# POLITICAL DETERMINANTS OF NEWS DIETS: EVIDENCE FROM THE U.S.

Julia Cagé Sciences Po

Eric Melander University of Birmingham Guilhem Cassan University of Namur

James M. Snyder Harvard University

 $24~{\rm February}~2025$ 

# THE BIG PICTURE: NEWS DIETS

#### The **media matters**: political information/analysis/opinion affects

- ► Electoral outcomes (Gentzkow, 2006; DellaVigna and Kaplan, 2007; Gentzkow, Shapiro and Sinkinson, 2011; Durante and Knight, 2012; Cagé, 2020)
- ▶ Policy and distributional patterns (Strömberg, 2004; Knight, 2008; Snyder and Strömberg, 2011; Gavazza, Nardotto and Valletti, 2019)
- ► Salience of issues (Iyengar, 1994; Dunaway, 2008; Branton and Dunaway, 2009)

But what determines which media is available for citizens to consume?

► And, therefore, their ultimate **news diets**?

# FACTORS SHAPING NEWS DIETS

#### News diets depend on many factors

- ► Entry and exit of outlets and their audience size (Gentzkow, Shapiro and Sinkinson, 2014; Angelucci and Cagé, 2019)
- ► Informational content (George and Waldfogel, 2006; Martin and McCrain, 2019)
- ► Slant (Gentzkow and Shapiro, 2010; Petrova, 2011; Agirdas, 2015)

#### Studies of these factors often focus on economic drivers

- ► Such as impacts of negative shocks (e.g., a competing platform)
- ► Or media owners' profit maximisation

#### Less is known about the **political determinants of news diets**

▶ Difficult to study: news outlets themselves influence political environment

# FACTORS SHAPING NEWS DIETS

#### News diets depend on many factors

- ► Entry and exit of outlets and their audience size (Gentzkow, Shapiro and Sinkinson, 2014; Angelucci and Cagé, 2019)
- ► Informational content (George and Waldfogel, 2006; Martin and McCrain, 2019)
- ► Slant (Gentzkow and Shapiro, 2010; Petrova, 2011; Agirdas, 2015)

#### Studies of these factors often focus on economic drivers

- ► Such as impacts of negative shocks (e.g., a competing platform)
- ► Or media owners' profit maximisation

#### Less is known about the political determinants of news diets

- ▶ Difficult to study: news outlets themselves influence political environment
- ► This is where we come in

Question: are news diets shaped by citizens' (relative) political importance?

Question: are news diets shaped by citizens' (relative) political importance?

Natural experiment: redistricting following Baker v. Carr

- ▶ U.S. Supreme Court ruling in 1962: reapportionment justiciable
- ► Consequence: a "reapportionment revolution" of legislative districts
- ▶ By 1967: from severe malapportionment to "one person, one vote"
- ▶ Shock to political environment, without changes in economic factors

Question: are news diets shaped by citizens' (relative) political importance?

#### Natural experiment: redistricting following Baker v. Carr

- ▶ U.S. Supreme Court ruling in 1962: reapportionment justiciable
- ▶ Consequence: a "reapportionment revolution" of legislative districts
- ▶ By 1967: from severe malapportionment to "one person, one vote"
- ightharpoonup Shock to political environment, without changes in economic factors

#### Novel county-year panel data on U.S. newspapers, 1950–1980

- ► Entry and exit; circulation and editorial board compositions; prices
- ► Content (coverage of local politics and legislators)

## Political Determinants of News Diets

Question: are news diets shaped by citizens' (relative) political importance?

