

THE IMPACT OF FREE NEWSPAPERS
ON US MARKETS

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

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

by

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JULY 2012

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THE IMPACT OF FREE NEWSPAPERS ON US MARKETS

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This dissertation is dedicated to my parents, Kathy and Richard Boyajy, my in-laws Ellen and Rob Hoff, and my loving husband Brian. Thank you for all your support and encouragement throughout this process.

ACKNOWLEDGEMENTS

I would like to thank the members of the dissertation committee, Dr. Esther Thorson, Dr. Margaret Duffy, Dr. Glenn Leshner, Dr. Kennon Sheldon and Dr. Tim Vos. I would also like to thank Dr. Wayne Wanta, now at the University of Florida, who served on the committee when I defended my dissertation proposal. I want to thank Dr. Thorson for her roles as both my Dissertation Chair and Advisor. I appreciate the feedback Dr. Thorson provided on the proposal and dissertation, as well as her patience as the dissertation took much longer than planned. Her efforts throughout this process are greatly appreciated!

Also wanted to thank Jim Smith of Morris Communications for the insight he provided on how to study free newspapers. I particularly appreciate his help in obtaining data for the study. Thank you to Gary Meo of Scarborough Research for providing the newspaper readership data, and for the time he took to review the readership analysis.

I would also like to thank Dr. Steve Lacy, Michigan State University, for his insight on how to conceptualize the research and for providing a list of resources.

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THE IMPACT OF FREE NEWSPAPERS ON U.S. MARKETS

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ABSTRACT

This study looks at free newspapers, focusing on the modern era beginning in 1995, to better understand the impact these publications have on paid newspapers. The theory revolves around the question of media substitutability, that is, is there evidence that free newspapers substitute for paid ones? This is tested with four measures on a set of ten matched newspapers, one with a free competitor and one without a competitor. The four measures are the following: readership data, including average weekday readership and 5-day cumulative audience, single copy sales and total circulation. These measures were examined before and after the introduction of the free newspaper. There was also an examination of the readership demographics. Finally, a modified content analysis was conducted to learn more about free newspaper characteristics and coverage. There was a lack of support for substitution as the experimental paid newspapers' readership and circulation was not significantly different from paid publications in the control markets. In addition, there were significant differences in the readership demographics. There were also general differences between the free and paid newspapers content and characteristics based on a modified content analysis of the free publications.

CHAPTER 1

Introduction

Newspapers have faced major competitive pressure from other sources, and have managed to coexist with forms of traditional media such as radio, television and magazines for much of the 20th century. Although afternoon papers did not survive the popularity of television, that led to a monopoly status for some suburban newspapers as the sole remaining daily (Sylvie & Witherspoon, 2002). Television provided major competition but a study found that individuals did not proportionally decrease their time with newspapers, indicating increased media usage overall (Gutman, 1978).

Due to the rise of advanced technologies, however, paid newspapers have many more competitors for readers and advertisers (Sylvie & Witherspoon, 2002). Along with advertising dollars shifting online and declines in circulation, there has been an increase in newsprint prices (Palmeri, 2006). Not surprisingly, newspapers are also struggling with lower profit margins (Morton, 2007). The loss of advertising is particularly critical for newspapers as it is the base of their revenue rather than subscriptions (Meyer, 2004). “Today, the funding of advertising is so important — the most important single source of revenue in most countries— that without advertising the media systems would break to pieces” (Gustafsson, 2006, p. 21).

The media environment is fragmented as there are so many choices for consumers and only so many hours in a day, which helps explain the popularity of multitasking (Pilotta & Schultz, 2005). Unfortunately for newspapers, television and the Internet have emerged as the most popular multitasking combination (Whitehead, 2005).

The *Metro*, a free daily newspaper that is available in major cities across the globe, achieved widespread success that did not receive as much attention as would have been expected (Herrick, 2003). Bakker (2007) noted the trend that free newspapers were finding an audience while paid publications experienced an almost universal decline across markets. Over the past few years, however, free newspapers have struggled with circulation and there have been numerous closures (Bakker, 2010).

Dr. Piet Bakker, who is a professor at Hogeschool Utrecht's School of Journalism and Communication, is one of the leading scholars in the field of free newspapers (Bakker, n.d., About the author). His *Newspaper Innovation* weblog was launched in August of 2004 and provides information regarding free newspapers, including circulation and publishers (Bakker, n.d., About the author). *Newspaper Innovation* includes links to news sites and articles pertaining to free newspapers (Bakker, n.d., About the author). Bakker (2007) also conducted a very similar study that examined free and paid newspapers in Europe, which focused on circulation.

One of the greatest fears of the newspaper industry is that a free competitor in a city will serve as a substitute for the paid paper. A substitute is a product that is used in place of another product that essentially serves the same function for the consumer (Mankiw, 2007).

To examine whether free newspapers serve as substitutes for paid dailies, it is important to examine the effect on both circulation and readership patterns. The most likely immediate consequences of free newspapers are to impact the readership of paid newspapers and the single copy sales. While total circulation figures will also be analyzed, these numbers have questionable reliability; in 2004 alone, newspapers such as

the prominent *Chicago Sun-Times*, *Newsday*, *Hoy*, Spanish-language, and *The Dallas Morning News* were found to be inflating their circulation numbers (Saba, 2004).

