

A STUDY OF LEGACY U.S. NEWSPAPERS'
DIGITAL SUBSCRIPTION PRICES

A Thesis
presented to
the Faculty of the Graduate School
at the University of Missouri-Columbia

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
TRACY M. COOK
Martha Steffens, Thesis Supervisor

DECEMBER 2017

The undersigned, appointed by the dean of the Graduate School,
have examined the thesis titled

A STUDY OF LEGACY U.S. NEWSPAPERS'
DIGITAL SUBSCRIPTION PRICES

presented by Tracy M. Cook,
a candidate for the degree of master of arts,
and hereby certify that, in their opinion, it is worthy of acceptance.

Professor Martha Steffens

Professor Tom Warhover

Professor Sounak Chakraborty

Professor Barbara Cochran

ACKNOWLEDGEMENTS

I would like to thank the following people who helped me with this thesis.

My four committee members: chair Martha Steffens, for introducing me to the field of media economics with her undergraduate course Changing Media Business Models in Spring 2015. She continually provided a wealth of ideas and contributed to further thought on this project. Tom Warhover, whose leadership at the Columbia Missourian encouraged me to pursue study of sustainable business models for legacy media organization. Sounak Chakraborty, for teaching me about statistical pricing methods in his graduate course Statistical Methods for Customized Pricing in Spring 2017, and for providing guidance in the methods and analysis of this report. Finally, Barbara Cochran, for supporting my academic and research goals throughout this Fall 2017 semester spent in Washington, D.C.

I would also like to thank the team of people at the American Press Institute, specifically Tom Rosenstiel and Jeff Sonderman, for providing the time and material resources for my data collection and analysis, as well as John Murray, vice president of audience development at the News Media Alliance, for helping me navigate the data reported by the Alliance for Audited Media.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	ii
LIST OF FIGURES	vi
ABSTRACT	vii
Chapter	
1. INTRODUCTION	1
Purpose.....	2
Theory.....	3
Concepts.....	5
2. LITERATURE REVIEW	7
Consumers.....	7
Value of print	8
Value-added content	9
Other indicators.....	10
Summary	10
Publishers.....	11
Models.....	13
Individualized demand models	13
Micropayments	14
Metered model	15
Crowd funding	15
Other models.....	15

Challenges.....	16
Research Questions.....	16
3. METHODS.....	17
Data Collection.....	17
Survey.....	18
Survey questions.....	18
4. ANALYSIS and RESULTS.....	22
Overview.....	22
Standardized Pricing Structures.....	23
Subscriber perks.....	25
Partnerships.....	26
Pricing by Designated Market Area.....	26
Pricing by Circulation.....	27
Pricing by Ownership.....	30
Advance Publications Inc.	32
Berkshire Hathaway Inc.....	32
Gannett Co.	32
The McClatchy Co.	32
Tronc Inc.	32
Geographic distribution by ownership.....	32
Consideration factors for setting prices.....	33
Introductory offers.....	34
Content verticals.....	35

Additional findings	35
5. CONCLUSIONS.....	36
Significance.....	36
Limitations	37
Promotions	37
Barriers to entry	37
Scale.....	38
Bundled content	38
Further Discussion	38
Limiting of ads for premium users.....	38
Price discrimination by location	38
Effect prices have on consumers’ pockets	39
Content recommendations based on subscribers’ preferences.....	39
REFERENCES	40
APPENDIX A.....	43
APPENDIX B.....	45
APPENDIX C	102

LIST OF FIGURES

Figure

1. News organization distribution by state.....	23
2. Digital subscriptions by charging frequency	24
3. Standardized digital subscription prices at 100 U.S. news organizations.....	25
4. Digital subscription prices by DMA	26
5. Digital subscription prices by print circulation.....	27
6. Digital subscription prices by print circulation (< 100,000).....	28
7. Digital subscription prices by print circulation (100,000 – 200,000).....	29
8. Digital subscription prices by print circulation (> 200,000).....	30
9. Distribution of news organizations owned by top 5 companies	31
10. Range of standardized digital subscription prices by ownership.....	31
11. Distribution of news organizations not owned by top 5 companies	33
12. Ownership of news organizations	33
13. Factor importance in determining digital pricing structures.....	34
14. Conversion rates of free-trial subscribers	34
15. Conversion rates of discounted-trial subscribers	34

A STUDY OF LEGACY U.S. NEWSPAPERS'
DIGITAL SUBSCRIPTION PRICES

Tracy M. Cook

Martha Steffens, Thesis Supervisor

ABSTRACT

Disruptive innovation of the newspaper industry is forcing publishers to reconsider reader revenue models as, on the whole, print subscription rates continue to fall and digital advertising revenue rates fail to pick up the slack. This presents a business challenge on several fronts, including that reduced revenues precipitate labor cost reductions. Over the past decade, that has meant newsroom-wide staff layoffs.

This study examines prices of digital content subscriptions at 100 legacy regional newspapers across the United States. The purposive sample comprises websites of newspapers from 41 states and Washington, D.C. Prices were recorded from the sites' subscription web pages and analyzed with other variables such as market area, print circulation and parent company. The standardized weekly price of digital access for the 100 sites ranged from \$0.46 to \$7.85. The median digital subscription price was \$2.31 per week. Market area and print circulation were shown to not have a direct correlation with digital subscription price. In some cases, parent company had a direct effect on subscription price, as prices were standardized across the companies' local properties. In a survey, producers said market testing and ownership mandates were the most important considerations when setting price, followed by industry norms, then competitor prices.

Keywords: digital subscription, paywall, pricing, reader revenue, subscriber revenue

Chapter 1: Introduction

The past two decades have seen major changes for newspapers in the United States and worldwide. The advent of content distribution via the internet means print editions are becoming less and less relevant, or even necessary, to some customers. Managers of daily newspapers in major metropolitan areas have made the switch to digital-first production, publishing content online without first waiting for it to appear in the next day's print edition of the newspaper. But with this switch comes a change in revenue flow, as readers balk at the idea of paying for online subscriptions and digital advertising cannot command the same rate newspapers charge for print advertising.

The dual-revenue model that combines advertising and subscriptions, historically typical among legacy newspapers, is weakening as print subscription numbers and their accompanying revenue streams have fallen. A 2017 Pew Research Center analysis found weekday circulation numbers for U.S. daily newspapers in 2016 declined for the 28th consecutive year (Barthel 2017). Additionally in 2016, both weekday and Sunday print circulation numbers fell to their "lowest levels since 1945" (Barthel 2017). Advertising has also taken a revenue hit, as unlimited web space has driven down the cost of online ads that previously were worth much more money in print. Facebook and Google take in the majority of online advertising revenue. Reuters reported in July 2017 that in the U.S. market, no other digital advertising platform had a market share above 5 percent (Ingram 2017). The newspaper industry alone saw "a double-digit decline in advertising revenue" in 2016, and its \$18 billion in revenue is just more than a third of the estimated \$49 billion it was worth a decade ago (Barthel 2017), two years after Facebook was founded

in 2004. Accounting for these declines, the primary way to sustainably increase revenue for these formerly print-only news organizations is to entice subscribers to pay for a digital subscription — but at what price does that occur?

The following study assesses 2017 subscription costs and pricing strategies of digital news content produced by 100 legacy regional news organizations across the United States to understand how much news organizations charge for access to their digital content, and how variables including market size, circulation figures and ownership affect price. This digital content access includes but is not limited to websites, mobile applications, and print newspaper replicas that are commonly called e-editions. The study also includes a survey of publishers and directors of circulation and audience development to better understand how their organizations set digital subscription prices.

Purpose

The purpose of this study is to determine and analyze in aggregate: digital subscription pricing structures by U.S. newspaper sites and how those structures are determined. The literature reviews covers various online payment and subscription models, comparing and contrasting them to see how their differences may affect organizational revenue streams. This topic deserves scholarly attention because news organizations must find a way to sustain their revenue streams, whether that is through growing their subscriber bases or adapting their business models — or a combination of the two. Producers and marketers of online news content have struggled to perfect efficient pricing models, as shown by falling profits and declines in subscription rates and advertising revenue.

There have been academic studies on newsroom revenue streams, but most findings are based on consumers' willingness to pay. Additionally, prior research must be updated to reflect the changing modes by which digital news content is produced, how it is priced, and how audiences consume it. As cited studies show, producers are reinventing existing products and producing new ones all the time, in the form of websites, newsletters and mobile applications, among others.

Theory

This study incorporates theories of mass communication and economics. Legacy newspapers have been slow to adopt pricing models for their digital news content, a problem that stems from what Clayton Christensen would call a disruptive innovation to the newspaper industry: the onset of online publishing and distribution. Christensen's theory explains that "existing companies have a high probability of beating entrant attackers when the contest is about *sustaining* innovations. But established companies almost always lose to attackers armed with *disruptive* innovations" (Christensen 2004). Unlike the combination print and digital platforms produced by legacy media organizations, platforms native to the internet do not face the challenge of balancing declining print revenues with increasing online demands. In that way, native online platforms have an advantage in disruptive innovation.

Christensen's theory is tied to that of uses and gratifications, which explains that people intentionally seek out certain media to satisfy their specific needs. This audience-centered approach assumes people are active, not passive, consumers of media. Producers must meet the needs of their consumers, and their pricing structures should reflect that. It

is the consumers, or online news subscribers, whose payments sustain such models. If subscribers' needs are not being met, they will likely be unwilling to pay for content.

Conversely, those who see an added benefit of paying for premium access may be more inclined to enter their credit card information. Subscription-based music streaming service Spotify, for example, offers a \$9.99 per month (\$4.99 per month for students) premium subscription that includes no advertising. The Sweden-based company reported it had 60 million subscribers as of July 2017 (Spotify 2017). It also reported having 140 million active users as of June 2017. If at that time all subscribers were considered active users, the company would have secured a paid subscriber conversion of nearly 43 percent. These metrics are harder to track for digital news websites because most do not require creating an account for nonpremium use (though it is likely most regional newspapers do not see paid-for conversion rates of more than 40 percent).

Relevant economics theories include elasticity of demand, or how sensitive consumers' demand for online news content is to changes in price. Determining this sensitivity would give insight into how likely consumers are to seek substitutes if a good, specifically a digital news subscription, experiences a change in price. This is important because as subscription price rates rise, consumers may be inclined to cancel their subscriptions altogether. Also, price thresholds differ by consumer, so publishers looking to maximize their revenue and audience reaches may consider price discrimination by various demographics when setting their models. As cited in the literature review, some consumers expect digital news content to be free, meaning producers have a choice to monetize this audience solely through advertising revenue, or focus primarily on serving those customers who are willing to pay.

Concepts

News organizations have been implementing online paywalls, which restrict site access to paying users, or subscribers, to incentivize consumers to pay for digital content, including text stories, photos, videos, data visualizations, comments, etc. Paywalls and their accompanying subscription fees vary across websites and ownership groups, but their purpose is the same: to block nonpaying users from viewing content in an effort to incentivize those users to pay for content. They also vary in what they allow non-paying users to access but can be split into two main categories: hard paywalls and soft paywalls. Hard paywalls allow minimal to no content access without a paid subscription. For example, the Honolulu Star-Advertiser's website supplies a story's headline and lede, followed by a hyperlinked invitation¹ to "read more." Viewers must log in through a paid subscription account to read the rest of the story. The Wall Street Journal² shows story headlines and decks, or summaries, on its website's homepage. Most stories, though, are accompanied by a key icon³, indicating that the story is behind the Journal's paywall. Upon clicking a key-marked headline, the page refreshes to the story but shows only the first couple grafs before inviting the visitor to either subscribe or sign in "to read the full story." Such is typical of a hard paywall. Soft paywalls are more flexible and typically show users a greater selection of content without requiring them to sign in. This may include a limited number of free articles per month, as the New York Times and the Dallas Morning News, among others, allow on their sites. Some soft paywalls may include programs such as Google Surveys, a market research tool that invites users to

¹ Screenshot listed in Appendix A.

² The Wall Street Journal was not included in this study's sample.

³ Screenshot listed in Appendix A.

take an online survey in exchange for news content. Completed surveys then translate into revenue for the news publisher.

Micropayments are another recurring concept in the literature. Geoffrey Michael Graybeal and Jameson Lee Hayes (2011) defined micropayments as payments of “a penny or less.” In another study, Chyi (2012) proposed a model in which consumers made micropayments of \$0.19 per article. The idea is payments are small enough that consumers may not see a negative impact on their pockets, but in large-scale aggregate form, they can provide a dependable revenue stream for news producers and publishers.

Willingness to pay, often referred to in the literature as WTP, is a measure of a person’s likeliness to subscribe to, or otherwise pay for, online news content. The literature review covers several factors that may indicate or influence a person’s willingness to pay for online news, including age, gender, education, income and format preference, among other variables.

Digital news media is an inferior good (Chyi 2005). Inferior goods are those that experience a decline in quantity demanded as a person’s income rises. They are the opposite of normal goods, which see a rise in quantity demanded as income rises. In context, this means that as income rises, the quantity demanded of digital news media falls (Chyi 2005). Chyi’s 2012 findings show again that online news is an inferior good, while print news is perceived as a normal good (Chyi 2012).

A revenue shift from digital advertising to subscribers requires an emphasis shift within newsrooms from clicks and page views to loyal relationships with audiences sustained through substantive journalism. This change in emphasis is important both in retaining subscribers and attracting new ones.

Chapter 2: Literature Review

Previous research approaches the topic of paying for online content from several angles. Some articles focus on consumers, while others focus on the producers' perspectives. A few provide international perspectives. Others propose models for managers to implement in their newsrooms.

In a piece about the state of the journalism industry, Robert G. Picard (2014) examines subscription and revenue numbers of legacy news outlets including the New York Times, the Globe and Mail, the Times (London), the Los Angeles Times, the Miami Herald, the Seattle Times, the Philadelphia Inquirer, the Texas Tribune, and the St. Louis Post-Dispatch. He writes that the rise of new news providers — some of which may be disruptive innovators — strips wealth “from the established enterprises of the news industry” (Picard 2014). And while journalists are producing more content now than ever before, “the scope of what (news markets) cannot offer is widening today” (Picard 2014).

Consumers

Generally, consumers seem unwilling to pay for what they think should be (or what previously has been) free. Still, there are several factors producers must consider when attempting to determine a reader's willingness to pay. As some of the studies show, some of these factors are in conflict with one another. Overall, understanding how a consumer's identities, tastes and preferences align with their willingness to pay will provide news organizations guidance as to how to more efficiently target readers with their business models.

In a 2005 study, Chyi found that of demographic variables gender, age, education and income, age was the only variable related to a consumer's intent to pay for online news. Age and willingness to pay were negatively correlated, meaning younger people were more likely than older people to pay for content (Chyi 2005). In 2013, Chyi and Angela Lee studied online news consumption to examine preference, use and paying intent among participants, who were stratified by age and gender. Age and news interest were the strongest predictors of paying intent (Chyi and Lee 2013). A problem with these results, however, is that while younger people were more likely to pay, they also demonstrated a comparative "lower interest in news" (Chyi and Lee 2013). Goyanes also found a statistically significant negative relationship between age and paying intent (Goyanes 2014).

Gender was not a significant indicator of willingness to pay for online news (Goyanes 2014). Level of education had no effect on user preference of six proposed payment models (Chyi 2012). Regression analysis in previous research has shown income is unrelated to one's paying intent for online news (Chyi, 2005). Goyanes found a relationship with income, but only that those earning more than \$150,000 were more likely to pay for news than those earning \$75,000 or less (Goyanes 2014). With regard to income's relationship with news consumption (as opposed to paying intent), analysis of data has shown that consumption of online news (quantity demanded) decreased as income increased (Chyi and Yang 2009). In other words, income inelasticity was negative. This relationship makes online news an inferior good.

Value of print. Although publishers have been making the push to an online-first publishing mindset, or in some cases, online-only, research shows consumers (at the time

of study) still attached a higher value to print products than online products. In one study, online users accessed the print version of their paper more often than the online version by a 2:1 margin (Chyi 2012). Respondents were also more likely to pay for a print news product than they were for online news (Chyi 2012). The same study found people were even less likely to pay for news through apps (Chyi 2012). These results raise the questions: What aspects of print content make it more valuable to consumers than online? What factors do people value more in print: the format, the design, story selection, a tangible product, etc.?

Value-added content. Consumers require incentives to take out their wallets (Chyi 2005). Such an incentive could include the elimination of substitute content. While it may be near impossible for news organizations to extinguish all competing substitutes, they could direct more energy toward creating content unique to their outlet.

People are more likely to donate or pay for stories that provide “practical guidance for daily living,” including public health, local city infrastructure, etc. (Jian and Usher 2014). Specifically, a story about public health is 1.52 times more likely to be crowd-funded than a story not about public health (Jian and Usher 2014). Stories that cover more general content, including government and politics, do not elicit the same response (Jian and Usher 2014).

Newspapers were unlikely to charge for digital news access between 1999 and 2001 because “they did not believe general-interest news sites could rely on the subscription model as WSJ.com did” (Chyi and Sylvie 2001). This indicates that the product offered by the Wall Street Journal is substantially different from that offered by other news domains, in that people are willing to pay for it despite not wanting to pay to

access other digital news sites. In short, consumers value the “substantial difference” in content that WSJ offers (Chyi and Sylvie 2001).

Other indicators. Chyi found additional explanations of why people pay for content include reasonably low fees, costs paid by a third-party, convenience, and usefulness related to student work (Chyi 2005). Online news use and format preference were weaker indicators of paying intent (Chyi and Lee 2013). Still, those who consume news most often are also more likely to be willing to pay for news (Graybeal, Sindik et al. 2012). People who expressed high interest in news responded positively to all six proposed payment models: a free iPad with a two-year subscription for \$720 (\$30 per month); micropayments of \$0.19 per article; a metered system of 10 free articles per week plus \$0.99 per additional article; a day pass of \$0.99 per day; customized content by which users choose news sections priced at \$0.99 per month; and online content bundled with print for \$33 per month (Chyi 2012). This indicates that heavy news users are much more able to overcome the costs of having to pay for content.

Summary. Even given example models, consumers showed “extremely low” willingness to pay for online news (Chyi 2012). Not only were few people responding to paid content in the mid-2000s, but most indicated no intent to pay for digital news content in the future (Chyi 2005). A combined 78 percent of respondents said they were either “unlikely” or “very unlikely” to pay for online news in the future (Chyi 2005). In response to a 2010 survey, 13 percent of people said they were either likely or very likely to pay for online news (Chyi 2012). Those who were most likely to pay were “young, male, had high interest in news, and were already active online news users” (Chyi 2012). A study published in 2012 found that 65 percent of respondents were “not at all willing”

to pay for online news content (Graybeal, Sindik et al. 2012). At that time, only 7.6 percent were somewhat willing to pay, and none self-selected “very willing” (Graybeal, Sindik et al. 2012).

Publishers

Nearly a quarter of U.S. newspaper publishers think their online models will “slow or stop circulation declines” (Jenner 2012). This presents a potential canceling-out effect, in that any money generated through the online pay model will replace, as opposed to add to, revenue generated from a print circulation⁴. It is important to note that while digital content may over time account for an increased proportion of revenue, that increased proportion does not necessarily mean it is bringing in a higher volume of revenue. Comparatively, if other revenue sources are falling (e.g., print subscriptions, print advertising revenue, etc.), then digital’s proportional hold could increase without revenue figures rising at all.

News organizations continue to give content away, even though most other businesses recognize this is not a sustainable idea. Although this free⁵ content attracts customers, the advertising dollars are not coming through. In a 2012 advice-to-publishers column, Andy Waters, then the president and general manager of the Columbia Daily Tribune⁶ and Tribune Publishing Co., gave five possible explanations for why publishers had not made the jump to charging for online news: a drop in page views, people not wanting to pay, difficult technologies, angered advertisers and upset customers (Waters 2012). Ultimately, Waters said a drop in page views is OK; people will pay for news; technology is not insurmountable; advertisers are not hurt because they now have a more

⁴ This issue will be accounted for in a model suggested later.

⁵ Content is disbursed at no immediate cost to the consumer, but it is supported through advertising.

⁶ The Columbia Daily Tribune was not included in this study’s sample.

engaged audience; and finally, while customers may not be thrilled to pay, they get it — producing journalism costs money (Waters 2012).

According to a 2012 report published by the Reynolds Journalism Institute, 42 percent of U.S. non-daily newspapers and 43 percent of U.S. daily newspapers surveyed were charging for access to online content (Jenner 2012). While digital made up less than 10 percent of revenue for 80 percent of respondents, 59 percent said they believed it would account for more than 10 percent within three years, albeit at the expense of the print product (Jenner 2012). A 2016 report published by the American Press Institute found that as of 2015, 78 percent of U.S. newspapers with circulations of more than 50,000 had a digital subscription model (Williams 2016).

Subscription and advertising revenues cannot sustain news organizations that are continually being pressured to churn out more and more content (Bakker 2012). Some sites, such as The Huffington Post⁷, have gotten around that dilemma by collecting and posting content from bloggers who submit their work for free (Bakker 2012). (The Huffington Post has found success with this, though its widespread popularity among readers is a factor of this success (Doyle 2013)). Thus, instead of finding a solution to the revenue problem, some organizations have decided to increase output while attempting to keep costs the same, in part through production of relatively cheaper work via aggregation and outside contributors and freelancers. While these models may be temporarily successful, they are not without fail.

The percent of expected print revenue stream has shifted leftward, or down, from 2011 to 2014 (Jenner 2012). Meanwhile, the percent of expected digital revenue has shifted rightward, or up (Jenner 2012). There is a belief among two-thirds of the

⁷ The Huffington Post was not included in this study's sample.

publishers surveyed that consumers will pay for “quality news content” (Jenner 2012).

But what founds the basis of this belief among producers: research of consumer habits or hope?

Models

It is unlikely that news organizations will find a one-size-fits-all business model (Graybeal and Hayes 2011). In Jenner’s 2012 report, the most common subscription system among newspapers (54 percent) was to have online users pay while print subscribers were given free (inclusive) digital access (Jenner 2012). Beyond that, 30 percent of newspapers charged all readers, and 15 percent employed a metered system (Jenner 2012).

But the subscription model is not popular among consumers, which suggests that producers should seek out alternative revenue models (Chyi 2005). Although Chyi’s 2005 research does not offer prescriptive advice as to how online producers can solve the problem of low willingness-to-pay among consumers, on a limited scale, it provides qualitative information about why people subscribe to paid content, including reasonably low fees, costs paid by a third party, convenience, and usefulness related to student work (Chyi 2005). The following are examples of models that have been discussed in the literature.

Individualized demand models. Mantrala, Thorson et. al (2012) developed a pricing model that focuses on gains from charging online-only readers, less any lost advertising revenue from declines in traffic. Citing Chyi’s 2010 survey (and 2012 report) that said charging online readers results in a 60 percent loss in audience, they proposed the following demand model: $Q = O - bP$, where Q is the number of online-only readers

as a function of: O , the current number of online-only readers; b , the proportion of online readers lost per unit increase in price; and P , an online price greater than zero (Mantrala, Thorson et al. 2012). The model is a mathematical way for news organizations to estimate an efficient price based on their specific audiences. The authors estimate an optimal monthly charge of \$5.47, or \$1.26 per week (Mantrala, Thorson et al. 2012). That total exceeds the calculated mean of \$3.10 per month, equivalent to \$0.72 per week, that respondents in another survey were willing to pay for web content (Chyi 2012).

While Mantrala et. al's 2012 study is helpful in providing a single frame-of-reference price point, it may be an example of literature that needs to be updated. One assumption states "although (print advertising) revenues have plunged over the past three years, they've hit a point where they're stabilizing" (Mantrala, Thorson et al. 2012).

Micropayments. A few years ago, Geoffrey M. Graybeal and Jameson L. Hayes proposed "business models that were unsuccessful in the information-based Semantic Web may well work in the interaction-centric Social Web" (Graybeal and Hayes 2011). The two reviewed how news consumers responded to per-article micropayments on the web. They argue that micropayments allow consumers to buy items from multiple sources while being compensated for granting access to their social channels (Graybeal and Hayes 2011). The micropayment method has been reported as more favorable than the flat-rate method (Graybeal, Sindik et al. 2012).

Accordingly, brand loyalty increases the likelihood that users will adopt a micropayment system to view online newspapers (Sindik and Graybeal 2011). Researchers studied acceptance of the micropayment system among millennials through a brand loyalty scale, which combined looks at consumer preferences and proposed

models. Results of the survey of undergraduate and graduate students at a large university in the Southeast U.S. found that while there was some indication as to how much (or little) people were willing to pay — most of which was less than \$0.20 per story — about half of the participants said they were not willing to pay at all (Sindik and Graybeal 2011).

Metered model. In 2012, Waters recommended a metered model approach. He called it a win-win because it brings in subscription revenue with “minimal traffic loss” (Waters 2012). Waters advised publishers to “focus on loyal readers who value the news the most and don’t worry about the rest” (Waters 2012). This model seems most in line with a for-profit business mentality, but it may not be reflected across the journalism industry, where publisher ideals include trying to make an audience base as wide, diverse and inclusive as possible.

Crowd funding. Crowd funding is another approach that news organizations can use when developing revenue models for digital content. Traditional news organizations may be slow to take to this because it could be considered a quid pro quo arrangement, but it capitalizes on the uses and gratifications theory: that consumers pay for products they desire, not necessarily general news content that is being served to them en masse. Research shows reporters who have less experience at traditional news organizations were more successful in crowd funding, but not because donors favored inexperienced reporters (Jian and Usher 2014).

Other models. In a manipulation of current models that have been adapted to news markets, George Sylvie (2008) suggests a change in the production cycle, shifting the focus of resources to the following: content creation, content aggregation, value-

added service, access connection and navigation/interface. Waters (2012) cites bulk subscription plans, which can be compared to models of media-streaming sites such as Netflix and Hulu that allow for multiple user profiles under one account.

Challenges

Media organizations have struggled and been slow to experiment in their investment decisions. Particularly, traditional local news sources are losing audiences to larger, national brands (Sylvie 2008). Additionally, Jenner's finding that about half of non-daily publishers saw revenue generated by their paid content models as having "a negligible effect" is problematic (Jenner 2012).

Research Questions

This study sets out to answer the following research questions:

1. What are the trends of acceptable or common practice among pricing structures for digital content among legacy news organizations in Nielsen's top 100 designated market areas?
2. How do market size, circulation and ownership correlate or differ among news organizations' digital subscription pricing structures?
3. What factors do these organizations consider when setting business models for online content?

Chapter 3: Methods

Data Collection

The built-from-scratch database comprises 100 U.S.-based legacy newspapers, each of which is based in one of Nielsen Media Research's 100 largest designated market areas, hereafter referred to as DMAs. For every DMA (up through the top 100⁸) is listed a corresponding legacy news media organization based in that geographic area. These organizations comprise the purposive sample. The digital subscription pricing structure for each organization is recorded⁹. This includes introductory offers and promotions, as well as the cost as measured on a per-week basis, per-month basis, or other listed format. Using those metrics, subscription prices for six-month and one-year periods were calculated. To more easily compare prices across organizations, a standardized weekly price was also calculated as a measure of the organization's standard price, excluding listed introductory promotions, on a weekly basis.

Also included was the news organization's ownership, or if applicable, parent network, to determine whether some price structures are standardized across companies. Sunday print circulation figures from the Alliance for Audited Media were entered, as well. These figures are sums of AAM's "total paid print" and "total qualified" categories. Qualified figures represent newspapers distributed for free to groups including schools, universities and retail businesses (Alliance for Audited Media, U.S. Newspaper Circulation Types and Definitions). The Sunday print category was used because it was the only consistent field among the 100 news organizations. While AAM collects figures

⁸ Some large legacy organizations, such as USA Today and the Wall Street Journal, have been excluded because they do not fit the standard definition of regional metro papers.

⁹ Screenshots of these are included in Appendix B.

for digital replicas and digital nonreplicas, these figures are not reported consistently by every organization. (When digital ads are sold by digital page views, publishers and advertising managers have greater incentive to track click numbers, not subscribers.) Some organizations, including the New York Times, report a value of zero for both categories despite having subscribers who pay for digital-only access. These zeros in turn affect the total circulation figures, which disqualifies it from the analysis.

Survey

After this data was gathered, a survey instrument was developed and distributed to editors at the news organizations. The 20-question reader revenue survey is designed to find out how organizations determine their pricing models for digital content. A copy of the survey questions is included here:

Survey questions.

1. On behalf of what newspaper are you completing this survey?

2. Does your organization's website offer digital-only subscriptions?
 - a. Yes
 - b. No, we only include digital access with bundled print subscriptions
 - c. No, we don't offer any paid subscription that includes digital content
3. When did your organization start charging for digital-only subscriptions?
 - a. 2017
 - b. 2014-2016
 - c. 2011-2013
 - d. 2010 or earlier

4. How has the standard price (excluding sales or introductory discounts) for a digital-only subscription changed over time?
 - a. It has increased
 - b. It has decreased
 - c. It has both increased and decreased at different times
 - d. Price has not changed over time

5. If digital subscription price has changed over time, please explain in what ways it has changed:

6. How important are the following factors in determining your digital-only subscription pricing structure? (rated “not important at all,” “slightly important,” “somewhat important,” “very important,” “extremely important,” “N/A”)
 - a. Competitor prices
 - b. Market testing
 - c. Industry norms
 - d. Price is set by corporate parent
 - e. Other (please specify)

7. Does the price for a digital-only subscription vary by the subscriber’s location?
 - a. Yes
 - b. No

8. (7.2) If yes to No. 7 ⇒ What is the geographic boundary where subscription prices change? (select all that apply)
 - a. By ZIP code
 - b. By print delivery area
 - c. By state
 - d. By country
 - Other (please specify): _____

9. Has your organization ever tried a free trial subscription offer for digital-only content?
 - a. Yes
 - b. No

10. (9.2) If yes to No. 9 ⇒ What percent of free trial readers converted to full-price subscriptions?
- 0-25 percent
 - 26-50 percent
 - 51-75 percent
 - 76-100 percent
11. Has your organization ever tried a discounted trial (i.e., not “free”) subscription offer for digital-only content?
- Yes
 - No
12. (11.2) If yes to No. 11 ⇒ What percent of discounted trial readers converted to full-price subscriptions?
- 0-25 percent
 - 26-50 percent
 - 51-75 percent
 - 76-100 percent
13. Does your organization’s website have an article meter (in which a set number of articles can be accessed for free before the user must pay to access content)?
- Yes
 - No
14. (13.2) If yes to No. 13 ⇒ Does your organization’s meter allow free access to visitors referred by a social media platform?
- Yes
 - No
- Please explain: _____
15. Does the price for a digital-only subscription vary for any of the following types of people? (select all that apply)
- Students
 - Seniors
 - Veterans or active-duty military
 - Other (please specify): _____

16. Are your marketing efforts for digital-only subscriptions targeted at specific demographics? (If so, please explain.)
- a. Yes
 - b. No
- If yes, please explain: _____
17. Do you have separate paid subscription models for verticals (specific segments of online content)?
- a. Yes
 - b. No
18. (17.2) If yes to No. 17 ⇒ For which of the following specialized content verticals do you offer separate digital subscriptions:
- a. B2B or industry
 - b. Sports
 - c. Other (please specify): _____
19. API will use responses from this survey as part of a public report about digital subscription pricing in the news industry. We plan to supplement the survey data with interviews. Would you be willing to participate in a phone interview for such a report?
- a. Yes
 - b. No
- Other (please specify): _____
20. What is your contact information?
- a. Name:
 - b. Title:
 - c. Phone:
 - d. Email:
 - e. Publication:

Chapter 4: Analysis and Results

Overview

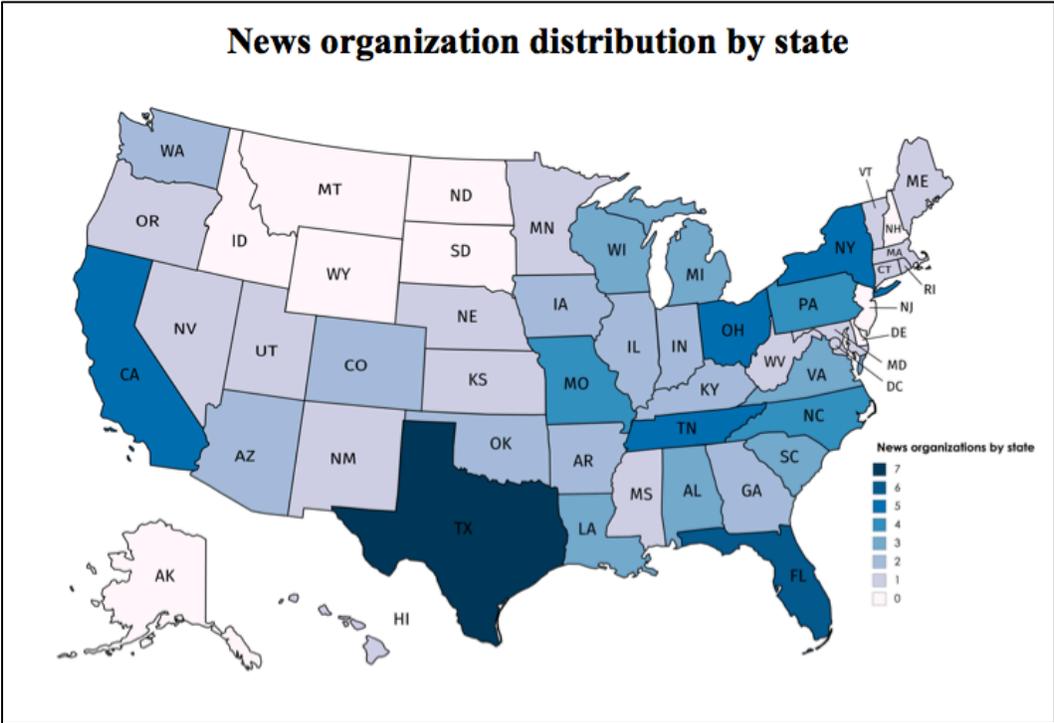
The practices among news organizations for pricing digital subscriptions within Nielsen's top 100 designated market areas vary widely. Most of the organizations studied charge for digital subscriptions. These subscriptions vary in what they offer, but most include access to unlimited digital content, mobile applications and the e-edition or print replica of the printed newspaper. The cheapest offering in this study was a promotion for a year's subscription for \$29. The most expensive offering, excluding introductory offers, would cost \$408 annually. The most common feature among these pricing models was automatic subscription renewals.

Market size and circulation were shown to have no statistically significant effect on prices among the 100 news organizations included in the study. Ownership, in some cases, did have an effect as some parent companies standardized prices across their news sites.

The most highly rated factor organizations consider when setting pricing models for digital content was market testing, according to a survey of 15 circulation directors and audience engagement editors. Collectively, they ranked ownership mandates the next most important, followed by industry norms and competitor price.

