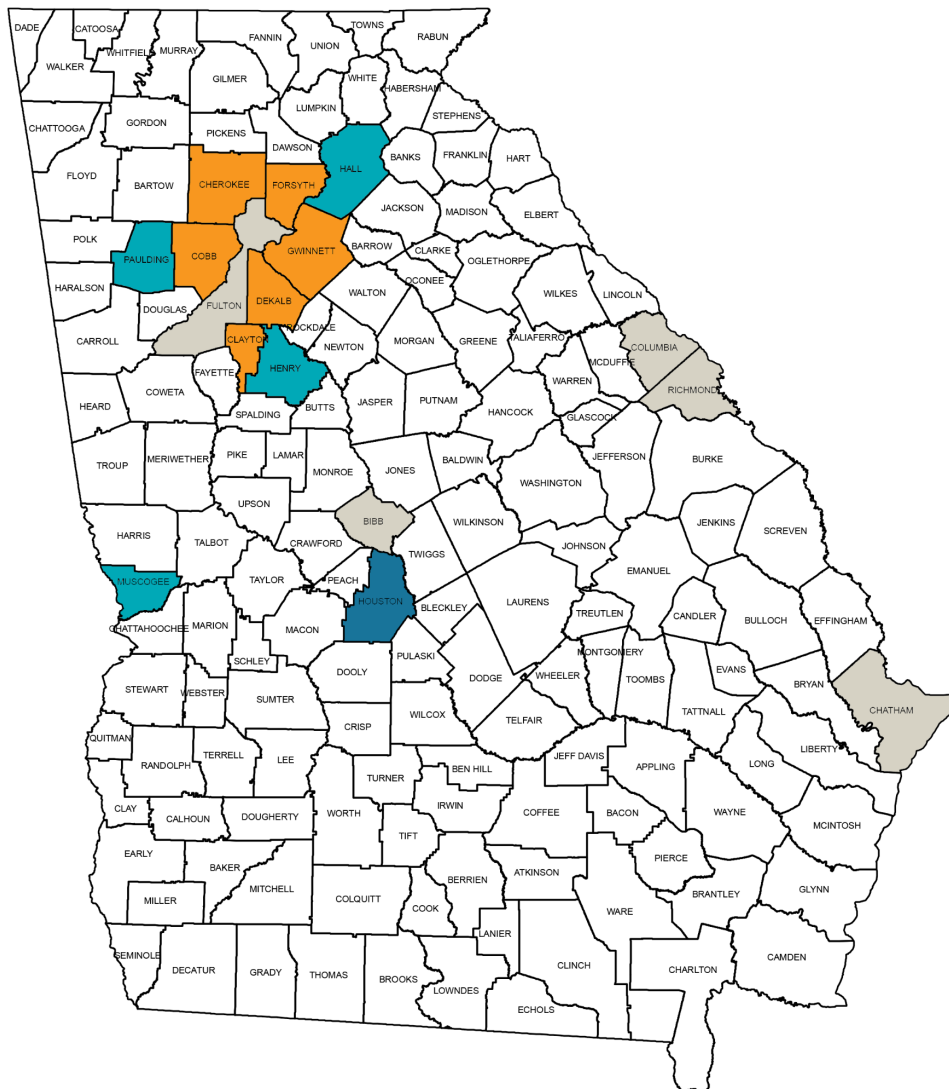
Data from the Center for Media Engagement
Map from Georgia Department of Transportation

Coverage of Georgia Counties with Populations of 50,000-150,000

Among counties with populations of 50,000-150,000, several stand out as being covered less often than expected based on their population size. Coweta and Douglas counties, both part of the greater Atlanta region, received less coverage than anticipated based on their population size. Coweta County is home to The Newnan Times-Herald, which was included in our original dataset for scraping articles. The site does not archive articles in a way that we could easily scrape, however, so we were not able to include them in our study. We suspect, therefore, that Coweta County is better served than the data here indicate.

Lowndes, Newton, Whitfield, Walton, Rockdale, Spalding, Liberty, Effingham, and Camden counties also fall below the dotted line. This suggests that these counties are covered less often than their population size would suggest.

Georgia Counties by Population Size and Media Coverage (Population 50,000-150,000)

Data from the Center for Media Engagement

The map below shows where these counties lie in the state.

Georgia Map of Media Coverage (Population 50,000-150,000)
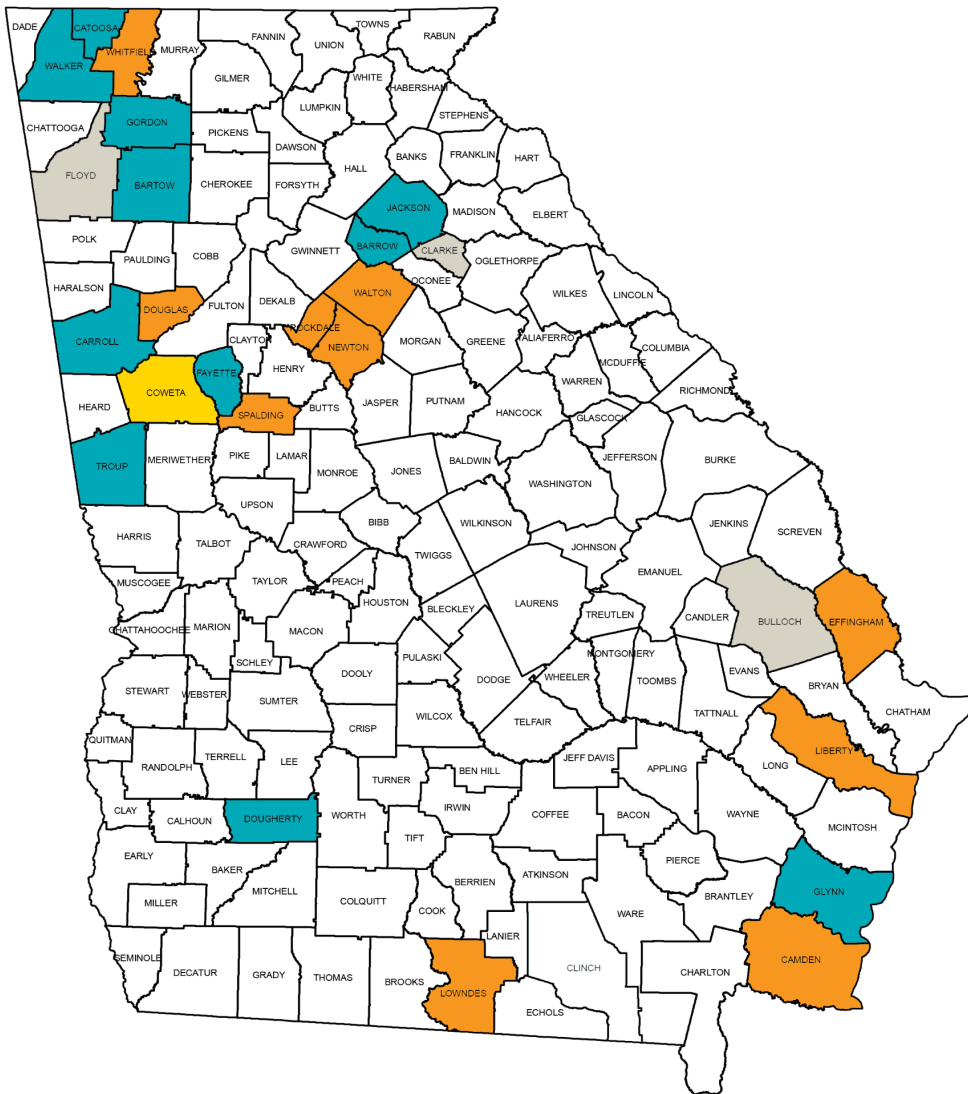
Data from the Center for Media Engagement
Map from Georgia Department of Transportation

We again looked at outlets serving counties that were underrepresented relative to their population size. In every case, there is a news source that specializes in the county overall or in a populous region within the county. This suggests that the issue is not that the county does not have a news source serving it, but rather that the sources in each county are not producing as much coverage as we would anticipate relative to their population size.