#### Natural experiment: redistricting following Baker v. Carr

- ▶ U.S. Supreme Court ruling in 1962: reapportionment justiciable
- ► Consequence: a "reapportionment revolution" of legislative districts
- ▶ By 1967: from severe malapportionment to "one person, one vote"
- ▶ Shock to political environment, without changes in economic factors

#### Novel county-year panel data on U.S. newspapers, 1950–1980

- ► Entry and exit; circulation and editorial board compositions; prices
- ► Content (coverage of local politics and legislators)

#### Event-study difference-in-differences empirical strategy

- ► Staggered treatment as states redistrict
- ▶ Compare counties (within same state) that gained vs. lost importance

## WHAT WE FIND

#### Following redistricting, gaining counties:

- 1. Do not see differential entry or exit
- 2. See increases in newspaper circulation per capita
  - ► With no change in nominal prices
- 3. See changes in editorial board composition
  - ► Shift to coverage of state-level politics (cf. very local politics)
- 4. See increase in political content
  - ▶ Surnames of legislators see an "officeholder premium" in coverage
  - ▶ Particularly pronounced in gaining counties, post-redistricting

## BACKGROUND: BAKER V. CARR

#### March 1962: Supreme Court rules that **reapportionment** is justiciable

- ► Federal courts could now hear redistricting cases
- ▶ Overturned precedent from Colgrove v. Green (1946)

#### No immediate impact, but set important, new precedent

- ▶ By 1964: additional rulings required congressional and state legislative districts to have equal population ⇒ "one person, one vote"
- ▶ By 1967: all states had redrawn districts to comply with new standard

## Before redistricting, many state legislatures were badly malapportioned

► Extreme case: Connecticut House of Representatives – population of largest district was 422 times that of the smallest district

#### Due to Baker v. Carr and its aftermath, these imbalances were equalised

▶ With implications for policy (e.g. Ansolabehere, Gerber and Snyder, 2002)

#### RIGHT-TO-VOTE INDEX

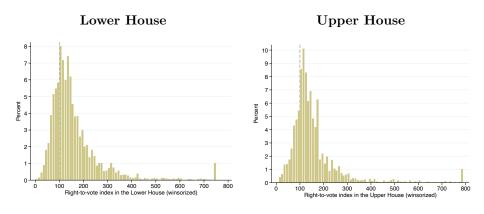
Right-to-vote (RTV) index: legislators per adult, cf. rest of state

- ightharpoonup With equal representation: RTV = 100 for all counties
- ► RTV < 100 ⇒ county is under-represented ... and RTV > 100 ⇒ county is over-represented

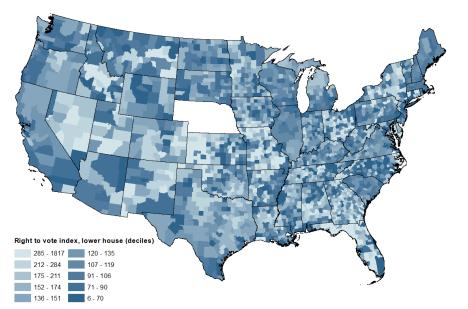
#### RIGHT-TO-VOTE INDEX

Right-to-vote (RTV) index: legislators per adult, cf. rest of state

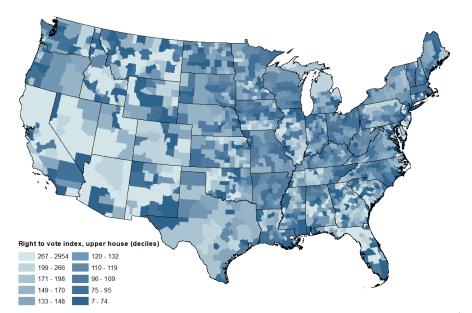
- $\blacktriangleright$  With equal representation: RTV = 100 for all counties
- ► RTV < 100 ⇒ county is under-represented
  - ... and RTV  $> 100 \implies$  county is over-represented



# Baker v. Carr – Lower House



# Baker v. Carr – Upper House



## "Conceptual Framework"

## Reapportionment shocks newspaper market equilibrium in several ways

#### Shock to newspaper supply

- ► Newspaper owners may be politically motivated (Duggan and Martinelli, 2011; Anderson and MacLaren, 2012; Prat, 2018)
- ► Effect on volume of newspapers (extensive and intensive margin)
- ► Effect on content (higher volume, more political, more biased, ...)

