

# An analysis of newspaper circulation from 2004 to 2014



Xuan Bach Le '22, Bennington College

## Background

With the increased popularity of social media platforms and online news outlets in recent years, “the newspaper industry is dying” has been a common assumption among those who read the news and those who write it. This study will examine whether this statement is true using the latest newspaper circulation data available.

## Research questions

Have newspapers’ circulation in the United States been in a decline since the 2000s?  
And if so, do their sizes matter?

## Methods

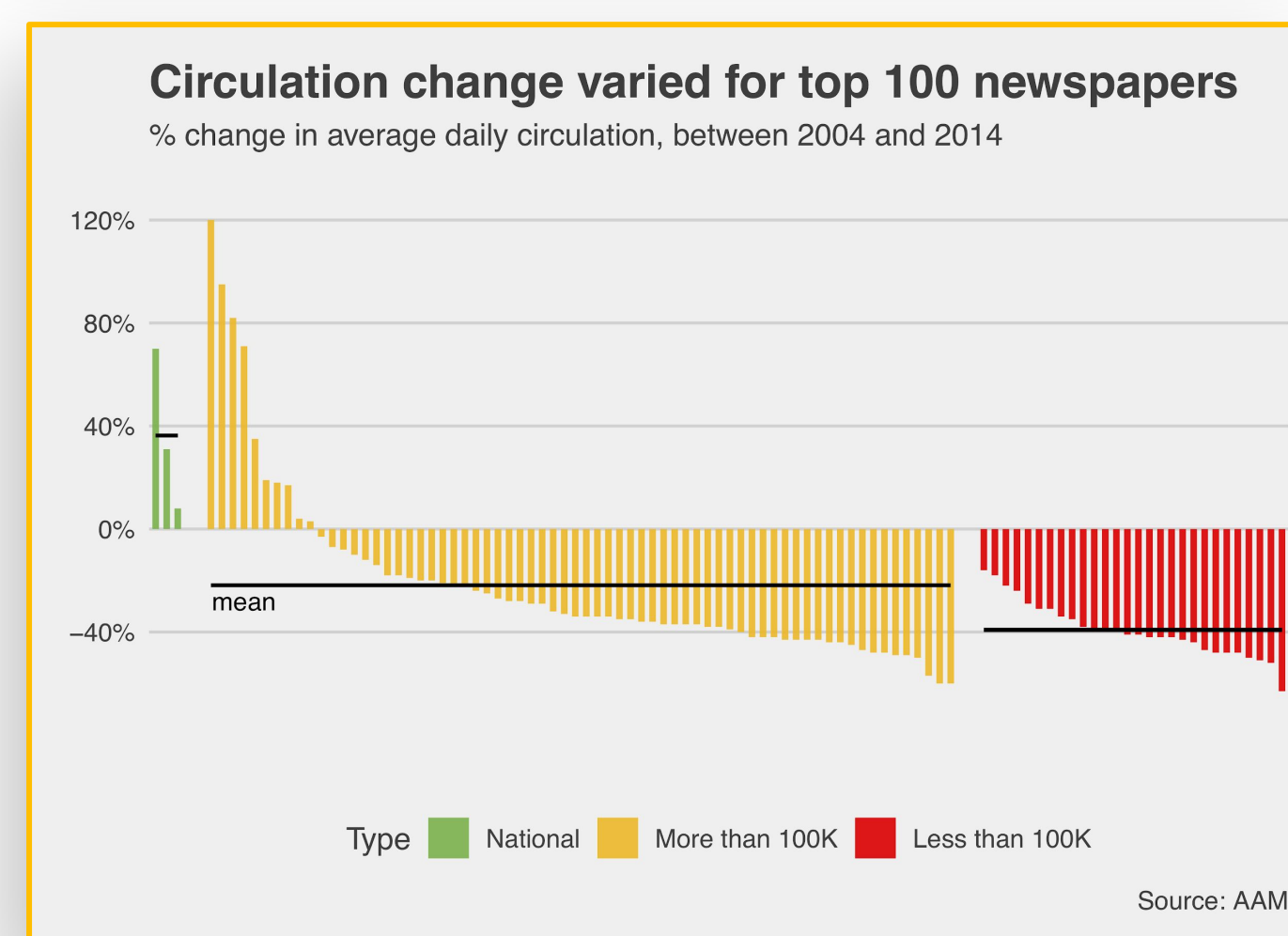
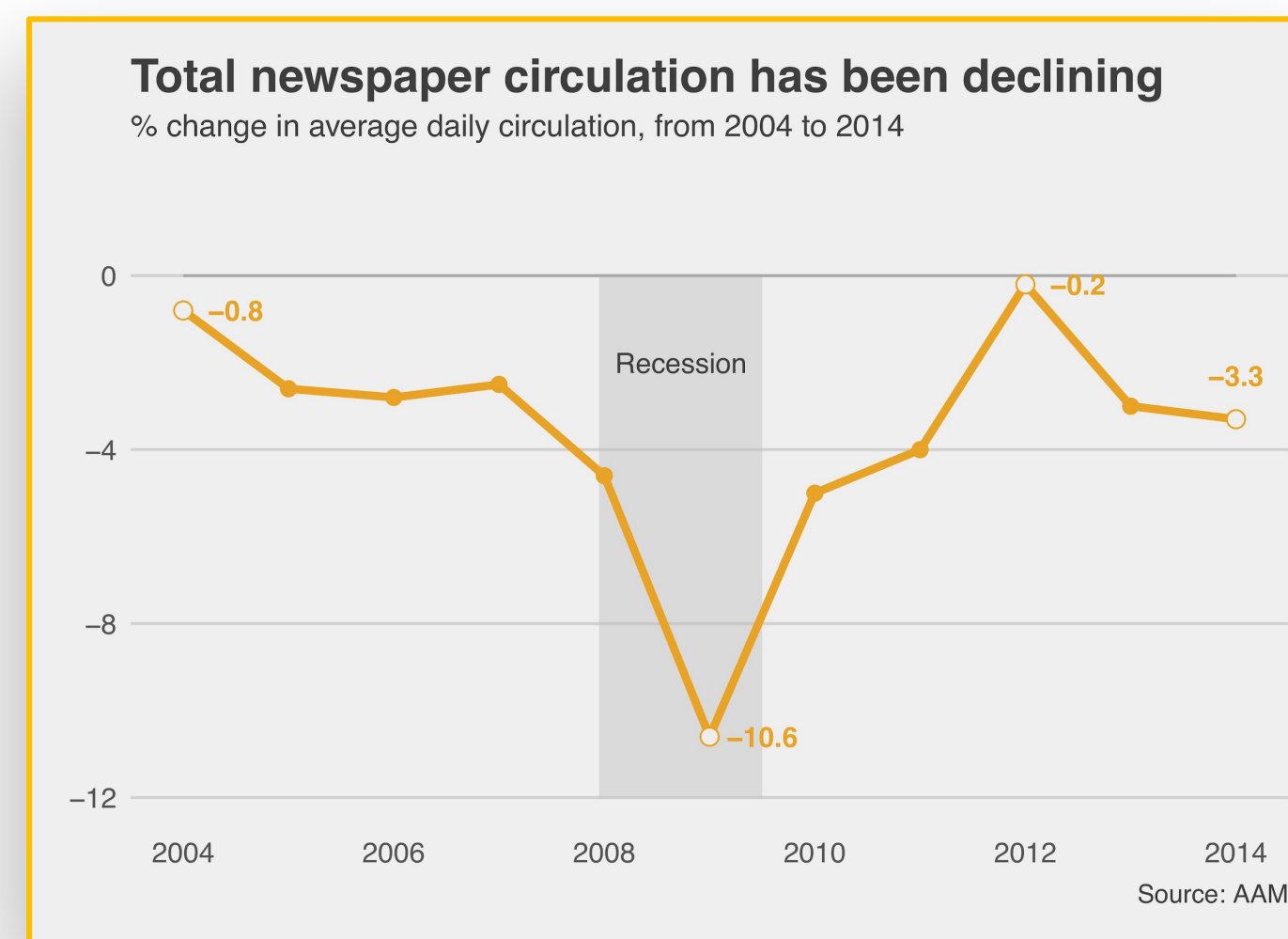
The newspapers are grouped into three sizes (National, More than 100K and Less than 100K) based on 2014’s circulation. Newspapers missing less than 4 years of circulation data will be estimated based on the latest available year, else deleted.