News Organizations Serving Georgia Counties Underrepresented in Coverage: Population 50,000-150,000

(among sites where we were able to scrape 25+ articles)

| County	Outlets with Highest Number of Articles Mentioning County	Outlets with Highest Percentage of Articles Mentioning County
Coweta*	Atlanta Journal-Constitution (55) WAGA-TV 5 (Fox) (34)	TheCitizen (Fayette) (6%) Pickens County Progress (5%) Forsyth County News (5%) The Macon County News (5%)
Douglas	Douglas County Sentinel (80) Times-Georgian (including Villa Rican and Gateway-Beacon) (45)	Pickens County Progress (11%) Times-Georgian (including Villa Rican and Gateway-Beacon) (8%)
Lowndes	Valdosta Daily Times (203) WVGA FM 105.9 (118)	WVGA FM 105.9 (60%) Valdosta Daily Times (52%)
Newton	The Covington News (76) The Citizens (Rockdale and Newton) (46)	The Covington News (60%) The Citizens (Rockdale and Newton) (5%)
Whitfield	Dalton Daily Citizen (215) Calhoun Times (126)	Dalton Daily Citizen (43%) Walker County Messenger & The Catoosa County News (8%) Global Atlanta (8%)
Walton	Atlanta Journal-Constitution (75) Gwinnett Daily Post (61)	Walton Tribune (64%) The Covington News (13%)
Rockdale	The Citizens (Rockdale and Newton) (77) Atlanta Journal-Constitution (33)	The Covington News (13%) The Citizens (Rockdale and Newton) (9%)
Spalding	Griffin Daily News (36) The Clayton Crescent (25)	The Clayton Crescent (66%) --
Liberty	Coastal Courier (36) The Frontline (Fort Stewart & Hunter) (28)	The Frontline (Fort Stewart & Hunter) (93%) Coastal Courier (39%)
Effingham	Effingham Herald (56) La Voz Latina (47)	Effingham Herald (57%) La Voz Latina (16%)
Camden	Tribune & Georgian (119) The Brunswick News (50)	Tribune & Georgian (65%) Georgia Trend Magazine (15%)

Data from the Center for Media Engagement

Notes: *The Newnan Times-Herald, which is located in Coweta County, was not included because we were unable to scrape articles from the time period of analysis. -- No outlet with >5% of articles referencing frequently mentioned locations and organizations in the county.

Several other counties may be underrepresented, as the range of possible values falls both above and below the line indicating that coverage is commensurate with the county's population size. For these counties, we conducted a review of the available local media. We found that each county, or a populous region within the county, is served by a media outlet: TheCitizen (Fayette), the Barrow News-Journal and Braselton News (Barrow), the Walker County Messenger and The Catoosa County News (Catoosa),[6] the Times-Georgian (Carroll), The Daily Tribune News (Bartow), The Brunswick News (Glynn), The Albany Herald (Dougherty), JacksonHerald Today (Jackson), LaGrange Daily News (Troup), Walker County Messenger and The Catoosa County News (Walker), and The Calhoun Times and Gordon Gazette (Gordon).

Coverage of Georgia Counties with Populations of 20,000-50,000

Next, we looked at counties with populations between 20,000 and 50,000. As we look at smaller counties, the imprecision of our estimates is more apparent. Among these smaller counties, several stand out as having less coverage than their population might suggest: Laurens, Coffee, Lee, Gilmer, Jones, Mitchell, Crisp, and Decatur counties.

Georgia Counties by Population Size and Media Coverage (Population 20,000-50,000)
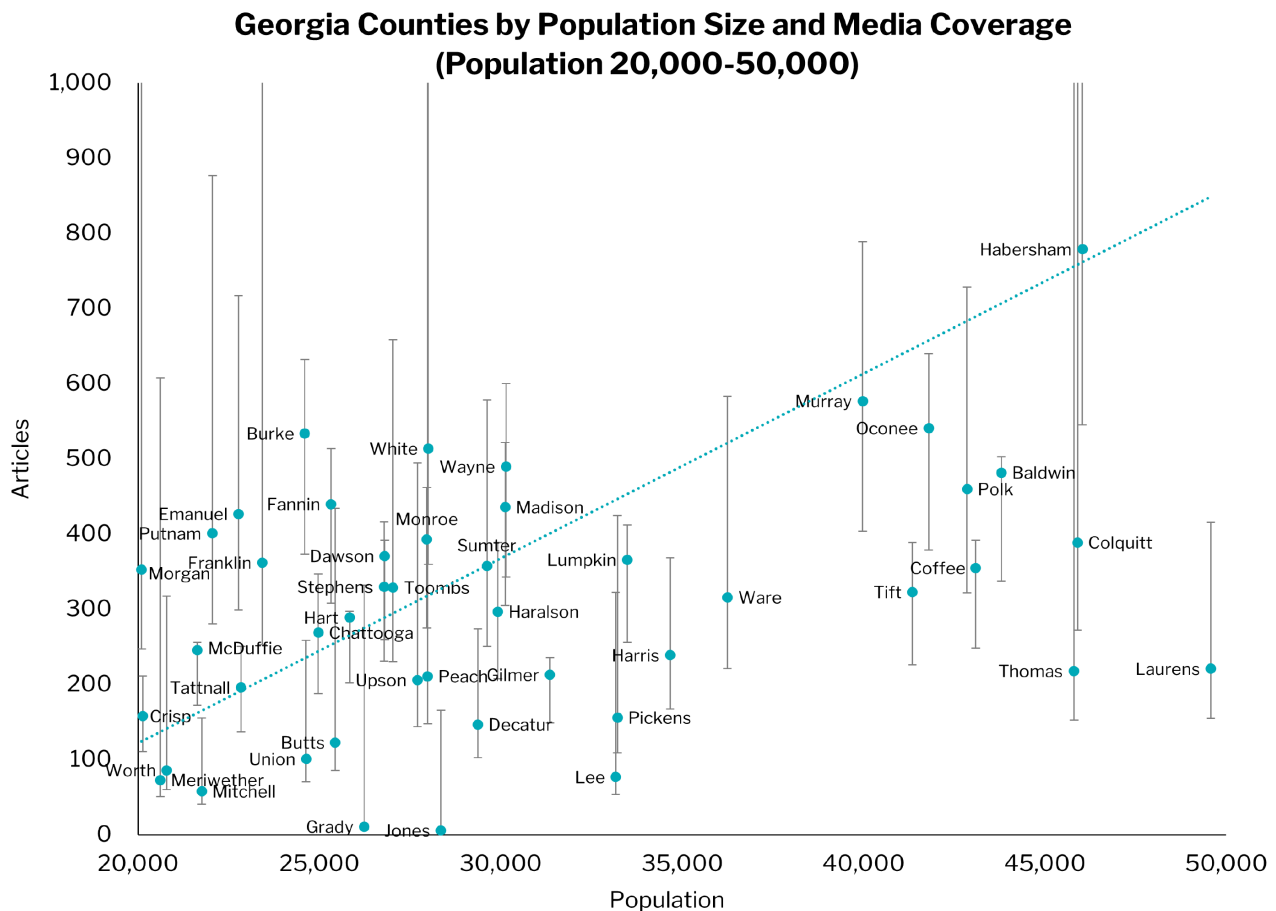
Data from the Center for Media Engagement

Note: Outlier Bryan County with population 44,738 and 4,418 articles (error bars from 3,093 to 4,467) is not shown.

The corresponding map is included below.