The possible substitute effect of free newspapers on established paid daily newspapers, metropolitan, satellite and suburban, will be examined in U.S. markets of mostly mid-sized markets. These U.S. markets will be compared to similar markets that serve as controls. The following research questions are being explored: How do these free newspapers affect the established paid dailies' readership and circulation, particularly single copy sales (**Research Question 1: R1**)? Are free newspapers attracting a different readership than paid (**Research Question 2: R2**)? Are the free newspapers providing "healthy" competition, in terms of both content and advertising, for existing dailies that may be the only major local paper in town (**Research Question 3: R3**)?

This study will address whether free newspapers are substitutes for paid publication or having a complementary role. The comparison of readership and circulation data of paid newspapers in experimental and control markets, as well as the reader demographics of free and paid newspapers in the experimental markets will help address substitutability. The content analysis will also provide additional insight.

This study is exploratory in nature as free newspapers have not received much attention in academic studies as of yet, but is also explanatory in that readership and circulation numbers will be analyzed and discussed in terms of the theory of substitution. In addition, reader demographics will be compared between free and paid newspapers in experimental markets.

CHAPTER 2

Newspapers and Media Consumption: An Overview

To understand the growth of free daily newspapers in the U.S. and examine their impact on paid newspapers, it is important to understand the current state of the newspaper industry. In discussing the various aspects of the newspaper industry, this dissertation is not attempting to cover all areas in-depth, but to provide context for the environment where free newspapers were introduced.

Newspaper Industry Conditions

“The newspaper industry has been going through what is called a ‘disruptive’ change, a phenomenon that has transformed industries such as retailing, computing, airlines and automobiles” (Anthony & Gilbert, 2006, p. 43). There are two types of disruptive innovations, low-end and new-market, which change the existing market or create a new one altogether (Christensen et al., 2004). Low-end disruptive innovations often result due to products that have features and services that are ‘over’ meeting the needs of consumers (Christensen et al., 2004). New-market is the other type of innovation and it “can occur when characteristics of existing products limit the number of potential consumers or force consumption to take place in inconvenient, centralized settings” (Christensen et al., 2004, p. xvii).

There are three groups that present opportunities for change: nonconsumers, and undershot and overshot consumers (Christensen et al., 2004). Nonconsumers are those who do not consume the product at all or in inconvenient settings (Christensen et al., 2004); in the case of newspapers, these are best represented by young adults. Overshot

consumers are generally responsive to low-end disruptive innovations and displacing innovations (Christensen et al., 2004). In the case of newspapers, individuals may appreciate the quality of these publications and the opinions offered but do not have four hours to spend reading the paper. Undershot consumers are those for whom the product needs improvement/enhancement to be satisfied (Christensen et al., 2004). This is not as applicable as general complaints of newspapers are that they are longer and more time-consuming to read for the average person.

The Internet has been a disruptive innovation with far-reaching implications for newspapers, along with other forms of traditional media. The popularity of smartphones presents an even greater challenge for newspapers as their mobile nature allows its users to access the Internet ‘on the go’ – competing directly with the portable feature of papers. The Pew Research Center’s Internet & American Life Project survey of 2,277 Internet users 18 and over found that 35% of American adults own smartphones (2011). According to the results of the Pew Research Center for the People & the Press’ Biennial Media Consumption survey in 2008, 15% of Americans had a smartphone; greater than one-third accessed them for news (e.g., iPhone, Blackberry) (2008). In 2000, smartphone ownership was only 5% (Pew Research Center for the People & the Press, 2008).

Media Consumption

The general trend has been that consumers complement their use of new media with traditional forms (Thorson et al., 2005; Dutta-Bergman, 2004). Although some scholars have found a competitive displacement effect when looking at new and traditional media use (Dimmick et al., 2004). The results of their study showed that as

respondents used the Internet for news, they consulted both broadcast television and newspapers less frequently (Dimmick et al., 2004).

Some types of traditional media have fared better than newspapers in the current hypercompetitive environment. Television is still by far the dominant medium in terms of time spent despite competitive pressure from the Internet and mobile technologies (TVB Media Comparisons Study 2010). The results of the latest TVB Media Comparisons Study found that adults 18+ viewed television on average for five hours and nineteen minutes ‘yesterday’ (TVB Media Comparisons Study 2010). In comparison, the average time spent reading newspapers was only 26 minutes and time spent online was about 2 hours and 37 minutes (TVB Media Comparisons Study 2010). The Pew Research Center for the People & the Press’ Biennial Media Consumption Survey looks at time spent on news only, and also found that more is spent on viewing television news “yesterday”, 54 minutes, than getting news online, 35 minutes (2008).

Some studies have found that television and the Internet are a particularly popular combination for multitasking (Cueno, 2002; The Media Center at the American Press Institute, 2004). Don Schultz and Joseph Pilotta, both professors, conducted a study that focused on multitasking with respect to advertising, and had similar results to the Simultaneous Media Usage Survey where just over two-thirds of the sample watched television and used the Internet at the same time (Cueno 2002; The Media Center at the American Press Institute, 2004). According to Nielsen’s 1st Quarter 2010 Three Screen Report, the percentage of time that consumers viewed television and used the Internet was up 9.8% compared to the first quarter in 2009 (What Consumers Watch, 2010).