The data is then computed in R to find percentage changes in total and individual circulation from 2004 to 2014. An ANOVA and TukeyHSD test is then used to see whether newspapers’ size influenced their rate of change in circulation.

## Data

The circulation data is from Alliance for Audited Media (AAM), which is republished by Burrelles Luce, a media agency, and Pew Research Center, a fact tank.

## Results



Analysis of Variance						
	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
newspaper\$Type	2	1.759	0.8797	9.881	0.000125	***
Residuals	96	8.547	0.0890			
---						
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1						
Tukey multiple comparisons of means						
95% family-wise confidence level						
Fit: aov(formula = lm(newspaper\$Percentage ~ newspaper\$Type))						
\$`newspaper\$Type`						
		diff		lwr	upr	p adj
More than 100K-Less than 100K		0.1734034	0.01390138	0.3329053	0.0297331	
National-Less than 100K		0.7551190	0.32359487	1.1866432	0.0001990	
National-More than 100K		0.5817157	0.16265394	1.0007774	0.0037941	

ANOVA & TukeyHSD tests show significant difference in circulation change by size.

## Conclusion

As expected, newspaper circulation in the US has been on the decline for 11 years straight. However, the rate of change varied by circulation size. While national newspapers like NYT and USA Today saw strong growth in readership, medium and small news outlets experienced steep drops in circulation during the surveyed period.

## References

- [1] Barthel, Michael. 2016. “Newspapers: Fact Sheet.” Pew Research Center, June 15. <http://www.journalism.org/2016/06/15/newspapers-fact-sheet/>.
- [2] “Top Media Outlets.” Burrelles Luce, 2004-2014, [https://www.burrellesluce.com/resources/top\\_media\\_outlets/](https://www.burrellesluce.com/resources/top_media_outlets/)

**Acknowledgement:** Thank you to Josef Mundt for his useful advices in the development of this project ♦