Georgia Map of Media Coverage (Population 20,000-50,000)
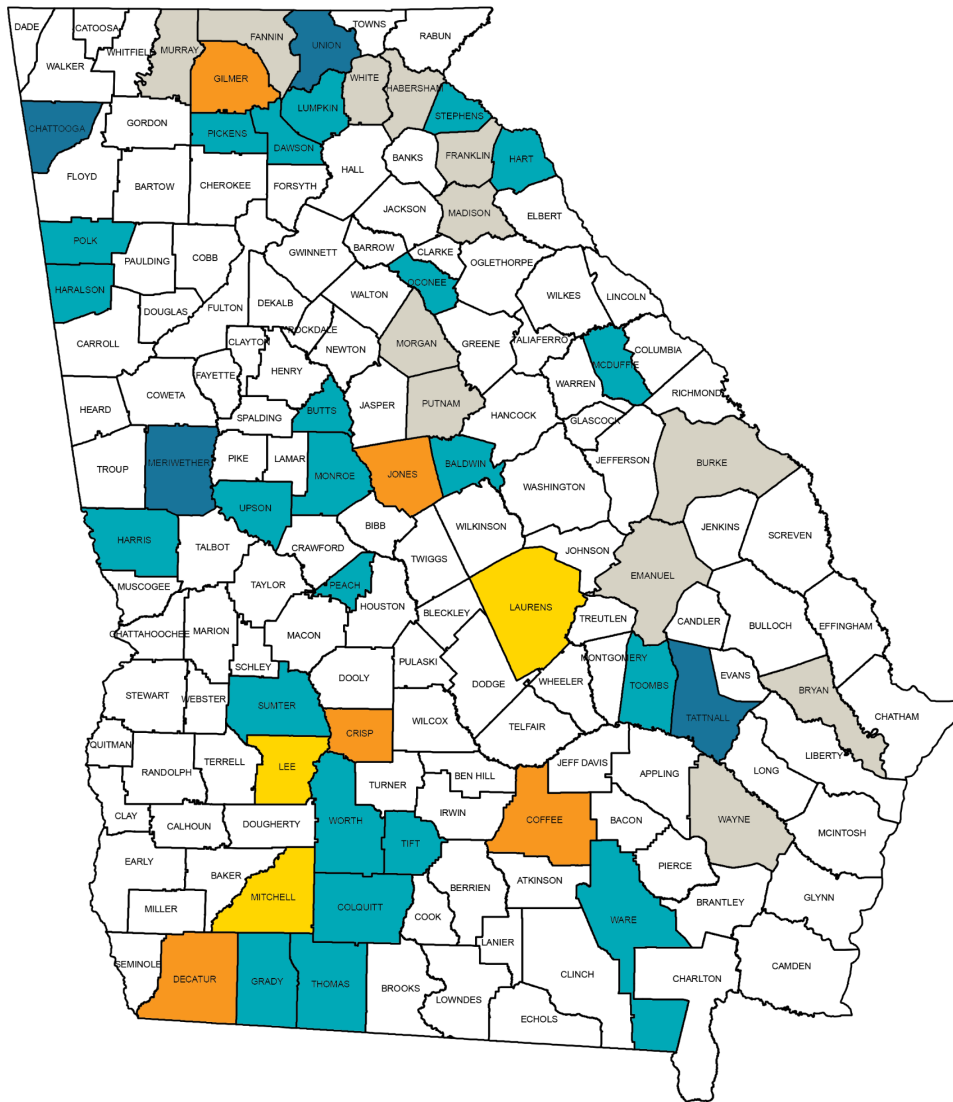
Data from the Center for Media Engagement
Map from Georgia Department of Transportation

Examining outlets that report on underrepresented counties provided important insights. First, three counties have local papers that we were unable to scrape. Laurens County is served by the Courier Herald Today and Mitchell County is served by the Mitchell County Enterprise-Journal, both of which we were unable to scrape because they only have e-editions. Lee County is served by Lee County Ledger, a print publication that we were unable to scrape. It is likely, therefore, that these counties are not as underrepresented as they appear.

Second, many of the other counties have a local outlet serving the area. Coffee County has Douglas Now, Gilmer County has the Times-Courier (Ellijay), Crisp County has the Cordele Dispatch, and Decatur County has the Bainbridge Post Searchlight.

Jones County is served by The Jones County News, and we were able to scrape 176 articles from the site. Very few articles mentioned Jones County locations and organizations detected by our classifier. Based on a review of the site, however, we suspect that Jones County is not as underrepresented as the chart might suggest.

News Organizations Serving Georgia Counties Underrepresented in Coverage: Population 20,000-50,000
(among sites where we were able to scrape 25+ articles)

County	Outlets with Highest Number of Articles Mentioning County	Outlets with Highest Percentage of Articles Mentioning County
Laurens*	Atlanta Journal-Constitution (40) Gwinnett Daily Post (32)	The Champion Newspaper (DeKalb Free Press) (15%) --
Coffee	Douglas Now (97) Atlanta Journal-Constitution (15)	Douglas Now (82%) Georgia Trend Magazine (7%)
Lee*	Albany Herald (16) --	-- --
Gilmer	Times-Courier (Ellijay) (77) Atlanta Journal-Constitution (22)	Times-Courier (Ellijay) (38%) Pickens County Progress (5%) Dahlonega Nugget (5%) White County News (5%)
Decatur	Bainbridge Post Searchlight (34) Atlanta Journal-Constitution (33)	Bainbridge Post Searchlight (49%) --
Jones**	-- --	-- --
Mitchell*	Atlanta Journal-Constitution (19) WFXL-TV 31 (Fox) (8)	-- --
Crisp	Atlanta Journal-Constitution (25) Albany Herald (19)	Cordele Dispatch (51%) Americus Times Recorder (6%)

Data from the Center for Media Engagement

Notes: *The Courier Herald Today (Laurens County), Lee County Ledger (Lee County), and The Mitchell County Enterprise-Journal (Mitchell County), were not included because we were unable to scrape articles from the time period of analysis. **Our analysis suggests that articles referencing Jones County in The Jones County News were under-counted. -- = No outlet with >5% of articles or >10 articles referencing frequently mentioned locations and organizations in the county.

Twenty-seven other counties may be underrepresented relative to their population size as the range of possible values falls both above and below the line indicating coverage commensurate with population size. Of these counties, we flag several based on our analysis of their coverage and the availability of media sources.

- Harris County was mentioned in 194 articles in the neighboring county's LaGrange Daily News.

- Meriwether County is served by The Meriwether Vindicator, however, the site was unavailable during our analysis and it appears to consist mainly of local announcements. The area is also home to the Manchester Star-Mercury, however, there is no website and we were only able to identify archived e-editions through February of 2023.

- Peach County is served by The Leader Tribune, which is not available online.

- Grady County used to be served by The Cairo Messenger, but it is no longer publishing.

- Tattnall County is served by The Journal Sentinel, which we were unable to scrape. An April 2023 review of the website revealed that it had not posted articles since November of 2022.

These counties in particular warrant additional scrutiny.

Coverage of Georgia Counties with Populations of <20,000

Our estimates are less precise in counties with populations of less than 20,000.

Due to the number of counties, we break the data into two charts, one for counties with populations of 10,000-20,000 and one for counties with less than 10,000 residents. As seen in the following chart, five counties seem to have less coverage than we would expect given their population: Pike, Appling, Ben Hill, Long, and Candler.