The observational study that was part of the landmark Middletown Media Studies found that participants spent on average 11.7 hours a day using the media (Papper et al., 2004). In addition, 11.7 hours includes simultaneous usage, so the amount of time is 15.4 hours a day when media consumption across mediums is totaled (Papper et al., 2004). Rosen (2010) and his colleagues at California State University, Dominguez Hills, have conducted anonymous online surveys and found an even higher amount of time spent on media and technology. Net Geners, who were born between 1980 and 1989, and older teens spend over 20 hours daily (Rosen, 2010). Younger teens were very similar to the results of the Middletown study though, as they averaged just over 15 hours per day (Rosen, 2010).

Rise of the Internet—time spent and news consumption. In the mid to late 1990s, the Internet started to become more widely available and usually offered its content for free. Savage and Waldman (2005) found that individuals use the Internet for enjoyment; consumers also find online use to be time-saving and cost-effective. A study conducted by the Pew Research Center found that 23% of Americans had online access in 1996 (Kohut, 2000). In 1999, half of the American population was online (Kohut, 2000). More recently, Internet penetration was at 77% of the US population in 2009, according to the results of the Current Population Survey (Current population survey (CPS) Internet use, 2009). This growth is consistent with the notion that the Internet is more than an able substitute for traditional media (Mankiw, 2007).

There has also been a steady increase in the number of Americans who get their news regularly online, which is defined as three or more days per week (Pew Research Center for the People & the Press, 2008). According to the results of the Biennial Media

Consumption survey, conducted by the Pew Research Center for the People & the Press, 13% of the public got news online regularly in 1998 (2008). In 2004, that number was 29% and in 2008 it reached 37% of the public (Pew Research Center for the People & the Press, 2010, 2008). In 2010 almost half, 46%, go online regularly for news (Pew Research Center for the People & the Press, 2010).

Newspapers' Sources of Revenue – Advertising and Circulation

Newspapers and other forms of media depend on advertising for survival, while paid circulation only provides a minor portion of the paper's revenue (Robertson, 2005). In 1970, newspapers made up almost 30 percent of advertising expenditures in the US (Picard, 2002). By the early 2000s, this number dropped to approximately 20 percent as television, direct mail, the Internet and other new forms of communication have taken a larger portion of the advertising pie (Picard, 2002). Picard (2002) makes the case that newspaper advertising income increased in real terms when adjusting for inflation; newspaper publishers in 2000 received 2.6 times the amount of newspaper income from advertising as they did in 1950. Nevertheless, profit margins have declined and the newsprint industry as a whole has been unprofitable in recent years (Morton, 2005, Dec/Jan).

In the mid-twentieth century, the division of revenue was 71% from advertising and 29% from circulation (Meyer, 2004). In 2000, newspapers had a higher share of revenue from advertising, 82%, compared to only 18% from circulation (Meyer, 2004). Another estimate is between 75%–80% of revenue is generated from advertising (Morton, 2007). As the percentage of newspapers' revenue from advertising grew in the second half of the twentieth century, so did the share of classified advertising. In 1950,

retail advertising was responsible for 57% of advertising revenue, national advertising for 25% and classified advertising for just 18% (Picard, 2002). In 2000, retail and classified were nearly equal, with 44% and 40% respectively, and national advertising provided only 16% of total advertising revenue (Picard, 2002).

Meyer (2004), consistent with Picard, suggested it is a different business model with classified advertising and a less stable one because classified includes help wanted, automobile and real estate that are particularly subject to changes in business cycles. By the end of 2007, the employment, automotive and real estate industries were down quite a bit as the recession started to take hold during that time (Morton, 2009). In 2007, classified advertising was down over ten percent and it made up 35% of total advertising (Morton, 2007, p. 76). Online sites, such as Craigslist and eBay, provide major competition to newspapers for classified advertising (Morton, 2005, Dec/Jan). These sites have global reach and allow consumers to sell directly to each other without a cost to post the advertisement, in addition to the search feature.

Newspaper types and advertising. Newspapers that are most vulnerable to the increased competition for advertising are mid-sized regional metropolitan daily publications, such as *The Philadelphia Inquirer* and the *Minneapolis Star Tribune* (Kuttner, 2007). Large dailies have also been hurt by the increased competition for classified advertising which generates 50% or higher of their revenue in non-recession years (Morton, 2009).

Local weekly newspapers have fared much better than mid-sized regional dailies, in part because they are not very reliant on major national advertisers (Kuttner, 2007). Free newspapers can also occupy a similar space as local weeklies. Jody Reese, prior

Manchester Daily Express publisher and correspondent for the *Union Leader*, stated that “there is currently no place for mom-and-pop Manchester businesses to advertise to a local audience, without paying high radio or *Union Leader* rates” (Ruderman, 2006).

Some of the daily free newspapers included in this study have since changed to a weekly status: *The City Paper*, *Grand Junction Free Press*, and *Bluffton Today* publishes on a biweekly basis, Wednesdays and Sundays (The City Paper, n.d.; Publications – Grand Junction Free Press, 2011; Traynor, 2011, August 11). *Bluffton Today* started out in April 2005 with a unique home-delivered free newspaper model that was hyper-local, and changed to a paid publication in December 2008 (Bakker, 2008, October 28). The change was made to a paid model as the publication was hurt by the economy and resulting cutbacks in advertising (Traynor, 2011, August 11). The newspaper cost \$0.25 during the week and \$0.75 for the Sunday edition (Bakker, 2008, October 28). When *Bluffton Today* switched back to a free home-delivered newspaper model in August 2011, but biweekly, it still kept the same rates for editions purchased at dealers and newsstands (Traynor, 2011, August 11).