Figure 1 shows a U.S. map color-coded by the density of newspapers included in the study by state. The 100 selected news organizations are based in 41 states and Washington, D.C. The nine states not represented are New Hampshire, New Jersey, Delaware, North Dakota, South Dakota, Montana, Wyoming, Idaho and Alaska.

Figure 1.

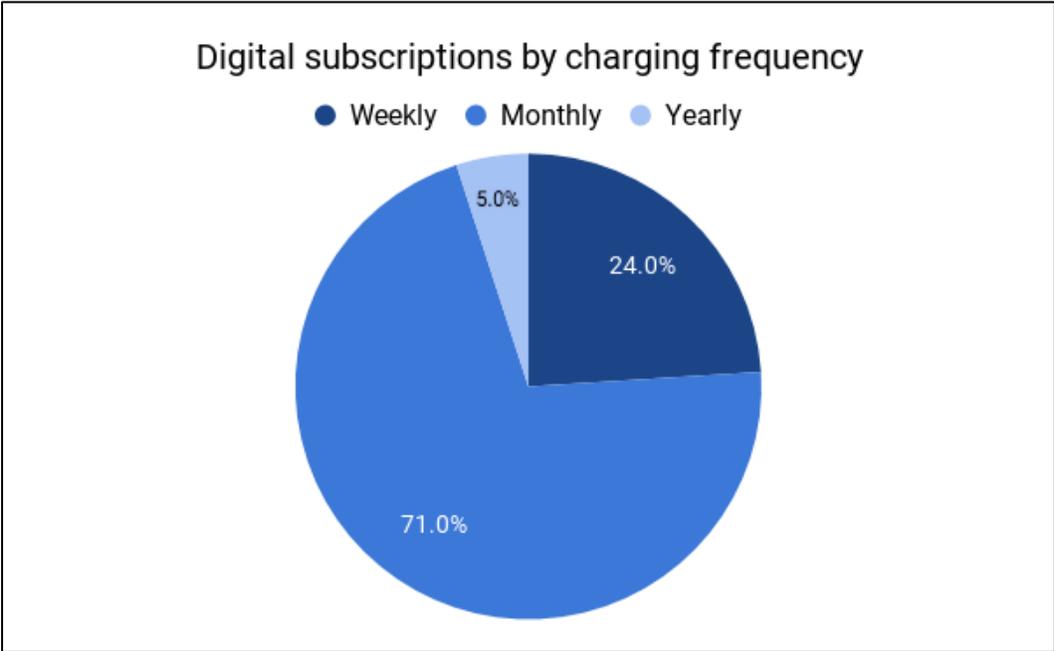


Standardized Pricing Structures

The news organizations in this study varied in how frequently they billed customers for subscriptions. Figure 2 shows the distribution of subscription setups by charging frequency. The majority (71 percent) of the 100 news organizations included in this study have a monthly pricing structure¹⁰. Twenty-four charge on weekly bases¹¹. Five charge for a year upfront¹².

¹⁰ Includes prices listed as 30-day periods.
¹¹ Includes prices listed as eight-week totals, 10-week totals, etc.
¹² Some structures listed as weekly and monthly provided the option to pay for longer periods, including a year, upfront. Those are not included in this total.

Figure 2.

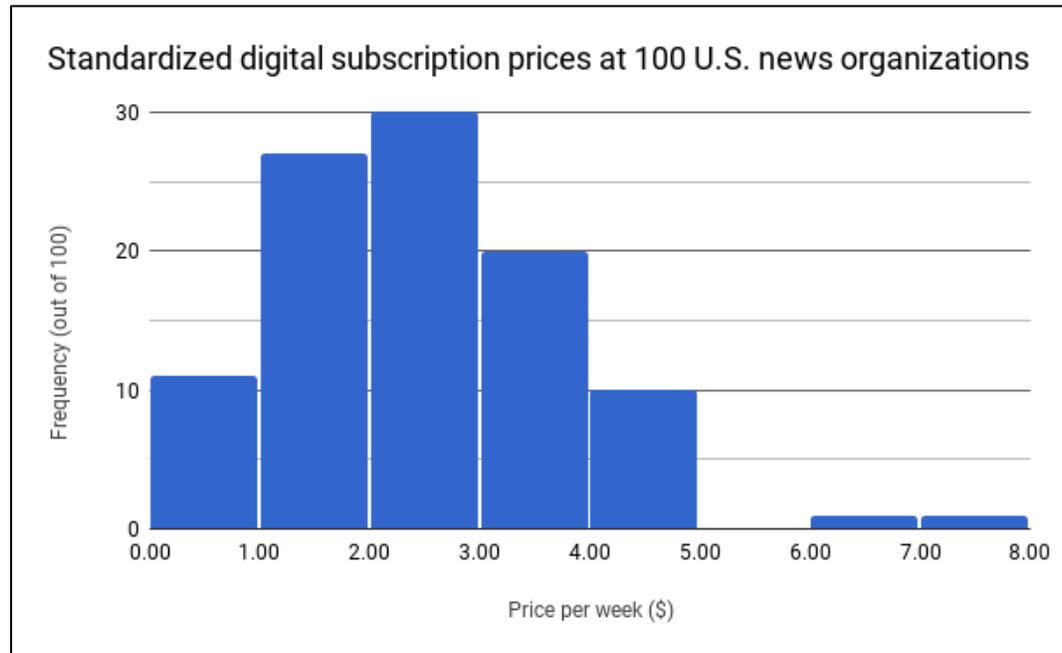


The standardized weekly price compares prices among news organizations. It excludes noted introductory offers, and was calculated as follows:

- No change for prices already listed as weekly.
- Monthly prices were multiplied by 12. That product was divided by 52.
- Yearly prices were divided by 52.

All would-be weekly prices were rounded to the nearest cent. Figure 3 shows a distribution of these prices, which ranged from \$0.46 to \$7.85 per week. The median price was \$2.31. The average price, brought up by higher outliers was \$2.44. The most commonly occurring standard weekly price was \$1.15. The majority fell between \$1 and \$3 per week.

Figure 3.



The median weekly price of \$2.31 from this study was 83 percent higher (cost \$1.05 more per week) than what Mantrala, Thorson et al. (2012) estimated as an optimal price. It is also 221 percent higher (cost \$1.59 more per week) than another study’s calculated average of what survey respondents were willing to pay for web content (Chyi 2012).

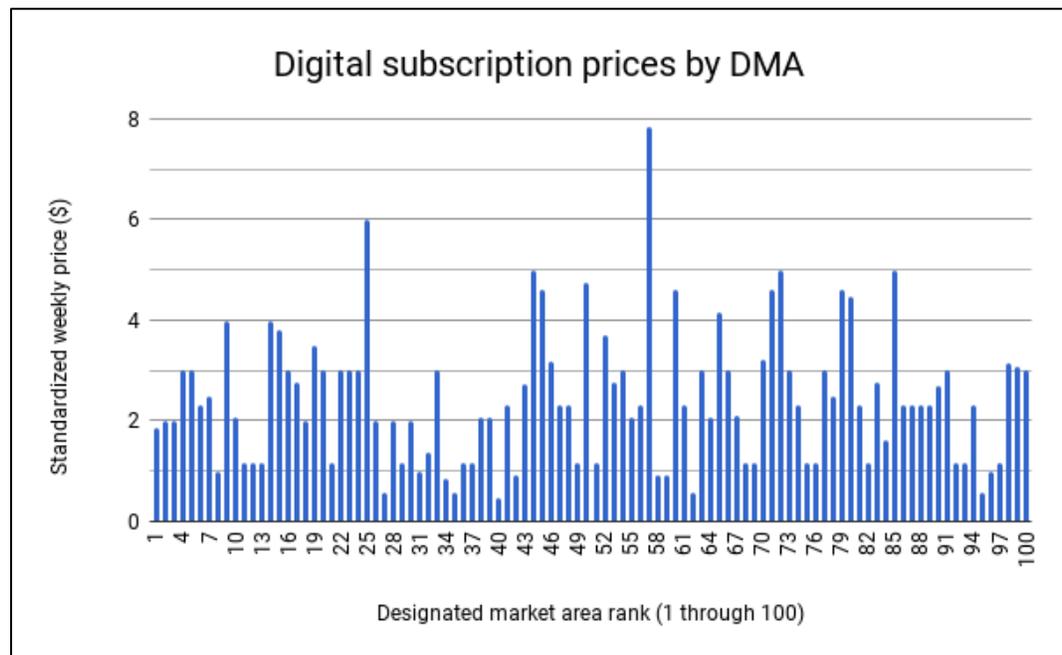
Subscriber perks. Several subscription pages listed added perks for paying subscribers over other users. These benefits included but are not limited to: commenting access, fewer advertisements, improved browsing experiences, subscription sharing, monthly e-cookbooks, access to other statewide digital editions and rewards programs. Additional “insider-only” perks included newsroom tours, movie screenings and giveaways. Some had marketing pitches that focused on membership, which may be an attempt to reach consumers for whom that would add value beyond a transactional exchange of news.

Partnerships. Some organizations have partnered with other publications and media companies to offer bundled content under one subscription price. Advance Publications papers partner with one another to offer subscribers access to digital editions of other publications within a state. Some other organizations offer digital subscriptions that include digital access to the Washington Post. The Washington Post itself is partnering with Hulu¹³ to offer a year of unlimited digital Washington Post access combined with Hulu access for \$99.

Pricing by Designated Market Area

As Figure 4 shows, price varies by market area but in no generalizable way.

Figure 4.



Here, a linear regression model would have a coefficient (slope) and r^2 value of nearly zero, meaning that the model would explain less than 1 percent of the variability of the response data around the mean price. However, regression models are not an appropriate

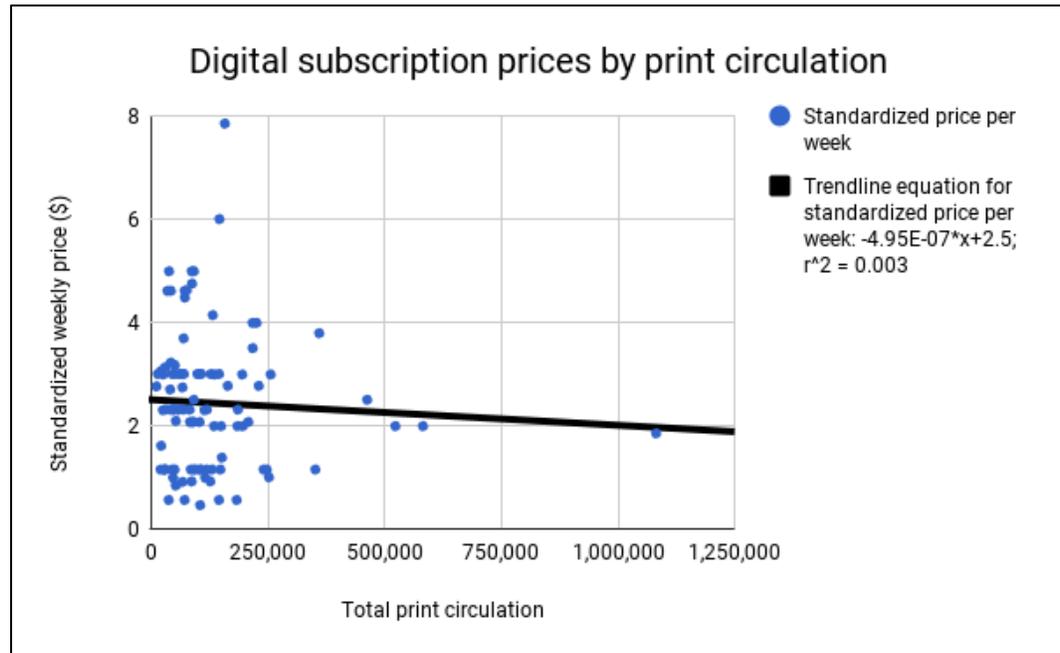
¹³ Screenshot listed in Appendix C.

method of analysis for this data because market area rank is an interval variable, not a ratio variable, meaning there is no set difference between market area other than an ordinal ranking.

Pricing by Circulation

Linear regression models show price does not vary statistically by Sunday print circulation figures¹⁴. Figure 5 shows a regression equation for the entire dataset of prices by print circulation.

Figure 5.



Here, the trendline's coefficient (slope) is negative, meaning that the standardized weekly price decreases as circulation increases. However, the r^2 value of nearly zero shows that the model explains less than 1 percent of the variability of the response data.

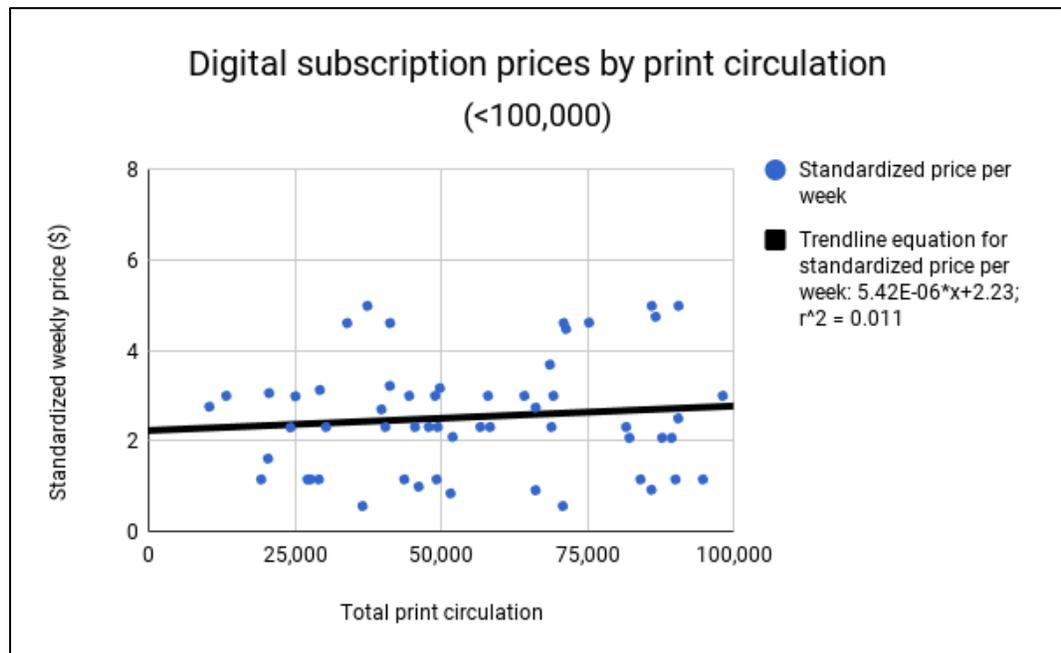
To help control for the wide spread of the data, Figures 6, 7 and 8 show regression equations for subsets of the data broken up by circulation figures of less than 100,000,

¹⁴ Print circulation figures are from the Alliance for Audited Media.

100,000-200,000, and more than 200,000, respectively. It is important to note that the horizontal axis ranges are not uniform among the three figures.

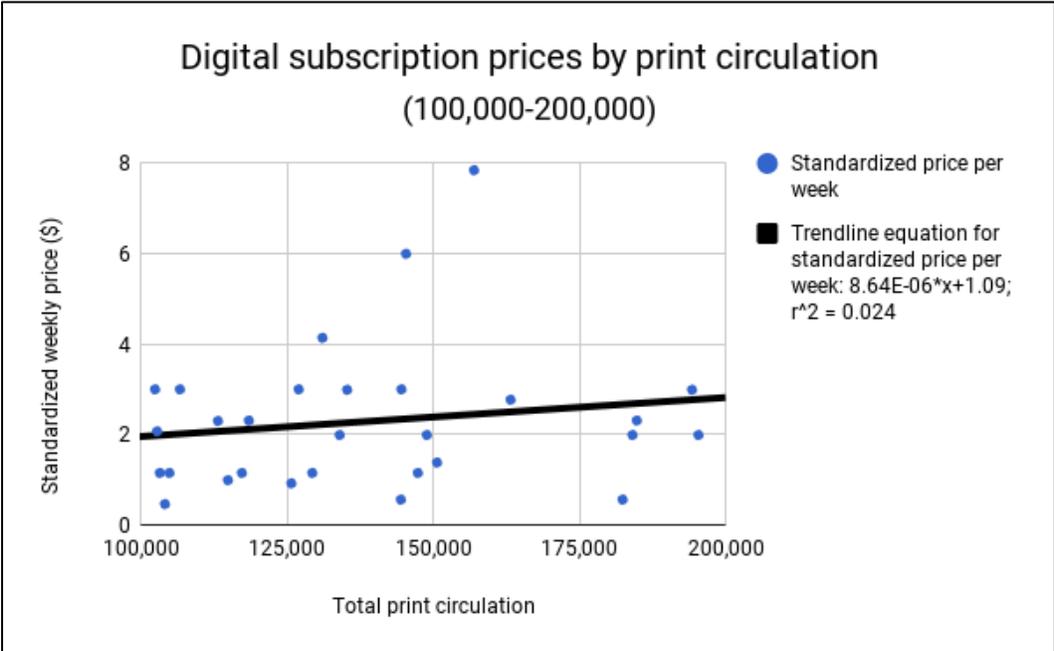
In Figure 6, the trendline's coefficient (slope) is positive, meaning that for news organizations with Sunday print circulations of less than 100,000 copies, the standardized weekly price increases as circulation increases. However, the r^2 value of nearly zero shows that the model explains about 1 percent of the variability of the response data.

Figure 6.



In Figure 7, the trendline's coefficient (slope) is positive, meaning that for news organizations with Sunday print circulations between 100,000 and 200,000 copies, the standardized weekly price increases as circulation increases. However, the r^2 value of nearly zero shows that the model explains about 2 percent of the variability of the response data.

Figure 7.



In Figure 8, the trendline's coefficient (slope) is negative, meaning that for news organizations with Sunday print circulations of more than 200,000 copies, the standardized weekly price decreases as circulation increases. The r^2 value shows that the model explains about 5 percent of the variability of the response data.

Figure 9.

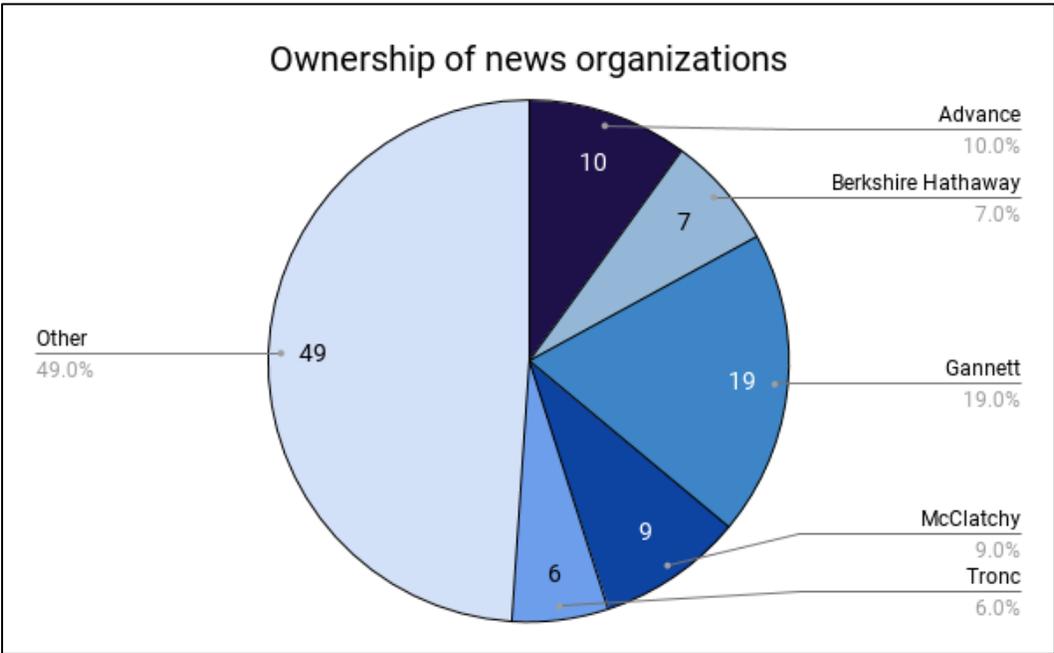
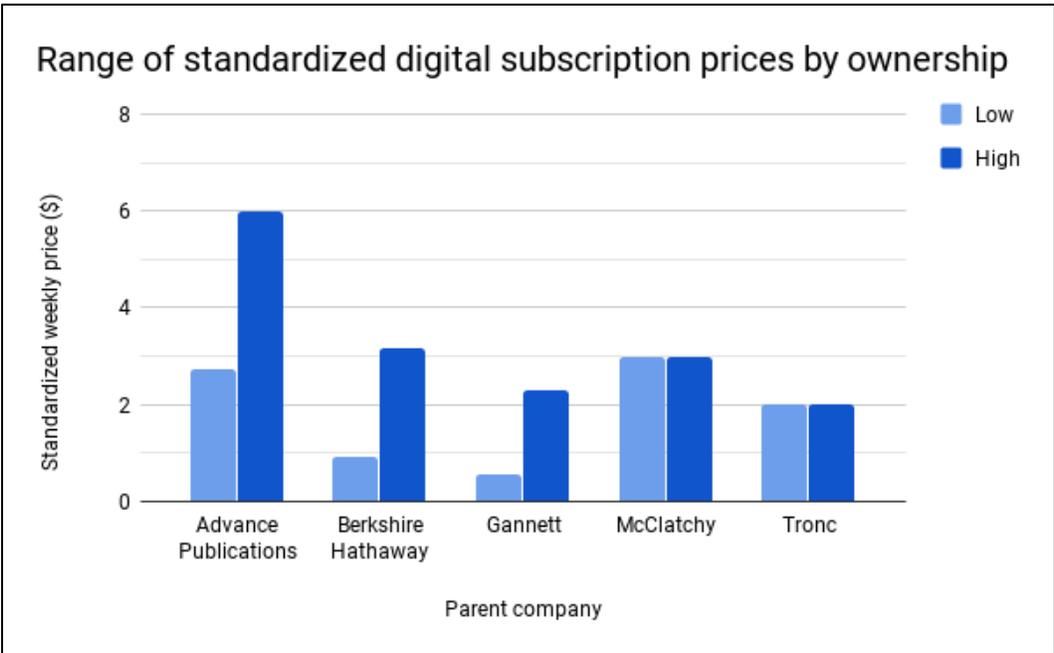


Figure 10 shows a distribution of the standardized price ranges by ownership.

Figure 10.



Advance Publications Inc. accounted for 10 percent of the publications studied. The standardized weekly prices ranged from \$2.74 to \$6. Subscription prices for Advance-owned publications did not follow any generalizable pattern.

Berkshire Hathaway Inc. accounted for 7 percent of the publications studied. The standardized weekly prices ranged from \$0.91 to \$3.17. All rates on the subscription pages were listed as monthly charges. Subscription prices for Berkshire Hathaway-owned publications did not follow any generalizable pattern.

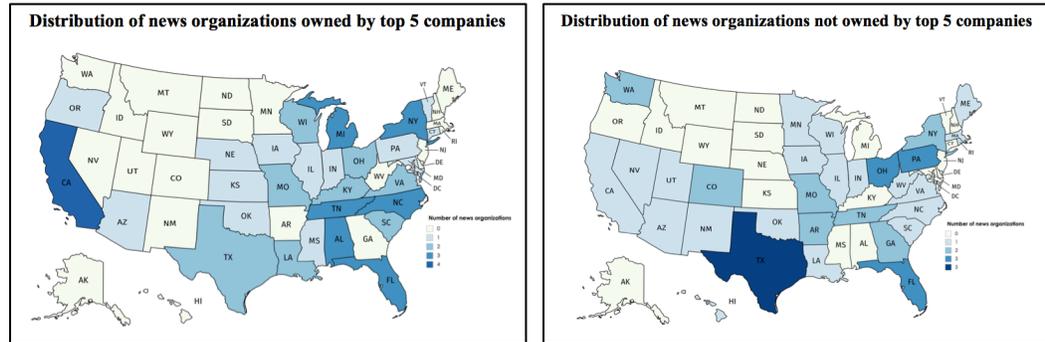
Gannett Co. accounted for 19 percent of the publications studied. The standardized weekly prices ranged from \$0.56 to \$2.31. Most Gannett sites (14 out of the 19) charge an introductory rate of \$0.99 for the first month of access before raising rates to \$4.99 per month. Four sites charged a yearly fee of \$29. One listed a \$9.99 monthly rate with no introductory offer.

The McClatchy Co. accounted for 9 percent of the publications studied. The standardized weekly price was \$3 among each of the McClatchy properties. All charged \$1.99 for the first month of access before raising rates to \$12.99 per month.

Tronc Inc. accounted for 6 percent of the publications studied. The standardized weekly price was \$1.99 per week among each of the Tronc properties. All charged \$0.99 for the first four weeks of access before raising rates to \$1.99 per week.

Geographic distribution by ownership. For comparison, Figures 11 and 12 show U.S. maps color-coded by the density of newspapers owned by the five named parent companies (Figure 11) and those owned by an entity noninclusive of the five aforementioned companies (Figure 12).

Figures 11 & 12.



Consideration factors for setting prices

Results from a survey of publishers and directors of circulation and audience development provide insight about how subscription price structures are determined, including what factors news organizations weigh most heavily when setting prices.

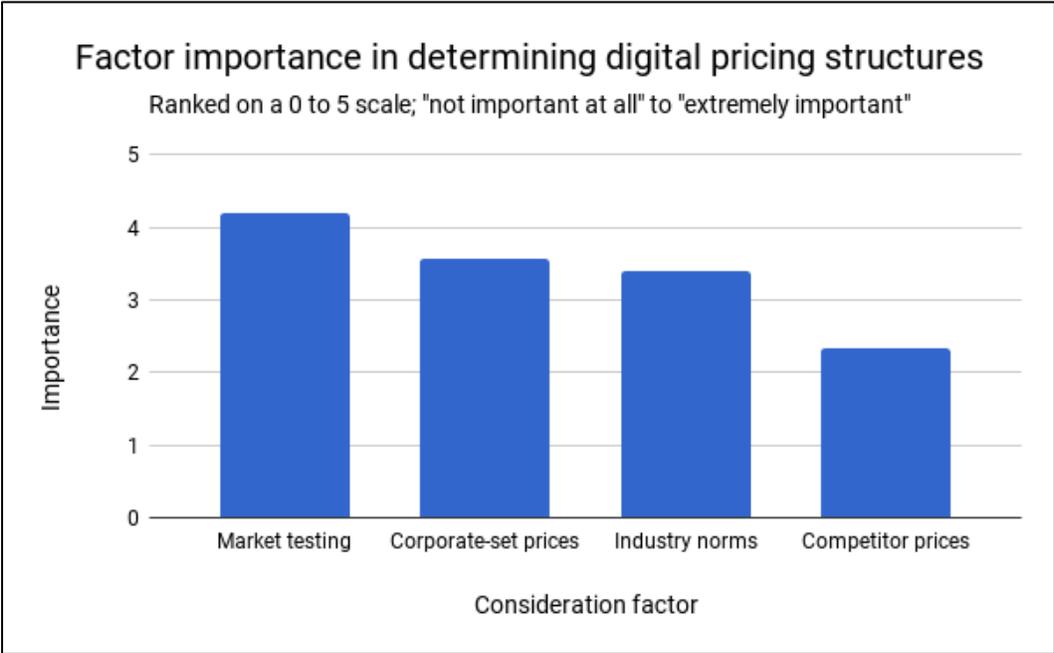
The survey was answered by representatives from 15 news organizations included in this study¹⁵. The times at which organizations began charging for digital-only subscriptions varied:

- 13 percent began charging in 2010 or earlier
- 53 percent began charging between 2011-2013
- 33 percent began charging 2014-2016
- 0 percent began charging in 2017

As shown below in Figure 13, market testing was rated the most important factor in determining digital-only subscription pricing structure with a weighted average of 4.20 out of 5. Corporate-set prices followed, with a weighted average of 3.58. Industry norms were rated 3.40 and competitor prices were rated 2.33 out of 5.

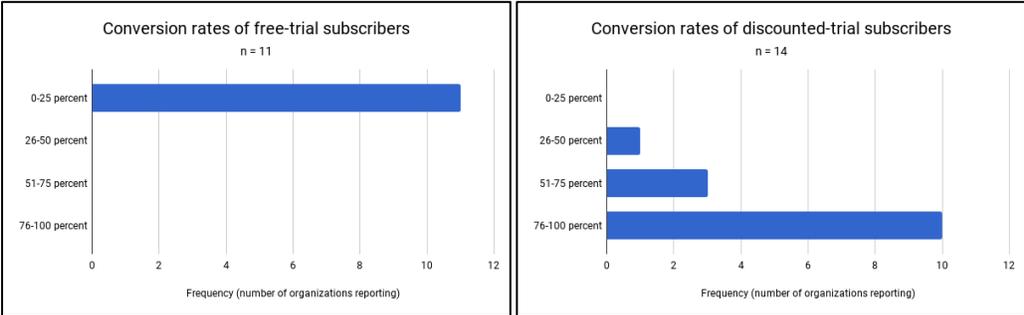
¹⁵ The 15 respondents' answers are intended to be informational and are not necessarily statistically representative of the 100 organizations in the overall sample.

Figure 13.



Introductory offers. Eleven of the 15 organizations had tried free trial subscription offers for digital content. All 11 organizations reported that of those free trial readers, 0-25 percent converted to full-price subscriptions. Fourteen of the 15 respondents reported having tried discounted trial subscription offers. More than two-thirds of the organizations (10 out of 14) reported that 76-100 percent converted to full-price subscriptions. Figures 14 and 15 below show a visual representation of the split between these conversion rates for free-trial readers and discounted-trial readers.

Figures 14 & 15.



It is likely the discrepancy in conversion rates between free trials and discounted trials has to do with the collection of credit card information. Free trials may or may not require entering a credit card number, while discounted trials would require some type of payment information. An automatic renewal setup would then charge the card on file unless the subscriber canceled in advance.

Content verticals. Two of the 15 respondents reported offering separate paid subscription models for specialized content verticals, and both were for sports. None reported offering separate subscription for business-to-business or industry content. This may be an untapped opportunity for revenue, especially in sports-heavy regions or those where specific business and trade segments dominate. News organizations have the potential to increase their subscriber bases and revenue by offering individualized or packaged vertical content subscriptions.

Additional findings. All but one of the respondents reported having an article meter in which readers can access a set number of articles for free before being required to pay for content access. Four of the 14 meters allowed free access to visitors referred by a social media platform. Additional findings include:

- Three organizations reported offering students a different digital-only subscription price.
- One reported offering a discounted digital subscription to large nonprofit organizations.
- Six organizations said marketing efforts for digital-only subscriptions are targeted at specific demographics.

Chapter 5: Conclusions

Significance

This study is significant because it provides a snapshot of baseline pricing structures for digital news subscriptions at 100 U.S. legacy regional news organizations. These results are useful both to news producers and news consumers as benchmarks for comparative analysis and future decision making. Producers can use this information to see where they fall among similar organizations and as a jumpstart for future market testing. Consumers can use this information to gauge market standards.

The median weekly price of \$2.31 found in this study is equivalent to \$10 per month and \$120 per year for a digital news subscription. Market size and circulation did not correlate with subscription price in any statistically significant, generalizable way. Ownership, however, did show a correlation with price for some companies, as shown in Figure 10.

While this study does not look at revenue maximization as a function of subscription prices and subscriber bases, it provides a comparative starting point for news organizations to conduct that analysis with their own audiences. This study also provides anecdotal evidence that discounted trial subscriptions result in higher conversion rates than do free trial subscriptions, if for no other reason than discounted trials require some sort of payment information entry. In a side-by-side comparison, Figures 14 and 15 showed that at the news organizations surveyed, free trials resulted in a conversion rate of 0-25 percent, while discounted trials resulted in conversion rates of at least 26 percent (though the majority were at least 76 percent).

The results of this study update previous literature that estimated optimal prices for digital news. The median weekly price of \$2.31 from this study was 83 percent higher (i.e., cost \$1.05 more per week) than what Mantrala, Thorson et al. (2012) estimated as an optimal price. It is also 221 percent higher (i.e., cost \$1.59 more per week) than Chyi's calculated average of what survey respondents were willing to pay for web content (2012). While some of this change may be due to inflation, it is also an indicator of the emphasis shift toward digital products, including that news organizations are placing a higher value on revenue from digital subscriptions.

Limitations

Promotions. This study is limited by the two-day period in mid-October 2017 during which digital subscription prices were collected. Like other online products, prices for online news subscriptions fluctuate and are subject to sales and other “specials” as set by the owner. These sales include seasonal promotions, including but not limited to back-to-school, Halloween, and Black Friday sales. The variation in promotional pricing limits analysis across a wide swath of news organizations because the data collection is time intensive, and prices can vary day-by-day. While sales tied to holiday marketing can be planned around for analysis purposes, companies may market short-term promotions in such a way that makes it unclear how long that price will hold. Best practice for future studies would be to avoid sales and any “specials” weeks, though this may not be entirely possible.

Barriers to entry. Some sites in this study required users to make an account in order to view subscription prices. Signing up requires entering data that may include name, email, phone number, address and billing information, among other fields. This

requirement is a barrier that could deter some would-be subscribers who may not want to give up that information before deciding to subscribe.

Scale. This study includes 100 legacy news organizations. However, thousands more exist but were not included because of high data collection costs. This small sample size may potentially limit the range of prices offered.

Bundled content. Some organizations price bundled content cheaper than digital-only access. This may be in an effort to raise print circulation numbers to report to advertisers. This study, however, only considered digital-only subscription prices.

Further Discussion

Limiting of ads for premium users. Some news organizations have created ad-free and/or ad-light sites for premium users. Future research could study how the removal of advertising affects user experience, and whether ad-free sites are something consumers would be more willing to pay a premium for (as to compared to just unlimited access).

Price discrimination by location. All 10 survey respondents said the price for a digital-only subscription did not vary by the subscriber's location. However, during data collection it was found that at least one organization offered a different price for in-market (in-state) subscribers than it did for out-of-state subscribers. This was verified by entering various ZIP codes on the subscription sign-up page, which required an entered ZIP code before displaying offers. It is unclear what the motivation behind this is, whether it is to incentivize out-of-market readers to subscribe, capitalize on in-market readers who may be willing to pay a premium for digital news content (if few or no quality substitutes exist) or something else. Future research could study how consumers' willingness to pay varies by whether the news content they are consuming is from their

home market or elsewhere. That research could be used to inform publishers who could then price discriminate by customer location (or at least, where their payment method is registered).

Effect prices have on consumers' pockets. During the research process, the question arose of how much effect a paid subscription would have on a subscriber's pocket. Further research could examine whether income is correlated with the type of subscription package (digital only, bundled print and digital, etc.) a reader chooses.

Content recommendations based on subscribers' preferences. Some media companies limit how many people and/or devices can be added to a single subscription. In some cases, such as music streaming service Spotify Premium, content is personalized to the account holder's tastes and preferences, which incentivizes individuals who would otherwise share log-in credentials to pay for their own accounts so that someone else's music choices do not affect their own personalized playlists. Future research could test whether this model be applied to online news content.

