

## Understanding the Correlation between Consumer Newspaper Usage and Retail Display Advertising Volume

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### ABSTRACT

*There is no shortage of studies, articles and reports on how consumers are turning away from daily newspapers to other media forms and how this is impacting the economics of the newspaper industry. The explanation or speculation for the consumer decline in newspaper usage centers on technological change and the shift away from the printed page to various alternative digital or electronic forms and versions. When viewed that way, people of all categories are simply not reading the newspaper as they once did. Instead, they are spending their available time with online media, particularly with interactive smartphones. What is missing in these discussions is the impact and effect on how interconnected newspaper readership and retail advertising are. There is a strong correlation between the declines in the two factors. Much of the speculation about the demise of the physical retail store and the retail newspaper display advertising volume on which it depended to generate traffic and sales is similar to that of the decline in newspaper usage and readership and the two must be investigated together.*

### INTRODUCTION

Many articles and studies have confirmed the consumer decline in daily newspaper usage over the past several years. Less attention, however has been given to a similar decline in retail newspaper advertising lineage during the same period. Clearly, given the number of alternative factors, both internal and external, which may have created or contributed to both these declines, it is still difficult to demonstrate a causal relationship between the two. It does seem though there might well be or have been some sort of relationship between the two which might be worth investigating. Such is the purpose of this paper.

A typical example of the concern is a Washington Post article titled “A once unimaginable scenario: No more newspapers” (McLennan and Miles, 2018). Additionally, the Pew Research Center reported weekday combined print and digital newspaper circulation was down 8% in 2018 from the previous year. (Pew, 2019). Even the Wall Street Journal says “newspapers are suffering an accelerating drop in print advertising” (Wall Street Journal, October 20, 2016.) There seem to be no shortage of studies, articles and reports on how consumers are turning away from daily

newspapers to other media forms and how this is impacting the economics of the newspaper industry.

Typically, the explanation or speculation for the consumer decline in newspaper usage centers on technological change and the shift away from the printed page to various alternative digital or electronic forms and versions. When viewed that way, i.e.. Shifts in demographics, income skews, geodemographic markers and the like, people of all categories are simply not reading the newspaper as they once did. Instead, they are spending their available time with online media, particularly with interactive smartphones.

What is generally missing in these analyses/discussions of the advertising implications is the impact and effect on how interconnected newspaper readership and retail advertising have become over the years. The two seem so intertwined that both situations should be investigated simultaneously to establish any meaningful managerial discussions. In this paper, we attempt to address these concomitant factors and the seeming correlations that might be found. In short, as consumer newspaper consumption has declined, newspaper retail display advertising has suffered

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equally if not more so. In short, there appears to be a direct correlation between the declines in the two factors. If this correlation does exist, then much of the speculation about the demise of the physical brick and mortar retail store and the retail newspaper display advertising volume on which it depended to generate traffic and sales is very similar to that of the decline in newspaper usage and readership. One seems to begat the other and thus, to find a solution, the two must be investigated together.

It is our hope that syndicated media research as used in this paper may be able to provide a starting point for investigation of these two critical factors for newspapers as a whole. If some sort of relationship does exist, it does not seem likely that newspapers in any form will likely recover their readers unless and until retail stores reverse their closing rates. And, that does not seem apparent based on current knowledge.

Thus, in spite of all the hue and cry for new forms of newspapers being made available, i.e., digital, localized, distribution intensive and the like all will likely have little impact unless and until retail advertising investments by retailers are reversed.

The balance of this paper is devoted to illustrating the relationship we have found between traditional consumer newspaper usage and historical retail display advertising in traditional daily newspapers. It is our belief that this understanding of the relationship is critical to predicting/projecting the future of the newspaper industry in the United States.