Paid Newspapers’ Readership

During the 1980s, newspapers focused on wealthier readers and marketed themselves as a “niche medium” in a time that cable television was expanding and they were losing readers and advertisers (Kovach et al., 2001). In doing so, newspapers did not focus their efforts on reaching young adults (Kovach et al., 2001). Low readership rates by young adults are consistently supported by the results of recent studies, such as the biennial media consumption survey conducted by the Pew Research Center for the People & the Press. However, low readership is not limited to young adults. The Pew Research

Center for the People & the Press had the following findings based on their Biennial Media Consumption Survey in 2008:

over the past two years [a decline in readership] has occurred across the board - men and women, whites and blacks, college graduates and those who never attended college are all reading the newspaper at lower rates than in 2006 (2008, Key news audiences now blend online and traditional sources, Watching, Reading and Listening to the News section, Newspapers Down, Online Papers Show Promise heading).

Readership – Age. In 2006, the biennial media consumption survey was administered in April and May among 3,204 adults by the Pew Research Center for the People & the Press (2006). The survey findings revealed that 22% of individuals under age 30 read a print newspaper yesterday (Pew Research Center for the People & the Press, 2006). In 2008, the percentage who read a newspaper yesterday was 24% for adults between 25 and 34 years and 15% for the 18–24 age group (Pew Research Center for the People & the Press, 2008). When print and online newspaper readerships are examined together, there is still a downward trend among young adults (Pew Research Center for the People & the Press, 2010). In 2006, 27% adults in the 18 to 24 age group read any newspaper yesterday, print or online (Pew Research Center for the People & the Press, 2010). In 2008, the percentage fell to 21% and was 20% in 2010 (Pew Research Center for the People & the Press, 2010). The results of this survey found there is an increase in online newspaper readership, but it is not enough to offset the decline in print readership (Pew Research Center for the People & the Press, 2010).

Low readership among young adults is not surprising in that studies have consistently found newspaper readership to be positively associated with age (Bromley & Bowles, 1995; Somerville, 2001; Malthouse and Calder, 2006). Bromley and Bowles' (1995) study was based on the assumption that newspaper subscribership information can be applied to readership. The results of Malthouse and Calder's (2006) study found that age was one of the major predictors of readership across various markets and newspapers.

Readership – Education, Income and Length of Residence. In addition to age, Bromley and Bowles (1995) found that newspaper readership is positively correlated with education and income. Readership of Sunday newspapers is higher among upper level socio-economic groups (Jeffres & Atkins, 1996). Malthouse and Calder (2006) found that income and education were significant predictors in explaining newspaper readership, along with length of residence. These demographics, however, were only accounting for a small amount of the variance. They concluded that there were other important factors playing a key role in determining readership that should be explored in future research (Malthouse & Calder, 2006).

Readership – Gender. Malthouse and Calder (2006) did not find any noticeable effect of gender on readership in their study, which is consistent with prior research (Lin, 1998). Therefore, gender was not one of the demographic variables examined for newspaper readership in this study based on prior research. Papper et al.'s (2004) Middletown studies that employed multiple methods did have conflicting results for time spent with newspapers by gender. Male participants recorded slightly over 50% more time spent with newspapers than females using the diary method, but the observational

results found that women spent a little more time with newspapers than men (Papper et al., 2004).

Paid Newspapers' Circulation

The overall declining circulation of paid newspapers over the past few decades is consistent with the increased competition from other forms of media, including cable television and the Internet. During the 1980s, the number of daily newspapers declined almost 8% to 1,611 in 1990, down from 1,745 in 1980 (Picard & Brody, 1997). From 2001 to 2005, paid newspaper circulation in the US dropped four percent and was at 53.3 million in 2005 (Dawley, 2007).

CHAPTER 3

Free Newspapers Overview

Free newspapers are generally introduced into markets by an entrepreneur or an established local or national organization puts out a new publication for no cost to consumers (Bakker, 2002). According to Herrick (2003), the efforts of entrepreneurs to put out a new media product, such as a newspaper, is a response “to dissatisfaction with the status quo” (p. 346). The Metro was launched by the entrepreneurial Swedish company *Metro International* in 1995 (Bakker, 2002), which for the purposes of this paper is defined as the beginning of the modern era of free newspapers. In 2008, Metro distributed over eight million copies each day, and an additional 35 million copies were published by other organizations (Bakker, n.d., About free dailies). Daily readership of free newspapers was at least 80 million in 2008, and there were free papers available in 56 countries (Bakker n.d., About free dailies).

The *Metro* distributes free newspapers in cities with major transportation systems and has launched publications in Philadelphia (2000), New York and Boston (Vane, 2005). Free daily newspapers, however, have been known to operate in the U.S. since the 1970s. *The Colorado Daily* became a free newspaper in 1971 when it changed from a student publication for the University of Colorado at Boulder to an independent daily (About Us, 2007). Other early entries in the U.S. free newspaper market are the *Aspen Daily Times* and the *Aspen Weekly* (Wizda, 1998).