#### Shock to newspaper demand

▶ Politically relevant electorate wants to be informed (Chan and Suen, 2008)

#### Shock to supply of **political events** / demand for **political advertising**

#### This equilibrium determines citizens' ultimate news diets

▶ We do not (yet) try to fully tease out supply and demand forces

## "CONCEPTUAL FRAMEWORK"

#### Reapportionment shocks newspaper market equilibrium in several ways

#### Shock to newspaper supply

- ► Newspaper owners may be politically motivated (Duggan and Martinelli, 2011; Anderson and MacLaren, 2012; Prat, 2018)
- ► Effect on volume of newspapers (extensive and intensive margin)
- ► Effect on content (higher volume, more political, more biased, ...)

#### Shock to newspaper demand

▶ Politically relevant electorate wants to be informed (Chan and Suen, 2008)

#### Shock to supply of **political events** / demand for **political advertising**

#### This equilibrium determines citizens' ultimate news diets

▶ We do not (yet) try to fully tease out supply and demand forces (but see Cagé, Cassan and Jensenius (2023) on India)

# DATA: CIRCULATION, EDITORS AND CONTENT

We build a novel county-year panel dataset from two main sources

- 1. Editor & Publisher International Yearbook (Example page)
  - ► Encyclopaedia of the newspaper industry (2,300+ unique U.S. papers)
  - ► We collect information on: circulation, prices and editorial boards (combined with pre-1964 data of Angelucci, Cagé & Sinkinson (2021))

# DATA: CIRCULATION, EDITORS AND CONTENT

We build a novel county-year panel dataset from two main sources

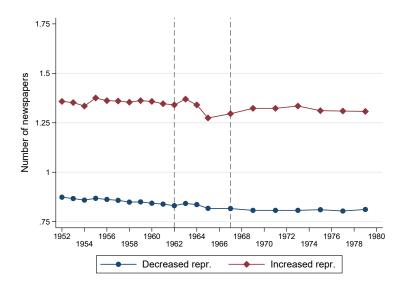
#### 1. Editor & Publisher International Yearbook (Example page)

- ► Encyclopaedia of the newspaper industry (2,300+ unique U.S. papers)
- ► We collect information on: circulation, prices and editorial boards (combined with pre-1964 data of Angelucci, Cagé & Sinkinson (2021))

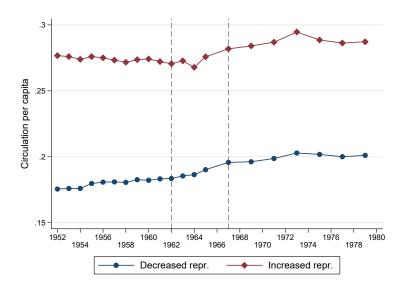
# 2. Newspaper Archive Example hit Example false positive

- ► Online archive of digitised newspaper content
- ▶ We gather mentions of state legislators, focus on lower house
  - ► Identify officeholders in any given year for each state (ICPSR 34297 and Ansolabehere and Snyder, 2008)
  - ➤ Systematic search for each officeholder in all newspapers in the state (Search all newspapers in a state for mention of surname of officeholder, 1950–1980; must appear together with the name of the chamber)
  - ► In total: 17m+ hits for 22,000+ legislators

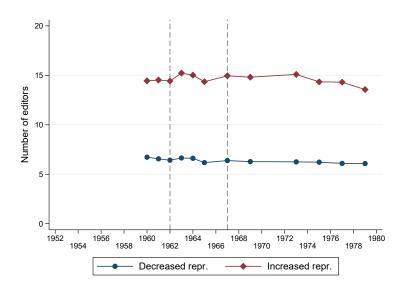
# WINNERS/LOSERS: NUMBER OF NEWSPAPERS



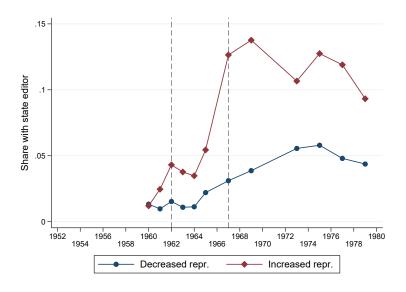
# WINNERS/LOSERS: CIRCULATION PER CAPITA