### POPULATION DATA USED IN THE RESEARCH BASE

To develop this analysis and the resulting recommendations, we use data gathered by Prosper Insights & Analytics, Columbus, OH. Prosper who has captured and analyzed online consumer data through questionnaires circulated among audiences (U.S. adults 18+) about their marketing, media, promotion and advertising activities for more than 20 years. The results of the Prosper studies are used by a wide variety of marketing organizations such as Wal-Mart, Disney, Kimberly-Clark and the National Retail Federation to plan and implement their promotional programs. One of Prosper's primary syndicated services are the

Media Behaviors and Intentions (MBI) annual survey and report. In this national study, using techniques similar to the ones employed by the U.S. Census Bureau, (Schultz, Block, and Viswanathan, 2016) Prosper captures the reported media usage of a representative sample of the U.S. population using a recall methodology. This approach requires respondents to report their media usage on an "average day". This is based on minutes per day usage of each media form over the past week. The data used in this study is based on a total 96,793 individual responses collected from 2013 through 2019. The report on consumer shopping behaviors is also based on consumer/s recall of their shopping behaviors in another form of the CBI. That data reports on reported consumer shopping behaviors over the past 30 days. These monthly reports on shopping activities/behaviors has yielded an additional roughly 350,000 responses to those which are collected on media usage.

### FINDINGS

#### Time Spent With Media

Exhibit #1 is a summary slide illustrating consumer responses to media questions gathered in the MBI studies about respondent media consumption patterns over the past 14 years.

The chart above shows the results of the MBI questionnaires for individual media consumption by the MBI panel reduced to minutes per day over the past 14 years. The minutes per day reported were computed from day parts across weekday and weekends. The solid lines show reported usage time for television and the Internet while the dotted lines show the trend. As can be seen, the overall trend for TV usage is downward. The Internet consumption has steadily increased and has now surpassed TV in minutes per day usage during the study period. The line near the bottom on the chart is newspaper usage which has been generally flat over the period. Note that social media usage, which only began to be reported in 2012 has grown rapidly since tracking began.

The regular newspaper reader, as shown in Exhibit 2 represents 23.5% of all adults over 18. They spend over an hour reading each day (nearly 67 minutes). They tend to be older, slightly more likely to be male, married and report an average annual income of \$71,000.

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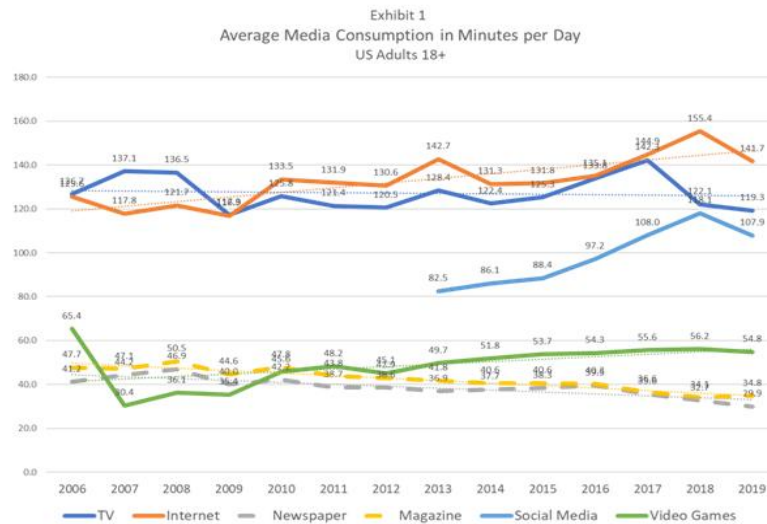


Exhibit 2  
Characteristics of Daily Newspaper Readers  
Adults 18+

	2019 Percent	Newspaper Mins/Day	Income(\$)	Married(%)	Kids(%)	Female(%)	Age(Years)
Regularly	23.5	66.8	71.0	53.8	27.8	47.5	54.1
Occasionally	32.3	35.6	62.5	44.4	33.9	50.7	45.9
Never	44.2	12.0	56.2	40.2	29.5	53.5	43.6
Total	100.0	29.9	61.7	44.7	30.5	51.2	46.8

### Activity Segmentation of Regular Newspaper Readers

As part of the MBI studies, respondents are asked to also report their usage and involvement in a number of activities, all of which are behavioral in nature. These behavioral

measures have proven useful to media planners and consumer behavior specialists seeking to better understand consumer lifestyles and potential product usage opportunities. Exhibit #3 shows a factor analysis of the 31 activities reported in the 2019 MBI study.