Georgia Counties by Population Size and Media Coverage
(Population 10,000-20,000)
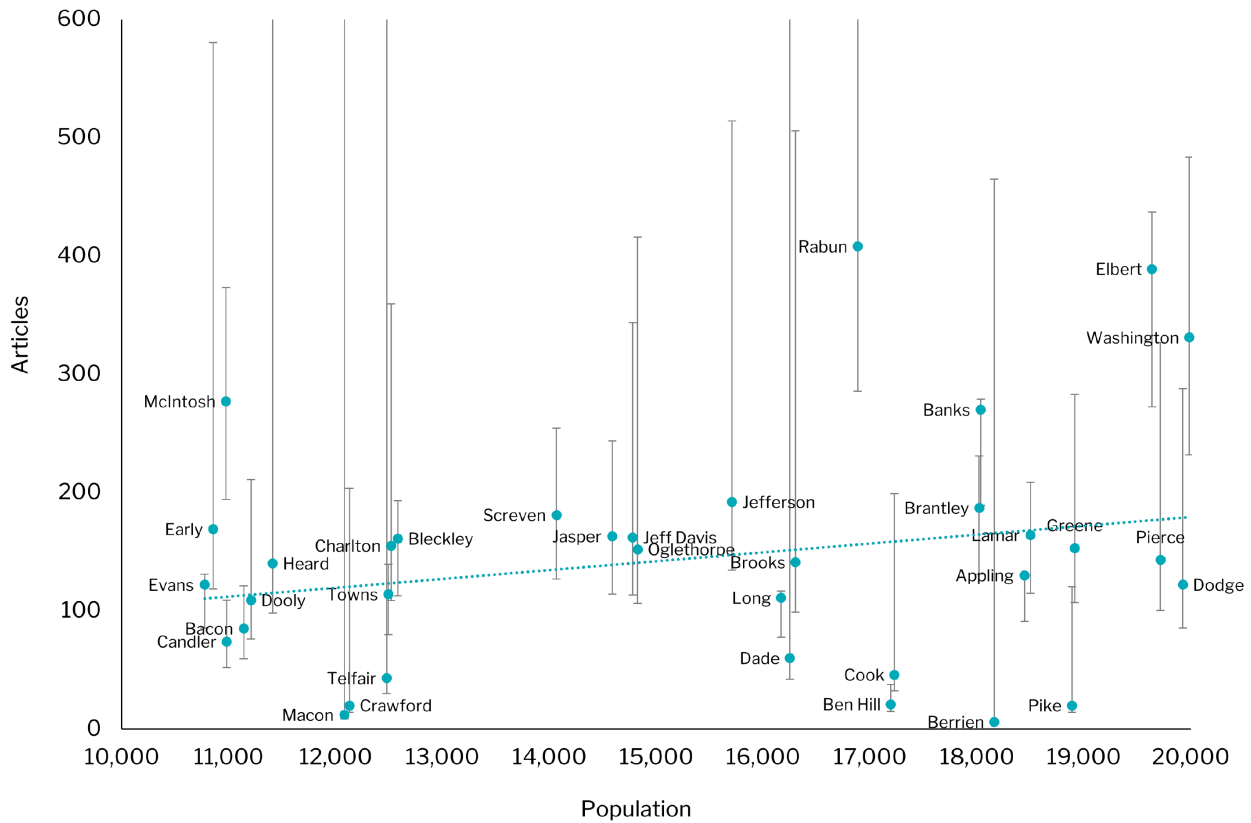
Data from the Center for Media Engagement

Based on our investigation into counties that appeared to be covered less often than their population might warrant, Appling and Candler, and to some extent Long, are served by local news organizations catering to their county or, in the case of Long County, their general area. Appling is served by The Baxley News-Banner, Candler by The Metter Advertiser, and Long by the Coastal Courier.

Pike County is served by the Pike County Journal-Reporter. We were only able to scrape 15 articles from the site, 60% of which mentioned locations or organizations in the county that appeared frequently throughout the state's coverage.

Ben Hill County is served by the Fitzgerald Herald-Leader, however, this is not a site that we were able to scrape. This is a location worth investigating further.

News Organizations Serving Georgia counties Underrepresented in Coverage: Population 10,000-20,000
(among sites where we were able to scrape 25+ articles)

County	Outlets with Highest Number of Articles Mentioning County	Outlets with Highest Percentage of Articles Mentioning County
*Pike	-- --	-- --
Appling	Atlanta Journal-Constitution (35 articles) The Baxley News-Banner (11)	Jeff Davis Ledger (11%) --
**Ben Hill	-- --	-- --
Long	Atlanta Journal-Constitution (28) Coastal Courier (16)	Coastal Courier (17%) --
Candler	The Metter Advertiser (20) Statesboro Herald (18)	Statesboro Herald (7%) The Metter Advertiser (7%)

Data from the Center for Media Engagement

Notes: *Pike County is served by the Pike County Journal-Reporter, however, we were only able to scrape 15 articles from the site, 60% of which mentioned locations or organizations in the county that appeared frequently throughout the state's coverage. **Ben Hill is served by the Fitzgerald Herald-Leader, which we were not able to scrape. -- = No outlet with >5% of articles or >10 articles referencing frequently mentioned locations and organizations in the county.

For these smaller counties, we again looked at cases where the range of possible values falls both above and below the line of the amount of coverage expected based on the population size. This means that these counties are possibly underrepresented. We flag four counties that warrant special investigation: Glascock, Talbot, Terrell, and Macon counties.

- We did not identify a local media source for Glascock, Talbot, or Terrell counties.
- The Citizen Georgian is a source for Macon County, but the Facebook page has been largely inactive since January and the link to the site is broken. The county is also home to country music station WMNZ 1050 AM, but other local sources were not identified.

Few articles mentioned locations or organizations in counties with populations of <10,000. It is important to re-emphasize that we looked only at locations mentioned 10 or more times throughout the coverage and organizations mentioned 10 or more times throughout the articles — for these small counties, this is a more significant hurdle to cross.

As the following chart shows, there is high imprecision when looking at Georgia's smallest counties — those with less than 10,000 in population. Nonetheless, we can still identify several counties that appear to be covered less often than we'd expect based on their population: Twiggs, Treutlen, Miller, and Echols. Further, Georgia's smallest counties had no locations or organizations that met our criteria: Clay, Webster, Quitman, and Taliaferro.

Georgia Counties by Population Size and Media Coverage
(Population <10,000)
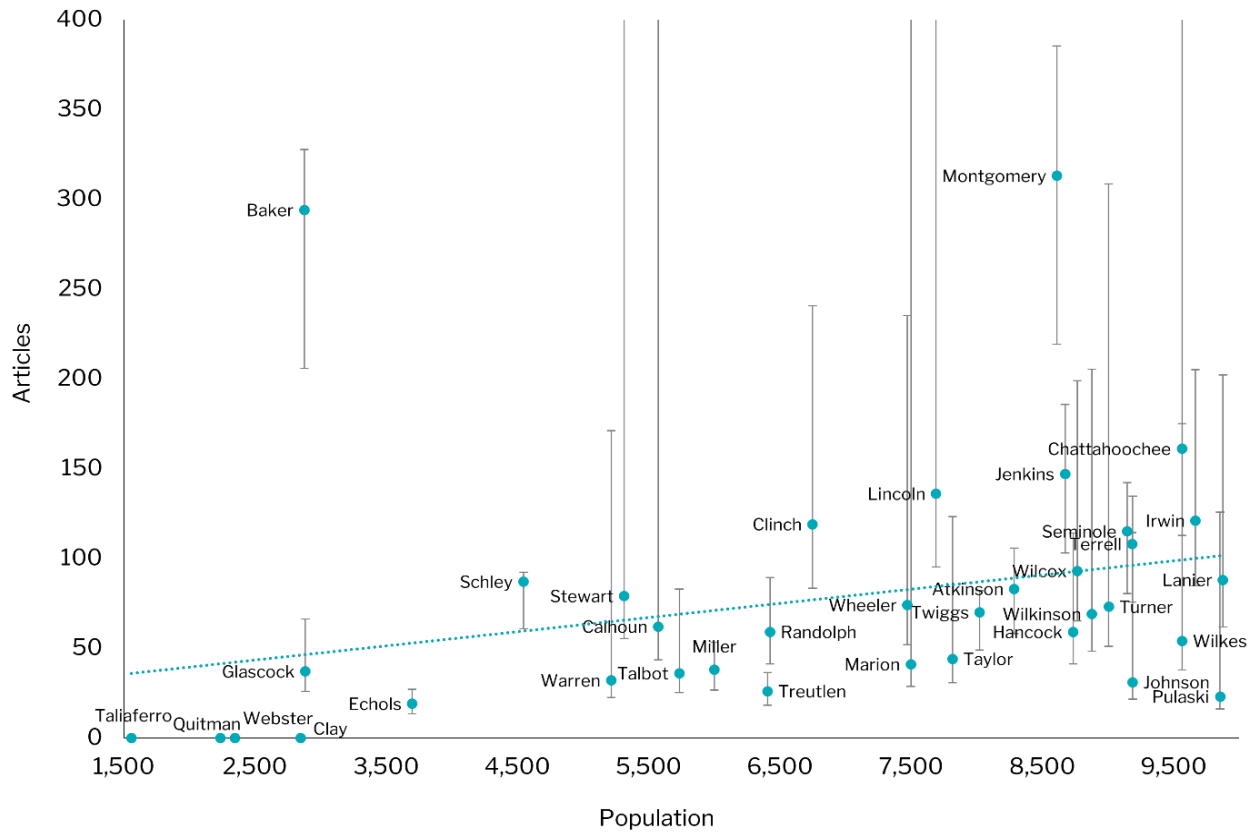
Data from the Center for Media Engagement