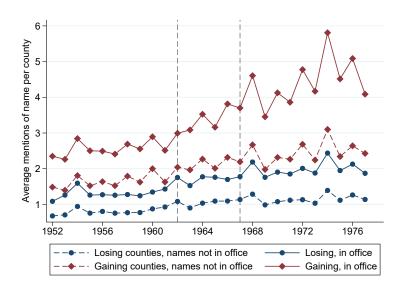
# WINNERS/LOSERS: NUMBER OF EDITORS



# WINNERS/LOSERS: STATE EDITORS



# Winners/Losers: Coverage of Legislators



# EMPIRICAL STRATEGY: STAGGERED EVENT STUDY

$$\mathbf{y}_{ct} = \sum_{t=-10}^{10} \delta_t \times \mathbb{1}\{\text{Increase}\}_{ct} + \mathbf{X}'_{ct}\beta + \lambda_c + \gamma_{st} + \epsilon_{cst}$$

 $y_{ct}$  outcome in county c in year t

 $\mathbb{1}\{\text{Increase}\}_{ct}$  treatment dummy = 1 if county gained from redistricting

 $\lambda_c$  county fixed effects

 $\gamma_{st}$  state-by-year fixed effects

 $\mathbf{X}_{ct}$  controls

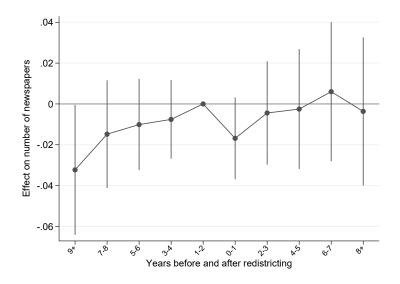
Standard errors clustered by county

#### Two sets of controls

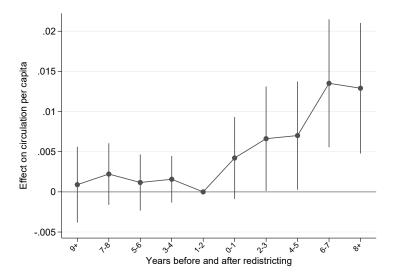
▶ Baseline: 1960 population, urban share, black share × year FE

► Additional: time-varying population, urban share, black share

# NO EFFECT ON NUMBER OF NEWSPAPERS

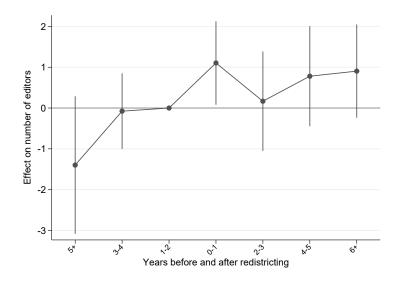


# BUT CIRCULATION PER CAPITA INCREASES

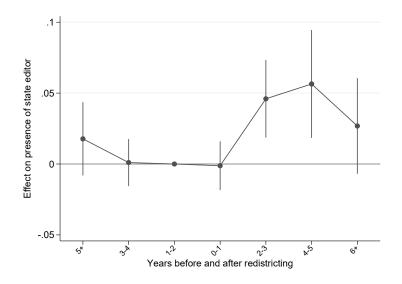




# EDITORIAL BOARDS DO NOT CHANGE SIZE

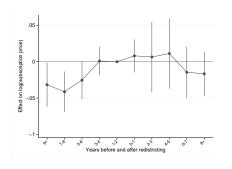


# BUT EDITORS FOCUS MORE ON STATE POLITICS

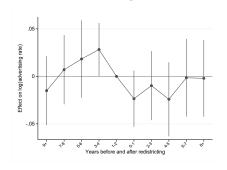


# DESPITE THIS: NOMINAL PRICES UNCHANGED

#### Subscription Price



#### **Advertising Rate**



## Coverage of Legislators

#### Are state legislators covered by the press?

- ▶ Use dataset of content to construct a surname-county-year panel
- ► Recall: we systematically gathered mentions of legislators' surnames for all newspapers in Newspaper Archive database