Exhibit 3  
Activity Factors -- Explains 44.5%  
US Adults 18+ -- 2019

	Amusement	Go Out	Digital	Home	Outdoor	Reading	Sports
Go to Sporting Events	0.64						
Tailgating	0.57						
Go to Bar/Night Club	0.54						
Go to Concerts/Live Theatre	0.53						
Go to Gambling Resorts	0.51						
Eating Out		0.71					
Watch TV		0.57					
Go Shopping		0.57					
Go to Movies		0.51					
Travel		0.46					
Play Video Games			0.66				
Surf the Internet			0.65				
E-mail/Instant Messaging/Blogging			0.57				
Online Communities/Social Networking			0.49				
Gardening/Yard Work				0.68			
Home Improvement Projects				0.65			
Cooking				0.53			
Family Activities				0.53			
Boating, Sailing, etc.					0.64		
Swimming					0.54		
Camp/Fish/Hike/Hunt					0.53		
Snow Skiing					0.51		
Read Books						0.66	
Read Magazines/Newspapers						0.63	
Exercise/Jogging, etc.							0.62
Play Team Sports (e.g. softball, soccer, etc.)							0.58
Tennis							0.53

As shown, seven factors were found. These accounted for 44.5% of all variance in the analysis. These activity factors were then used to provide a base for newspaper segments. Previously the activity segments were shown to be very effective in describing media audiences

(Schultz and Block, 2018). Exhibit 4 shows that the reading factor is by far the most important discriminator among regular newspaper readers. Regular newspaper readers are also higher than all adults in participation in amusement and home activities.

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Most interesting is the relationship between regular daily newspaper reading and other media consumption. Aggregating the media categories to paid and owned categories shows some interesting comparisons. Exhibit 5 shows regular newspaper readers consume considerably more paid print and paid TV

media. Both paid media categories show over 125 minutes per day compared to much lower numbers for other segments. Also of interest are the lower levels of paid digital media at 87 minutes per day compared to the overall average of 100 minutes. Owned digital media is also considerably lower.

Exhibit 4  
Activities by Daily Newspaper Readership  
Adults 18+

	Factor Scores						
	Amusement	Digital	Go Out	Home	Outdoor	Reading	Sports
Regularly	0.13	0.04	-0.14	0.16	0.01	0.38	0.05
Occasionally	0.06	0.04	0.06	0.07	0.05	0.09	0.07
Never	-0.11	-0.02	0.06	-0.10	-0.06	-0.22	-0.09
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Exhibit 5  
Media Consumption in Minutes per Day by Daily Newspaper Readership  
Adults 18+

	Paid Print	Paid TV	Paid Digital	Earned/Social	Digital Owned
Regularly	125.2	124.2	86.7	101.0	67.2
Occasionally	79.3	106.0	99.5	120.7	77.6
Never	33.9	100.3	107.0	119.8	71.6
Total	70.0	107.8	99.8	115.7	72.5

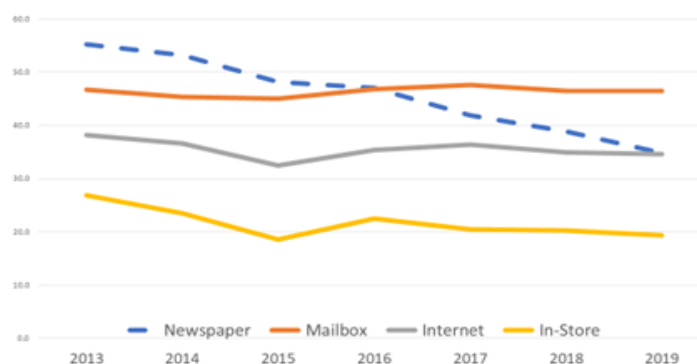
## Coupons and Inserts

Ad inserts have long been a critical marketing tool for retailers and make up a major portion of the overall display advertising revenue and volume. Exhibit 6 shows a steady decrease in the consumer's view/expectation of where they might find advertising inserts/coupons since 2013. The other methods of distributing an ad insert have remained relatively flat over the same period. In 2013, 55.2% of all adults said the newspaper was where they looked for inserts making it the leading source. This dropped to 34.9% in 2019, putting the newspaper in a

virtual tie with the internet at 34.6% and behind the mailbox at 46.5%.