Free Newspapers Launched by Paid Publications

In some major U.S. cities, an established organization has launched free publications. In 2002, the *Chicago Tribune* launched *RedEye* and the *Chicago Sun-Times* began *Red Streak* (Vane, 2005). The *Washington Post* began publishing the *Express* in 2003 (Vane, 2005). That same year, the *Dallas Morning News* launched *Quick* and the American Consolidated Media began publishing *A.M. Journal Express*, which stopped publishing within six months (Vane, 2005). The *Miami Herald's Street Weekly* also closed in January 2005 due to financial difficulties (Vane, 2005).

Some of the free newspapers that are included in the circulation and readership analysis for this study were also launched by existing paid dailies: *Pittsburgh Tribune* and the *Trib p.m.*, *The Virginian-Pilot* launched *Link*, the *Dallas Morning News's Quick* publication, *Today's Local News* by *U-T San Diego*, and the *Tampa Bay Times (tbt)* by the *St. Petersburg Times* (Free dailies worldwide – North America – USA). *Link* was targeted to 18 to 34 year olds (Davis, 2008, November 28). *Quick* was also launched to attract the 18–34 demographic, and was designed to be complementary to the broader reach of the paid daily publication, *The Dallas Morning News* (The Dallas Morning News launches *Quick*, 2003, December 5).

During the course of this study, four of these five newspapers have stopped publishing; *Tampa Bay Times* is the exception. *The Trib p.m.* initially became a free newspaper in October 2003, and stopped publishing in April 2011 (Personal communication via e-mail with Trish Hooper, Chief Operating Officer, Trib Total Media, June 3, 2009; Free dailies worldwide – North America – USA). The *Link* launched in October 2006 but ceased publishing on December 19, 2008 (Free dailies worldwide –

North America – USA; Davis, 2008, November 28). Link ceased publishing despite being well-received and meeting its financial targets (Davis, 2008, November 28). However, there were layoffs and buyouts with its parent company, Virginian-Pilot Media Companies, at the time (Davis, 2008, November 28).

Quick launched in November 2003, became a weekly focused on entertainment in 2008, and then stopped publishing altogether in 2011 (About QuickDFW.com and Quick; Dallas Morning News Quick to focus on entertainment as weekly publication; Jacobson, 2011, July 27). *Today's Local News* was launched in November 2004 and changed to publishing two days only in 2008, then just on Sundays in 2008, and ceased publication in 2009 (New publication hitting the streets of North County: Today's Local News being delivered free to \$75,000 homes, 2004, November 8; Today's Local News. Advertising; Free dailies worldwide – North America – USA).

Free Newspaper Readership - Demographics

About half of the *Metro New York* readers are within the ages of 18 to 34 years, which is a coveted demographic group (Vane, 2005). *The Colorado Daily's* main readers are young adults (About Us, 2007). While targeted to young adults for the most part, free newspaper readership has also broadened to include demographics outside the desired 18–34 age group. For example, “RedEye Coeditor Joe Knowles says if he had to do it all over again, the Tribune's slick and sassy tabloid might not be marketed solely to young ‘uns” (Vane, 2005, p. 41). Nevertheless, free newspapers are capturing a younger audience than paid newspapers, which does not support substitution.

Free Newspaper Circulation

Globally, free daily newspaper circulation increased from 14 to 42 million from 2003 to 2008, with 60% of the circulation in Europe (Bakker, 2010). In 2009, however, circulation was down by -12% to 37 million (Bakker, 2010). In Europe, free newspaper circulation declined by 5% in 2008 and in 2009 by 18% (Bakker, 2010). In addition, a number of free newspapers have shut down, including 12 in the UK (Bakker, 2010).

In the US, between 2001 and 2005, free newspaper circulation grew almost 130% to 3.3 million (Dawley, 2007). The number of free publications went from 19 to 34 over that same time period (Dawley, 2007). According to the World Association of Newspapers (WAN), free publications' circulation share of the U.S. newspaper market increased from 2.5% to 5.8% over the five-year time period (Dawley, 2007). In 2009, however, the US was the driving force for the circulation decrease of the Americas of 3%, which was the first decline (Bakker, 2010). In 2011, such US free newspapers as the *Denver Daily News* that had been in business for ten years and the *b* (Baltimore) stopped publishing (Free dailies worldwide – North America – USA).

Free Newspaper Characteristics and Content - Compared to Paid Newspapers

Free newspapers are usually in a tabloid format and are targeted to young adults (Vane, 2005). These newspapers often have short stories and numerous briefs, the writing style tends to be much more “edgy” than traditional paid newspapers and both design and packaging are emphasized (Vane, 2005, p. 42). The publications vary in their layout of the front page, as some free dailies have a single image that dominates and others have numerous short items (Vane, 2005).

The *Metro Philadelphia*, which is one of the two remaining free dailies, has local and national news articles that are usually two or three paragraphs (Judge allows exclusive distribution of government newspaper, 2000). Each *Metro* edition is typically 24 pages, and the split between editorial and advertising content is 55 percent and 45 percent, respectively (Goodison, 2002). According to a report released by The Project for Excellence in Journalism in 2005, the *Washington Examiner* was almost double the number of pages, usually around 50 (Robertson, 2005). The length of articles in the *Examiner* was shorter than those in the big paid dailies, however, that were used for a comparison – usually less than 500 words (Robertson, 2007).