Test for differential "officeholder premium" in mentions of surname:

$$Mentions_{ncst} = \sum_{t=-10}^{10} \phi_t \, \mathbb{1}\{Increase\}_c \times \mathbb{1}\{In \text{ office}\}_{nst} + \Pi_{nst} + \Omega_{ct} + \epsilon_{ncst}$$

 $Mentions_{nest}$ mentions of surname n in county c in state s in year t

1{Increase} county treatment dummy = 1 if county gained from redistricting

 $1{In office}_{nst}$ surname treatment dummy = 1 once surname associated with officeholder

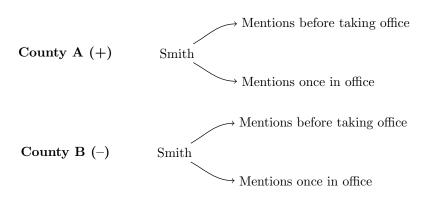
surname-state-year fixed effects  $\prod_{n \leq t}$ county-by-year fixed effects  $\Omega_{ct}$ Standard errors

clustered by county-year

Consider a state with two counties:

- ► County A gained (+) from redistricting
- ► County B lost (-)

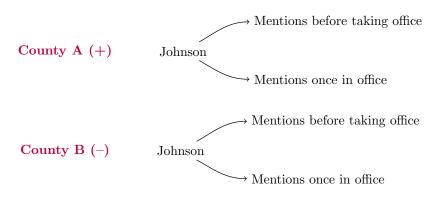
... and consider legislator Smith: takes office in pre-redistricting period



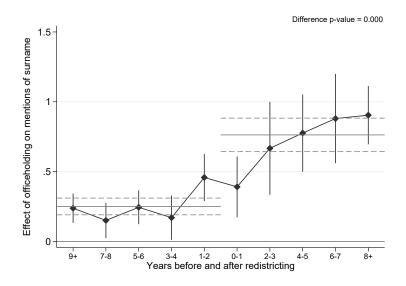
Consider a state with two counties:

- ► County A gained (+) from redistricting
- ► County B lost (-)

... now consider legislator Johnson: takes office in **post-redistricting** period



	Dependent variable: mentions of legislator surname					
	(1)	(2)	(3)	(4)		
Post-redist. $\times$ incr. rep.	0.334*** (0.059)					
In office	0.512*** (0.016)	0.508*** (0.016)				
In office $\times$ incr. rep.	0.557*** (0.047)	0.571*** (0.046)	0.251*** (0.036)	0.078*** (0.024)		
In office $\times$ post-redist.	0.221*** (0.024)	0.243*** (0.024)	(0.000)	(0.021)		
In office $\times$ post-redist. $\times$ incr. rep.	0.569*** (0.091)	0.498*** (0.086)	0.512*** (0.081)	0.337*** (0.050)		
County FE	<b>√</b>					
State × year FE	✓	✓				
State × name × year FE			$\checkmark$	✓		
County × year FE		$\checkmark$	$\checkmark$	$\checkmark$		
County $\times$ name FE				✓		
Observations	9,744,769	9,744,769	9,744,769	9,744,769		
Outcome mean	1.592	1.592	1.592	1.592		
Share treated	0.312	0.312	0.312	0.312		
Share in office	0.260	0.260	0.260	0.260		



## Concluding Remarks

#### Do political factors shape news diets?

#### We combine

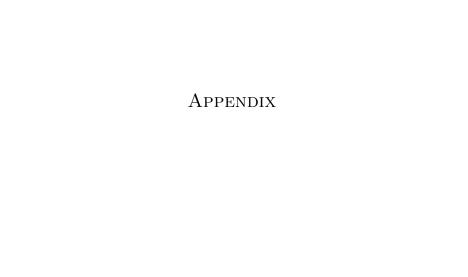
- ▶ Natural experiment arising from Baker v. Carr redistricting
- ► Novel data on U.S. newspapers