Treutlen, Miller, Echols, Twiggs, and Webster each have outlets that cater to the county. Treutlen is served by Tri-County Connector, which is made up of The Montgomery Monitor, The Soperton News, and The Wheeler County Eagle. Miller is served by the Miller County Liberal and Echols is served by the Echols County Echo. Finally, Twiggs County is served by the TimesJournalPost, of which the Twiggs Times New Era is part. Webster is served by The Tri County Journal, which identifies as a weekly newspaper covering Marion, Schley, Chattahoochee, Webster, and Stewart Counties, and The Stewart Webster Journal Patriot-Citizen. We were unable to scrape the websites that serve these counties. We did not identify any sources serving Clay, Quitman, and Taliaferro counties.

For the outlets that we scraped, few covered these least populous counties. We identified more than 10 articles from the Atlanta Journal-Constitution for Twiggs (18 articles) and Miller (12 articles) and from WGXA-TV 24 (Fox) for Twiggs (14 articles). Only The Macon Newsroom had more than 5% of articles about any of the counties, with 6% of articles relevant to Twiggs.

Eighteen additional counties may have coverage below what we would expect based on their population size, as the range of possible values falls both above and below the line. All of these counties had specific outlets that catered to the county or a populous area within the county, although, as the map shows, we did not scrape all of them as part of our dataset (either because they had content that could not be easily scraped or the outlet was not included in our initial list).

To summarize, the results for counties with populations of <20,000 are shown in the map below.

Georgia Map of Media Coverage (Population <20,000)

Data from the Center for Media Engagement
Map from Georgia Department of Transportation

METHODOLOGY

Identifying and Scraping Georgia News Sites

The Center for Media Engagement compiled a list of news organizations in Georgia using several sources. As a starting point, we relied on media lists purchased in 2015 from Easy Media List. The list was reviewed and updated. Our team next used Google to search for news sites in each Georgia county using keywords such as "DeKalb County news" or "Fulton County news." We also searched for outlets in major metropolitan areas using keyword searches such as "Atlanta, Georgia news" or "Macon news." We then pulled a list of news sites that survey participants from Georgia mentioned as part of our research on news deserts. We shared the list with our partners at The Pivot Fund and the organization that commissioned this work, the Georgia News Collaborative, and they contributed additional news sites. This yielded a list of 360 news sites. We note that this list is not exhaustive. Given the strategies we employed, it is likely that there are smaller outlets and non-digital sites that were not picked up using these techniques. It is, however, the most comprehensive list of which we are aware of news sites in the state.

We contracted with Marquee Data, an organization that scrapes media content for clients, to scrape print articles posted to the news organizations' websites between September 15 to October 15, 2022. Marquee Data was able to scrape content from 224 websites. We used CrowdTangle, a Meta-provided tool that allows registered users to download the content of public posts, to pull posts from 12 additional news sites that used Facebook to publish news and obtained data for three of them. Details on the sites that were and were not scraped are included in the following table.

Georgia Sites Evaluated for Inclusion in the Media Analysis

Sites Included[7]

Site scraped	224
Facebook page, posts included	3
Subtotal (sites included)	*227*

Sites Excluded[8]

No articles during the scrape period	28
Facebook page, no posts	9
E-edition / pdf	22
Broken link / website unavailable	16
Doesn't archive / archive not scrapable	12
Duplicate	19
Print only	5
No dates	3
Not news	7
Other[9]	12
Subtotal (sites excluded)	*133*
Total sites	**360**

Data from the Center for Media Engagement

All categories of coverage (e.g., Local News, Obituaries, Sports, etc.) were included in the scrape. Sites that only archived articles for part of the study time period (e.g., articles from October, but none from September) were included.[10] We also included podcasts as long as they were accompanied by substantive text.

In reviewing the data, we found that several newsrooms with the same parent company had substantial amounts of shared content. These included sites on mainstreetnews.com (Banks County News, Barrow News Journal, Braselton News, Jackson Herald, and Madison County Journal), northwestgeorgianews.com (Calhoun Times, Walker County Messenger and The Catoosa County News, Polk County Standard Journal, and Rome News-Tribune), and mdjonline.com (Marietta Daily Journal, Northside Neighbor, South Fulton Neighbor, and Paulding Neighbor). For these sites, we reviewed the URLs returned from the scrapes and for URLs that had a sub-directory specifically for the news source, we only included the URL as part of that particular news source's coverage.

To ensure the validity of the dataset provided by Marquee, we randomly selected 20 sites and 20 random dates from the scrape period (September 15, 2022, to October 15,

2022). Of the initial randomly selected sites, five had no content on their website on the randomly selected day. We conducted another round of testing on five more sites for five more randomly selected days to ensure each test had content. For these dates and sites, a member of the Center for Media Engagement research team manually went to the site and searched for every article published on the day. We then compared the results to the automated technique used by Marquee Data. Across all of the sites and dates, 96% of the articles were either identified by both the Center for Media Engagement and Marquee Data or were identified by Marquee Data and verified by the Center for Media Engagement team.

In our dataset, we randomly sampled 10 articles per source to identify the language used. This technique revealed 17 Spanish sources (including those with mixed English articles; 3,404 articles), one Filipino source (one article), and one Korean source (803 articles). A subset of Spanish and Korean articles were reviewed by a native Spanish and a native Korean speaker, respectively. The analysis confirmed that the translated content through Google Translate delivered the same topics as the original articles. We applied Google Translate for the articles from these sources into English.

Evaluating Topics Covered on Georgia News Sites

To identify which topics to evaluate across the Georgia news sites, we first looked for public opinion polls where Georgians were asked to identify important issues around the same time period as we were scraping the media content. We identified polls from 11Alive, The Atlanta Journal-Constitution, Marist, and Quinnipiac. We compiled the response options for each survey to come up with a list of topics of interest to the public across the state. We used these topics as the basis of our analysis of topics.

Public Opinion Polls Identifying Issues Important to Georgians

11Alive	AJC	Marist	Quinnipiac
Georgia adults 9/3-10/4/22	Likely voters 9/15-16/22	Georgia adults 10/31-11/2/22	Likely Georgia voters 10/7-10/22
Which one of these issues will be most important to you when voting this fall?	Which one of these issues is the most important issue facing the country: threats to democracy, cost of living, jobs and the economy, immigration and border security, climate change, guns, abortion, crime, COVID-19?	From this list, which one of the following is top of mind for you when you think about voting in this November's election?	In your opinion, what is the most urgent issue facing Georgia today: abortion, COVID19, inflation, climate change, health care, election laws, racial inequality, or gun violence?
High Cost of Living / Inflation 28%	Cost of Living 20%	Inflation 43%	Inflation 43%
Economy 19%	Threats to Democracy 17%	Preserving Democracy 18%	Abortion 14%
Abortion 13%	Jobs and the Economy 16%	Abortion 15%	Election Laws 11%
Threats to Democracy 8%	Crime 7%	Crime 9%	Gun Violence 10%
Guns 6%	Abortion 5%	Health Care 9%	Health Care 9%
Immigration 6%		Immigration 5%	Racial Inequality 6%
Access to Health Care 5%			
Crime 5%			
Affordable Housing 4%			
Education 3%			
Supreme Court 1%			

Summarizing across the polls, the following issues were identified and used as the topics we evaluated in the media content.