References

- Alliance for Audited Media. U.S. Newspaper Circulation Types and Definitions A glossary of paid and nonpaid circulation terms (pp. 1-3): Alliance for Audited Media.
- Bakker, Piet. (2012). "Aggregation, Content Farms and Huffinization." *Journalism Practice* 6(5-6): 627-637.
- Barthel, Michael. (2017). Despite subscription surges for largest U.S. newspapers, circulation and revenue fall for industry overall. Retrieved from Pew Research Center.
- Christensen, Clayton M.; Anthony, Scott D.; and Roth, Erik A. (2004). *Seeing What's Next: Using the Theories of Innovation to Predict Industry Change*. Boston, Massachusetts: Harvard Business School Publishing.
- Chyi, Hsiang Iris. (2005). "Willingness to Pay for Online News: An Empirical Study in the Viability of the Subscription Model." *Journal of Media Economics* 18(2): 131-142.
- Chyi, Hsiang Iris. (2012). "Paying for What? How Much? And Why (Not)? Predictors of Paying Intent for Multiplatform Newspapers." *International Journal on Media Management* 14(3): 227-250.
- Chyi, Hsiang Iris and Lee, Angela M. (2013). "Online News Consumption." *Digital Journalism* 1(2): 194-211.
- Chyi, Hsiang Iris. and Sylvie, George (2001). "The Medium is Global, the Content is Not: The Role of Geography in Online Newspaper Markets." *Journal of Media Economics* 14(4): 231-248.
- Chyi, Hsiang Iris and Yang, Mengchieh Jacie. (2009). "Is Online News an Inferior Good? Examining the Economic Nature of Online News Among Users." *Journalism Practice* 86(3): 594-612.
- Chyi, Hsiang Iris; Yang, Mengchieh Jacie; Lewis, Seth C.; and Zheng, Nan. (2010). Use of and Satisfaction with Newspaper Sites in the Local Market: Exploring Differences Between Hybrid and Online-Only Users. *Journalism & Mass Communication Quarterly*, 87(1), 62-83. doi:10.1177/107769901008700104
- Chyi, Iris. (2012). Online news customers and their willingness to pay. Paid content comes of age. M. Jenner. University of Missouri, Donald W. Reynolds Journalism Institute.

- Doyle, Gillian. (2013). "Re-invention and Survival: Newspapers in the Era of Digital Multiplatform Delivery." *Journal of Media Business Studies* 10(4): 1-20.
- Goyanes, Manuel. (2014). "An Empirical Study of Factors that Influence the Willingness to Pay for Online News." *Journalism Practice*.
- Graybeal, Geoffrey; Sindik, Amy, and Qing, Qingmei. (2012). "Current Print Subscribers More Likely to Pay for Online." *Newspaper Research Journal* 33(3): 21-34.
- Graybeal, Geoffrey Michael and Hayes, Jameson Lee. (2011). "A Modified News Micropayment Model for Newspapers on the Social Web." *International Journal on Media Management* 13(2): 129-148.
- Google Opinion Rewards. Retrieved from https://surveys.google.com/google-opinion-rewards/publishers/#?modal_active=none
- Herbert, Jack and Thurman, Neil. (2007). Paid Content Strategies for News Websites. *Journalism Practice*, 1(2), 208-226. doi:10.1080/17512780701275523
- Ingram, David. (2017). Google, Facebook show power of ad duopoly as rivals stumble. Retrieved from Reuters.
- Jenner, Mike. (2012). Small papers lead the way in charging for online content. Paid content comes of age. M. Jenner. University of Missouri, Donald W. Reynolds Journalism Institute.
- Jenner, Mike. (2012). Weeklies move strongly into paid online content. Paid content comes of age. M. Jenner. University of Missouri, Donald W. Reynolds Journalism Institute.
- Jian, Lian and Usher, Nikki. (2014). "Crowd-Funded Journalism." *Journal of Computer-Mediated Communication* 19(2): 155-170.
- Mantrala, Murali, et al. (2012). Economic modeling offers lessons in pricing models. Paid content comes of age. M. Jenner. University of Missouri, Donald W. Reynolds Journalism Institute.
- Mensing, Donica. (2007). Online Revenue Business Model Has Changed Little Since 1996. *Newspaper Research Journal*, 28(2), 22-37.
- Nel, Francois. (2010). Where Else Is The Money? *Journalism Practice*, 4(3), 360-372. doi:10.1080/17512781003642964
- Picard, Robert G. (2014). Twilight or New Dawn of Journalism? *Digital Journalism*, 2(3), 273-283. doi:10.1080/21670811.2014.895531

Sindik, Amy and Graybeal, Geoffrey (2011). "Newspaper Micropayments and Millennial Generation Acceptance: A Brand Loyalty Perspective." *Journal of Media Business Studies* 8(1): 69-85.

Spotify. (2017). About. Retrieved from Spotify.

Sylvie, George. (2008). *Developing an Online Newspaper Business Model: Long Distance Meets the Long Tail*. University of Texas at Austin, University of Texas at Austin: 39.

Waters, Andy. (2012). Five reasons not to charge — and why they don't add up. Paid content comes of age. M. Jenner. University of Missouri, Donald W. Reynolds Journalism Institute.

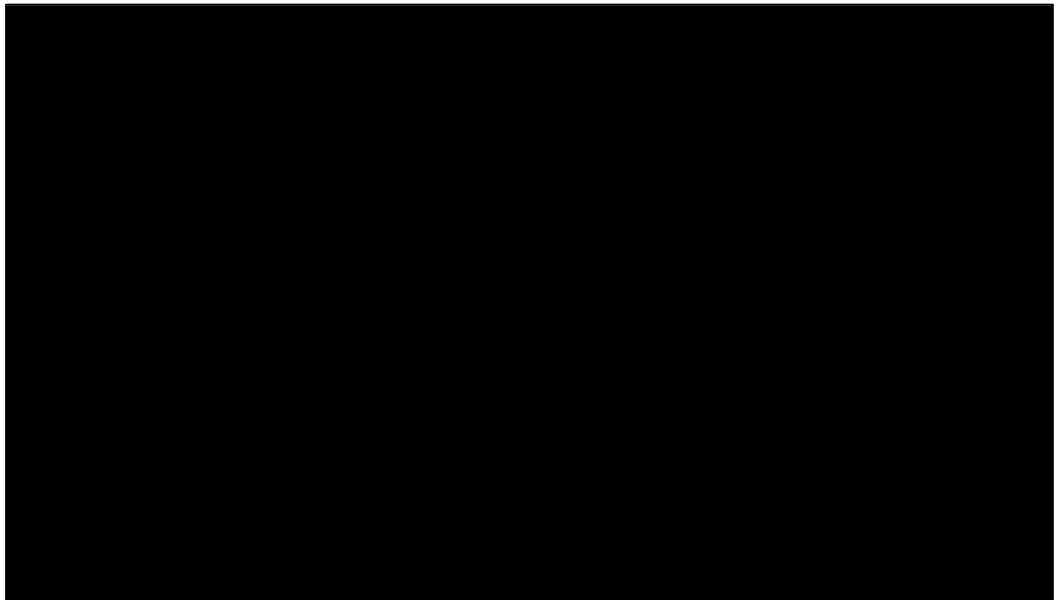
Williams, Alex T. (2016). *Paying for Digital News: The rapid adoption and current landscape of digital subscriptions at U.S. newspapers*. Retrieved from <https://www.americanpressinstitute.org/publications/reports/digital-subscriptions/>

Appendix A

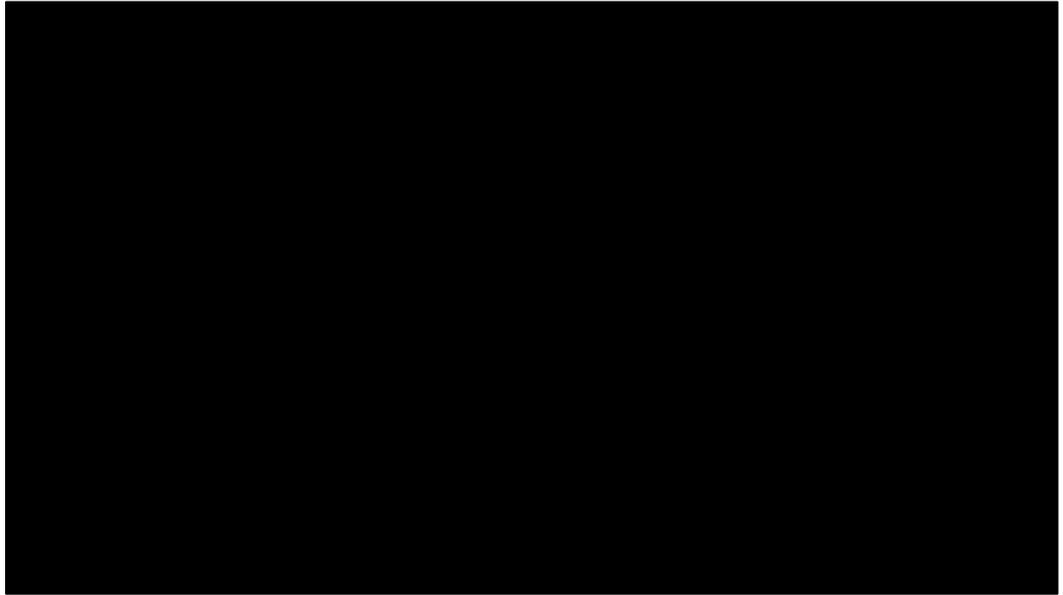
Screenshots of the paywall notice pages:

1. Honolulu Star-Advertiser: <http://www.staradvertiser.com/>

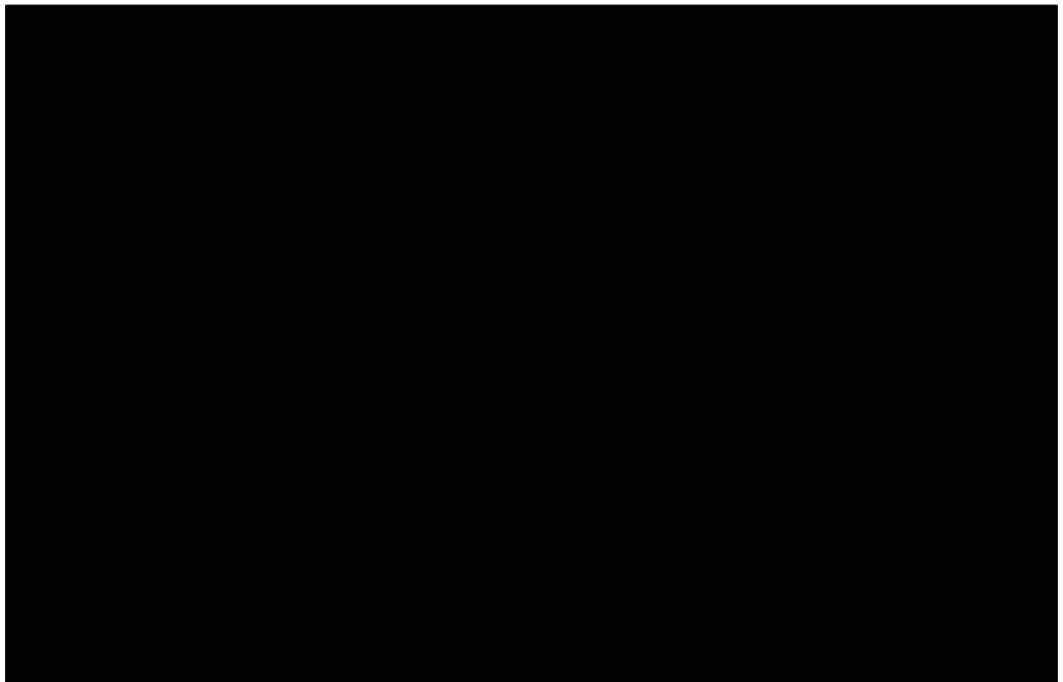
<http://www.staradvertiser.com/2017/11/15/hawaii-news/uh-manoa-gets-national-award-for-raising-graduation-rate/>



2. The Wall Street Journal: <https://www.wsj.com/>



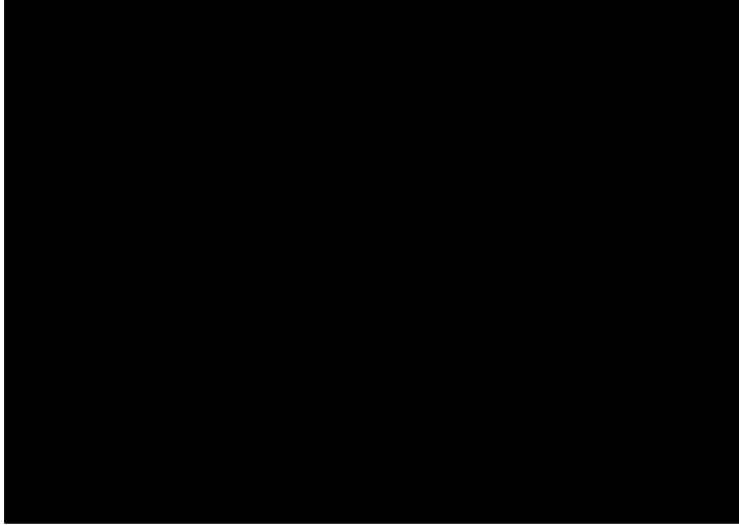
<https://www.wsj.com/articles/trump-says-he-should-have-left-ucla-players-in-chinese-jail-1511120676>



Appendix B

Screenshots of the subscription sign-up pages:

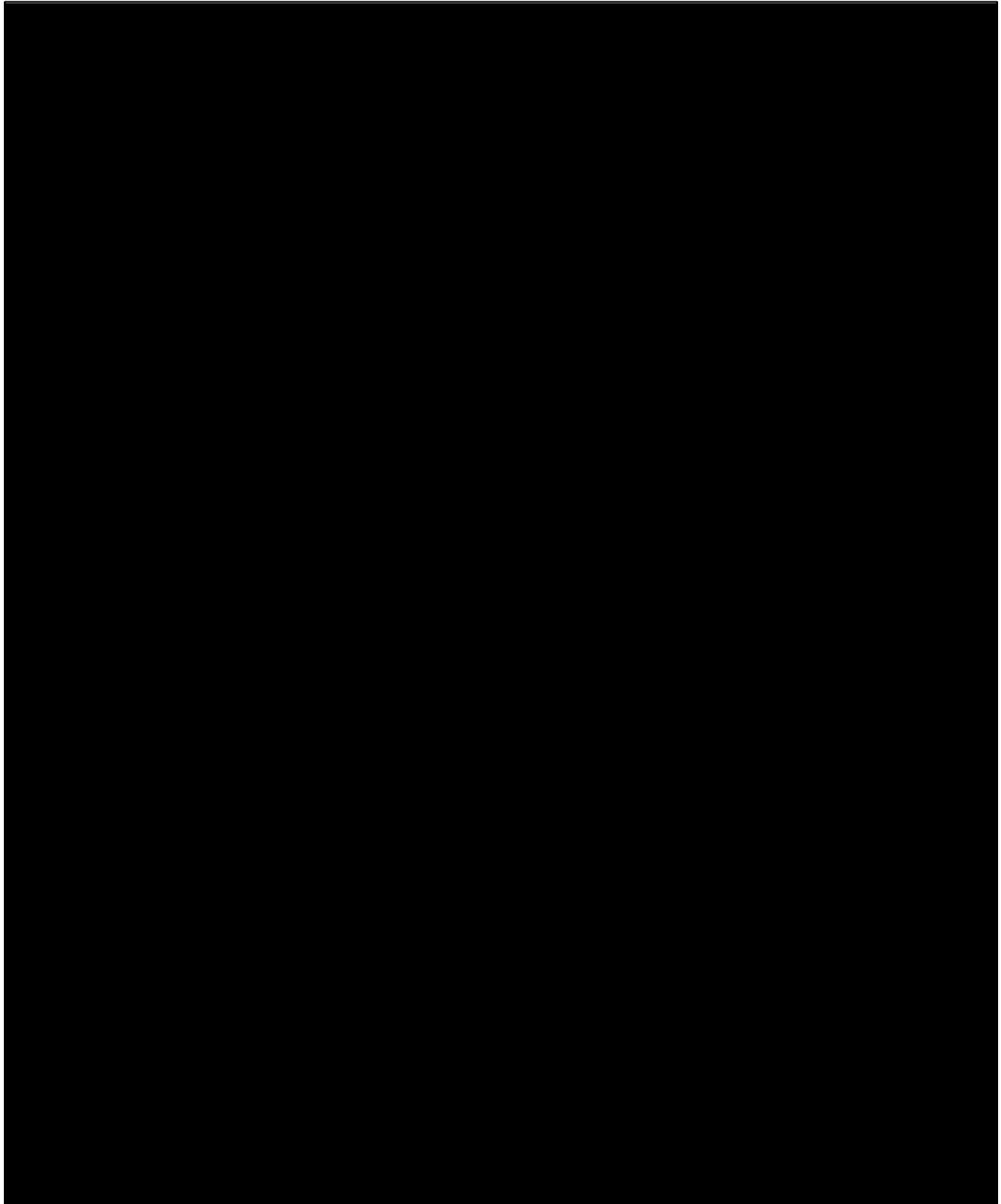
1. New York Times



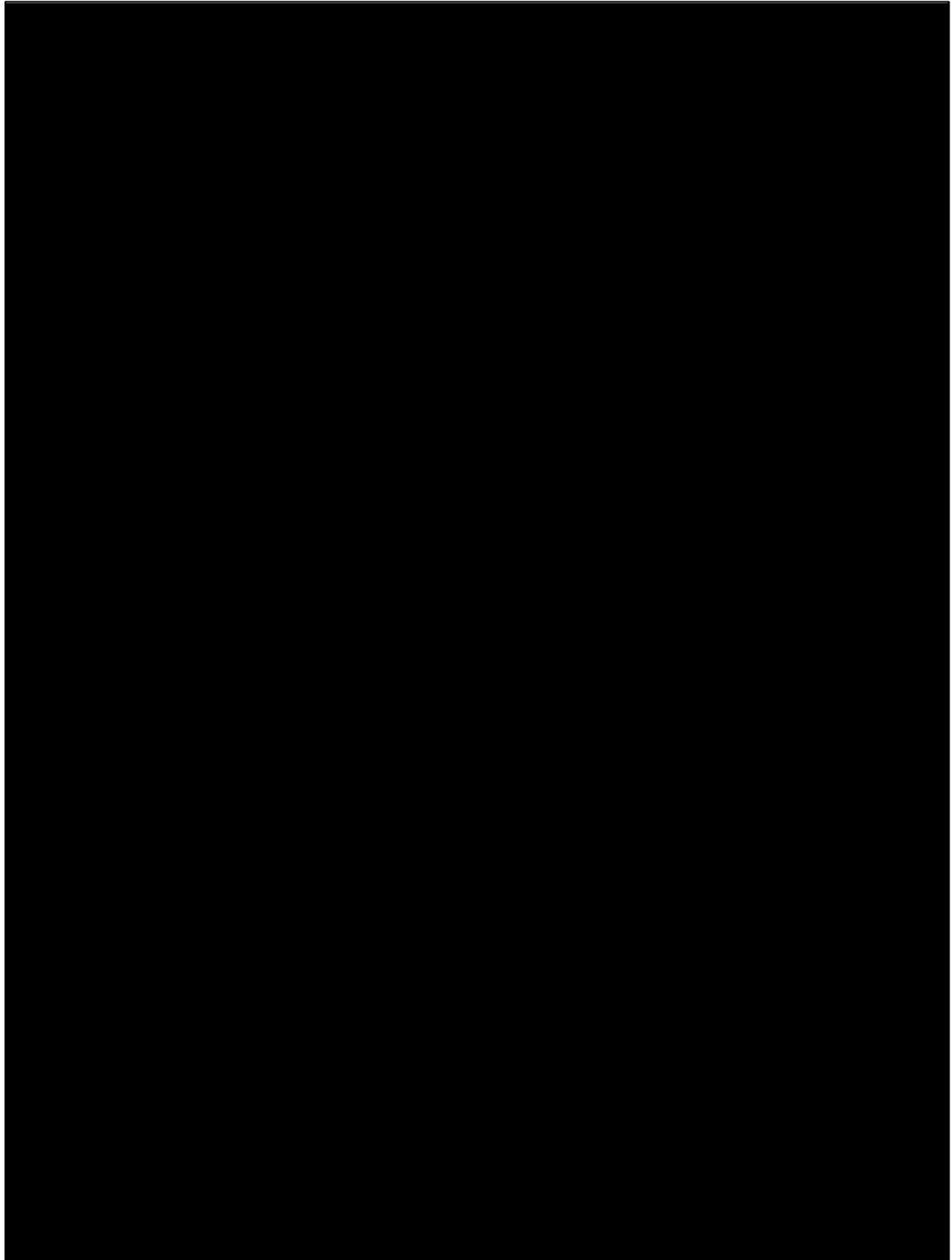
2. Los Angeles Times



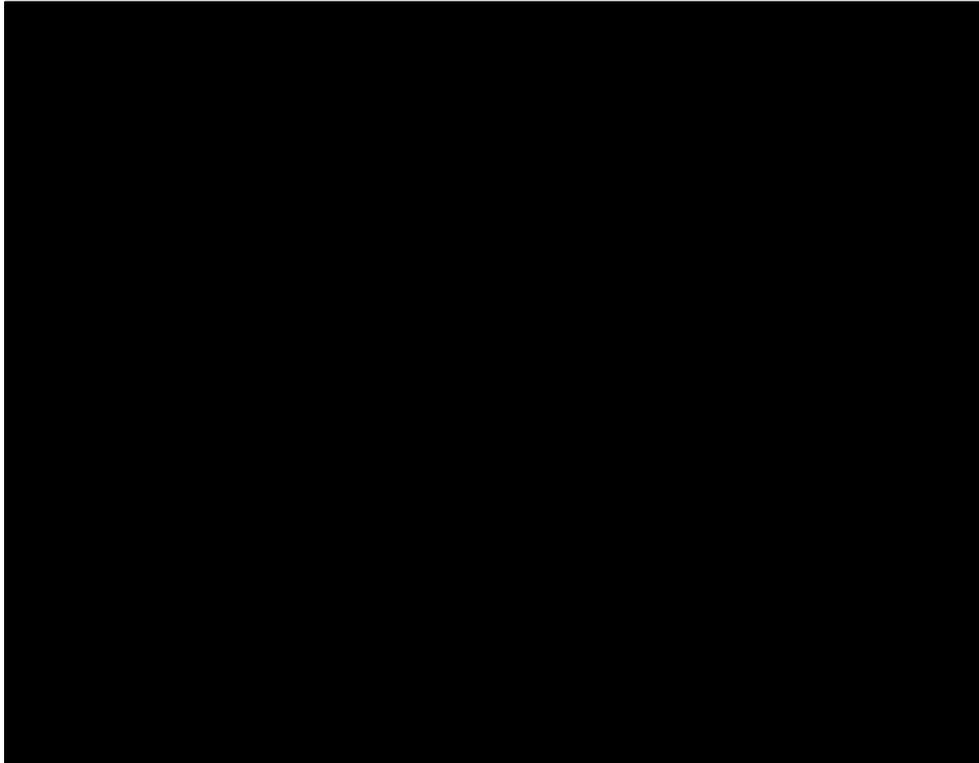
3. Chicago Tribune



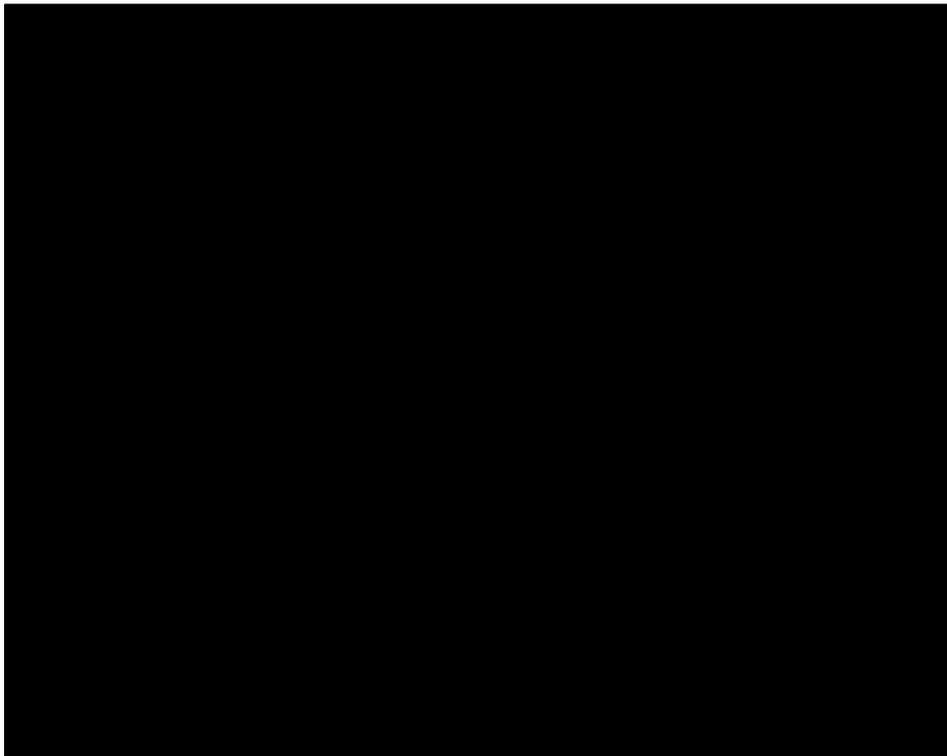
4. Philadelphia Inquirer



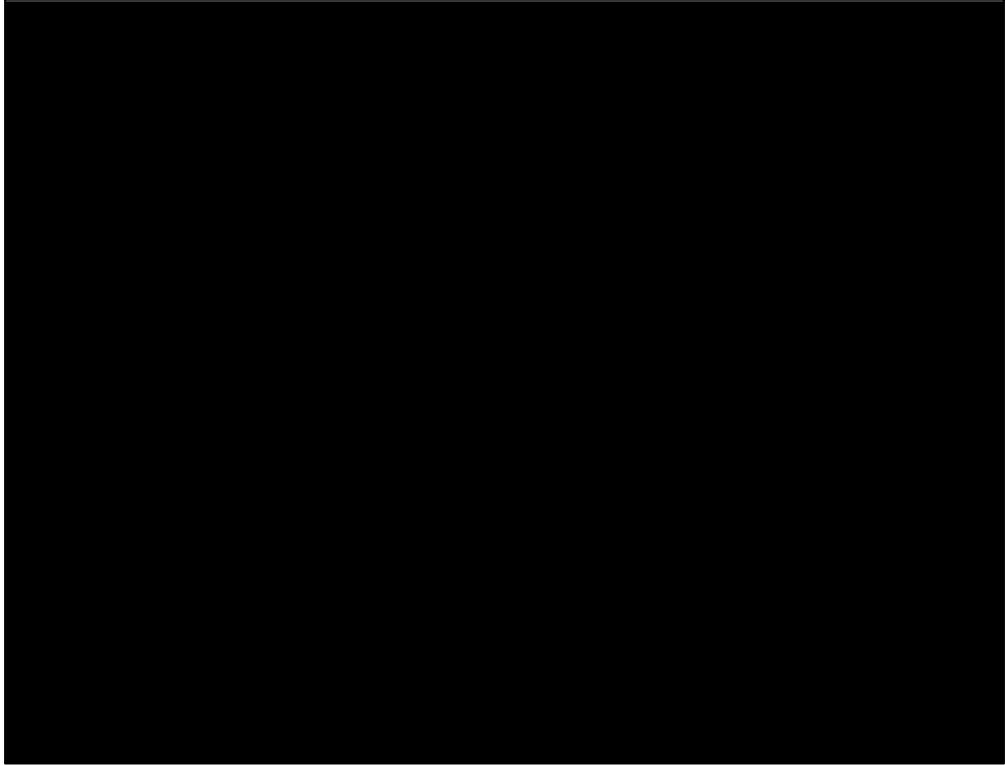
5. Dallas Morning News



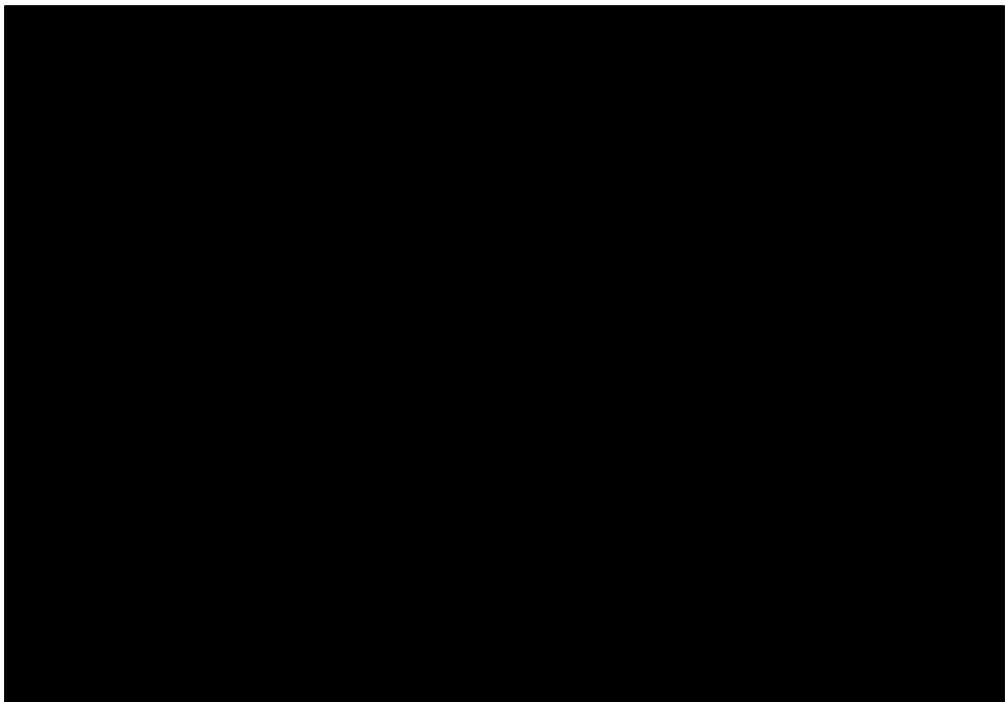
6. San Francisco Chronicle



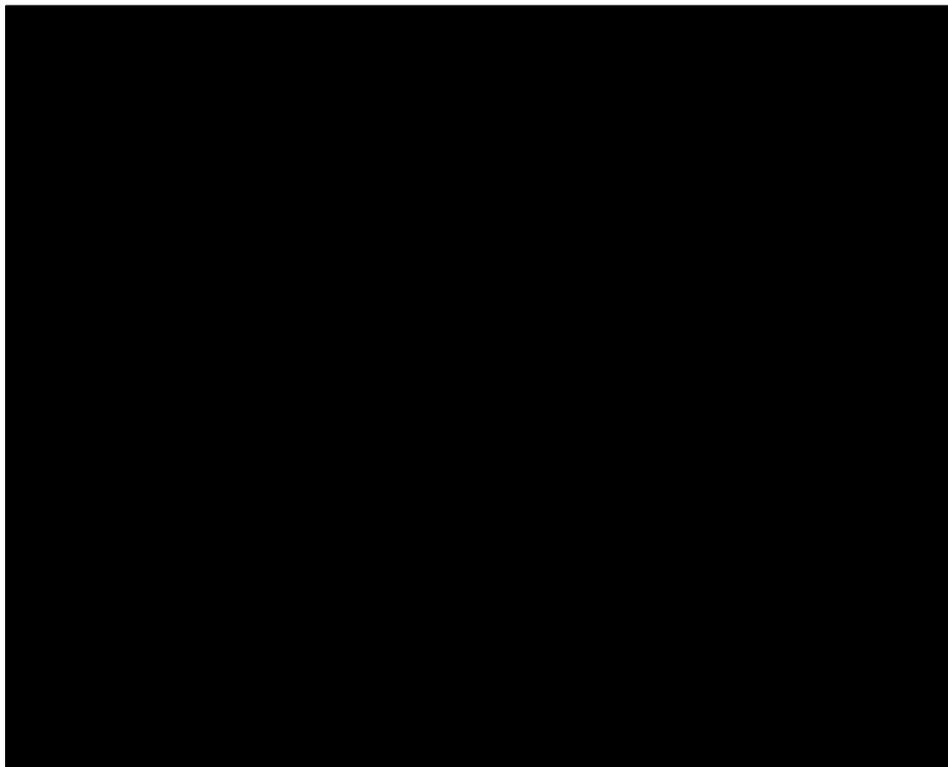
7. Washington Post



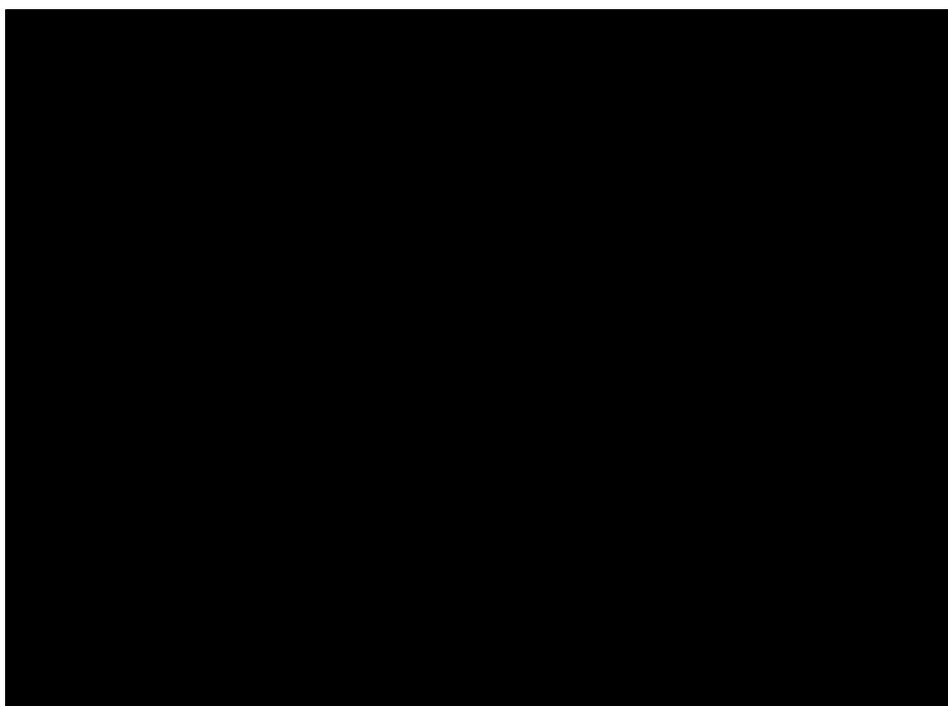
8. Houston Chronicle



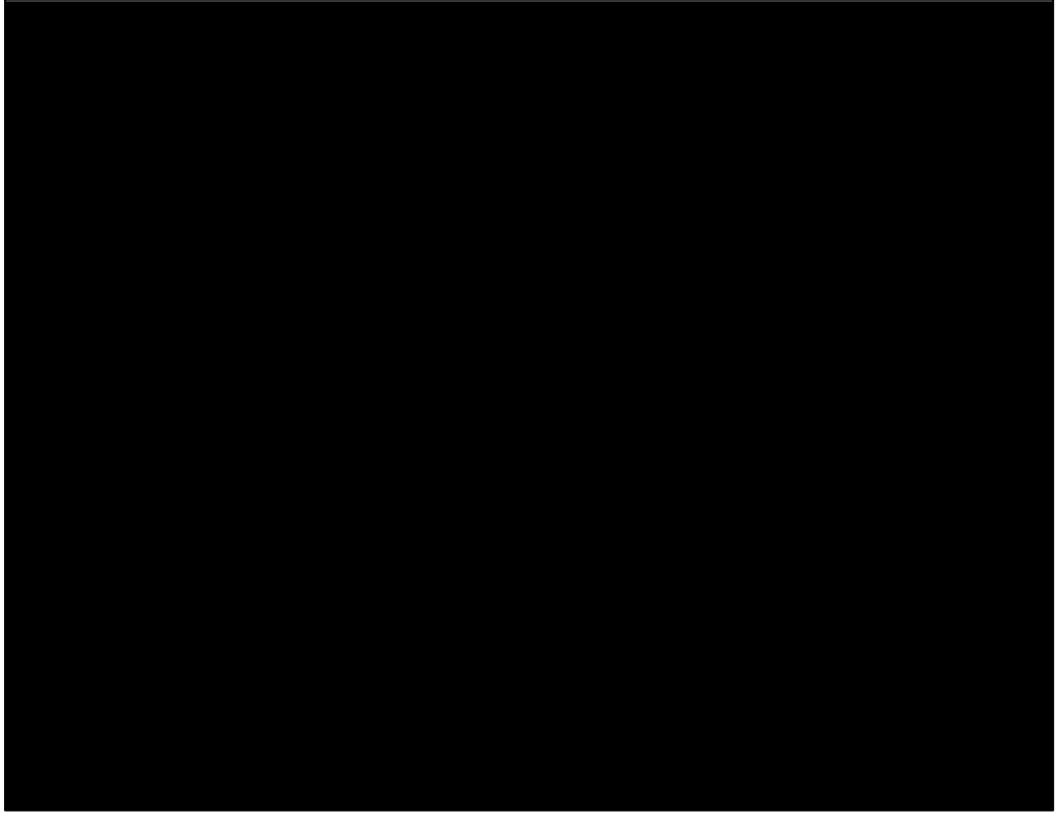
9. Boston Globe



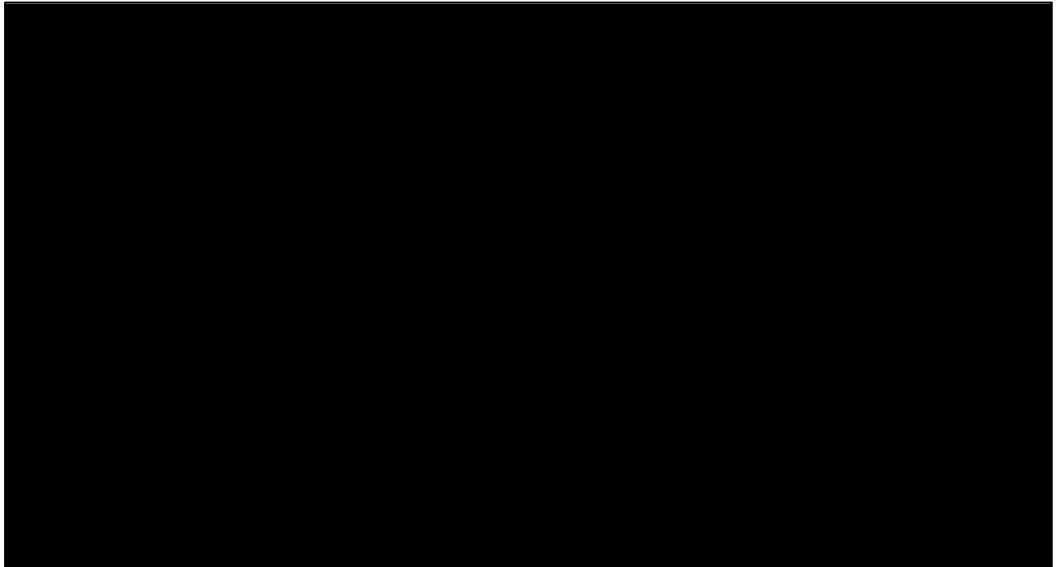
10. Atlanta Journal-Constitution



11. Tampa Bay Times



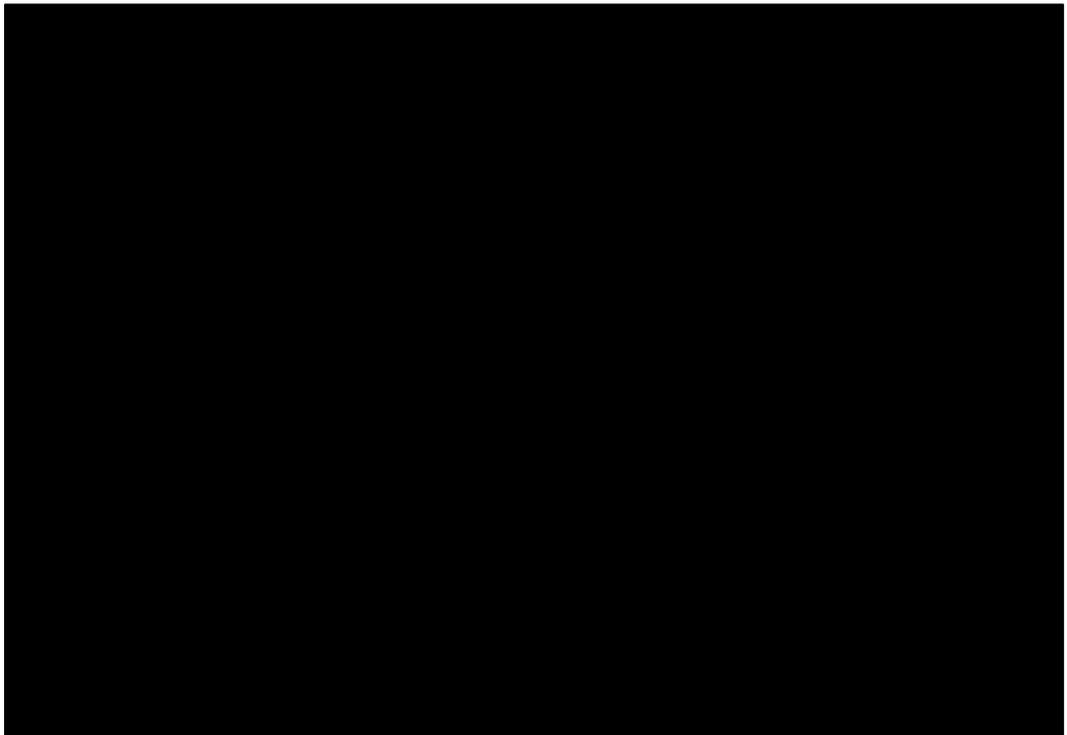
12. Arizona Republic



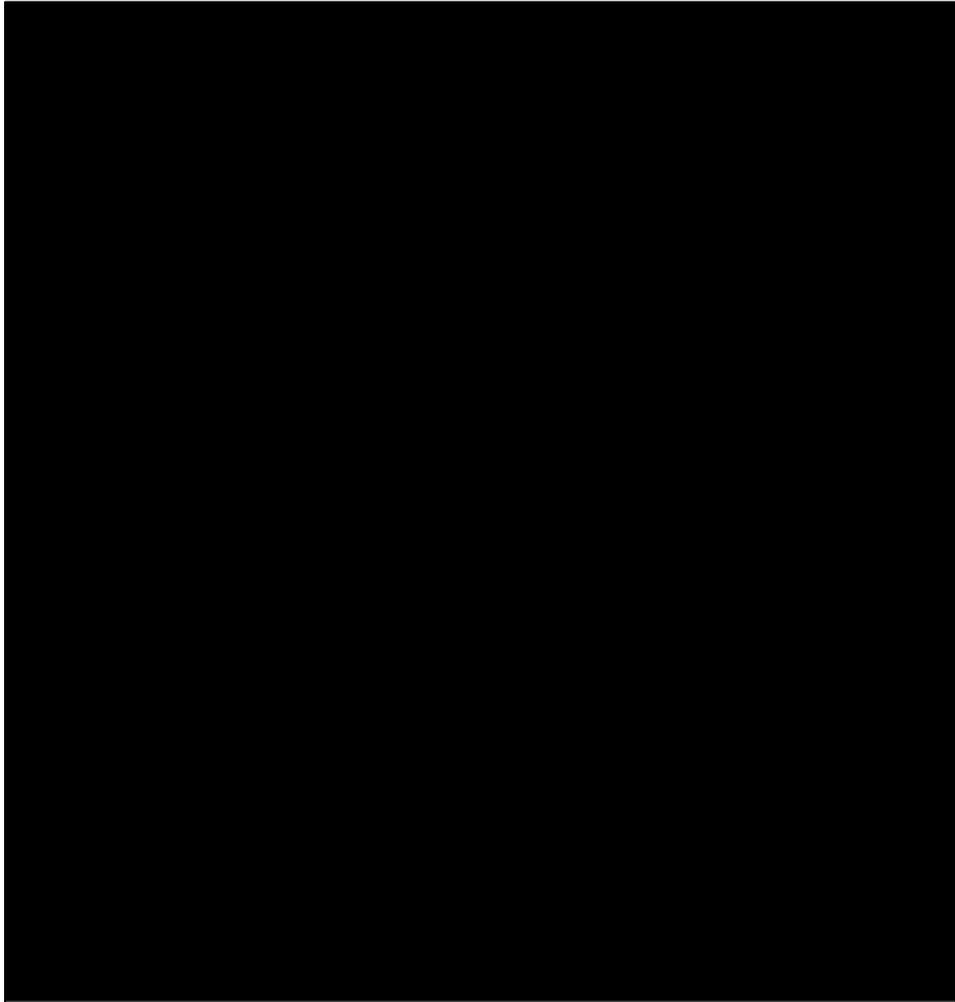
13. Detroit Free Press



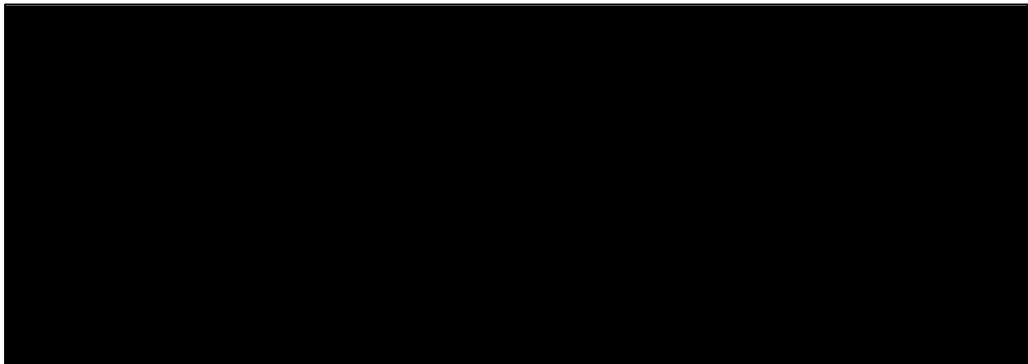
14. Seattle Times



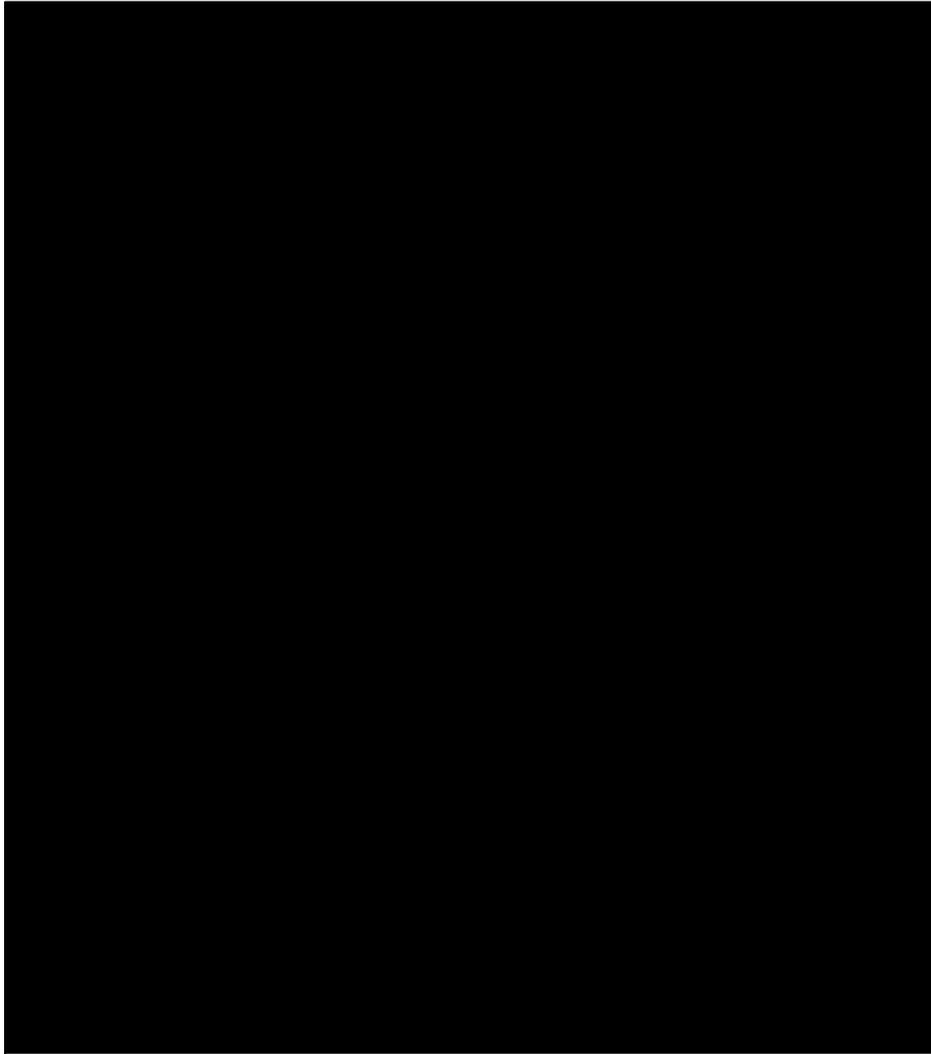
15. Star Tribune



16. The Miami Herald



17. The Denver Post



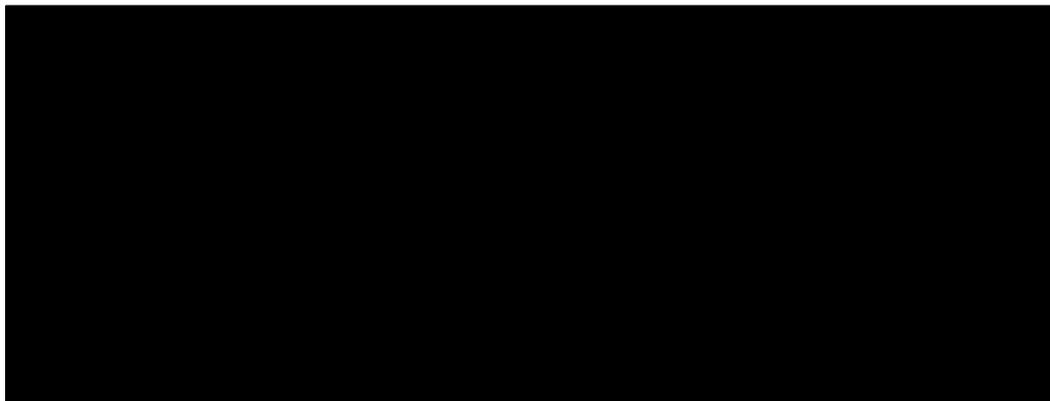
18. Orlando Sentinel



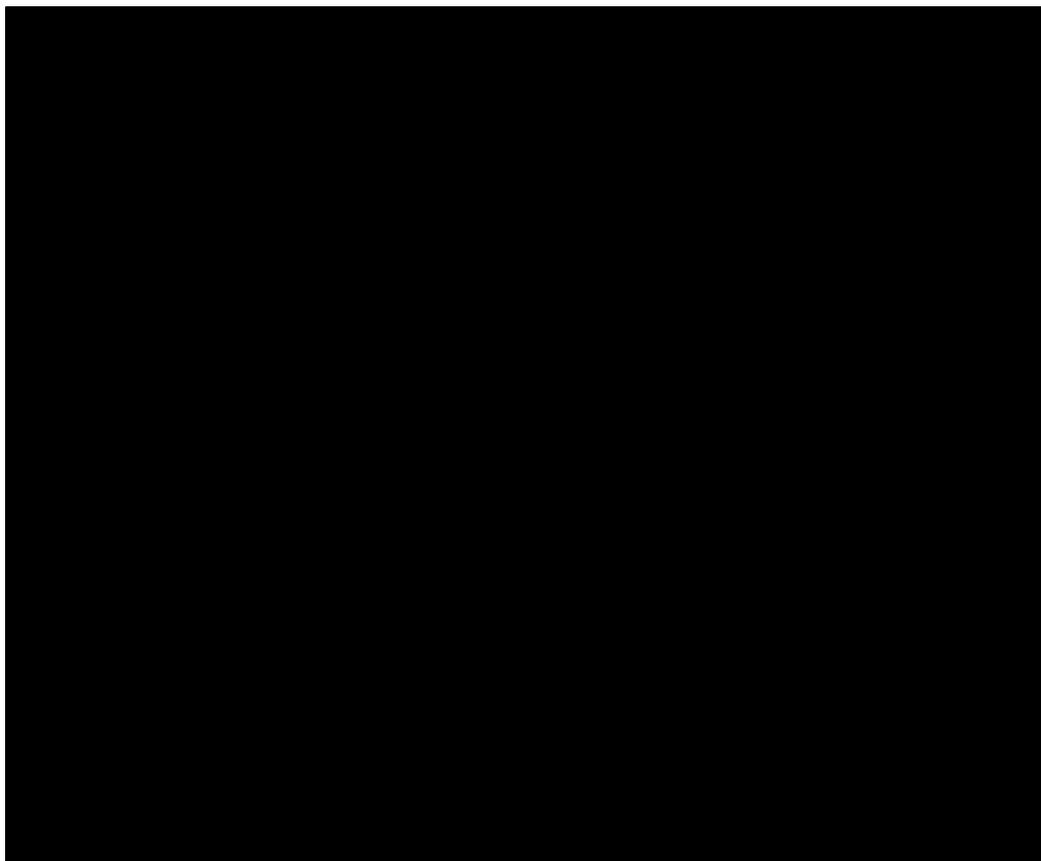
19. Plain Dealer



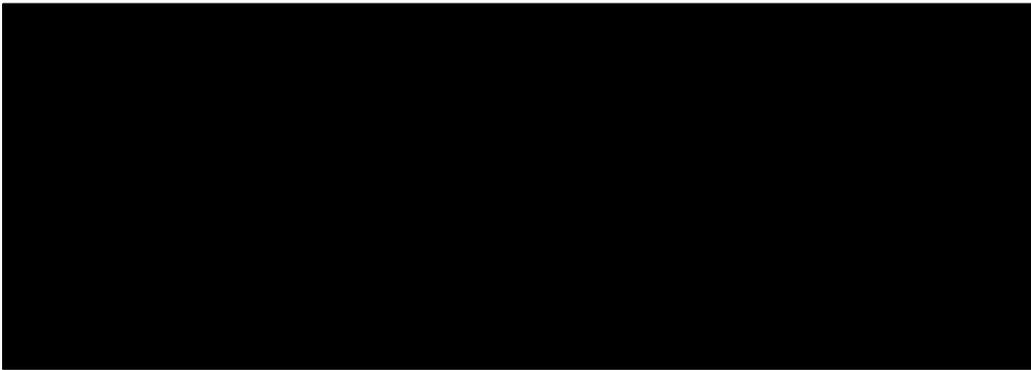
20. Sacramento Bee



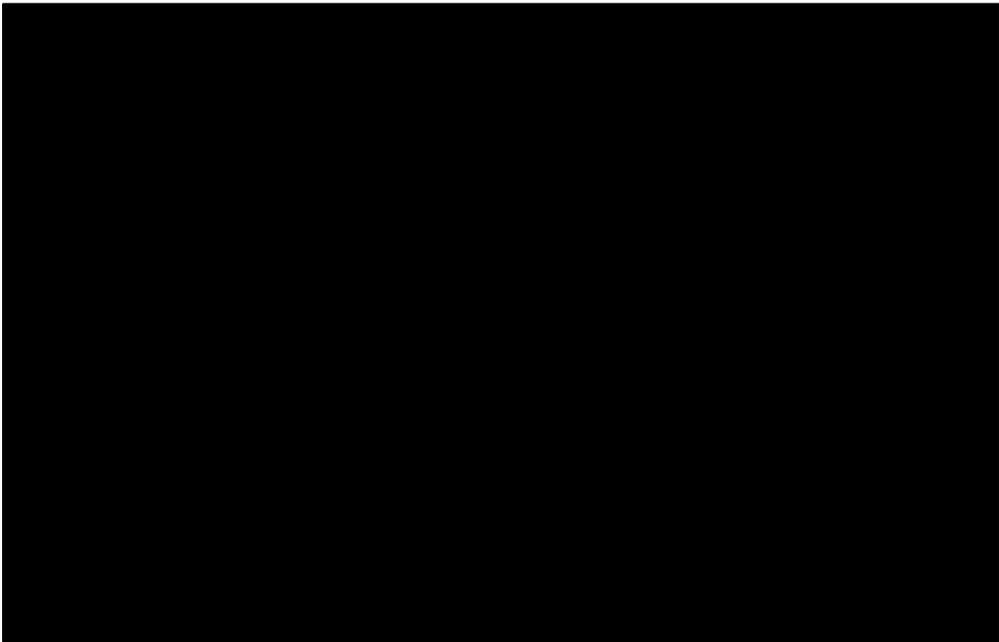
21. St. Louis Post-Dispatch



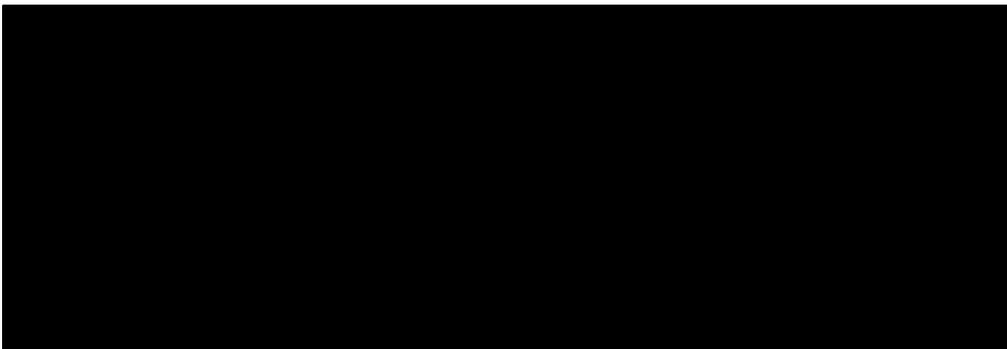