#### And provide an answer in the affirmative; gainers from redistricting:

- ► See increased circulation p.c. and shift in newsroom composition
- ► Have particularly pronounced increase in **coverage of officeholders**

#### This has implications for thinking about **political inequalities**

- ► Can affect policies not only directly (via politicians' incentives)
- ▶ But also indirectly (through their impact on citizens' news diets)



# EDITOR & PUBLISHER – EXAMPLE PAGE

	Comp Room Foreman Earl G. Marcy Pressroom Foreman Lloyd F. Penuel	Radio-Television Locate Fraderick	President Leroy A. Simms
DECATOR, ALA.	Mail Room Foreman R. Larry Bracewell	Science Lorene Frederick Society Sara Prater Sports Harold Stout	GEN'L MGMT. & BUSINESS Geni Mer Tom Lankford
	Mechanical Available—Letterpress; Split Run; ROP Blk/3 Colors; HiFi Inserts.	Travel Mel Newman	
BC-C7 (70): 44 890 (HH 13.885)		MECHANICAL DEPARTMENT	ADVERTISING DEPARTMENT  Adv Mgr Skip Atkins
BC-CZ (75): 4,900 (HH 17,500)	Pg. 14-1/4" x 21-1/2"/8 col., 10 picas x 298 lines-4 pt. rules. NWSPRT-1,600 tons/30, 15	Mechanical Supt Jesse Bailey	CIRCULATION DEPARTMENT
		Comp Room Foreman Earl Gallien Prestroom Foreman Clayton Hayes	Circ Mgr
(e-mon. to fri.; sat. m; S)	ING — Typesetting 11, 8Lap; Material Makers 1El; Tapesetters 2F; 2AX. STEREOTYPE—1G, 1Pc.	Mechanical Available - Offset (Photo Conver-	NEWS EXECUTIVES
(e-mon. to iri; sal. iii; 3)	Presses 1G(6unit)/Controls 1CW-AC, MAIL  Presses 1G(6unit)/Controls 1CW-AC, MAIL	sion-Compuscan); ROP Blk/3 Colors;	Editor Tom Lankfor
irc. 22.112(e-mon. to fri.); 21,522(sat. m); 3,339(S); ABC Sept. 30, 1975; 10e/30eS/	ERAS-2Log 121; 2KV-242. PRESSROOM-	SpectaColor, HiFi Inserts.  Mechanical Specifications — Type Pg 14-1/4" x	EDITORS & MANAGERS
	ROOM - Tyers 1Sa; Addressers 1El. COM- PUTERS-4COM.	21-1/2"/8 col. 10.09 picas x 301 lines-3 pt.	Ed of Edit Page
ennessee Valley Ptg. Co., Inc. 201-1st Ave., E. (P.O. Box 1527), Decatur, Ala. 35601; Tel.	PUTERS-4COM.	rules, NWSPRT-1,950 tons/29-1/2 wide. INK-45,980 Blk/N.A. Color, COMPOSING-	Prioto Dept mgr Mike Globel
		Photo Comp/Cold Type 5COM (2-4961) COM;	Women's Jule lette
dv. (Flat Line Rate)—24.29emax; Discounts valiable.		Photo Comp/Cold Type 5COM (2-4961) COM; OCR Equipment, 1CP; CAMERAS—1h. PRESSROOM—Presses 1G (8 Unit Urbanite)/	Mechanical Available - Offset ROP Blk/3 Color
-Mathews, Shannon & Cullen, Inc.	ENTERPRISE, ALA.	Controls 2CH, MAILROOM—1 HM Stuffer; 1Sa	HiFi Inserts.  Mechanical Specifications—Type Pg. 15-1/2
emocrat; AP, Estab. 1912. ot Published Christmas Day (when Christmas	Coffee County	Tyer; 1Am Addresser.	
omes on sat )	70 U.S. Census 15.591: '76 Est. 16.800	of the party named as well in	NWSPRT-95 tons/33 wide. INK-10,000