The *Examiner*: A different kind of free newspaper. The *Examiner* publications are based on hybrid models where dailies are home-delivered at no cost to the consumer; in addition to Washington, these were offered in Baltimore and San Francisco (Robertson, 2007). The *Baltimore Examiner*, along with the San Francisco and Washington *Examiners*, were innovators in offering a publication that is free of charge to its consumers, main form of distribution is home-delivery, and targeted to households in affluent neighborhoods (Media Kit). The *Baltimore Examiner* distribution was targeted to five areas: Baltimore and Baltimore County, and the counties of Howard, Carroll, Anne Arundel and Harford (Dechter, 2006, March 1). This publication that was launched on April 5, 2006, made its mission clear on its web site: “paving the way for the future of news and changing the way readers and advertisers think about local, daily newspapers” (Dash, 2006; Media Kit). The *Baltimore Examiner* stopped publishing on Sunday, February, 15, 2009, within three years of launching (Davis, 2009, January 29). The following quote exemplifies one of the key challenges faced by the *Examiner* strategy:

Examiner is trying to take a news-lite model as its foundation and build a decent journalism reputation on it. The business model was a somewhat risky proposition, this is an even tougher battle (Robertson, 2007, p. 51).

Free Newspaper Criticisms

There have been numerous criticisms of free newspapers. A major concern of the critics is “dumbing down [of] the news” (Vane, 2005, p. 43). Some writers, including from Slate, have criticized the format of these miniature daily publications (Vane, 2005). David T. Z. Mindich, who was an assignment editor for CNN, believed that these publications are doing to disservice to young adults (Vane, 2005, p. 42). This belief that free newspapers are dumbed down is a particular concern for those who believe newspapers are valuable for a democracy:

In newspapers’ favor is the fact that they are the only form of media organized to gather mass amounts of news and to provide a forum for serious analysis of important issues. Anyone who loves democracy should hope this will continue (Morton, 2007, p. 76).

According to Anthony and Gilbert (2006), however, there are drawbacks to free commuter papers and other disruptive innovations in comparison to print. The drawbacks may be having a smaller distribution network, depth of reporting ability and local reach. Free papers and innovations then have different performance measures from traditional print publications (Anthony & Gilbert, 2006). This view is not consistent with the notion that free newspapers are substitutes for paid newspapers.

Collegiate Readership Program

Various free publications have had success with young adults, but on campuses across the country, students are regularly reading paid local and national daily newspapers. Students are charged a small amount for the *Collegiate Readership Program*, which is added to their tuition and fees, but they can pick up the newspapers for free at various locations on campus with the swipe of their identification card. Started in 1997 at Pennsylvania State University, the *Collegiate Readership Program* is coordinated by *USA Today* and the program now includes hundreds of colleges and universities (The Collegiate Readership Program). The success of the *Collegiate Readership Program* provides support that the cost of a paid daily newspaper is a key inhibitor for young adults. Zerba (2006) studied some of the major inhibitors of print newspaper use for young adults (e.g., recycling, cost, lack of time), which free newspapers directly address the cost and time issue, but these can be applied to individuals of various ages. It also contradicts the notion that young adults do not have a use for paid daily newspapers.

CHAPTER 4

Theoretical Framework

Substitutability

Based on economic theory, products are considered substitutes when a demand for one product, Product A, leads to a decline in demand for another, Product B (Mankiw, 2007). In the case of free and paid newspapers, if the free publication was product A and a paid newspaper was Product B in an experimental market, a decline in Product B as a result of Product A being introduced in the market would deem them substitutes. In this study, for free and paid newspapers to be considered substitutes, the decline in readership and circulation for paid newspapers are expected to be significantly different than the paid dailies in the control market. Also the demographics for the readers for the free and paid newspapers in the experimental market are expected to be similar if they are substitutes. Thus a first measure of whether free newspapers substitute for paid ones, will be to ask the question, does readership or circulation of the paid newspaper suffer more than a matched control daily, indicating substitution?

Cho et al. (2006) discusses how offering new products is affected by markets with numerous substitutes; greater competition decreases the likelihood of success. Bakker (2010) found that free newspapers were more likely to succeed when it had monopoly status or very low levels of competition. Another favorable position was being part of a major newspaper group (Bakker, 2010).

For Bakker's (2007) study looking at free and paid newspapers in Europe, he found support for substitution in only two countries. Substitution was supported in

Iceland, and there was some support in Denmark, both of which were home-delivered newspapers (Bakker, 2007). Bakker (2007) did not find a relation between the introduction of free newspapers and the paid circulation decline in European countries. For paid newspapers, Lacy et al. (2002) did find substitution among different types.

Another indicator of substitution in a market is that the new product and the older one show the same demographic profiles. For example, if both products have the same amount of readership of various age groups, same income profiles, education levels, and their readers have spent the same amount of time in their current residence, then this supports substitution. If the profiles are different, it suggests that the new product is appealing to a different subset of people than the older product, and substitution is not occurring.

Finally, the content of the news in the old and new product is important. If the free newspaper looks just like paid newspapers in the respective markets, then it would make sense they would be substitutes for each other and that people would gravitate toward the free newspaper. But if the content of the free newspaper is different from classic newspapers and/or their style is different from that of traditional newspapers, then there is further support that they would be less likely to substitute for each other. We look briefly now at what may be going on if substitution is not supported.