22. Charlotte Observer



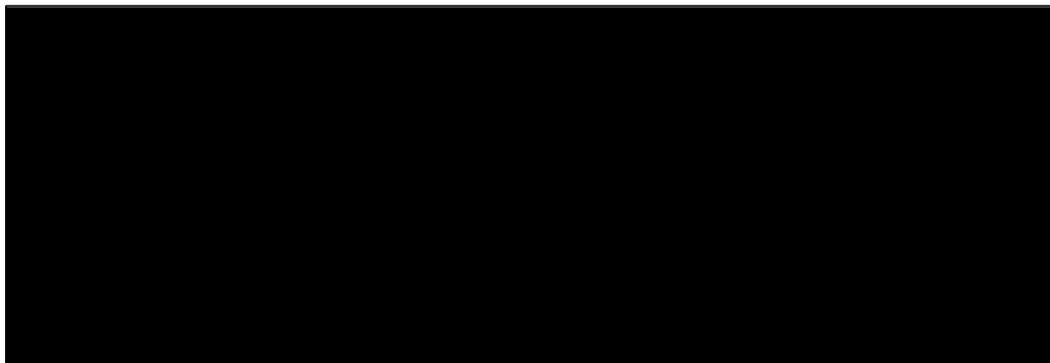
23. Pittsburgh Post-Gazette



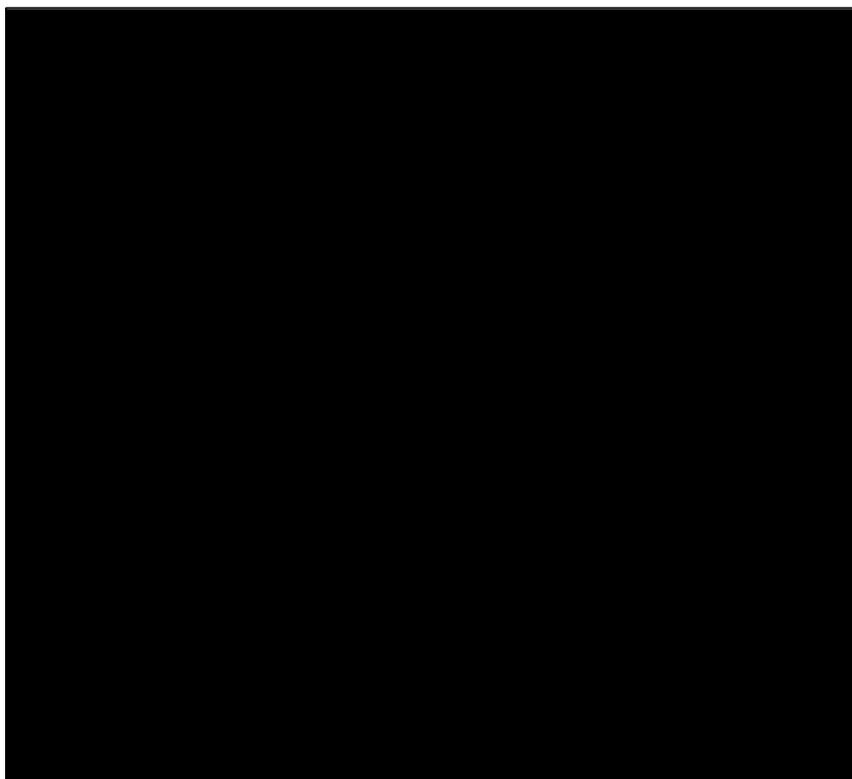
24. News & Observer



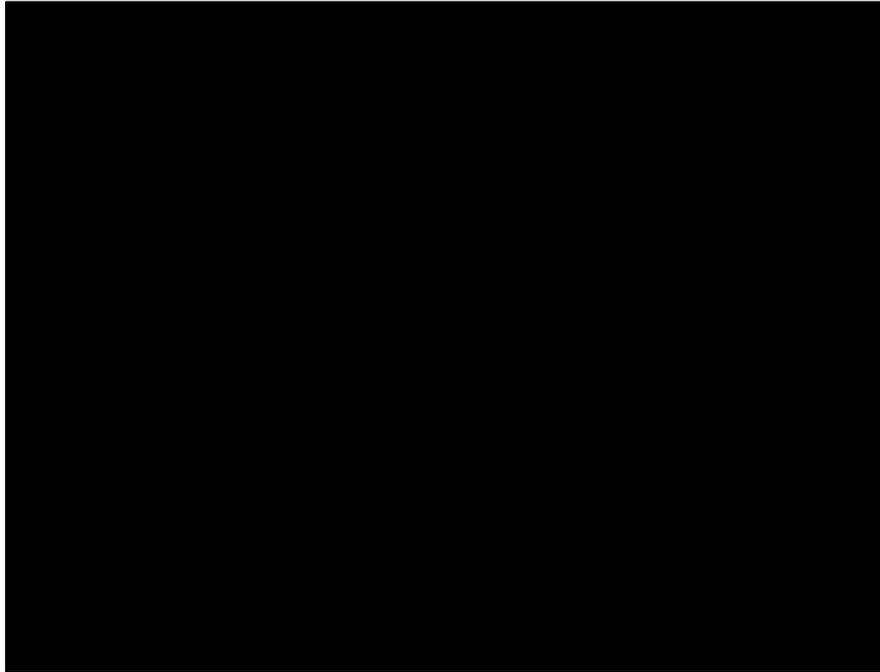
25. Oregonian



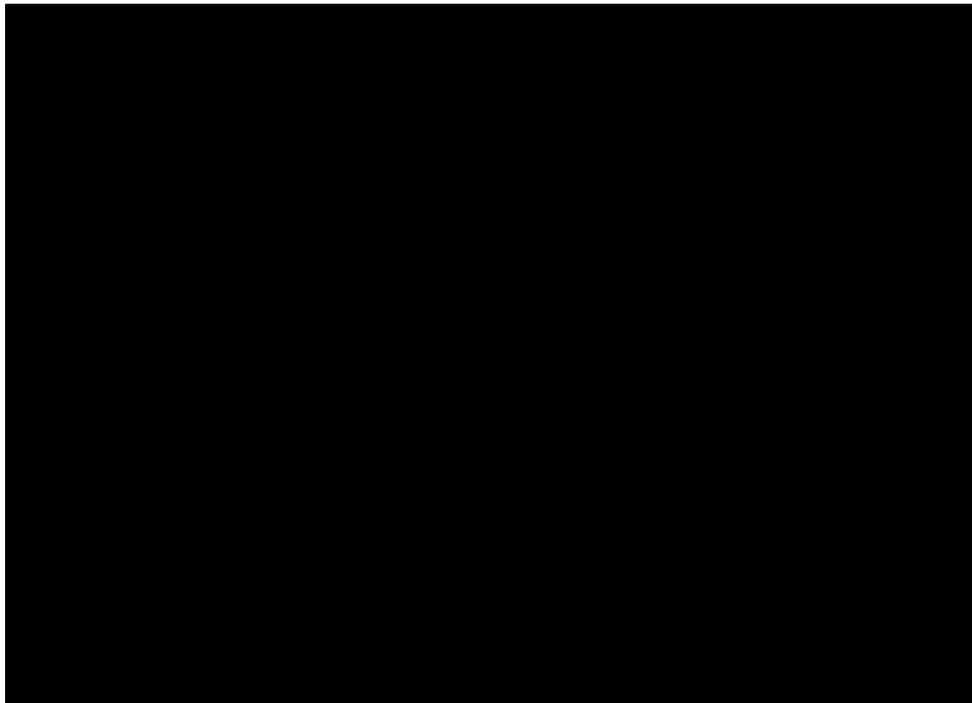
26. The Baltimore Sun



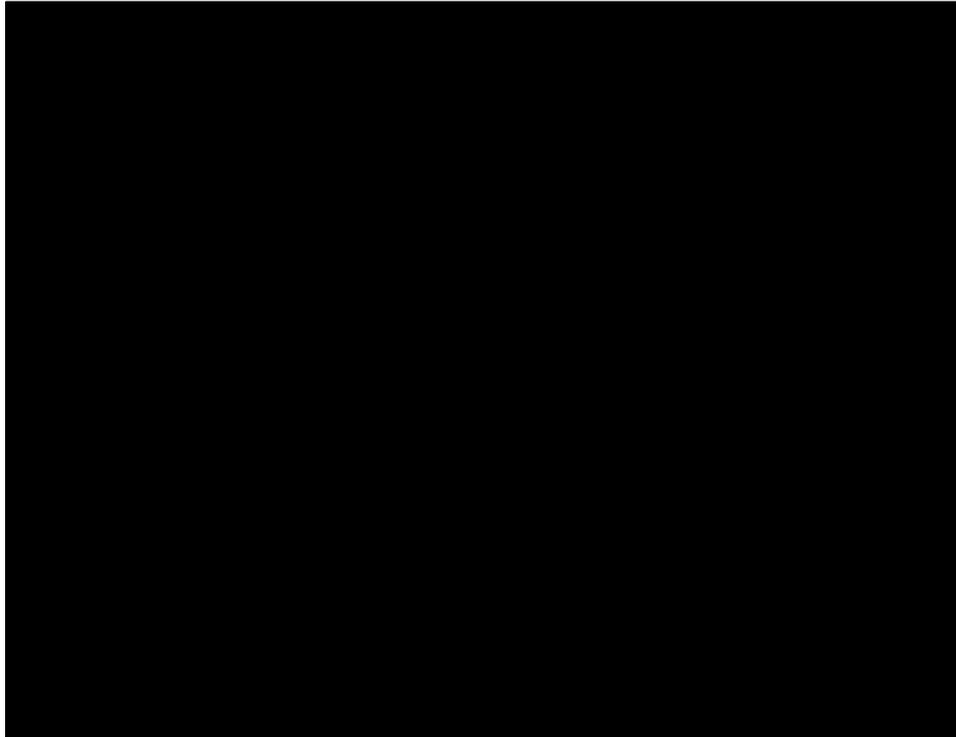
27. Indianapolis Star



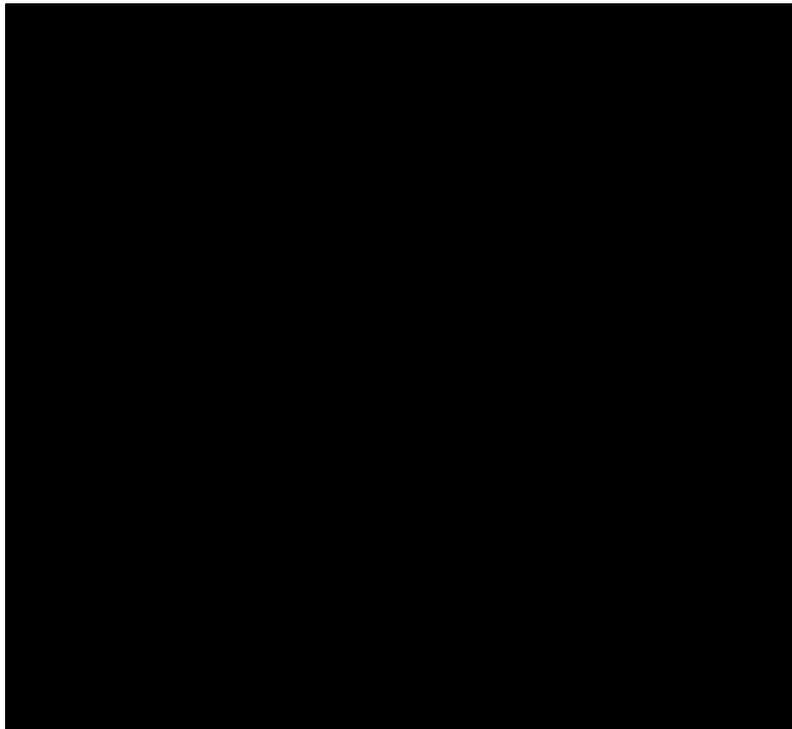
28. The San Diego Union-Tribune



29. Tennessean



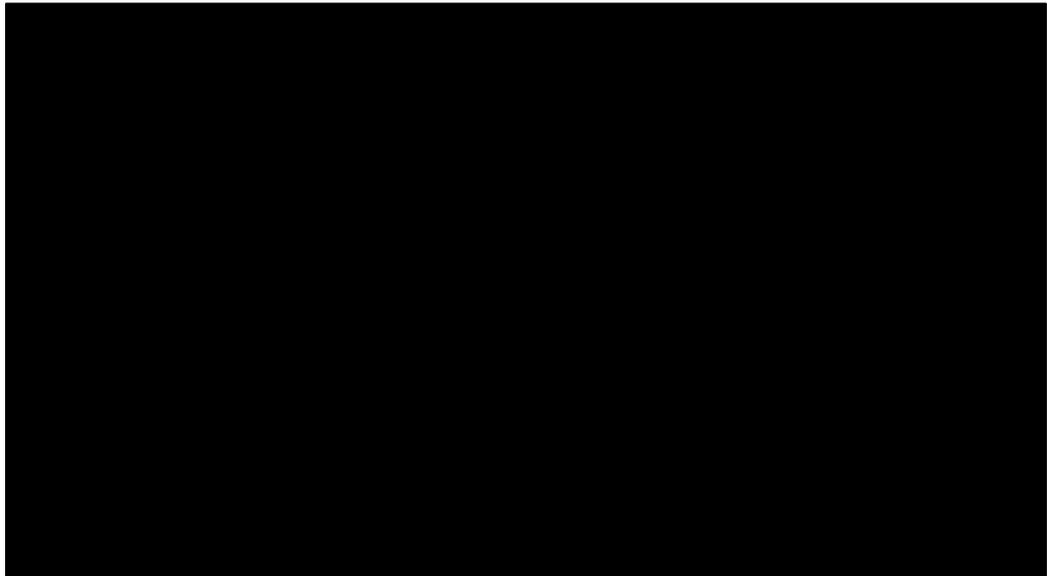
30. Hartford Courant



31. San Antonio Express-News



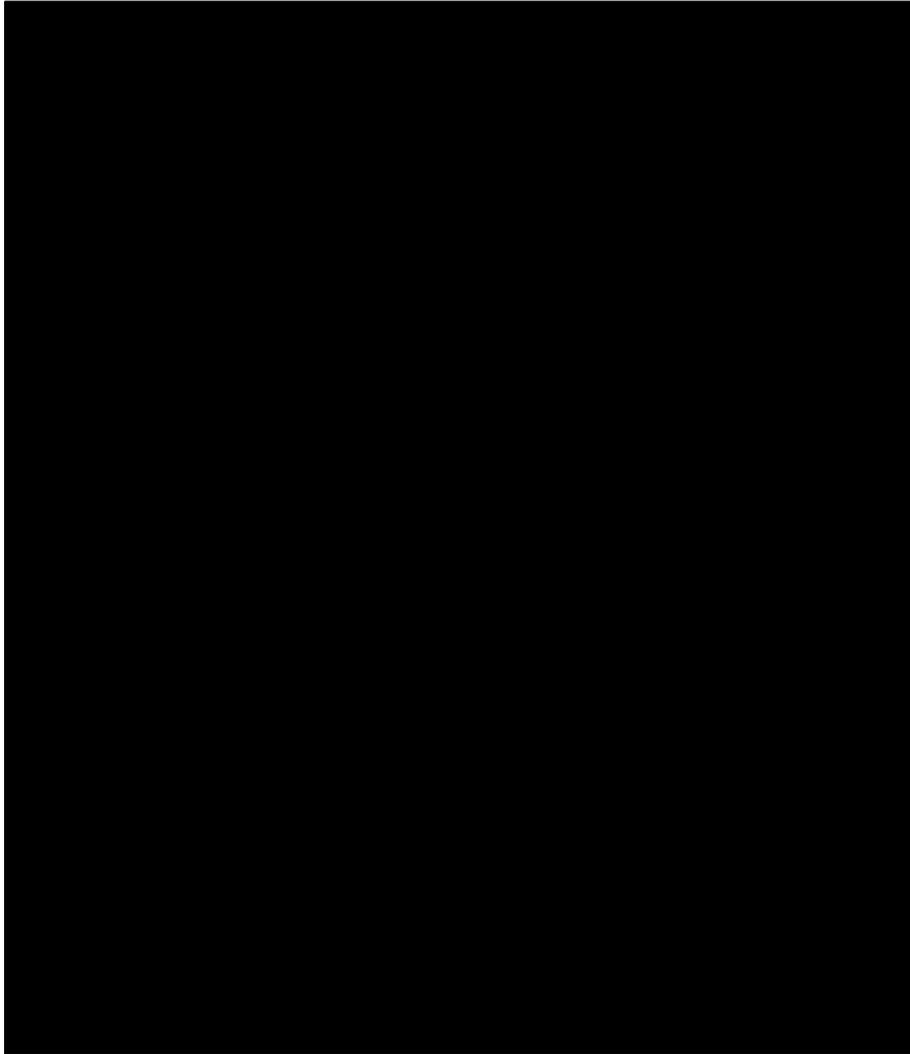
32. Columbus Dispatch



33. Kansas City Star



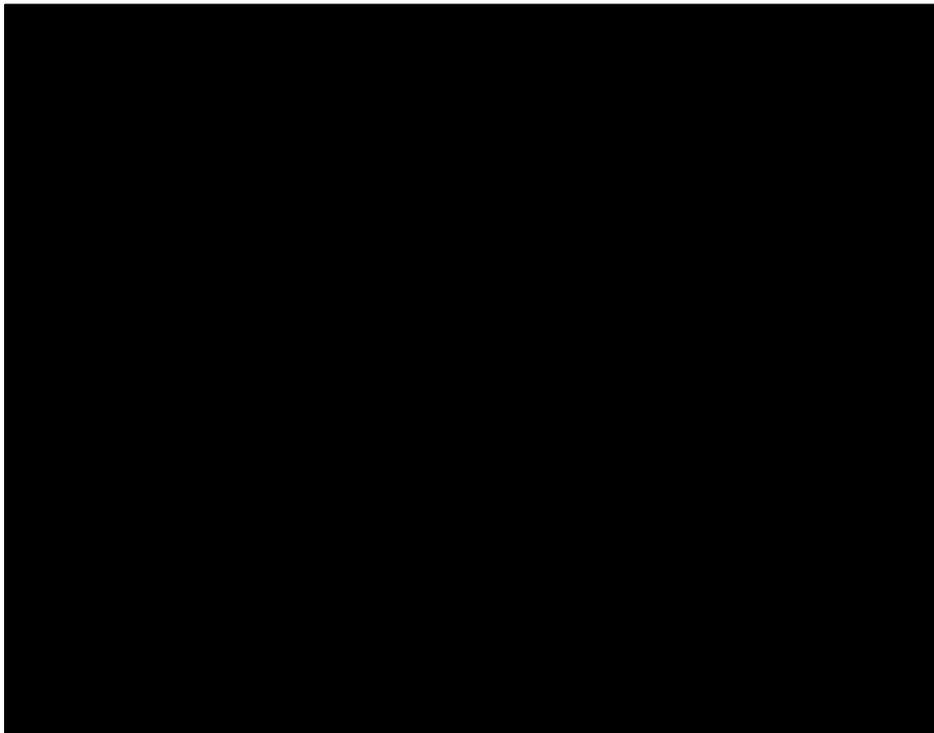
34. The Salt Lake Tribune



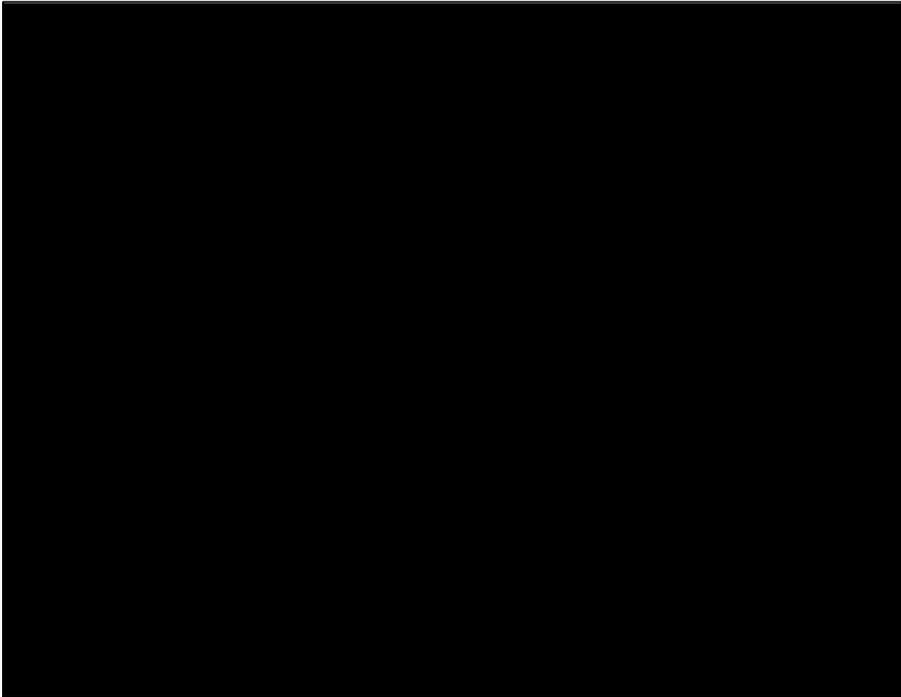
35. Milwaukee Journal Sentinel



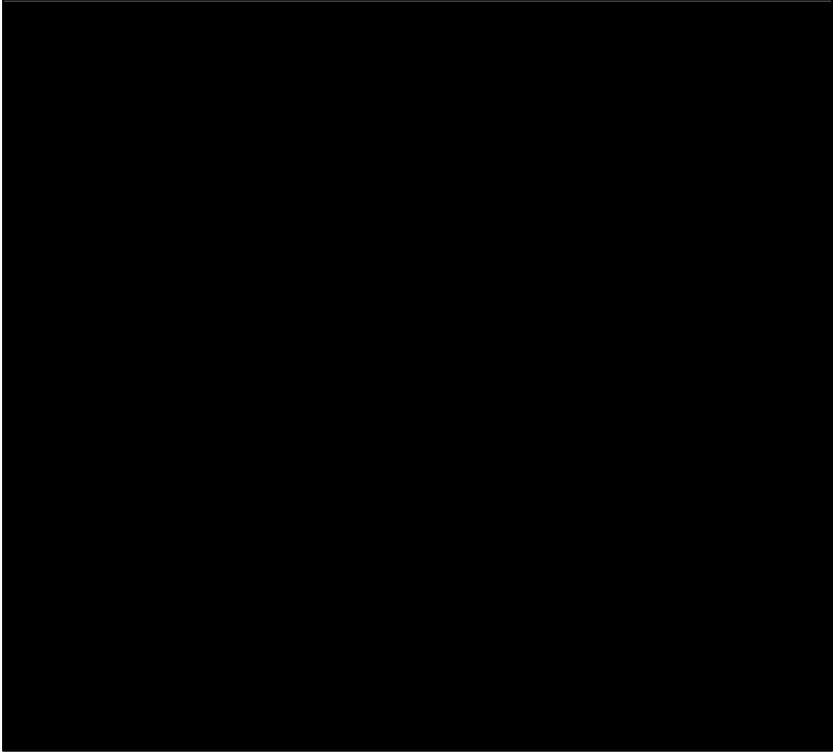
36. Cincinnati Enquirer



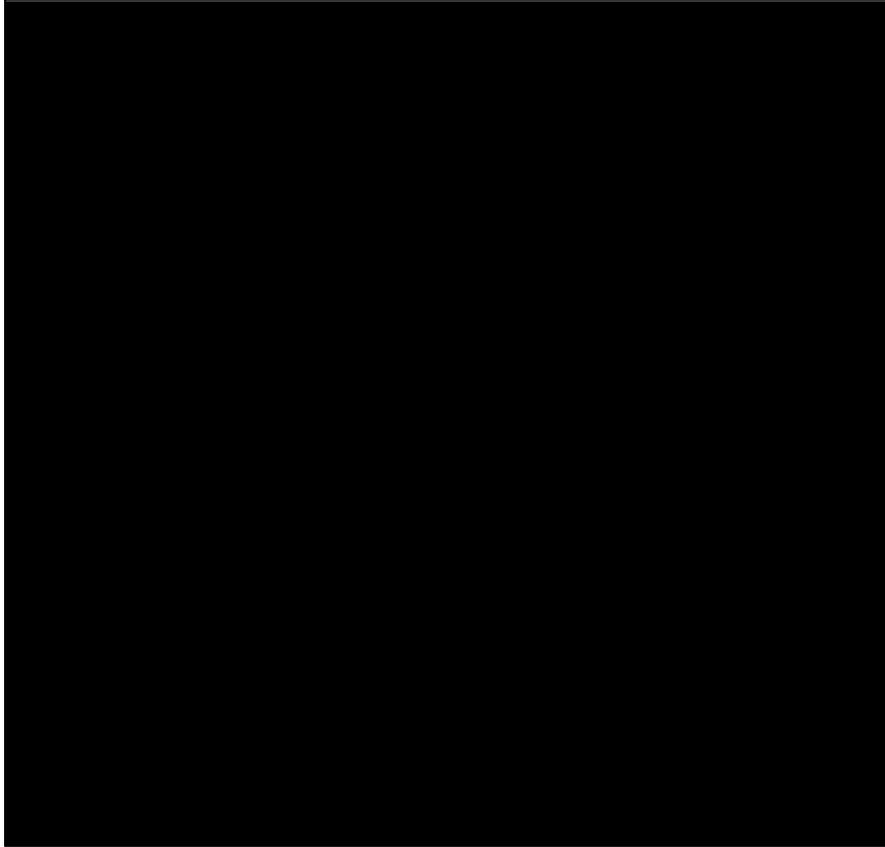
37. Greenville News



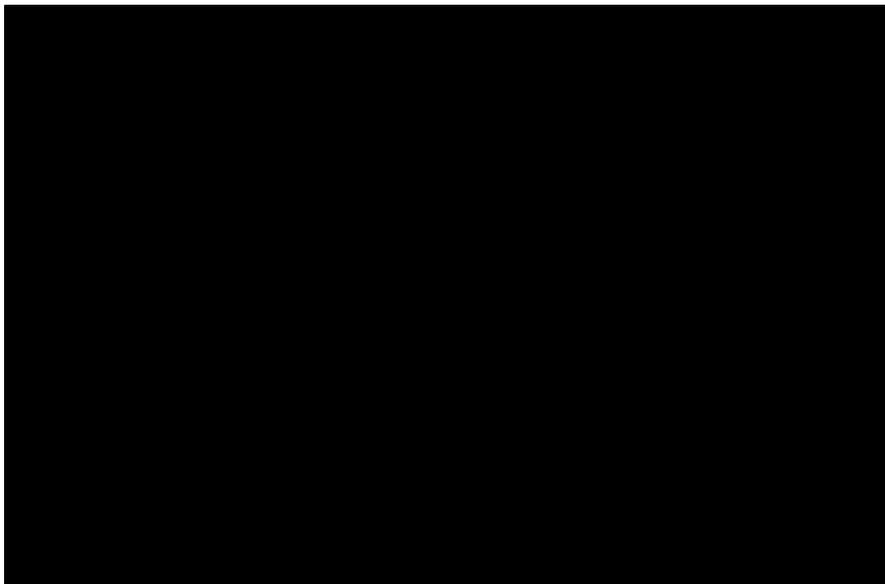
38. The Palm Beach Post



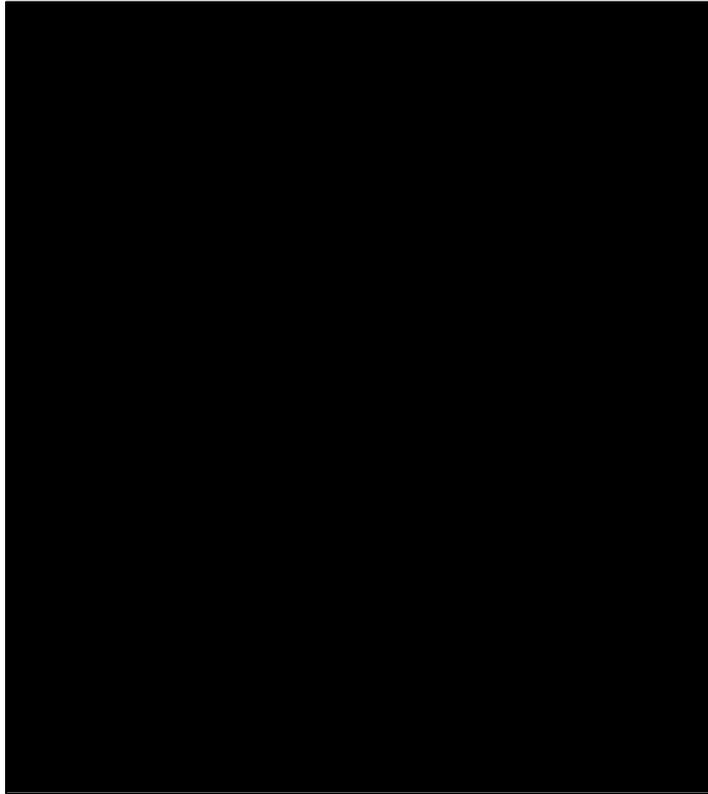
39. Austin American-Statesman



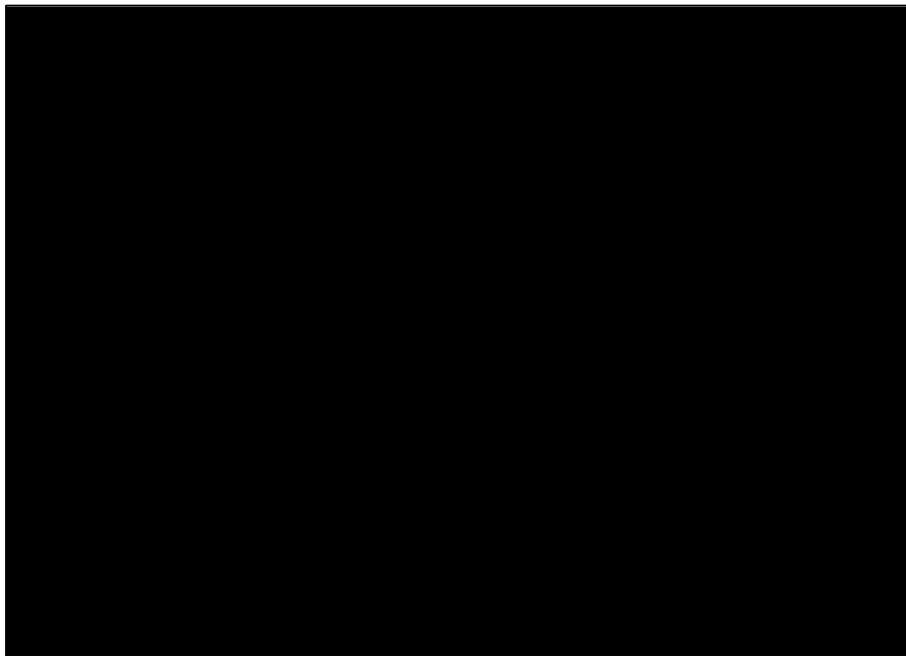
40. Las Vegas Review-Journal



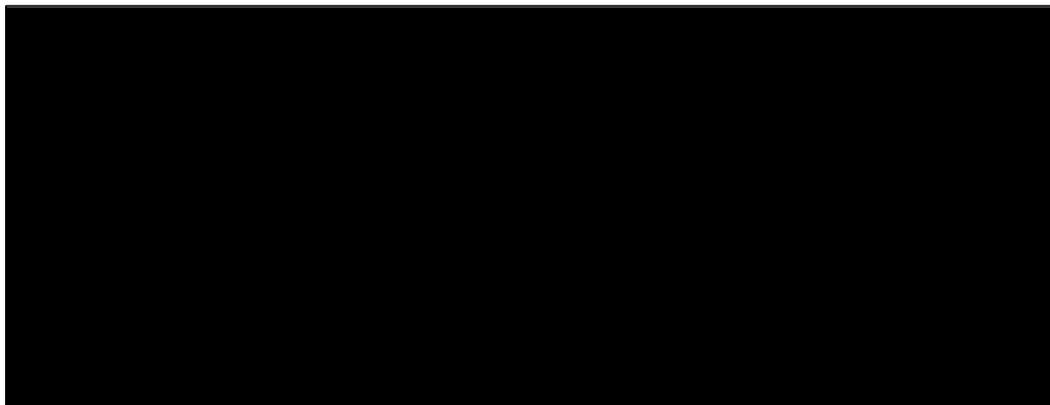
41. Oklahoman



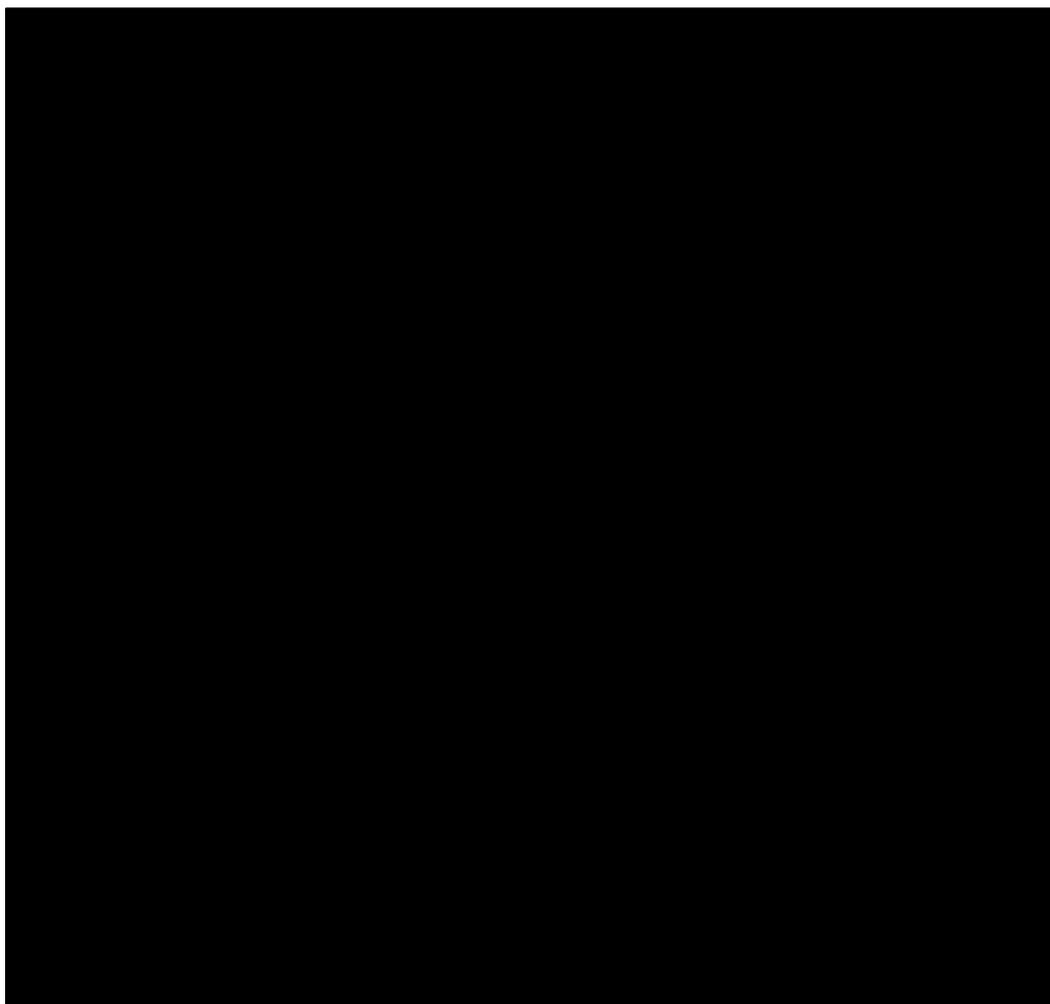
42. Virginian-Pilot