overtising Not Accepted — Alcoholic Beverages.	City Zone (Local Estimate) — 35,216	the second secon	Comp 8 Jus. CAMERAS - IR PRESSROOM
ORPORATE OFFICERS		GADSEN, ALA.	
resident Barrett C. Shelton sec Vice Pres Barrett C. Shelton, Jr.	LEDGER (e-tues. to fri.; S)		MAILROOM Addressers 1El.
ecy-Treas Mrs. Suzanne J. Shelton	Circ. 5.237(m-tues, to fri.); 5.520(S); sworn Mar.	Etowah County	TIMES (eS)
EN'L MGMT. & BUSINESS	31, 1973 (Latest statement furnished); 10cm/	'70 U. S. Census — 53,928; '76 Est. 56,600 ABC-CZ (70): 64,339 (HH 21,060)	
en Mgr Barrett C. Shelton, Jr. controller Samuel D. Nettles	20eS/40ewk. Enterprise Alabama Ledger, Inc., 106 N. Edwards	ABC-CZ (75): 61,900 (HH 20,700)	55,823(S); ABC Sept. 30, 1975; 10e/25e
	St. P.O. Box 1140. Enterprise, Ala. 36330: Tel.		
ADVERTISING DEPARTMENT Don Kincaid	(205) 347-9533. Adv. (Flat Line Rate) — 13.2c.	TIMES (eS)	Huntsville, Ala. 35807. Tel. (202) 534-2311.
Natl Adv Mer Mrs. E. D. Sandlin	Independent; UPI, NEA; Est. 1899 (1971 as	Circ. 28,602 (e); 29,036 (S); ABC Sept. 30,	Adv. (Flat Line Rate) -50c(e or S).
Class Adv Mgr Joe Speegle	daily.) Not Published — Christmas.		Adv. (Flat Line Rate) – 50c (e or S.).  Rep. — Newhouse Newspapers (Metro Suburbal Independent: AP, CDN, LAT/WPN; Advant News Service; Est. 1910.
CIRCULATION DEPARTMENT Director Norman Wellden	Supplement-"Showcase," entertainment.	The Gadsden Times, Inc., 401 Locust St., P. O. Box 188, Gadsden, Ala. 35902; Tel. (205) 547-	News Service; Est. 1910.
NEWS EXECUTIVES	family, television listings(S).		Special Editions - Author (Sep.): Egothall (Aug.): Back-to
Editor Barrett C. Shelton	CORPORATE OFFICERS President Terry Exercet	Adv.(Max Line Rate) — 27ce; 27cS.	School (Aug.); Christmas Opening (Nov.). Sunday Magazine — Parade.
Man Editor Make Freeman	President Terry Everett Vice President Ben M. Smith	Rep. — General Advertising Service, Inc. Independent; AP, Wirephoto.	Sunday Magazine — Parade.
	GEN'L MGMT. & BUSINESS	Magazine: Family Weekly.	CORPORATE OFFICERS Vice Pres
EDITORS & MANAGERS  Action Line  Gayle Murphree	Publisher Terry Everett	GEN'L MGMT. & BUSINESS	Vice Pres Leroy A. S. Lew W. C. Lew
Farm H. M. Layman		Publisher Frank Helderman, Jr. Assoc Pub Frank Helderman, Jr.	
Food Mrs. Cheri Shipper Home Furnishings Mrs. Cheri Shipper	ADVERTISING DEPARTMENT Adv Dir LeJunne Waggone		Publisher Leroy A June
Photo Dent Mer Billy Smith	No. a. consum melitone	ADVERTISING DEPARTMENT	Comptroller W. C. Lew Purch Agent
Society Mrs. Cheri Shipper Sports Billy Mitchell	NEWS EXECUTIVES Editor Terry Everet	Local Adv Mgr James Brown t Class Adv Mgr Winston Burrell	
MECHANICAL DEPARTMENT	Mechanical Available Offset, ROP Blk/2 Colors		ADVERTISING DEPARTMENT Nat Adv Mgr Adv Director  Adv Director  Adv Director