Media Complementarity Theory

This theory was proposed by Dutta-Bergman (2004), and put forth that consumers will look to various forms of media to seek out specific content, such as sports. For example, consumers would seek out sports-related content online, on the radio, in a paid newspaper and on television (Dutta-Bergman, 2004). Although this analysis is at the

market level rather than the individual level, similar performance in circulation and/or readership of the paid newspapers in the experimental market compared to the control market would suggest complementarity rather than substitution. Also, different demographics for the free newspapers rather than the paid newspapers would also suggest that free newspapers have a generally complementary role to paid newspapers.

Hypotheses

If free newspapers are substitutes for paid, then:

H1: Post-introduction of the free newspapers will show that the paid competitor sustains more loss of readership than the matched control paid newspaper. This hypothesis is examined with the following two readership measures:

H1a: Average Weekday Readership

H1b: 5-day Cumulative Audience

H2: Post-introduction of the free newspapers, the paid competitor will have the same demographic profile as the free newspaper.

H3: Post-introduction of the free newspapers will show that the paid competitor sustains more loss of single copy purchases than the matched control paid newspaper.

H4: Post-introduction of the free newspapers will show that the paid competitor sustains more loss of circulation than the matched control paid newspaper.

H5: The content of the free newspapers will have few content or style differences from the paid competitor.

CHAPTER 5

Methods Overview

This study involved a secondary analysis of circulation and readership data, in addition to a modified content analysis of a constructed week of the free newspapers. This modified analysis focuses on the characteristics of the free newspapers rather than the content. It is common for researchers to use existing data and reanalyze the data for their own purposes (Babbie, 2007). Multiple methods are often used in research in order to gain a better understanding of the topic under study, which is referred to as triangulation (Trumbo, 2004). In the case of this study, existing readership and circulation data by highly regarded organizations was utilized, including Scarborough Research and Audit Bureau of Circulations (ABC), among others. As previously mentioned, this study has similarities to Piet Bakker's (2007) research that looked at the percentage changes in circulation for paid newspapers prior to the launch of a free publication and post-launch. This percentage change was compared to a paid newspaper in a control market.

Data Collection - Free Newspapers

For the purposes of this study, free dailies are defined as any newspaper that is distributed four or more days a week. The focus of this study is on publications that are competing with the paid newspapers on a daily basis. Information was gathered via web sites, particularly *free-daily.com* for U.S. free newspaper titles and links. Another major source of information regarding free newspapers was *Newspaperinnovation.com*; the

weblog run by notable scholar and former journalist Piet Bakker who provides daily commentary on free newspapers.

An additional criterion for choosing free newspapers was that they have at least a 10,000 daily circulation. Free newspapers were required to have this circulation based on the increased likelihood of a measurable impact on the competing paid daily publications. The 2006 and 2007 free newspaper circulations were mostly available on their web sites or through articles and press releases available online, in addition to blog postings on *free-daily.com*.

Paid Newspapers and U.S. Markets

Once free newspapers were identified, the U.S. markets were divided into those having at least one paid daily which fell into the following categories, more than 250,000, between 100,001 and 250,000, 50,001 and 100,000, and between 25,001 and 50,000. Cho et al. (2004) also used these circulation ranges in their study of the impact of quality on circulation of daily newspapers. Mid-sized markets, such as Baltimore and Norfolk, instead of the top 10 DMAs were preferred because there are fewer factors to explain fluctuation in paid newspaper circulation and readership. Mid-sized markets generally have fewer media offerings and therefore a lower number of competitors for the paid newspapers. Larger markets may also have more complications due to such issues as cross-ownership. For example, *The New York Times Company* has a 49% stake in the *Metro Boston*, and owns both *The New York Times* and *The Boston Globe* (About the Company). Increased and more complex competition in the top markets would have hurt the validity of the study.

Newspapers.com was used mainly to find paid dailies in the markets with free newspapers, which provided information on newspapers by state and searchable by city or town. *Wikipedia* was used as a starting point in gathering information about the paid newspapers in an area. The media kits available on newspapers' web sites were consulted for circulation information. Searches via *Yahoo!* were used to find circulation numbers in articles or studies available on industry and trade publication web sites, in addition to press releases.

The free newspaper markets chosen for the readership and circulation analysis were based on the following criteria: overall market size and daily circulation of free newspaper (see Table 5.1). Markets were matched on a variety of characteristics, including cost of living, population and median age (see Table 5.2).

Table 5.1: *Free and Paid Newspapers - Experimental and Control Markets*

Free Newspaper (Date Established as Free Daily)	Free Newspaper Distribution Majority and Strategy	Paid Daily Newspapers	Control Geographic Area	Paid Daily Newspapers
Baltimore Examiner (April 2006): 250,000 Geographic Area Covered: Baltimore Baltimore, MD DMA Rank: 24	Home Delivery; Five editions: Anne Arundel, Howard, Carroll, Harford, and Baltimore	The Baltimore Sun: 232,138	Saint Louis, Missouri DMA Rank: 21	St. Louis Post- Dispatch Morning: 278,999
The City Paper (Nov. 2000) ^a 55,805 Geographic Area Covered: Davidson and northern Williamson counties Nashville, TN DMA Rank: 30	Other	The Tennessean Nashville: 174,073	Charlotte, NC DMA Rank: 26	The Charlotte Observer: Morning 215,379

Table 5.1 (continued).