Important Issues Identified in Polls of Georgians

      1. Abortion

      2. Affordable Housing

      3. Climate Change

      4. COVID-19

      5. Crime

      6. Economy / Jobs

      7. Education

      8. Election Laws

      9. Guns

      10. Health Care

      11. Immigration / Border Security

      12. Inflation

      13. Preserving Democracy / Threats to Democracy

      14. Racial Inequality

      15. Supreme Court

For each category, our goal was to come up with a list of terms that we could use to evaluate whether the topic was mentioned in the media coverage. To do this, we went through several iterations. First, we used Lexicoder Topic Dictionaries that had been developed for several of these issues.[11] We manually reviewed the relevant dictionaries, removing words and phrases that were not relevant for our context (e.g., "Labour Market" using the British spelling). We supplemented these lists with dictionaries created for (a) a project on legislative use of social media at the Annette Strauss Institute for Civic Life and (b) a project from the Center for Media Engagement on the Philadelphia Media Ecosystem, funded by the Lenfest Institute and Independence Public Media Foundation.[12] This left us with a list of 520 lemmatized words and phrases. By lemmatized, we mean that we included a portion of a word (e.g., medic*) that would pick up any other words that contained this portion (e.g., medicaid, medical, medicine, etc.) for the topic of health care.

We wanted to identify words and phrases that were similar to the original list of 520 based on the articles we scraped in Georgia. We used a language model created using the CBOW (continuous bag of words) word embedding technique with uni- and bigrams (single words

and two-word phrases) in the Georgia news articles we scraped. The articles were pre-processed by removing stopwords, lowering cases, and lemmatizing. Through the language model, we de-lemmatized the original 520 words and phrases to come up with 575 exact words and phrases. Words and phrases that had a similarity score exceeding 0.7 (similarities scores vary from 0 to 1) for one of the 575 words and phrases were collected for manual review by the Center for Media Engagement (n = 4,550, not including the 575). We did this in two rounds: in the first round, we evaluated 2,897 words and determined that 372 were potentially relevant to the issues identified in the polling of Georgians. In the second round, we evaluated 1,653 words and determined that 311 words and phrases were potentially relevant to the topics. We combined the 575 original words and phrases and the 372 and 311 words and phrases selected through the language model and then removed duplicated terms and terms that were too generic after lemmatization (e.g., choice from 'my choice' for *abortion*, lay from 'laid off' for *economy and jobs*) resulting in 1,240 words and phrases.

With those 1,240 words and phrases, we randomly selected up to 10 sentences containing the words from the Georgia media coverage that we scraped. Workers on Amazon's Mechanical Turk, an online service that allows requesters to pay people for doing small tasks, who passed a qualification task were asked to evaluate whether the words were related to the overarching issues.[13] They were told:

> Below, you will be asked to read five sentences and evaluate whether certain words in the sentence are related to a specific topic. For example, in the sentence "President Biden signed an executive order today", the word "president" is used in a way that is related to the topic of *politics and government*. However, in the sentence "The company's president announced his retirement today," the word "president" is not related to politics and government.

Each word / sentence combination was rated by two mTurk workers. Words that were judged to be about the issue in at least 80% of the cases were included in the dictionaries. This left us with 596 words and phrases distributed across 15 topics. Below are example terms for each issue.

Example Terms By Topic

Topic	Example Terms
Abortion	Abortion, heartbeat bill, pro choice, pro life, Roe
Affordable Housing	Affordable housing, housing crisis, mortgage, rental unit, tenant
Climate Change	Climate, emission, fossil fuel, global warming, greenhouse gas
COVID-19	Bivalent, coronavirus, COVID, omicron, unvaccinated
Crime	Aggravated assault, bribe, cocaine, crime, drug dealer
Economy / Jobs	Dow, economy, GDP, job, minimum wage
Education	Classroom, education, graduation, student, teacher
Election Laws	Election interference, gerrymander, integrity election, right vote, voter suppression
Guns	AK47, gun, NRA, pistol, rifle
Health Care	Affordable care, cardiologist, clinical, healthcare, mental illness
Immigration / Border Security	Deportation, immigrant, naturalization, refugee, undocumented
Inflation	Consumer price, grocery price, inflation, price increase, rate hike
Preserving Democracy / Threats to Democracy	Assault capitol, big lie, election denier, impeach, overturn result
Racial Inequality	Race conscious, racism, segregation, slavery, white supremacy
Supreme Court	Supreme Court

We then analyzed pre-processed versions of the 187,397 articles and 141 Facebook posts we scraped from the Georgia media outlets searching for these words and phrases. Each article could mention multiple issues.

Identifying Places in Georgia News Stories

To identify which places were mentioned in Georgia news articles, we applied the spaCy entity recognizer to identify four named entities: 'FAC' (buildings, airports, highways, bridges, etc.), 'GPE' (countries, cities, states), 'LOC' (non-GPE locations, mountain ranges, bodies of water), and 'ORG' (companies, agencies, institutions, etc.). The open-source software library spaCy is known, and widely used, for advanced natural language processing. We pulled 60 articles for manual validation, 35 selected at random and 25 containing the word Georgia. We evaluated whether spaCy picked up on the same Georgia locations as a manual coder. The results indicate that spaCy identified 79% of them correctly.

We used slightly different approaches to identify places and organizations. For places, we collected those named entities (FAC, GPE, and LOC) that spaCy identified and were mentioned more than five times across the articles (n = 14,023). The places were reduced by 9,150 entities that had at least one of three available addresses through the Google Maps API: (a) an organic result based on the original name, (b) a result after limiting the address to Georgia, and (c) a result after limiting the address to the U.S. Then we pulled 10 random sentence examples that contained the word only; this means that locations mentioned in fewer than 10 sentences in the dataset were excluded, yielding a final number of locations of 6,184.

In 1,332 cases, the Google API with the addition of "Georgia, USA" returned a location that was not in Georgia. We coded 435 of these cases; 97% were not in Georgia. We, therefore, treated all of these cases as not in Georgia. For 793 cases where the Google API returned the same address for a location regardless of whether we include "Georgia, USA," "USA," or nothing with the location, we used the provided address.

We manually reviewed between 5 and 10 examples from the coverage for the remaining 4,059 locations detected by spaCy. If the first 5 cases were unanimous, coders were instructed to record their determination of whether the location was in Georgia or not; if the first 5 cases were not unanimous, the coders were instructed to review all 10 cases. If 6 or more were about locations that were in the same county in Georgia, we counted it as in Georgia. If 5 or fewer of the locations were about the same county in Georgia, we recorded it as not a consistent Georgia location. In total, 72% of the cases were recorded as not in Georgia.

For organizations, we pulled the named entities (ORG) that spaCy found as organizations and that appeared in 10 times or more articles (n = 11,906). Not all entities flagged as organizations by spaCy were actual organizations. Mechanical Turk workers who completed a qualification task reviewed the 11,906 organizations and determined which were actual organizations. This resulted in 6,440 identified organizations. The list was reduced to 2,465 entities that had at least one available address through the Google Maps API. An example

of organizations that did not have an address in the Google Maps API was entities with too many associated addresses, such as Barnes and Noble and Army National Guard. Many of the organizations mentioned in the coverage were from another state. We then selected the organizations where the first address (i.e., the top address that appeared on Google Maps when searching it on Google Maps) was located in Georgia (n = 699). We manually validated a subset of 50, finding that 98% matched. For the 61 organizations with more than one address, we manually reviewed which address was correct based on five example sentences.

Based on a sample of 100 articles, we compared the counties identified by spaCy to the counties we identified manually. The spaCy technique matched our manual coding 79% of the time.[14] In this analysis, we can err in two ways. First, we can err by overestimating the prevalence of a geographic category when only 8 of the 10 example sentences are about a place in Georgia. Second, we can err by underestimating the prevalence of a geographic category when only 4 of the 10 example sentences are about a place in Georgia.