43. Patriot-News



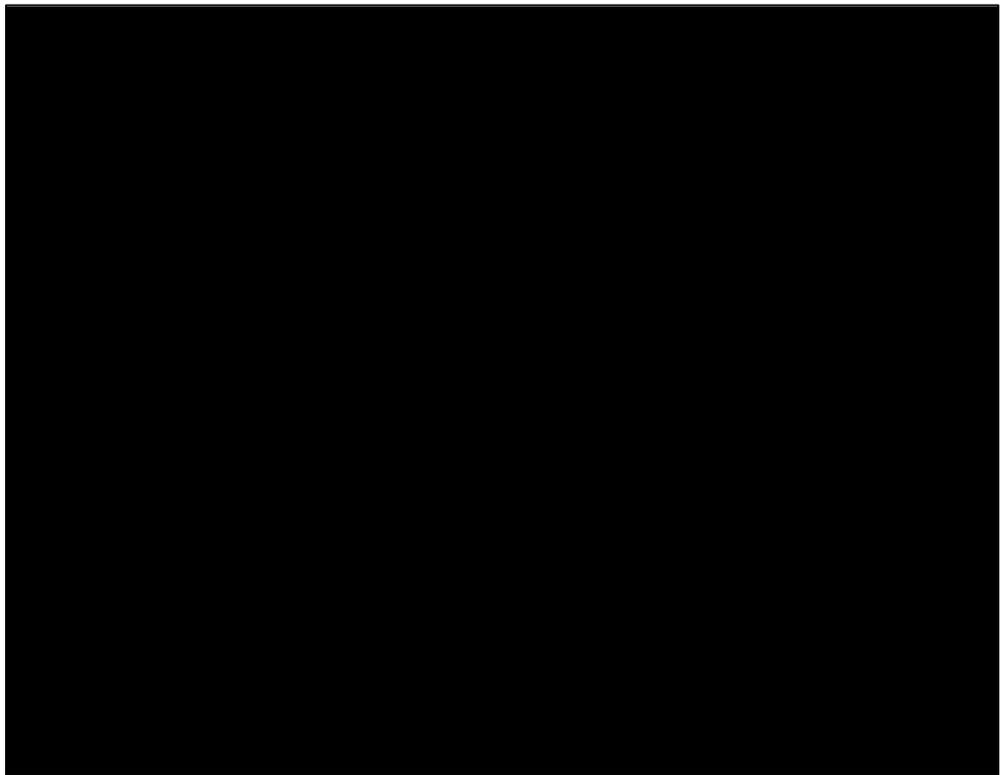
44. Grand Rapids Press



45. The Birmingham News



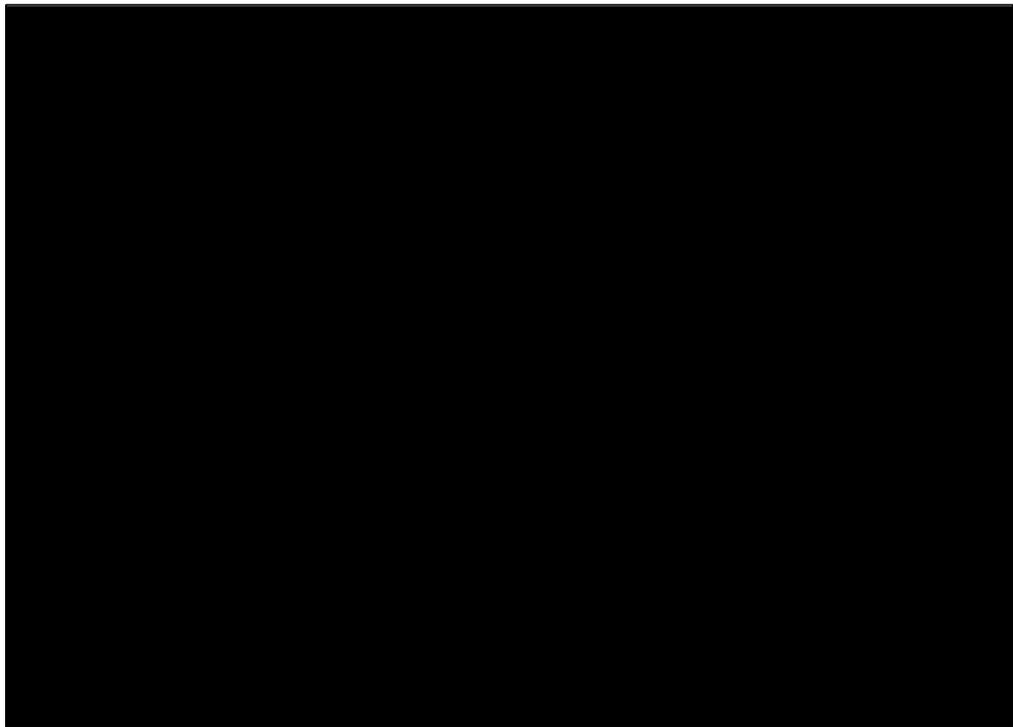
46. News & Record



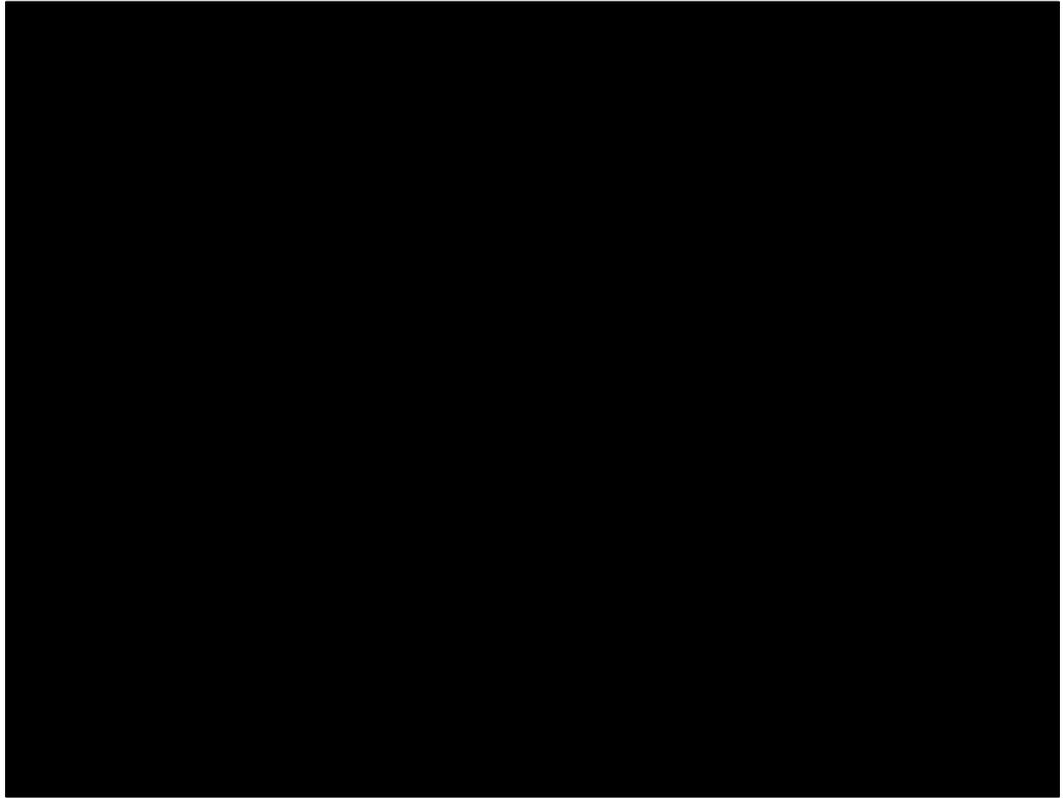
47. Florida Times-Union



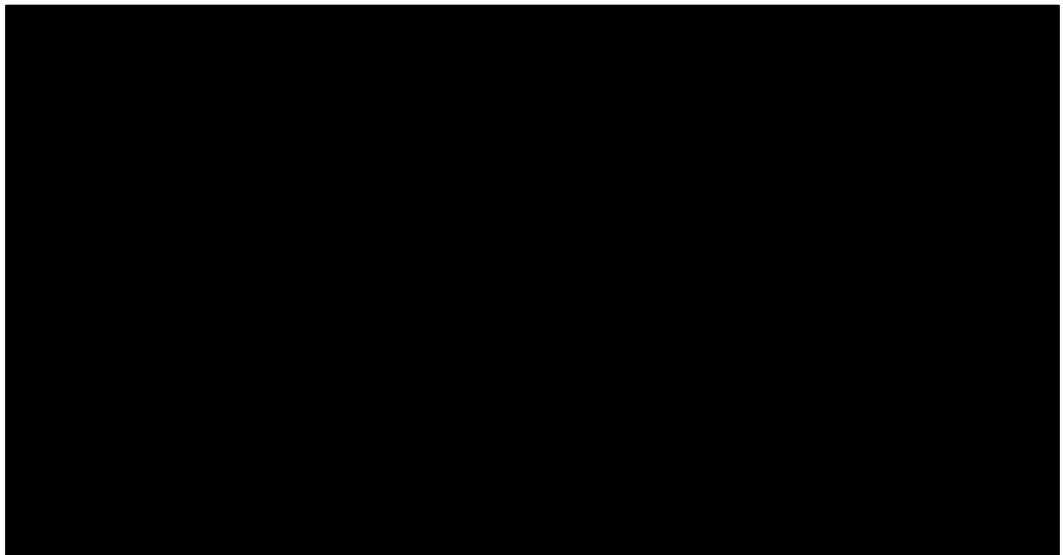
48. Albuquerque Journal



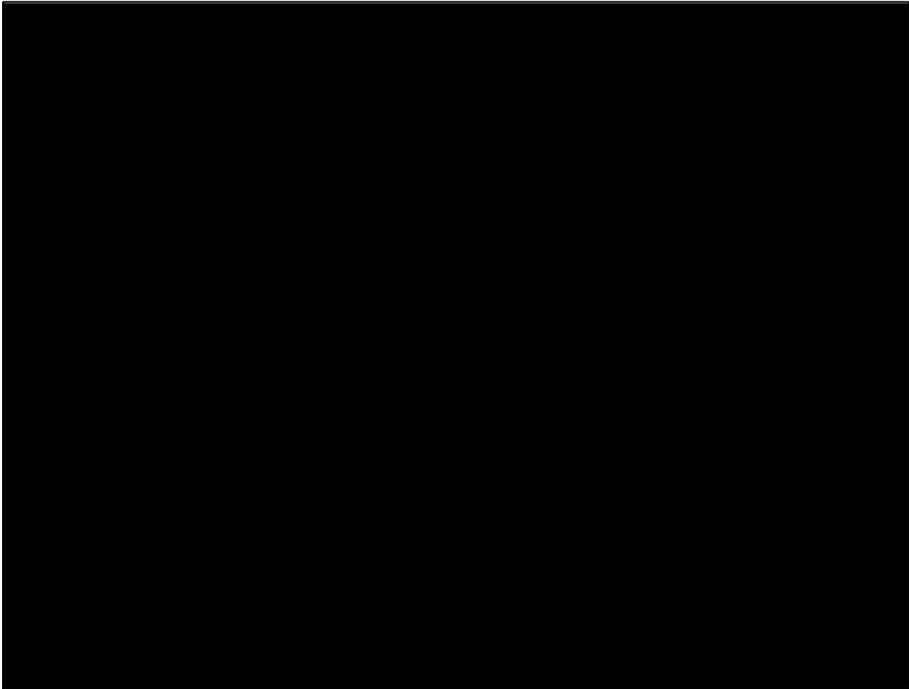
49. Courier-Journal



50. Times-Picayune



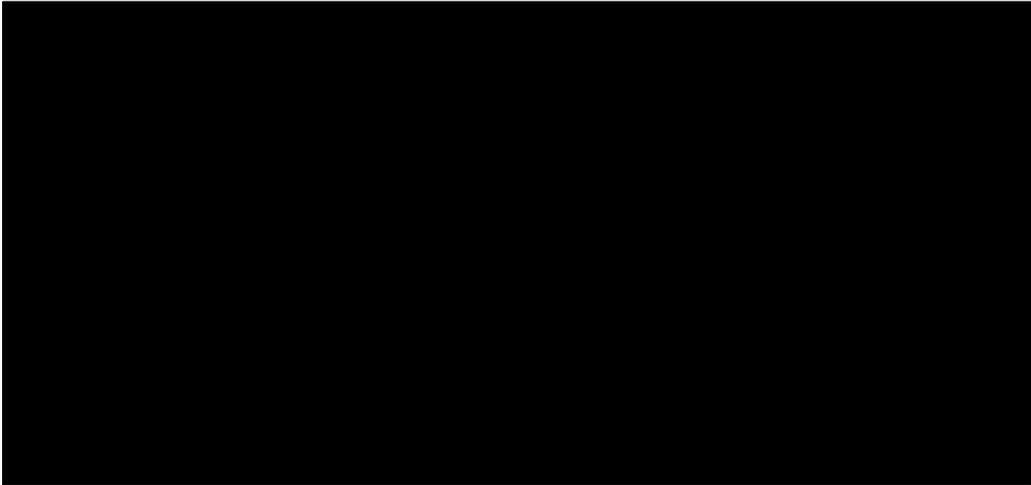
51. Commercial Appeal



52. Providence Journal



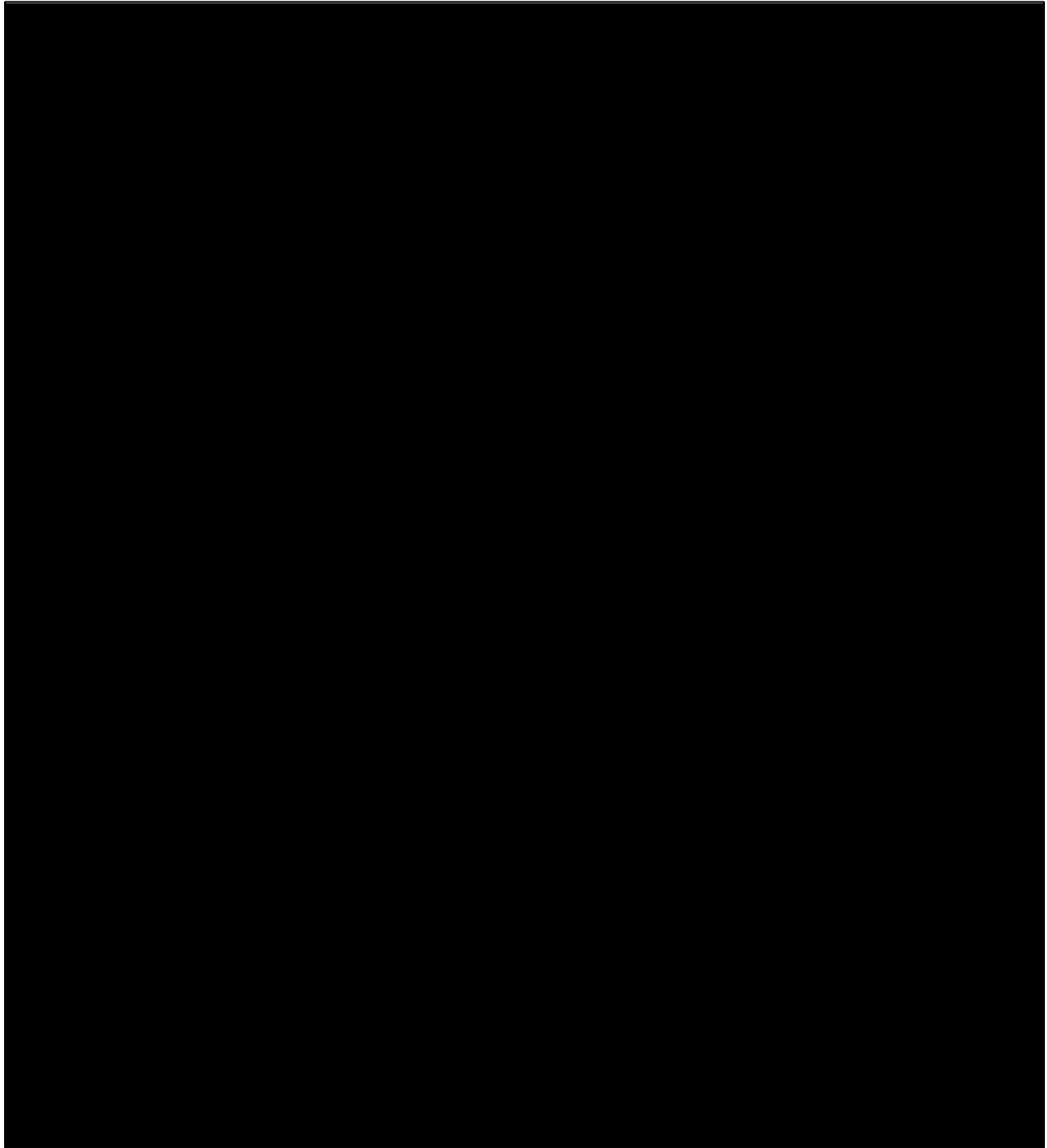
53. Buffalo News



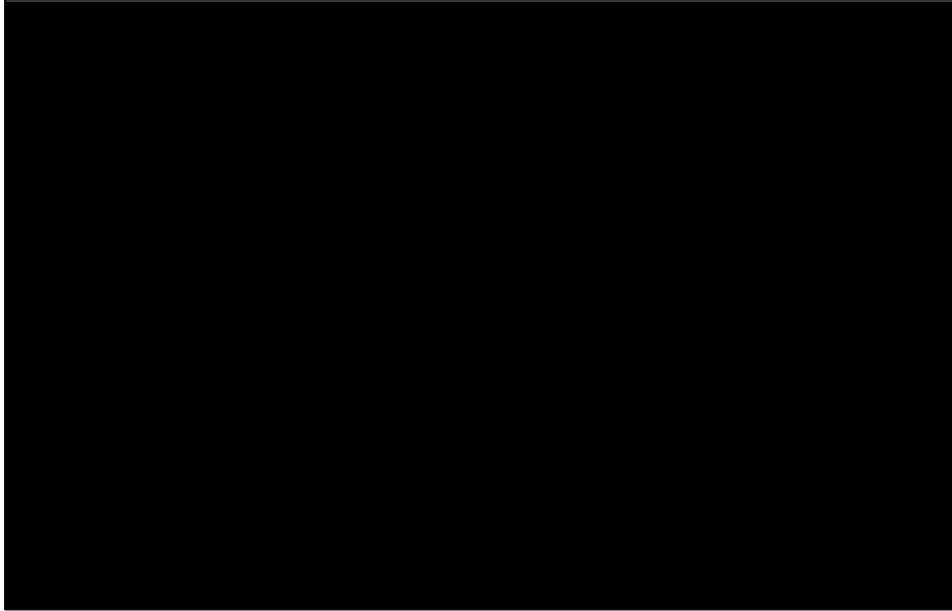
54. Fresno Bee



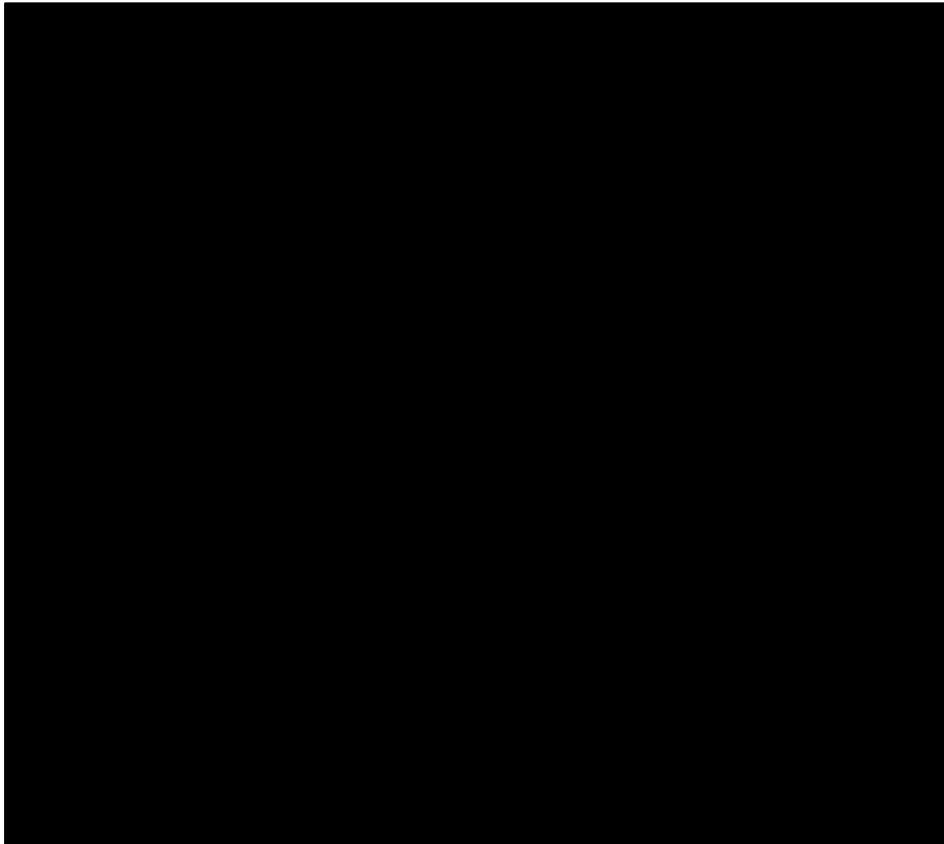
55. Richmond Times-Dispatch



56. Times-Tribune



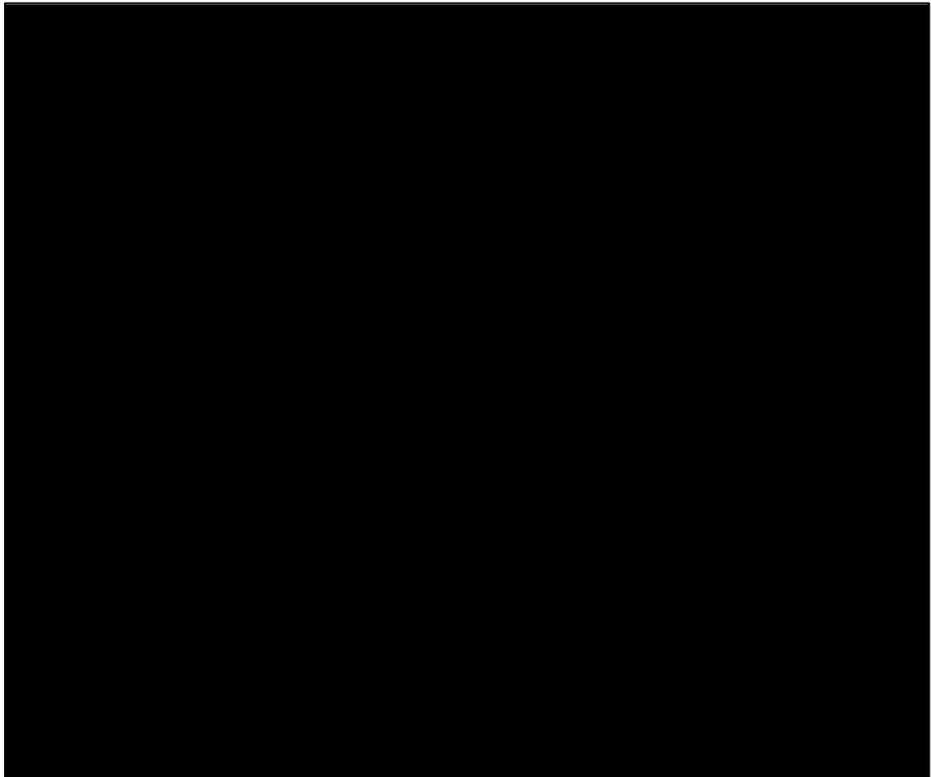
57. Arkansas Democrat-Gazette



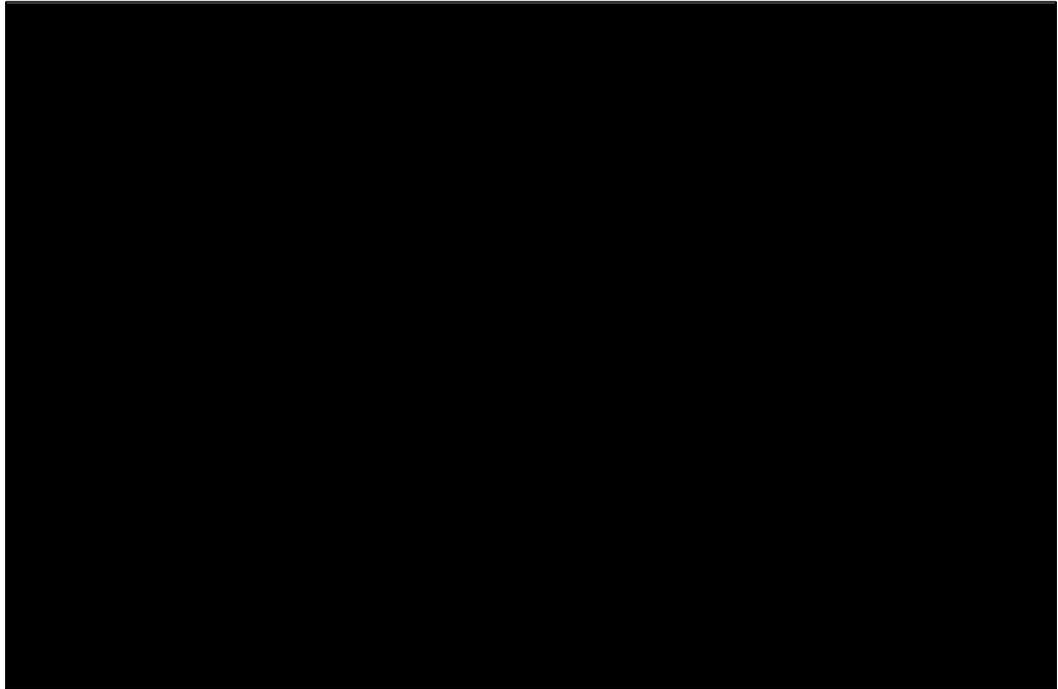
58. Tulsa World



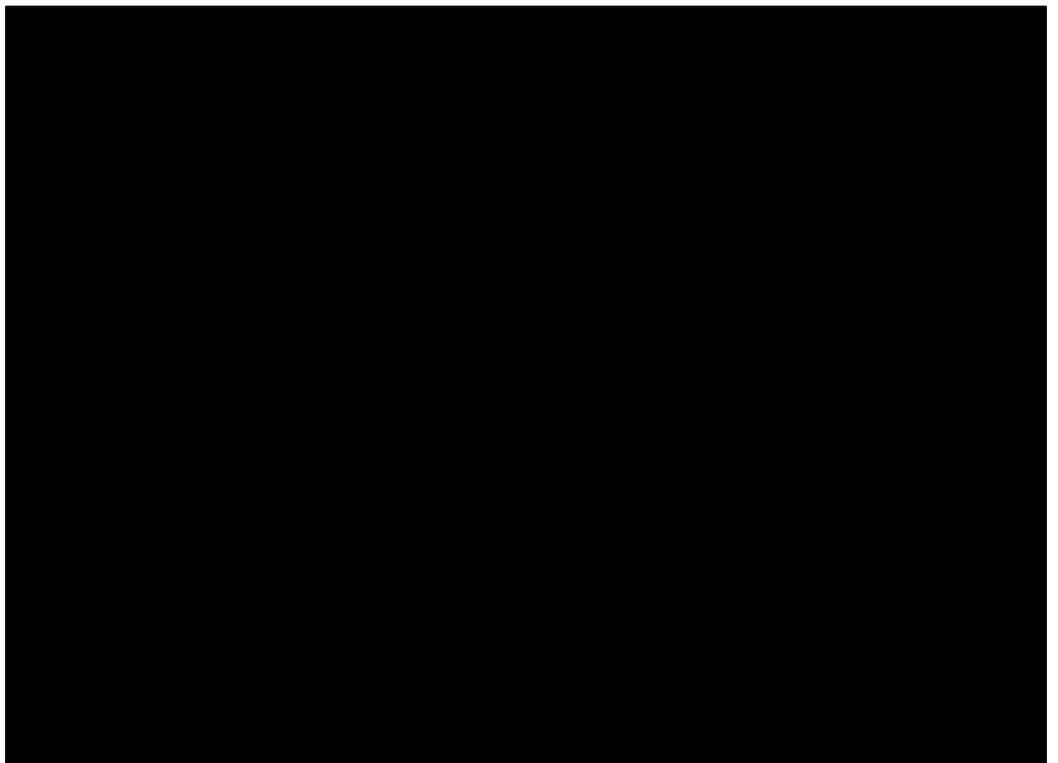
59. Times Union



60. Press-Register



61. News-Press



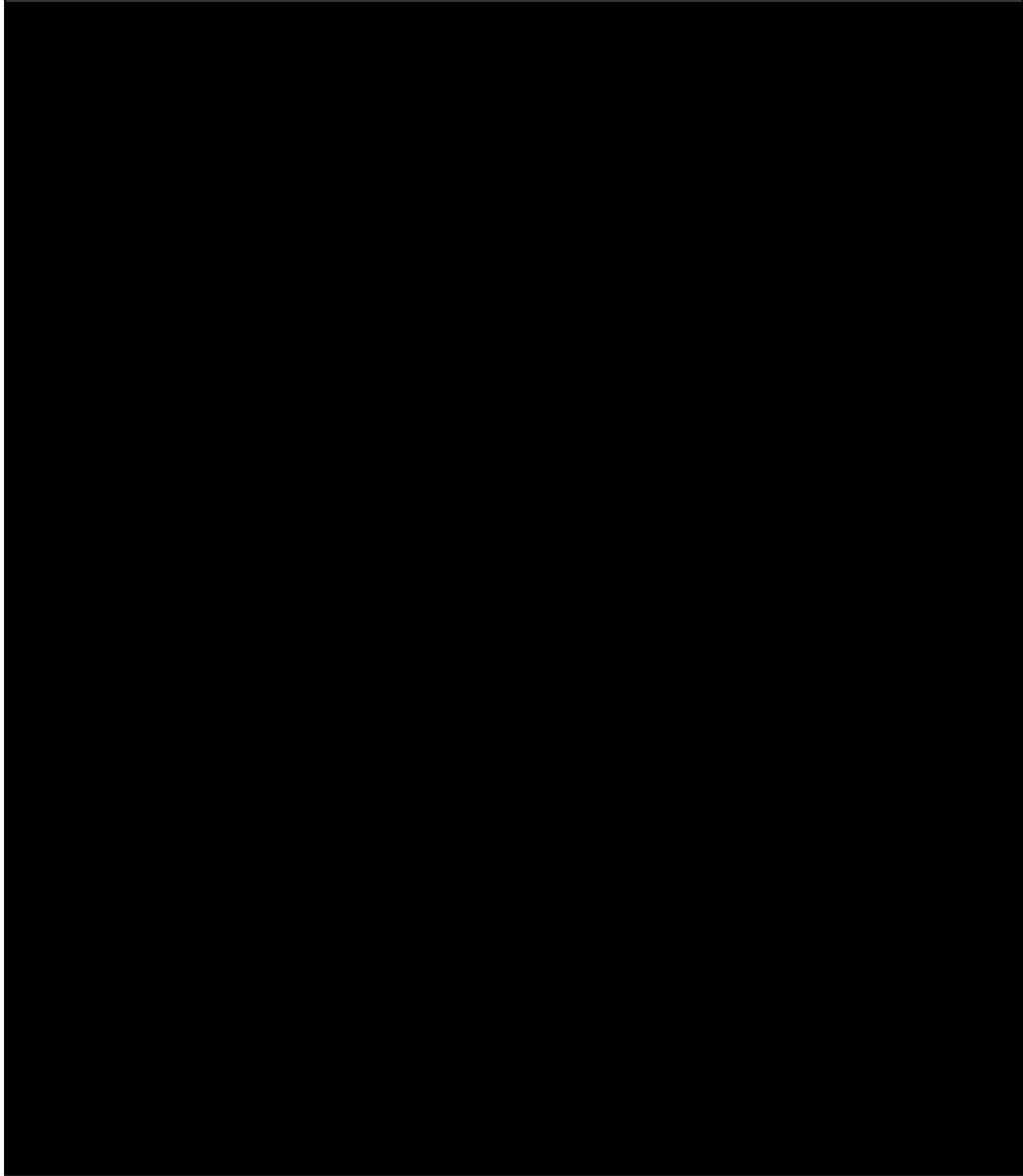
62. Knoxville News Sentinel



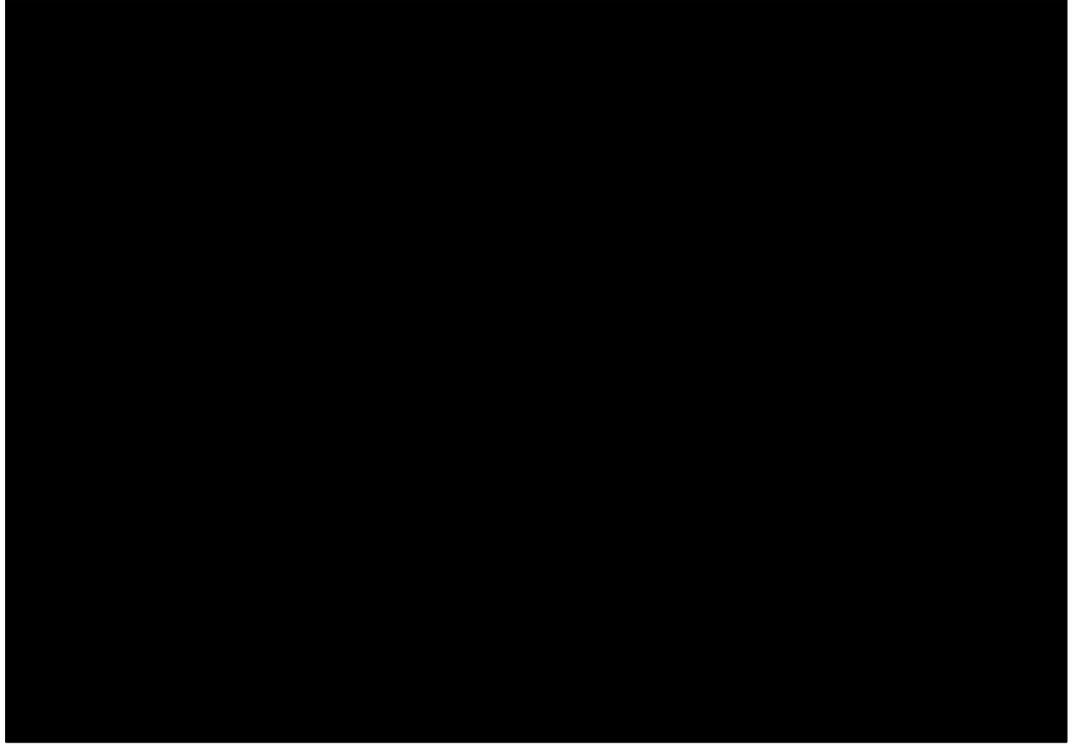
63. Lexington Herald-Leader



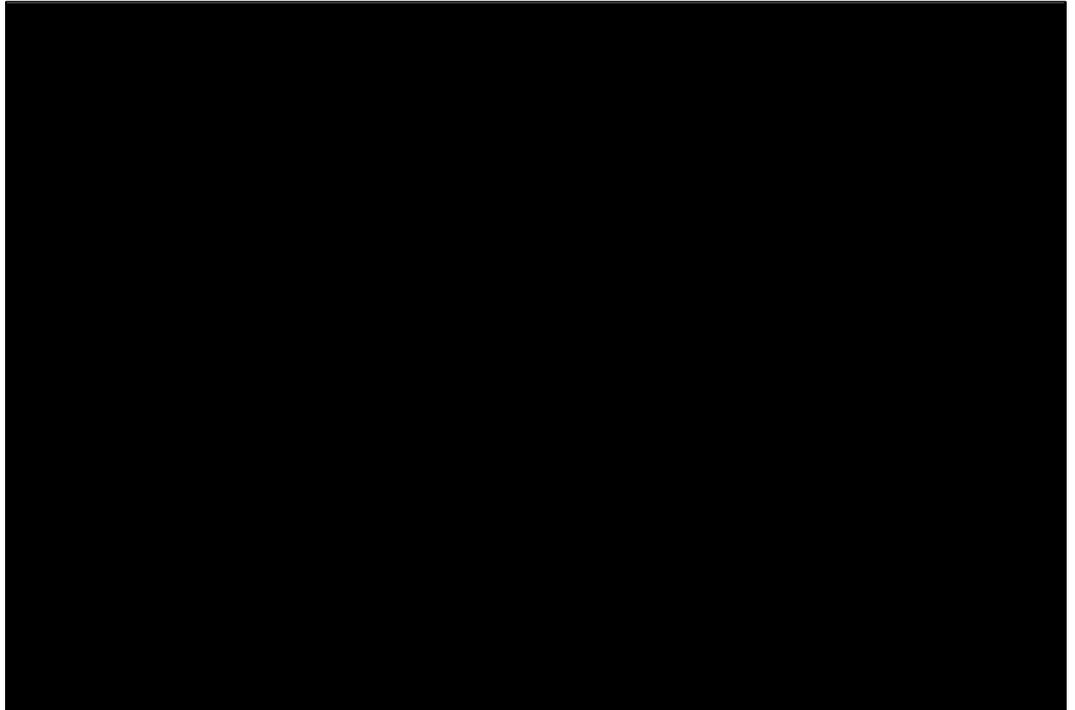
64. Dayton Daily News



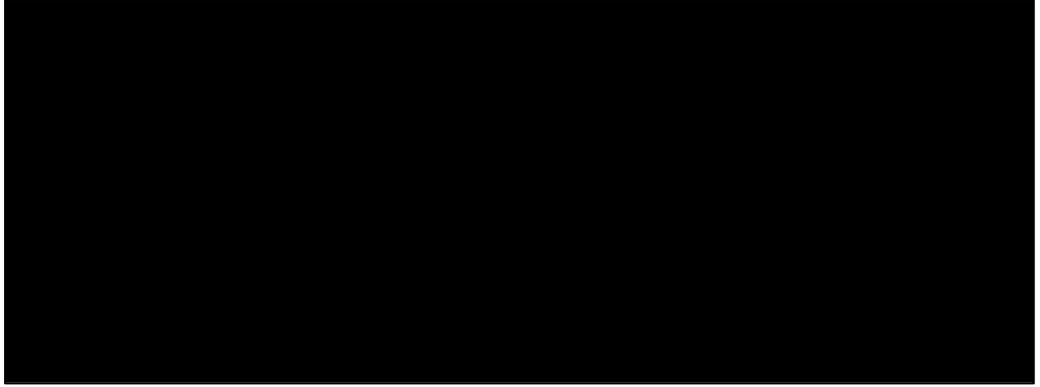
65. Honolulu Star-Advertiser



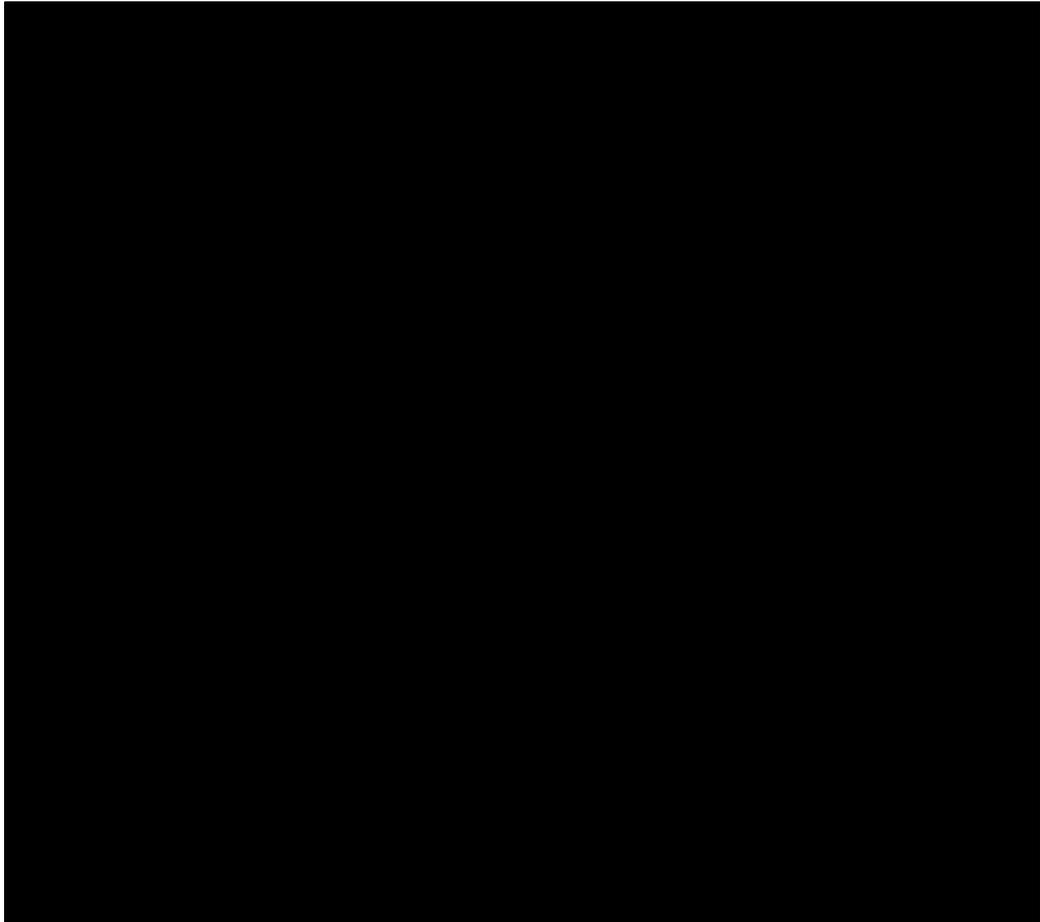
(outside Hawaii)