Comp Room Foreman Harold Wright	HiFi Inserts.  Mechanical Specifications—Type Pg. 8 col., 10	CIRCULATION DEPARTMENT	Adv Director C. B. U North Buford Bagwi
Pressroom Foreman Marshel Bracker Camera Foreman William Hannah		Joe Williams	
Mechanical Available - Offset; Split Rur; ROF		NEWS EXECUTIVES Editorial Page Editor Mary Hoffman	CIRCULATION DEPARTMENT  Circ Mar  Hubert Hawkin
			Circ Mgr Hubert Fisher Asst Circ Mgr Carlos Kirkpatris
Mechanical Specifications - Type Pg. 15" x 21	FLORENCE-SHEFFIELD	EDITORS & MANAGERS	NEWS EXECUTIVES Smr
Mechanical Specifications—Type Pg. 15" x 21 1/2"/8 col. 11 picas x 301 lines-3 pt. rules NWSPRT—1,800 tons/29-1/2 in. wide. INK—	TUSCUMBIA-MUSCLE	Arnusements Virginia Brook	NEWS EXECUTIVES Editor Executive Editor
NWSPRT - 1,800 tons/29-1/2 in. Wide. INA- 30,000 Blk/3,500 Color. COMPOSING - Tapesetters SFr. Cold Type Photo Comp 4(2P 2COM). CAMERAS - 2 (1Cl. 1DS-C24-DLA	CHOAL C ALA	Auto Jimmy Smothers Aviation Jimmy Smothers	
2COM). CAMERAS-2 (1CI, 1DS-C24-DLA	SHOALS, ALA.		Managing Editor R. J. (BCC) 100 Cl
PRESSROOM Presses 1G(6 unit)/Controls F DC. MAILROOM Stuffer 15: Addressers 1Ad.	Lauderdale and Colbert Counties	Business-Financial Arthur Shaw Editorial Writer Mary Hoffmar	City Editor Buddy Man Durks
South Month Court of 15, Addressers 140.	- Population y '70 U.S. Census - Total 62.881 (Florent	Education Mary Hoffman	State Editor
		e Farm Mary Hoffmar	
E&P BRINGS YOU SYNDICATE NEWS ever week, plus complete annual Syndicate Directory for just \$15.00 a year.	34.031: Sheffield 13.115: Tuscumbia 8.82	8: Fashion Mary Hoffmar Betty Craver	EDITORS & MANAGERS Amusements Alan Moor



# Newspaper Archive – Example Hit

The Milford Mail, Dickinson County, IA – 3 November 1960





# Newspaper Archive – Example False Positive

Long Beach Independent, Long Beach, CA - 16 June 1960





# More Results: Newspapers and Circulation

	Number of newspapers			Circulation per capita		
	(1)	(2)	(3)	(4)	(5)	(6)
Post-redist. $\times$ incr.	0.041* (0.024)	0.012 (0.020)		0.009** (0.004)	0.009** (0.004)	
0-4 years post $\times$ incr.	, ,	, ,	0.003 $(0.013)$	, ,	, ,	0.002 $(0.003)$
$5+$ years post $\times$ incr.			0.014 $(0.020)$			0.010** (0.004)
County FE	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓
State × year FE	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Controls		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
Observations	65,079	65,034	65,034	65,034	65,034	65,034
Counties	3,099	3,099	3,099	3,099	3,099	3,099
Outcome mean	0.504	0.505	0.505	0.108	0.108	0.108
Outcome sd	0.947	0.948	0.948	0.172	0.172	0.172
Share treated	0.211	0.211	0.211	0.211	0.211	0.211