We wanted to determine how often these two categories of error occurred. To do so, we first took a random sample of 100 entities where we detected that more than 5 of the 10 example sentences referenced the same Georgia county. For example, all 10 examples that contained "Cobb County" were actually about Georgia's Cobb County. On average across the 100 entities, 9.4/10 examples were part of the same Georgia county (median = 10). We then ordered the entities based on the proportion of examples that were part of the same Georgia county. The 95th case had a value of 7/10 examples coded as part of the same Georgia county. The lower value in the range of possible values represents the total number of unique articles multiplied by 70%.

Next, we took a random sample of 100 cases where we determined that 50% or fewer referred to the same Georgia county. We then manually evaluated 10 example sentences for each of these 100 cases, comparing it against the county associated with the address returned from the Google API with Georgia appended.[15] For example, an article including a reference to Salem could have been referencing Salem, Georgia. But in none of the 10 example sentences was the entity Salem referencing Salem, Georgia, or any other entity in Upson County, where Salem, Georgia is located. On average across the 100 entities, 0.58/10 examples were part of the Georgia county referenced (median = 0). We again ordered the entities based on the proportion of examples that were correctly captured by the county returned by Google. The 95th case had a value of 4/10 examples coded as being part of the same Georgia county. We, therefore, calculated that for all entities, based on the Georgia appended Google API address, we could have underestimated by 40%. The upper value in the range of possible values represents the total number of entities that could have been in that county multiplied by 40% added to the predicted number of articles mentioning the location.

ACKNOWLEDGEMENTS

ENDNOTES

[1] Note that the *economy and jobs* and *inflation* are overlapping topics, yet we treat them separately. We do this because two of the polls that we reviewed asked people to decide whether the *economy and jobs* or *inflation* was more important. In both cases, a higher percentage of the public named *inflation* as an important issue as opposed to the *economy and jobs*. In our analysis, we looked at words and phrases about inflation as one category and excluded these from the economy category.

[2] In articles that mention a Georgia location or organization, the distribution of topics was virtually identical: Economy and jobs 38%, education 30%, health care 25%, crime 20%, inflation 10%, COVID-19 9%, affordable housing 7%, guns 7%, climate change 2%, racial inequality 3%, immigration and borders 2%, abortion 3%, Supreme Court 2%, election laws 1%, and preserving democracy 1%.

[3] We confine our analysis to sites with 25 or more articles scraped because sites with fewer articles are more likely to return outlier percentages. For instance, if we only scraped one article from a site and the article was about the economy, 100% of the articles would be about the economy. Sites with fewer articles would therefore be far more likely to appear in the chart. The sites for which we scraped fewer than 25 articles included: 285 South, Atlanta Homes And Lifestyles Magazine, Atlanta Inquirer, Atlanta Latinos Magazine, Atlanta Progressive News, Augusta Magazine, Bokeh Focus, Bright Side, Canopy Atlanta, Capital B, Carroll Star News, Dallas New Era, Discovering Bulloch, Dunwoody Crier, Fresh Take Georgia, Georgia Asian Times, Georgia Health News, Georgia Humanities, Gordon Gazette, Hawkinsville Dispatch and News, Juvenile Justice Information Exchange, KNOW Atlanta Magazine, Lanier County News, Pasa la Voz Savannah, Peach Pundit, Pike County Journal-Reporter, Savannah Business Journal, Southern Cross, Sowegalive, State Affairs (focus on GA coverage only), The Bitter Southerner, The Citizen's Times, The Liberian Dialogue, The Plug, The Xylom, WAOK AM 1380, WCNN AM 680 (ESPN), WFXG-TV 54 (Fox), and Youth Today.

[4] The following sites had between 25 and 100 articles scraped during the time period: Alpharetta Revue & News, ArtsATL, Atlanta Civic Circle, Atlanta Magazine, Atlanta Tribune Magazine, Bainbridge Post Searchlight, Banks County News, Barnesville Herald Gazette, Capitol Beat, Claxton Enterprise, Clayton Crescent, Coastal Courier, Columbus Ledger-Enquirer, Connect Savannah, Cordele Dispatch, Creative Loafing Atlanta (AAN), Dade County Sentinel, Dawson County News, Dekalb Champion Free Press, Donalsonville News, Effingham Herald, El Nuevo Georgia, Fort Gaines/Clay County Georgia, Fort Stewart & Hunter Frontline, Georgia Bulletin, Georgia Outdoor News (GON) Magazine, Georgia Recorder, Georgia Trend Magazine, Gibson County News & Talk, Global Atlanta, Hypepotamus, Jeff Davis Ledger, Jezebel Magazine, Lake Oconee Breeze, The Macon County News, Mercer, Oglethorpe Echo, Pelham Examiner, Pickens County Progress, Simply Buckhead, The Current Georgia, The Emory Wheel, The Macon Newsroom, The Signal, The Technique, Walton Tribune, Washington News Reporter, WCHM FM 96.7, WLBB AM 1330, WLTZ-TV 38 (NBC), and WREK FM 91.1.

[5] If we exclude Chatham and Clayton, the analysis shows that Cherokee County has coverage more proportional to its size.

[6] Although the Walker County Messenger and The Catoosa County News have different print editions, they share a website.

[7] The included sites were: 285 South, Albany Herald, Alma Times, Alpharetta Revue & News, Americus Times Recorder, Appen Media, ArtsATL, Athens Banner Herald, Atlanta Black Star, Atlanta Business Chronicle, Atlanta Civic Circle, Atlanta Daily World, Atlanta Homes And Lifestyles Magazine, Atlanta Inquirer, Atlanta Journal-Constitution, Atlanta Latinos Magazine, Atlanta Magazine, Atlanta Progressive News, Atlanta Tribune Magazine, Atlantan Magazine, Augusta Business Daily, Augusta Chronicle, Augusta Magazine, Augusta Press, Bainbridge Post Searchlight, Banks County News, Barnesville Herald Gazette, Barrow News Journal, Baxley News Banner, Blackshear Times, Blue Ridge News Observer, Bokeh Focus, Brantley Beacon, Braselton News, Bright Side, Brunswick News, Bryan County News, Calhoun Times, Canopy Atlanta, Canton Cherokee Tribune, Capital B, Capitol Beat, Carroll Star News, Charlton County Herald, Chatsworth Times, Claxton Enterprise, Clayton Crescent, Clayton News Daily, Clayton Tribune, Coastal Courier (Hinesville), Cobb County Courier, Columbus Ledger-Enquirer, Commerce News, Connect Savannah, Cordele Dispatch, Covington News, Creative Loafing Atlanta (AAN), Dade County Sentinel, Dahlonega Nugget, Dallas New Era, Dalton Daily Citizen, Dawson County News, Decaturish, Dekalb Champion Free Press, Discovering Bulloch, Donalsonville News, Douglas County Sentinel, Douglas Now - Local News and Events, Dunwoody Crier, Early County News, Eatonton Messenger, Effingham Herald, El Nuevo Georgia, Elberton Star, Ellijay Times-Courier, Emanuel County Live, Fayette Citizen, Flagpole Magazine (AAN), Forsyth County News, Fort Gaines/Clay County, Georgia (FB), Fort Stewart & Hunter Frontline, Franklin County Citizen Leader, Fresh Take Georgia, Gainesville Times, Georgia Asian Times, Georgia Bulletin, Georgia Health News, Georgia Humanities, Georgia Outdoor News (GON) Magazine, Georgia Public Broadcasting, Georgia Recorder, Georgia Trend Magazine, Gibson County News & Talk (FB), Global Atlanta, Gordon Gazette, Grice Connect, Griffin Daily News, Gwinnett Daily Post, Hartwell Sun, Hawkinsville Dispatch and News, Henry County Daily Herald, Hypepotamus, Jackson Herald, Jackson Progress-Argus, Jeff Davis Ledger, Jesup Press Sentinel, Jezebel Magazine, Jones County News, Juvenile Justice Information Exchange, KNOW Atlanta Magazine, La Visión, La Voz Latina, LaGrange Daily News, Lake Oconee Breeze, Lake Oconee News, Lanier County News, The Macon County News, Madison County Journal, Marietta Daily Journal, McDuffie Progress, Mercer, Metter Advertiser, Milledgeville Union-Recorder, Millen News, Monroe County Reporter, Morgan County Citizen, Moultrie Observer, MundoNow, Northeast Georgian, Northside Neighbor, Now Habersham, Oconee Enterprise, Oglethorpe Echo, Pasa la Voz Savannah, Paulding Neighbor, Peach Pundit, Pelham Examiner, Pickens County Progress, Pike County Journal-Reporter, Polk County Standard Journal, Reporter Newspapers & Atlanta Intown (include all subpages), Rome News-Tribune, Saporta Report, Savannah Business Journal, Savannah Morning News, Savannah Tribune, Simply Buckhead, South Fulton Neighbor, Southern Cross, Sowegalive, State Affairs (focus on GA coverage only), Statesboro Herald, The Advance News, The Atlanta Voice, The Bitter Southerner, The Citizen's Times (FB), The Citizens (Rockdale & Newton), The Crossroads Chronicle, The Current Georgia, The Daily Tribune News, The Emory Wheel, The George-Anne, The Liberian Dialogue, The Macon Newsroom, The Plug, The Red & Black, The Signal, The Technique, The Telegraph & Macon, The Times Georgian (including Villa Rican and Gateway-Beacon), The Valley Times-News, The Xylom, Thomasville Times Enterprise, Tifton Gazette, Toccoa Record, Tribune & Georgian, Upson Beacon, Valdosta Daily Times, WABE 90.1 FM, WAFS AM 1190, WAGA-TV 5 (Fox), WALB-TV 10 (NBC), WALG AM 1590, Walker County Messenger & The Catoosa County News, Walton Tribune, WAOK AM 1380, Washington News Reporter, Waycross Journal Herald, Waynesboro True Citizen, WCHM FM 96.7, WCLK FM 91.9, WCNN AM 680 (ESPN), WDAK AM 540, WFXG-TV 54 (Fox), WFXL-TV 31 (Fox), WGAC AM 580, WGCL-TV 46 (CBS), WGIG AM 1440, WGST AM 640 (Fox), WGXA-TV 24 (Fox), White County News, WJBF-TV 6 (ABC), WJCL-TV 22 (ABC), WLBB AM 1330, WLTZ-TV 38 (NBC), WMGT-TV 41 (NBC), WPCH-TV 17, WQXI AM 790, WRBL-TV News 3 (CBS), WRDW-TV News CBS 12 NBC 26, WREK FM 91.1, WRFC AM 960, WRGA AM 1470, WSAV-TV 3 (NBC), WSB AM 750, WSB-TV 2 (ABC), WSST-TV 51, WTGS-TV 28 (Fox), WTKS AM 1290, WTOC-TV 11 (CBS), WTVM-TV 9 (ABC), WUGA FM 91.7, WUPA-TV 69 (CW), WUVG-TV 34 (Univision), WVCC AM 720, WVGA FM 105.9, and Youth Today.