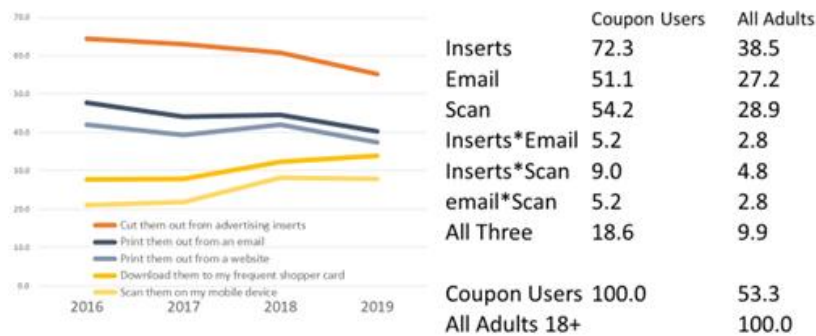
Coupons, as shown in Exhibit 7, are reported to be used by 53% of all adults 18+. The dominant form of coupon distribution is the insert, followed by email and scans. The only methods of coupon distribution that have increased since 2016 are downloading using the frequent shopper card or the mobile device. That seems to portend more difficulties for the newspaper as source of inserts and coupon distribution going forward.

Exhibit 6  
Where Consumers Look for Inserts (Percents)  
Adults 18+



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Exhibit 7  
Methods of Obtaining Coupons (Percents)



### Comparing Newspaper Readership and Physical Store Shopping

Readership of both local daily newspapers and suburban weeklies have declined since 2013 as shown in Exhibit 8. Local daily newspaper readership has declined at an annual rate of 2.4%. The suburban weekly annual decline as been 1.4%. Shopping at a physical store in the last 90 days is reported by class of trade.

Grocery, health and beauty aids, and apparel have all declined since 2014 (first year the data is available). Note that the left scale is for apparel and HBA, the right scale for grocery and HBA. The 2019 levels reported for HBA is 49.4%, declining at .93% annually, grocery at 84.3% declining at -.63%, and HBA 50.9%, declining at .71%.

Exhibit 8  
Newspaper Regular Readership Trends (Percents)  
Adults 18+

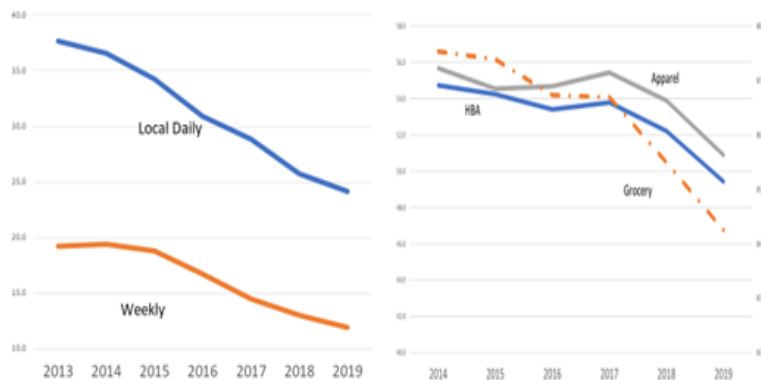


Exhibit 9 shows the correlation between the decline in regular newspaper readership and store visits. Note that the correlations are based only on 5 years, 2014 through 2019. For local daily newspapers the correlation is

.93 for grocery and .87 for HBA. Despite the small number of data points these correlations are all statistically significant. The correlation for apparel is lower at .74, and not significant.

Exhibit 9  
Correlations between Retail Store Visits and Regular Newspaper Reading

	Store Visits		
Regular Readers	Grocery	HBA	Apparel*
Local Newspaper	0.93	0.87	0.74
Suburban Weekly	0.92	0.85	0.70

\*Not significant

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### SUMMARY

Clearly, declines in newspaper readership and usage and newspaper retail display advertising have been declining for some time. Unfortunately, the two areas have generally been treated as independent variables and thus studied separately and individually. In this paper, we have demonstrated that they are likely connected. As consumer newspaper usage declines, so does display advertising volume. They are clearly connected and there may well be a direct correlation. If that is the case, we argue that finding the correlation between the two is a critical issue for newspaper advertising management. If that can be done, we might develop a useful and relevant tool to predict the future of the advertising business. It might be better than the current approaches being used which seem to involve trying new, unproven, expensive alternatives on a “test and hope” basis.

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