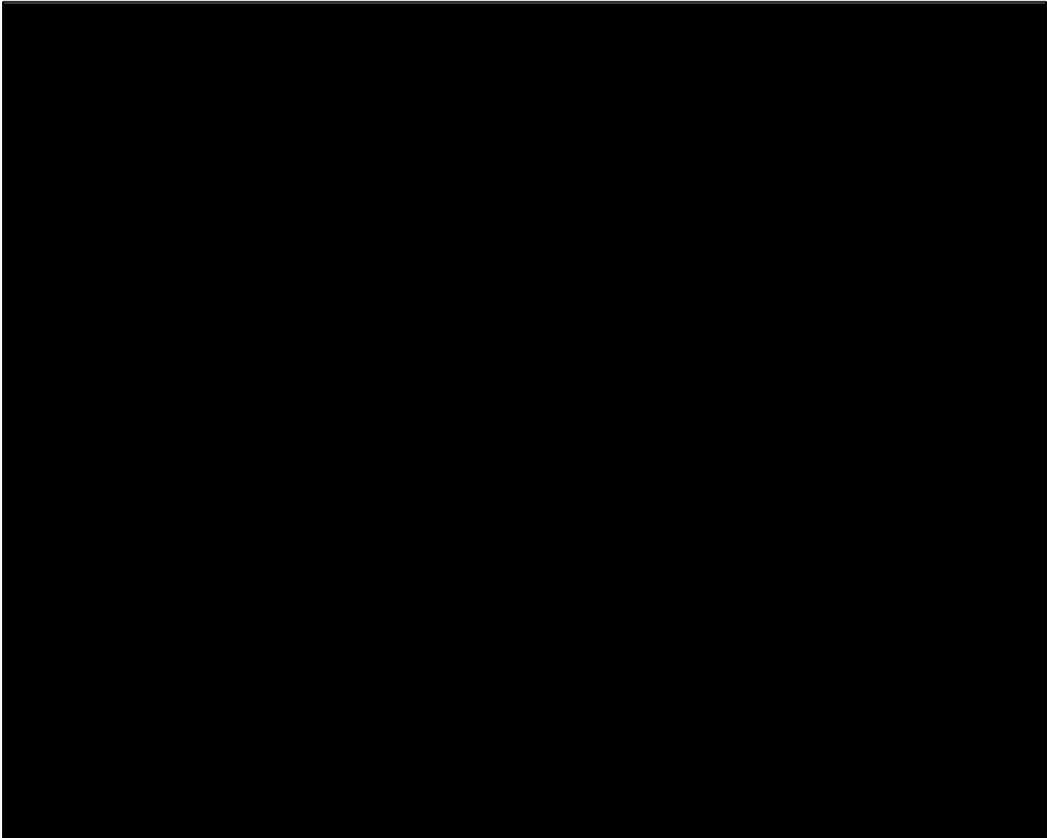
66. Wichita Eagle



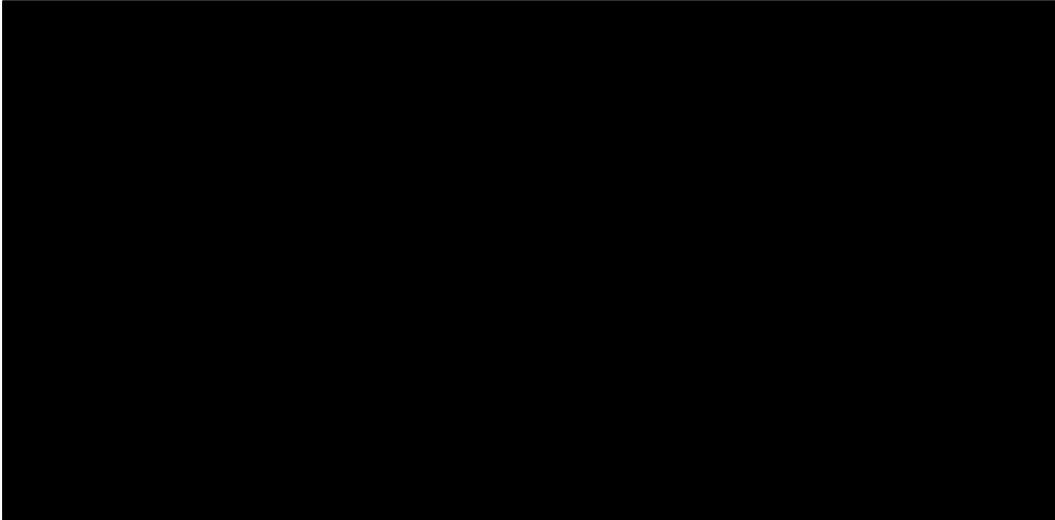
67. Roanoke Times



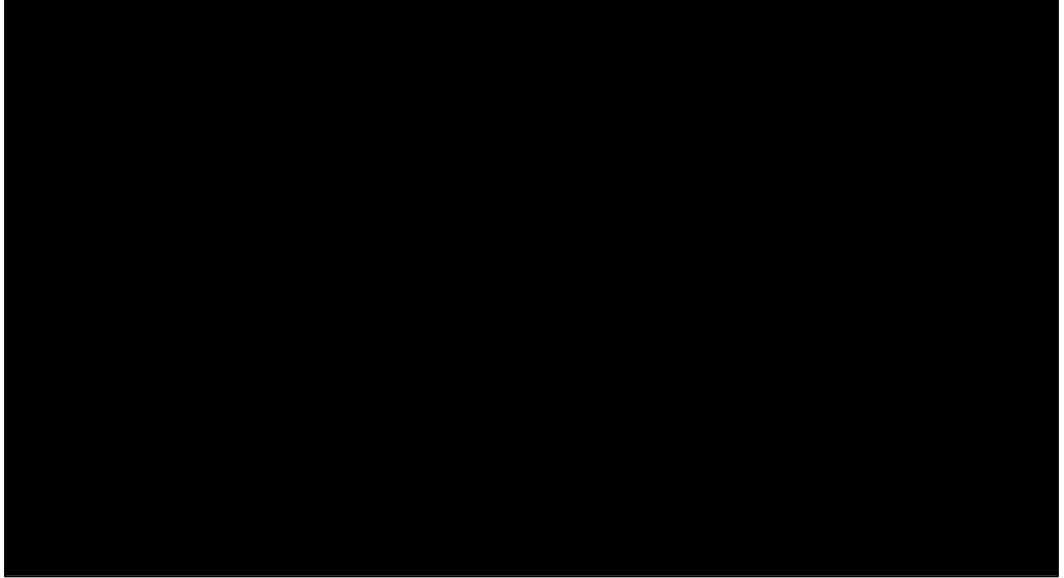
68. Green Bay Press-Gazette



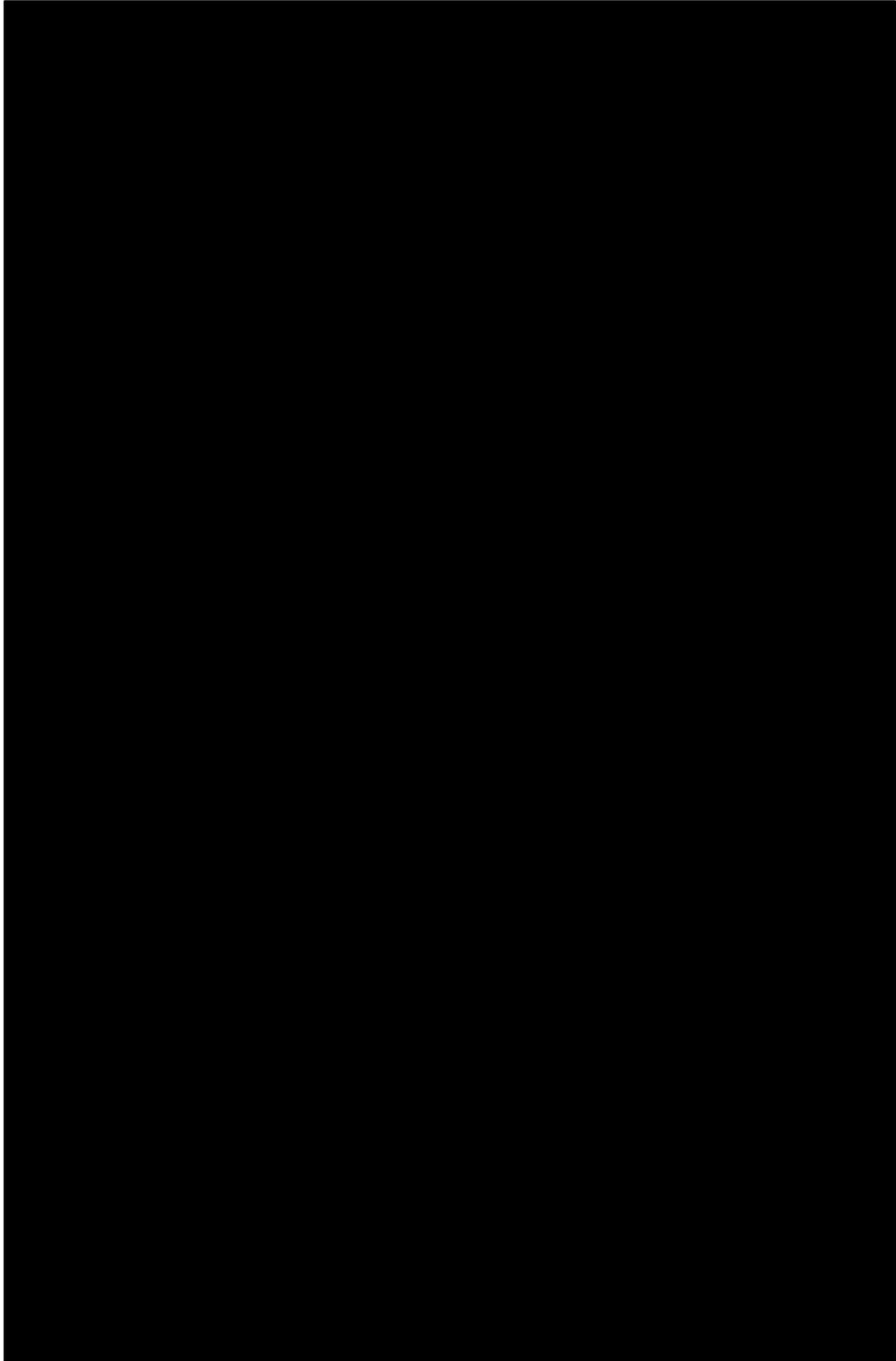
69. Des Moines Register



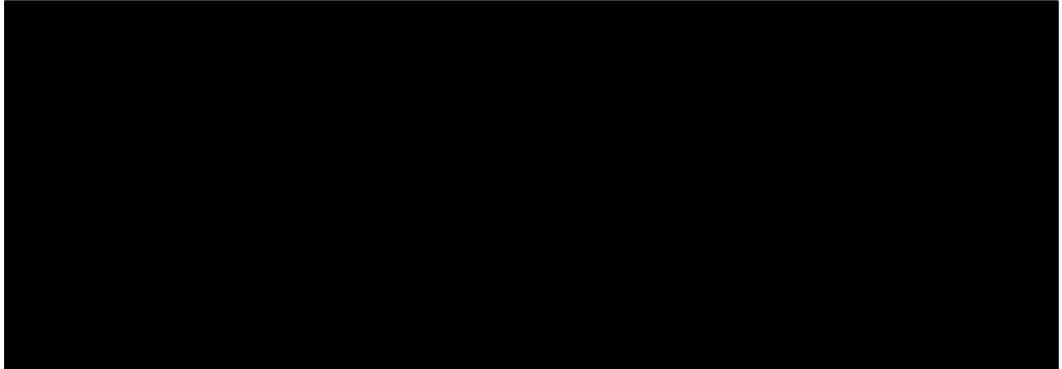
70. The Charleston Gazette-Mail



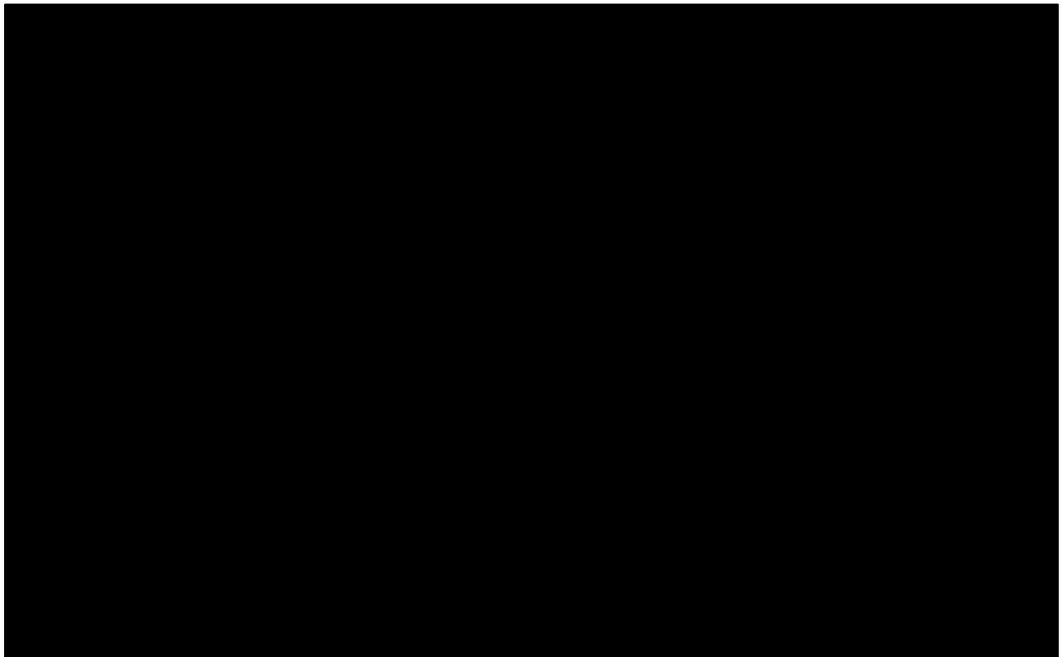
71. Arizona Daily Star



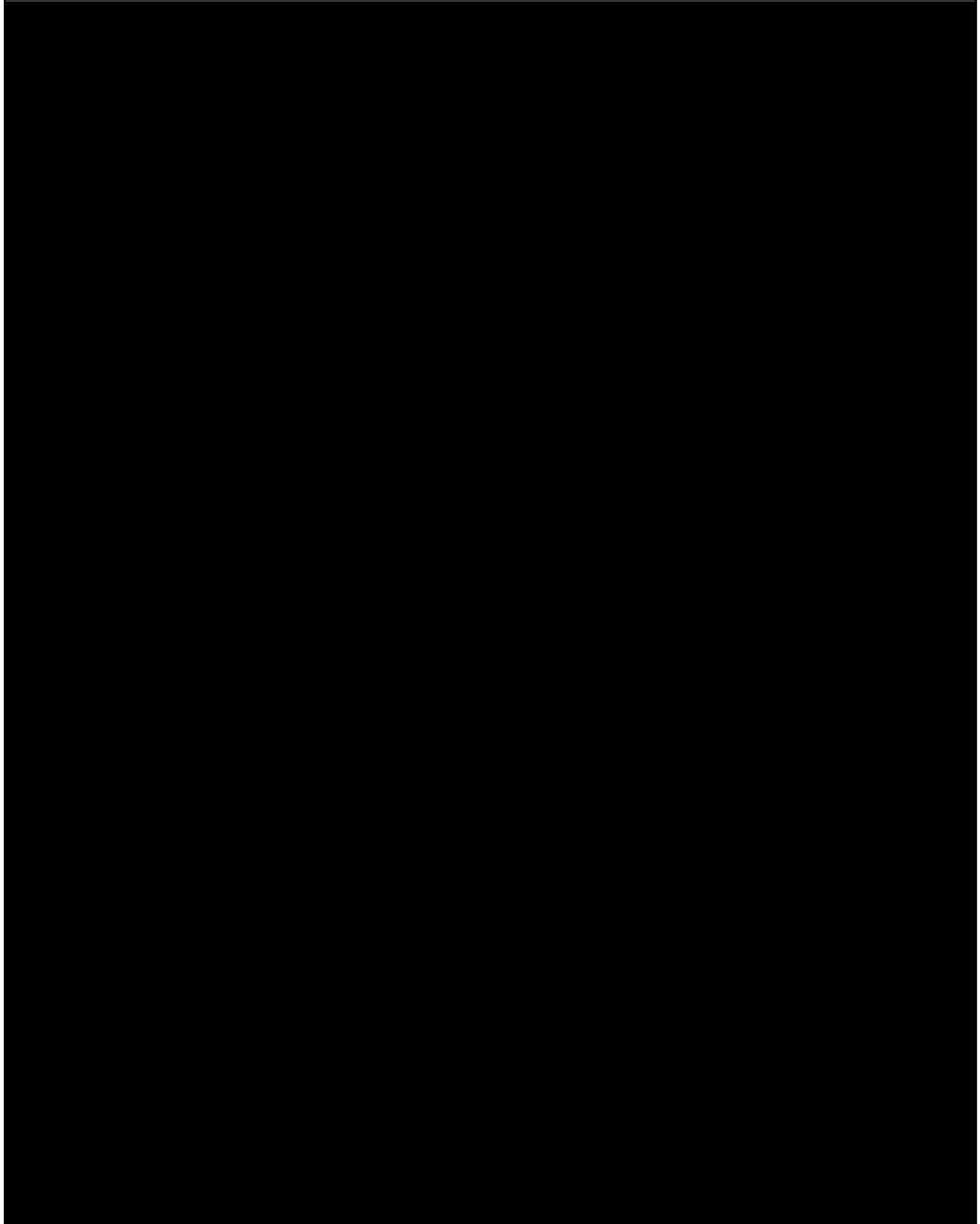
72. Flint Journal



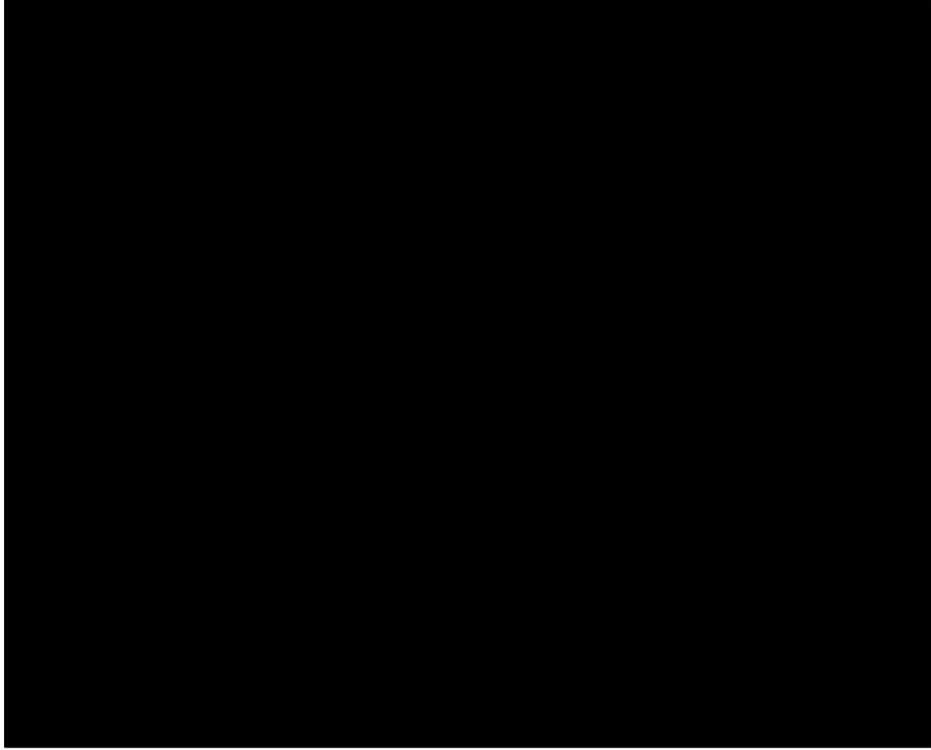
73. Spokesman-Review



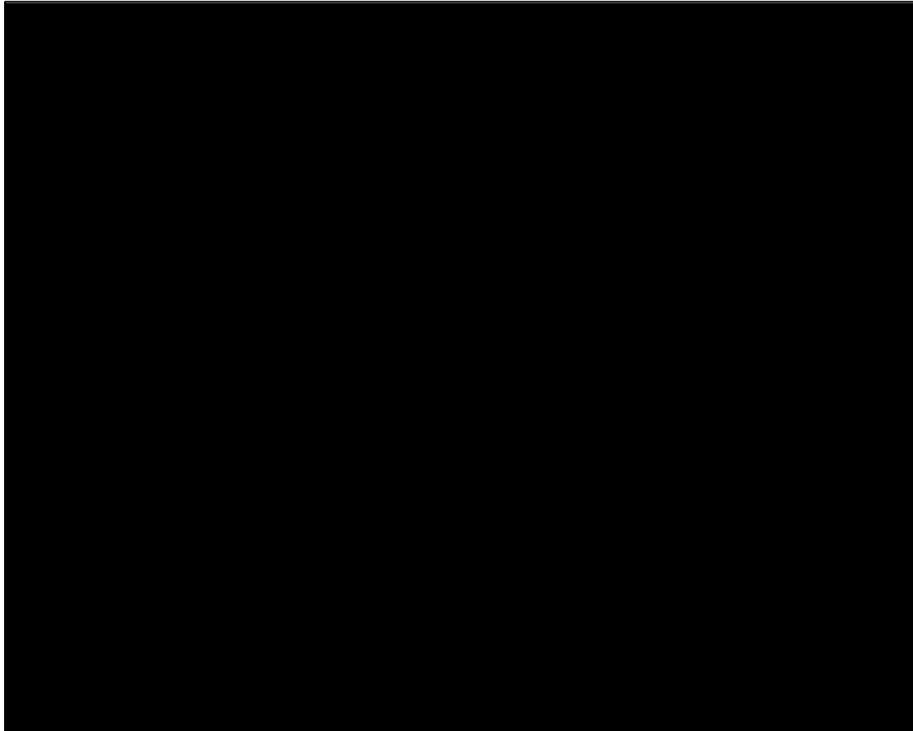
74. Omaha World-Herald



75. News-Leader



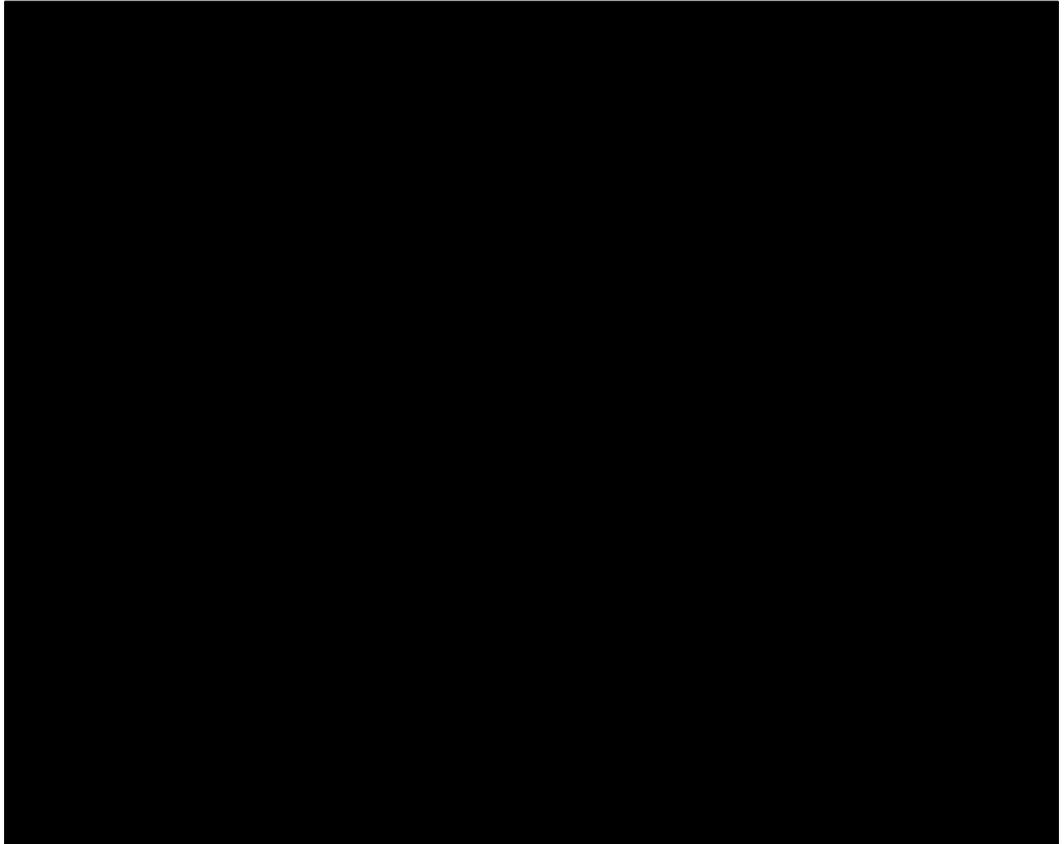
76. Democrat and Chronicle



77. State



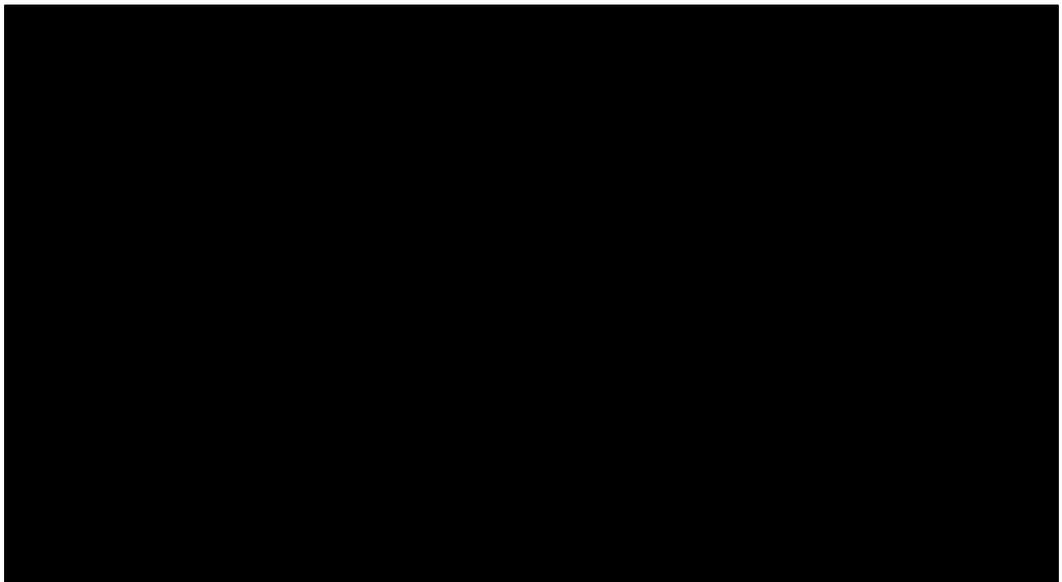
78. Blade



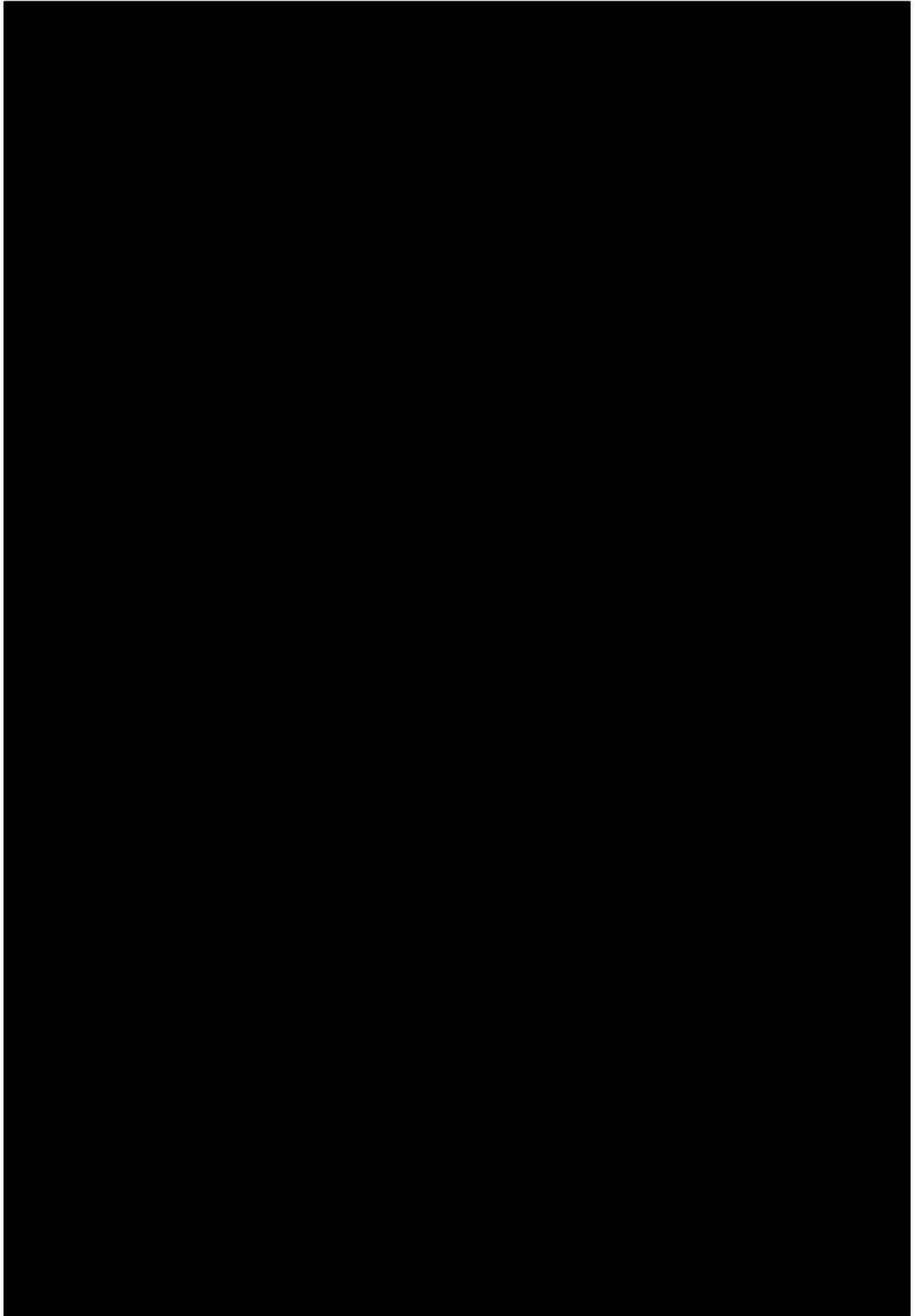
79. Huntsville Times



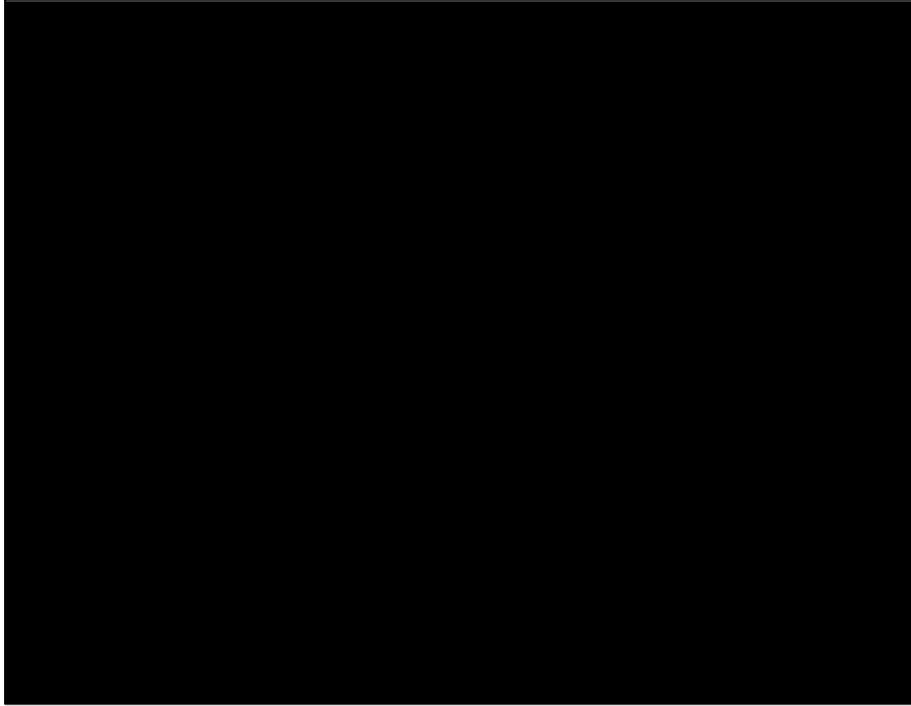
80. Wisconsin State Journal



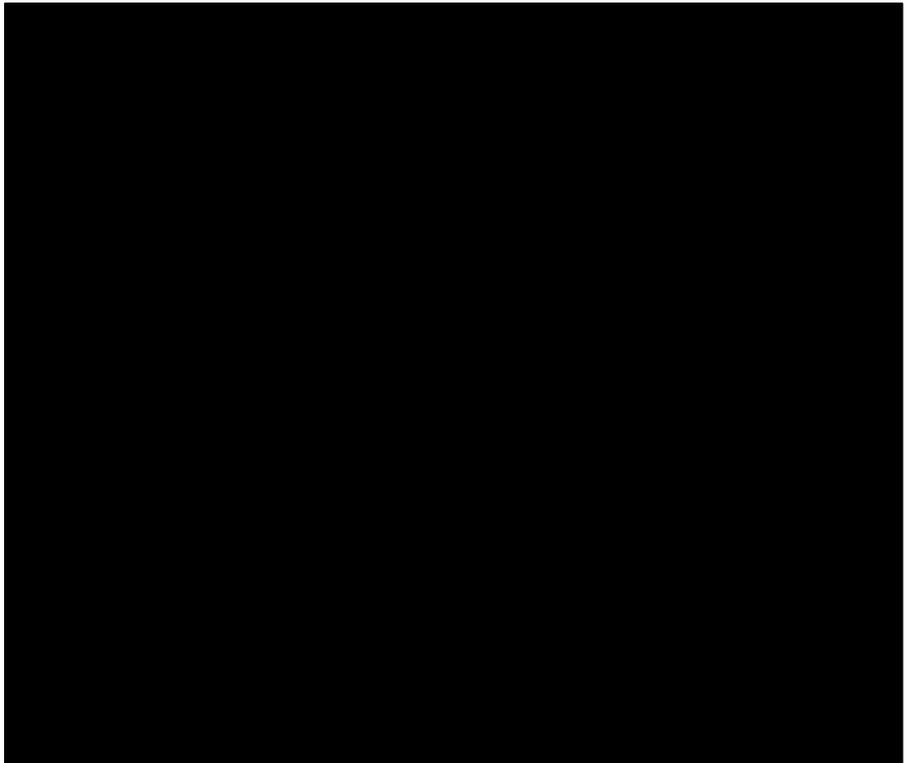
81. Portland Press Herald



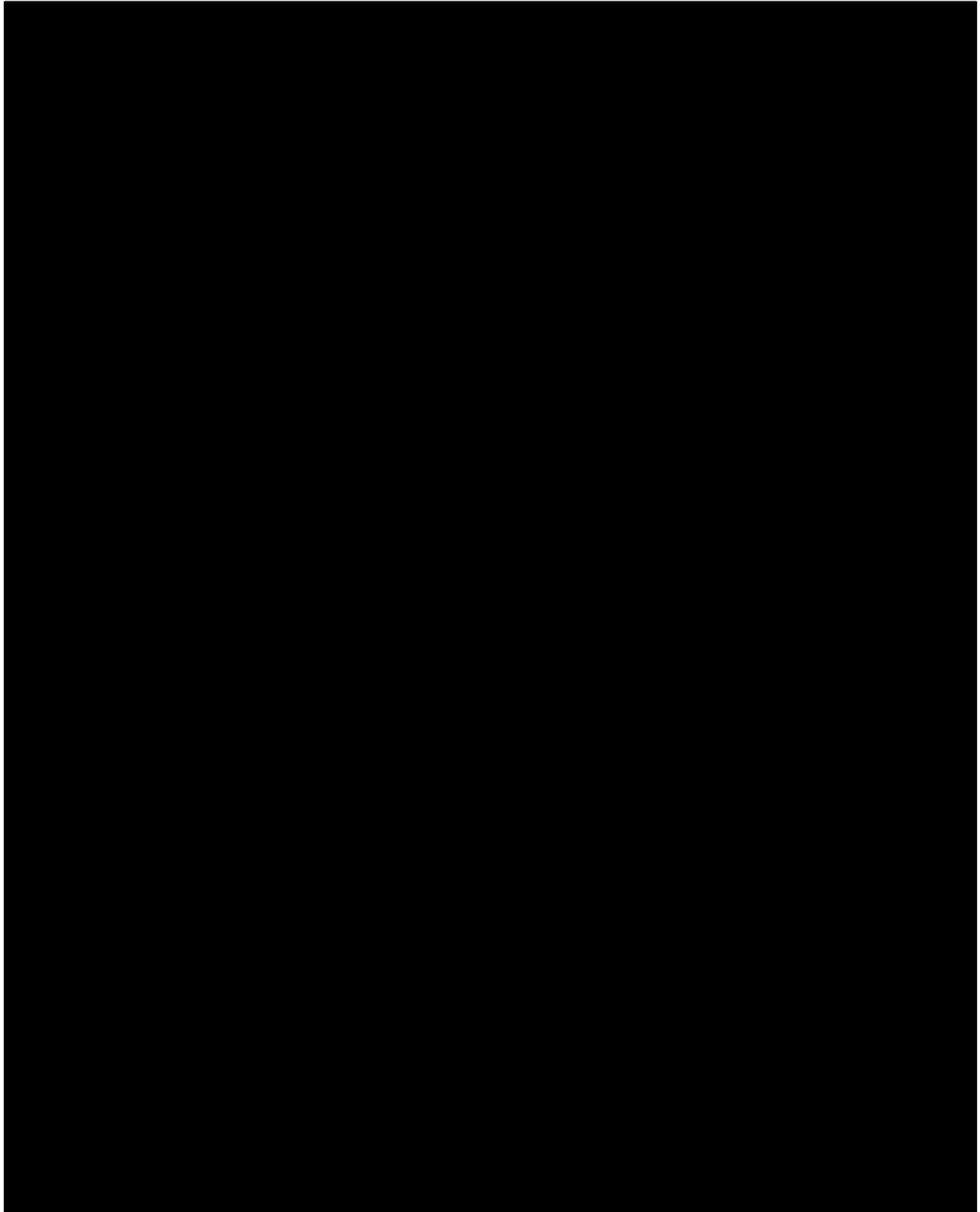
82. Times



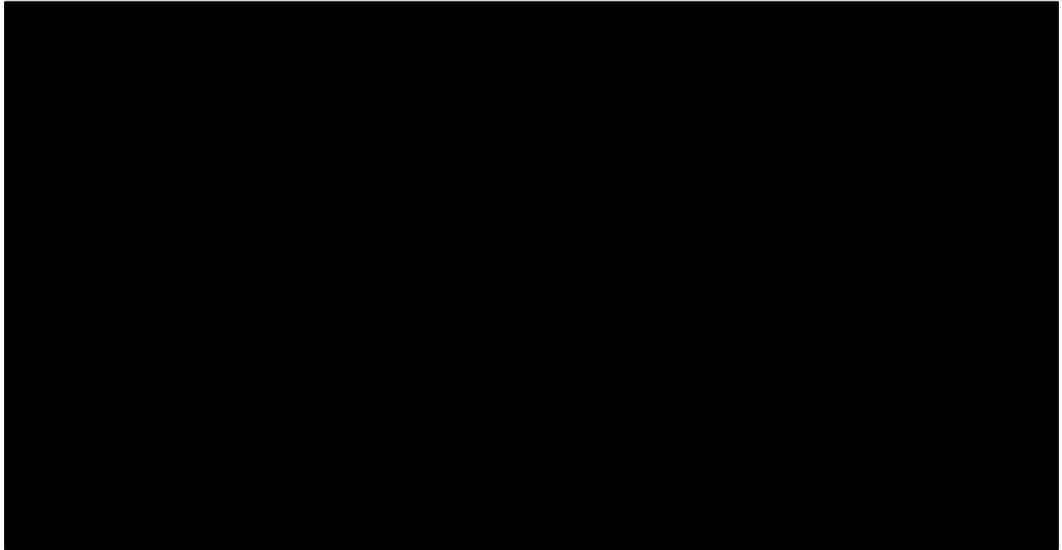
83. Southeast Missourian