[8] The excluded sites were (note that some were duplicated): AccessWDUN, African-American Tri-City Newspaper, Associated Press (AP) Atlanta Georgia, Atkinson County Citizen, Atlanta Interfaith Broadcasters, Atlanta Intown, Atlanta Jewish Times, Atlanta Press Club, Atlanta Voice, Atlantan Brides Magazine, Avant-Y News, Baldwin Bulletin, Barnesville Dispatch, Barnesville Herald Gazette, Berrien Press, Cairo Messenger, Camilla Chamber, Camilla Enterprise, Cartersville Daily Tribune News, Catoosa County Messenger, Chattvoice, Citizen Georgian Newspaper, City of Ellaville, City of Reynolds, Clinch County News, CNHI, Cochran Journal, Columbia County News-Times, Cusseta Neighborhood Watch FB Group, Danville Newsbreak, Darien News, Dodge County News, Dublin Courier Herald, Echols County Commissioners, Echols County Echo, Ellaville Schley Chamber of Commerce, Emory News, Fayette County News, First Ammendment Foundation, Fitzgerald Herald Leader, Fort Valley Leader Tribune, Fulton County Daily Report, Georgia Backroads Magazine, Georgia Front Page, Georgia News Break, Georgia News Lab, Georgia Post, Georgia Press Association, Georgia Runner Magazine, Glennville Sentinel, Greensboro Herald Journal, Ground Truth Project, Hinesville Coastal Courier, Houston Home Journal, Irwinton News FB Group, Johnson Journal, Kontrol Magazine, KSU Center for Sustainable Journalism, Lee County Ledger, Long County Press, Louisville News and Farmer and Wadley Herald, Macon Newsroom, Macon Telegraph, Main Street Camilla FB Group, Manchester Star-Mercury, Meriwether Vindicator, Middle Georgia Informer, Miller County Liberal, Mitchell County, Monticello News, Myer-Henderson Hall's Pentagram, Neighbor Newspapers, Newcomer Atlanta Magazine, Newnan Times Herald, News 4 Georgia FB Group, Newton Citizen, North Georgia News, Notivision, Ocilla Star, Pivot Fund, PushBlack, Real Facts News, Saint Simons Islander, Sandersville Progress, Savannah Herald, Savannah Magazine, Senior News Georgia, Southern Community Papers, Sowega Southern Tribune, Sparta Ishmaelite, Stewart Webster Journal Patriot-Citizen, Summerville News, Sylvania Telephone, Tattnall Journal, Telfair Enterprise, Terrell County Chamber of Commerce, Terrell County FB page, The Atlanta Journal-Constitution, The Columbus Times, The Covington News, The Lincoln-McCormick Journal Messenger, The Oglethorpe Echo, The Quitman Free Press, The Stewart Webster Patriot, The Twiggs Times New Era, The Union-Recorder, The Way with Anoa, The Wilcox Marketer, The Wilkinson County Post, The Wiregrass Farmer, Towns County Herald, Tri County Journal, Warrenton (Ga.) Watch, WATC-TV 57, WATL-TV 36 (MyTV), WBLJ AM 1230, WCAC-LD, WDDQ FM 92.1, WDUN AM 550, WGAU AM 1340, WGKA AM 920, WGTV-TV 8 (PBS), Where Atlanta Magazine, Wiregrass Farmer, WJBB AM 1300, WLOP AM 1370, WMAC AM 940, WMAZ-TV 13 (CBS), WPAX AM 1240, WPPR FM 88.3 (NPR), WQXI AM 790, WRAS (Ga State), and WSVH FM 91.1 (NPR).

[9] Examples of the miscellaneous other reasons include sites that didn't have any content online or sites with prohibitively expensive subscription fees.

[10] We scraped more than 10 articles from the following sites and did not find any articles from September, but did retrieve articles from October, possibly indicating the lack of a complete archive: Commerce News, Discovering Bulloch, and Jeff Davis Ledger. For the following sources, the ratio of articles from October was 1.5 times September, which again could indicate incomplete archiving: Atlanta Civic Circle, Atlanta Magazine, Donalsonville News, Douglas County Sentinel, Georgia Asian Times, Griffin Daily News, Marietta Daily Journal, Morgan County Citizen, and The Signal.

[11] Albugh, Quinn, Julie Sevenans and Stuart Soroka. 2013. Lexicoder Topic Dictionaries, June 2013 versions, McGill University, Montreal, Canada. See https://www.snsoroka.com/data-lexicoder/

[12] There was only one category where we did not have an existing dictionary from which to draw: Supreme Court. For this topic, we searched only for the exact phrase "Supreme Court."

[13] The qualification task asked workers to rate clear examples of words/phrases that were, and were not, indicative of particular issues. Anyone not rating all of the words correctly was not given the qualification.

[14] We experimented with using GPT. GPT 3.5 was correct 70-75% of the time across different trials. GPT 4.0 was correct 80-85% of the time. GPT 4.0 is not yet publicly available, but we suspect that this option will be a superior approach in the future.

[15] We chose this address because it was the most common when a Georgia address was identified (82% of the cases were coded as matching the Google API address with Georgia appended).