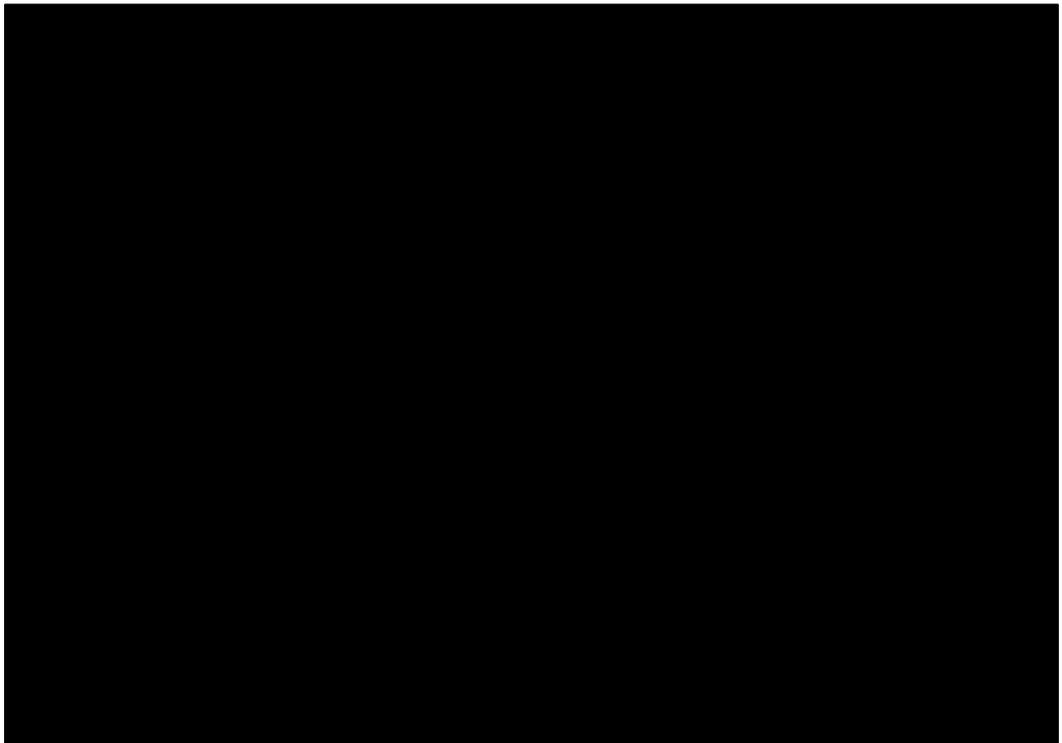
84. Monitor



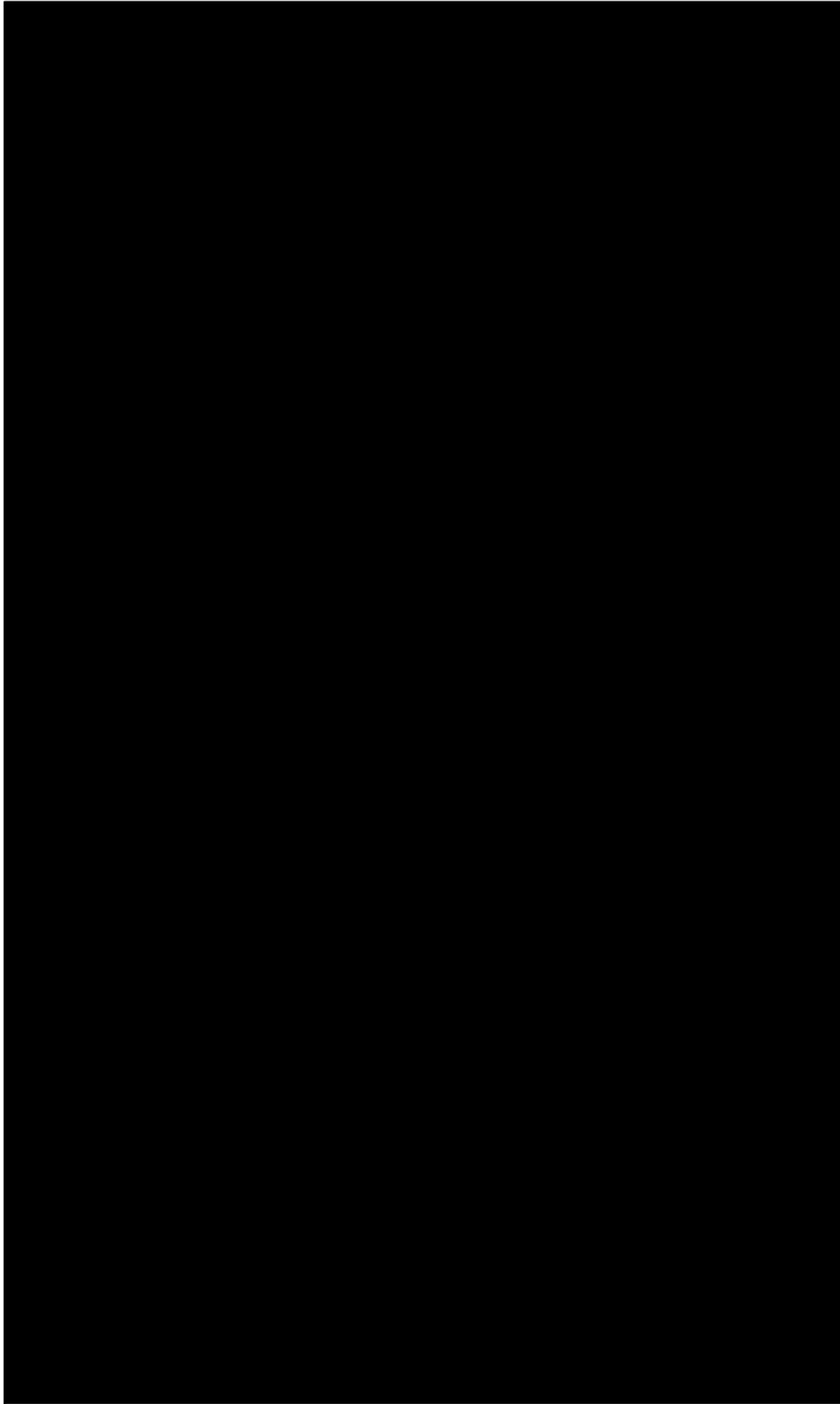
85. Post-Standard



86. State Journal-Register



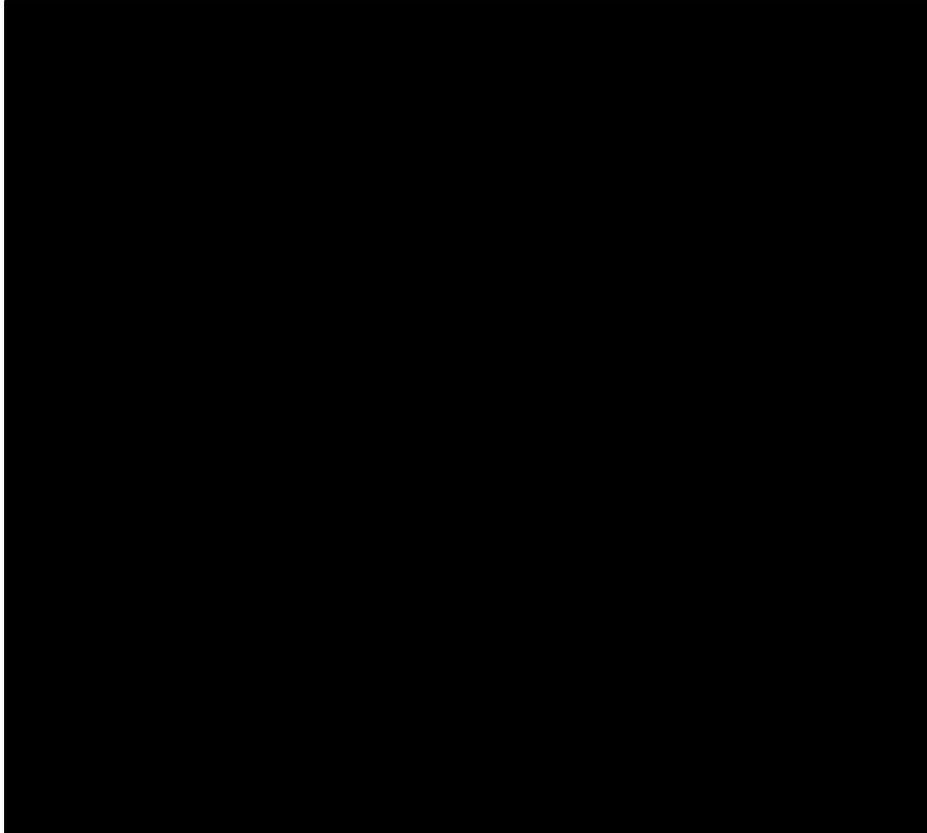
87. Waco Tribune-Herald



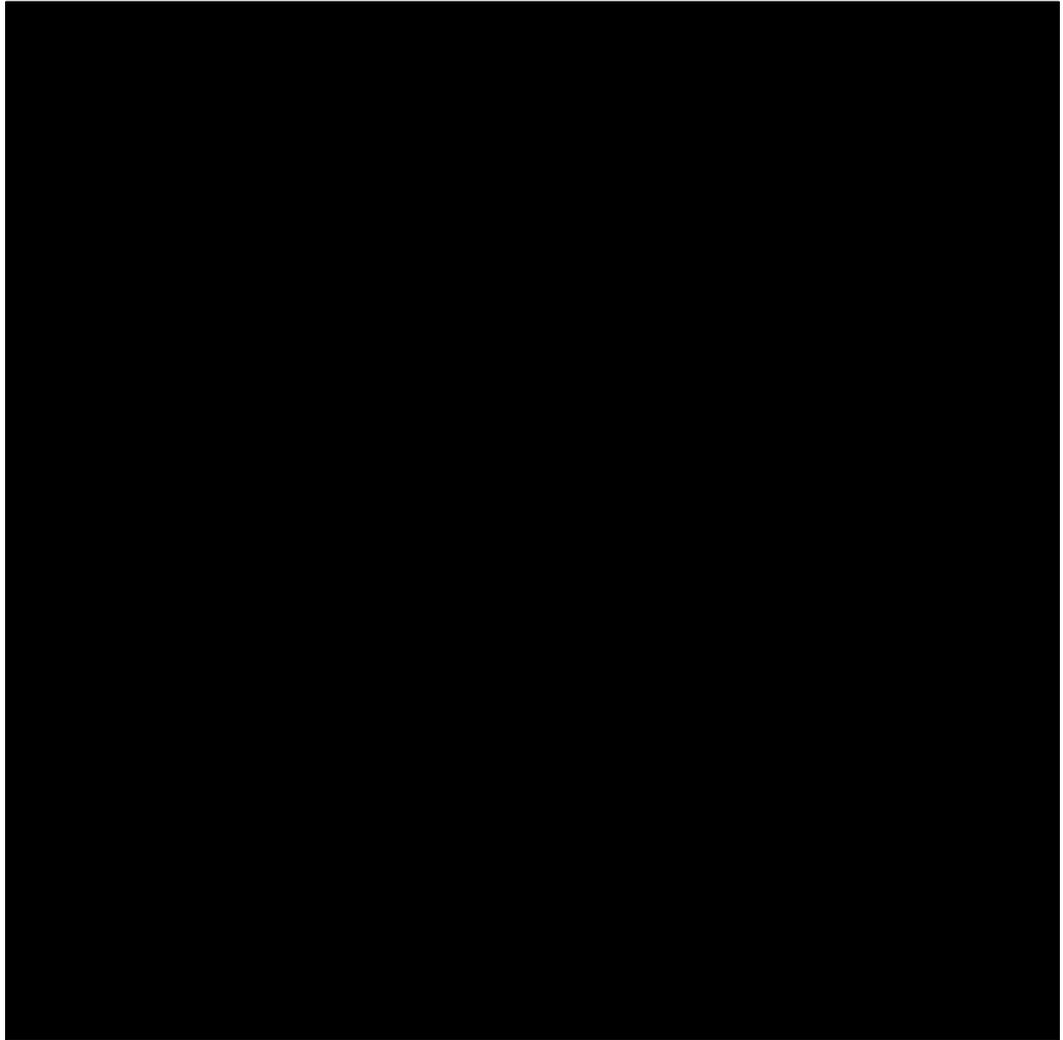
88. Gazette (Colorado)



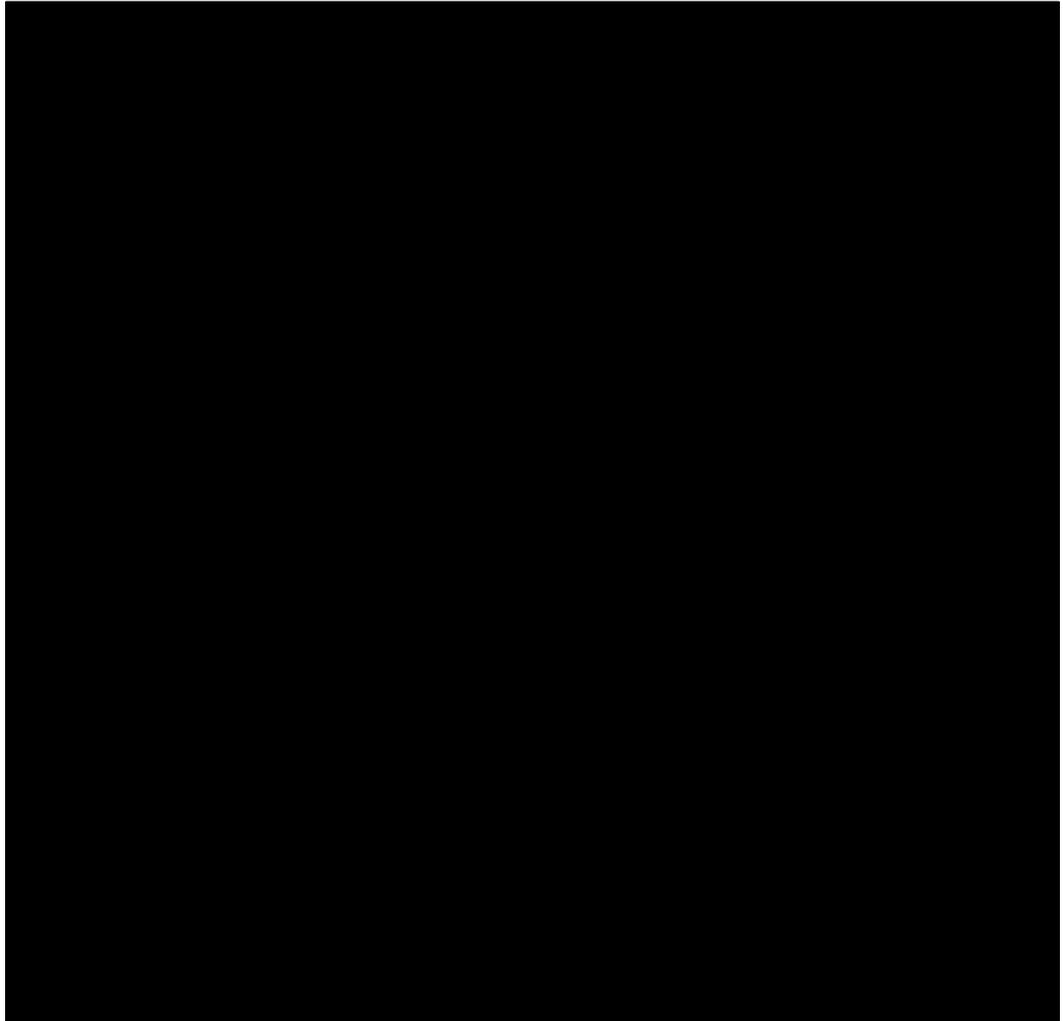
89. Chattanooga Times Free Press



90. Gazette (Iowa)



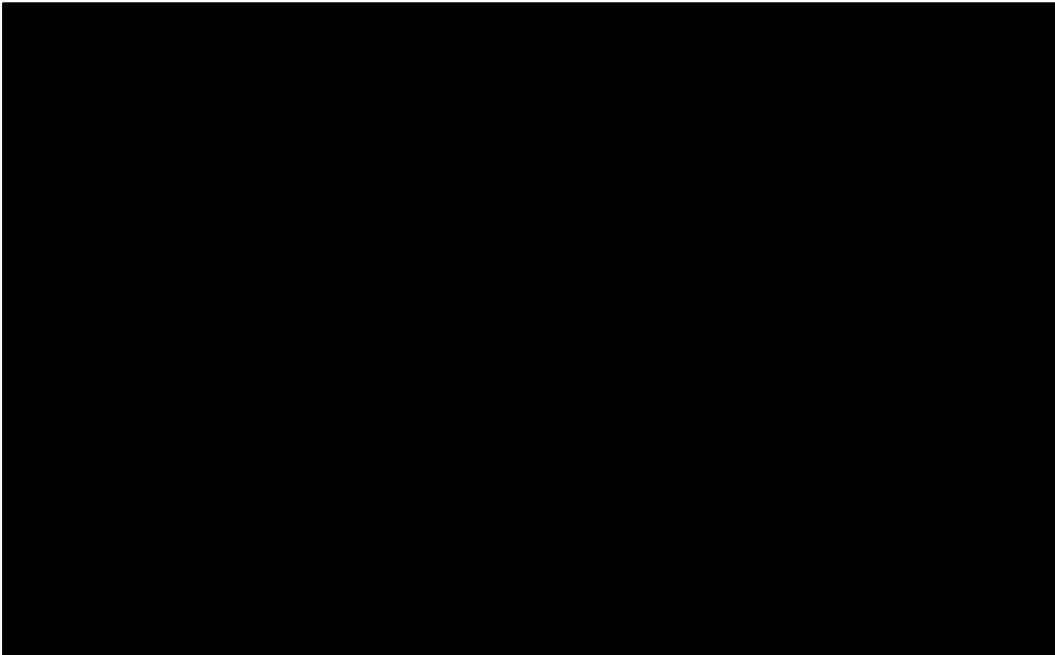
91. Savannah Morning News



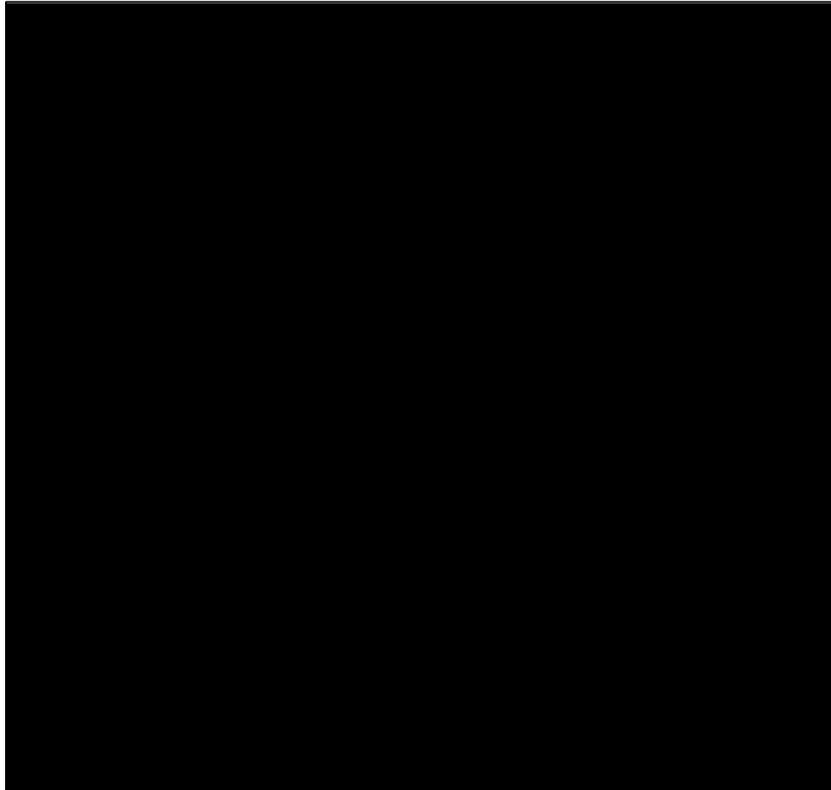
92. El Paso Times



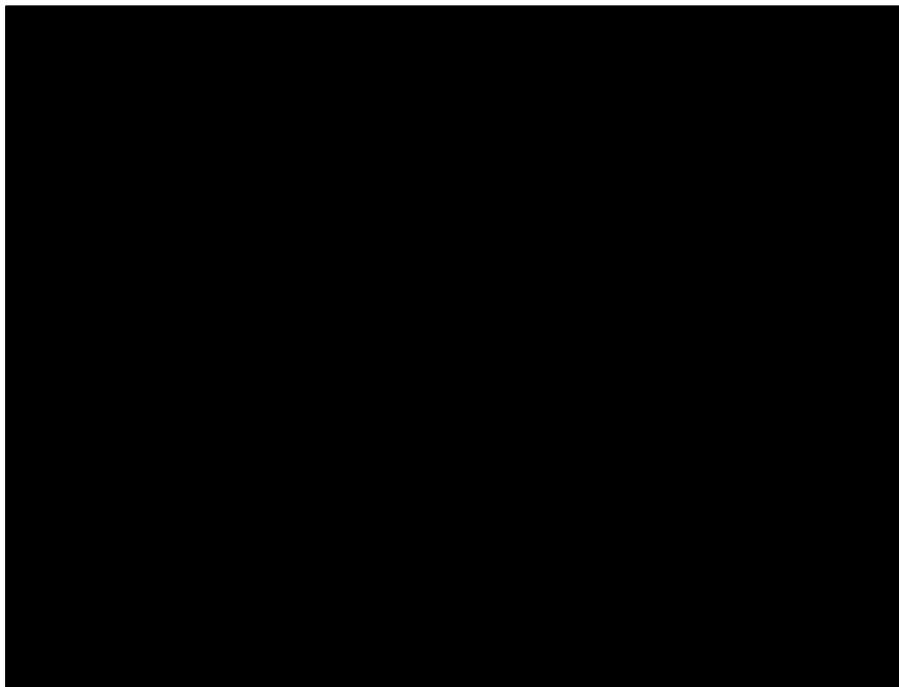
93. Advocate



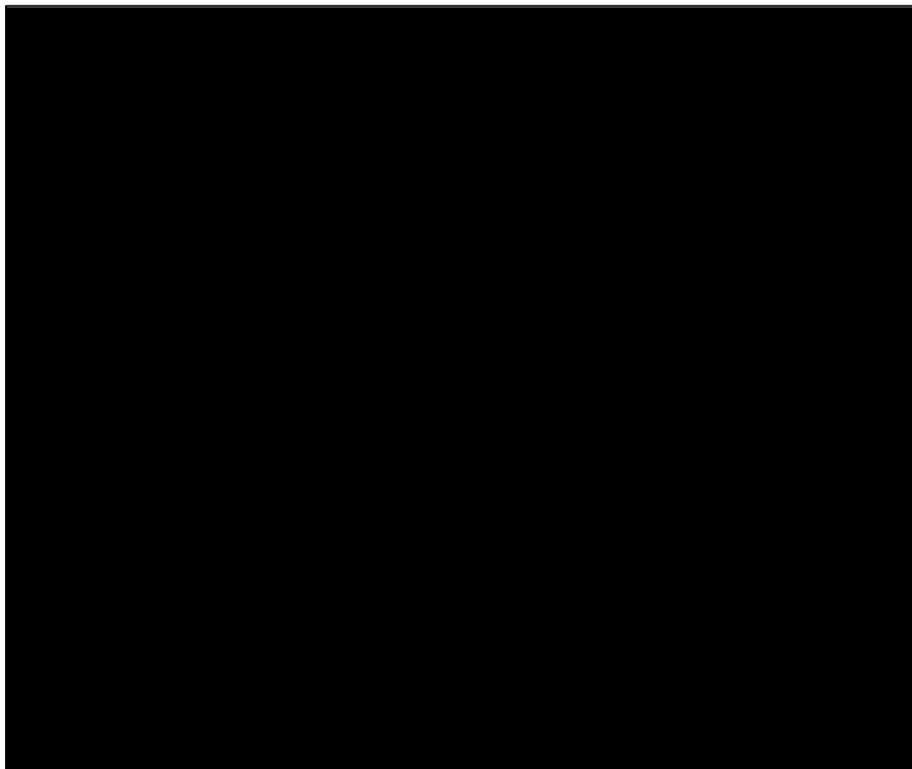
94. Post and Courier



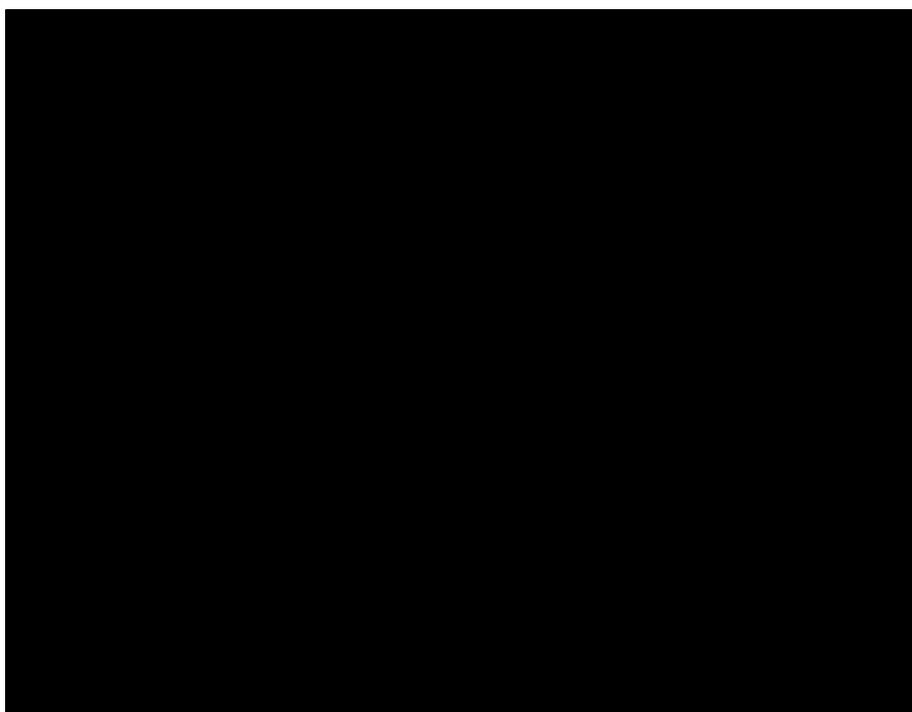
95. Clarion-Ledger



96. South Bend Tribune



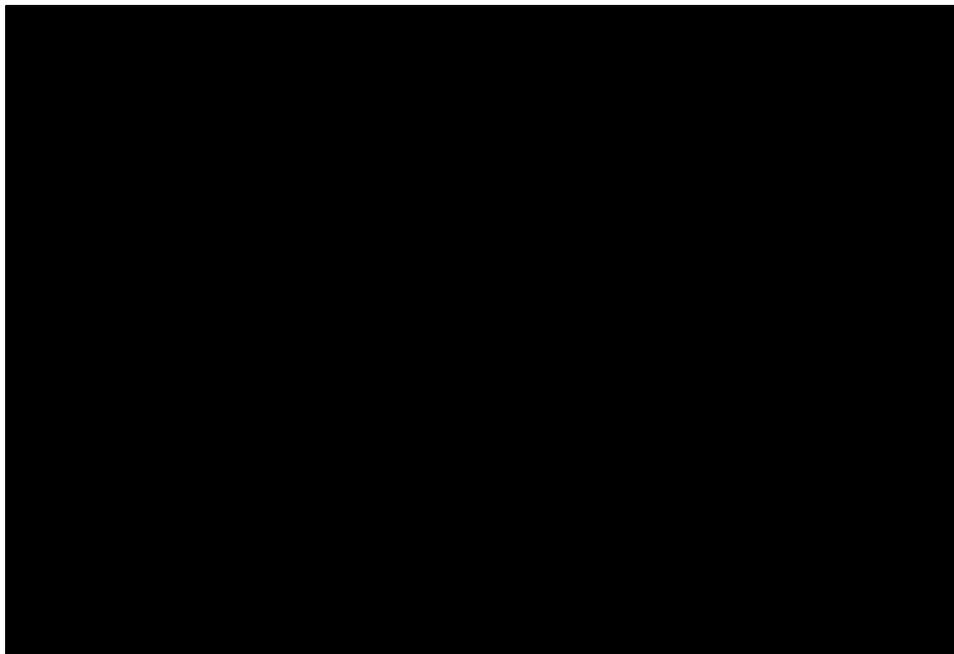
97. Burlington Free Press



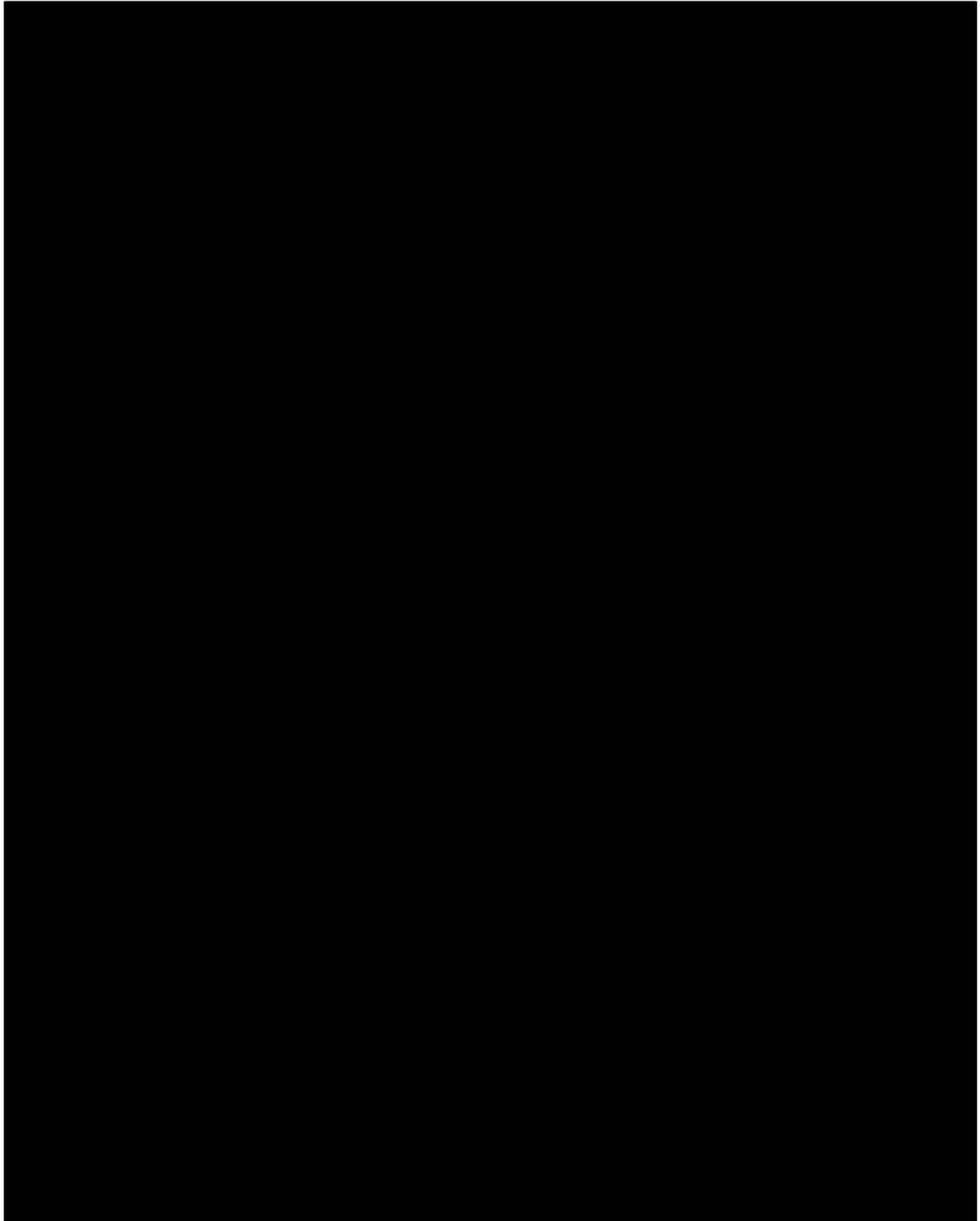
98. Kingsport Times-News



99. Southwest Times Record



100. Daily Reflector



Appendix C

Screenshot of partnered digital subscription offers:

1. Washington Post

<https://twitter.com/subscribetowapo/status/923946433186758657>