Free Newspaper (Date Established as Free Daily)	Free Newspaper Distribution Majority and Strategy	Paid Daily Newspapers	Control Geographic Area	Paid Daily Newspapers
Link (October 2006) 30,000 Geographic Area Covered: South Hampton Roads Norfolk, VA DMA Rank: 42	Other; Youth- targeted newspaper	The Virginian- Pilot, Norfolk: 183,024	Grand Rapids, MI DMA Rank: 39	Grand Rapids Press 133,107
Metro Philadelphia (2000): 128,927 Geographic Area Covered: Philadelphia Philadelphia, PA DMA Rank: 4	Public Transportation	Philadelphia Inquirer: 352,593 Philadelphia Daily News: 113,951	Detroit, MI DMA Rank: 11	Detroit Free Press: 329,989 Detroit News: 202,029
Quick (2003) Morning: 93,482 Published by The Dallas Morning News Geographic Area Coverage: Dallas and Fort Worth Dallas-Fort Worth, TX DMA Rank: 6	Other	The Dallas Morning News Morning: 411,919 Fort Worth Star- Telegram: 210,990	Houston, TX DMA Rank: 10	Houston Chronicle: 503,114
Tampa Bay Times (tbt) (March 2006): 66,000 Published by the St. Petersburg Times Geographic Area Covered: Tampa Bay area Tampa – St. Petersburg, FL DMA Rank: 12	Other	St. Petersburg Times: 322,771 The Tampa Tribune: 226,990	Minneapolis – St. Paul, MN DMA Rank: 15	Minneapolis Star Tribune: 345,252 St. Paul Pioneer Press: 191, 591
Today's Local News (Nov 2004), San Diego Morning: 75,077 Published by U-T San Diego Geographic Area Covered: Northern San Diego County San Diego, CA DMA Rank: 27	Other	U-T San Diego Morning: 296,331 North County Times: 91,212	Phoenix, AZ DMA Rank: 13	The Arizona Republic: 433,731 East Valley Tribune: 70,721

Table 5.1: (continued).

Free Newspaper (Date Established as Free Daily)	Free Newspaper Distribution Majority and Strategy	Paid Daily Newspapers	Control Geographic Area	Paid Daily Newspapers
Trib p.m. (Oct 2003), Pittsburgh: 34000 Published by the Pittsburgh Tribune- Review Geographic Area Covered ^b : Pittsburgh area Pittsburgh, PA DMA Rank: 22	Other	Pittsburgh Tribune-Review Morning: 63906 Pittsburgh Post- Gazette Morning: 213,352	Milwaukee, WI DMA Rank: 34	Milwaukee Journal Sentinel: 230,220
Bluffton Today (April 2005): 17,571 Geographic Area Covered: Greater Bluffton Area Savannah, GA DMA Rank: 97	Home Delivery	Savannah Morning News: 51,952 The Island Packet, Bluffton: 19,348	Monterey, CA DMA: Salinas – Monterey, CA DMA Rank: 124	The Monterey County Herald: 29,627 The Salinas Californian: 17,548
Grand Junction Free Press (2003) ^c : 20,000 Geographic Area Covered: Grand Junction, CO Grand Junction – Montrose, CO DMA Rank: 186	Other	The Daily Sentinel (Grand Junction): 30,480	Great Falls, MT DMA Rank: 190	Great Falls Tribune: 32,094

Note. DMA rankings and sizes from Scarborough Research.

Sources for Paid Newspapers Circulation: Audit Bureau of Circulations, Retrieved from www.accessabc.com.

Sources for Free Newspapers Circulation:

Certified Audit of Circulations for Free Newspapers, Retrieved from www.certifiedaudit.com.

Bacon's newspaper directory (2008), 56 Ed., Chicago: Cision.

The City Paper, Audit Report (1 year ending 6/30/07), Verified Audit Circulation, Retrieved January 8, 2008.

^a Bakker, n.d. Free dailies worldwide – North America – USA. *Newspaper Innovation*. Retrieved from <http://www.newspaperinnovation.com/index.php/north-america/usa/>

^b *Trib Total Media*, Retrieved from http://www.tribtotalmedia.com/pdf/TTMMap_Papers1006B.pdf

^c Publications – Grand Junction Free Press. Swift Communications. Retrieved November 23, 2011 from <http://www.swiftcom.com/publications/grand-junction-free-press/>

Table 5.2: Characteristics of cities within DMA Markets

City Characteristics	Experimental Market	Control Market	Experimental Market	Control Market
	Baltimore	Saint Louis	Nashville-Davidson	Charlotte
Population	631,366	347,181	552,120	630,478
Number of Residents per square mile of area	7797.9	5619.8	1167.7	2600.8
Median Age	34.9	35	35.7	33.7
Household Income (\$)	33,948	31,566	45,996	54,242
Overall Cost of Living	80	92	89	91
% of College Graduates (4 Year)	10.6%	11.6%	20.0%	26.0%
% with Graduate Degrees	8.9%	7.8%	10.2%	10.4%
% Married Population	38.2%	38.0%	48.6%	53.2%
% Mass Transit - Commute	19.3%	10.7%	1.7%	3.0%
	Norfolk, VA	Grand Rapids, MI	Philadelphia	Detroit
Population	229,112	193,083	1,448,394	871,121
Number of Residents per square mile of area	4264.5	4323.2	10713.9	6281.8
Median Age	29.6	31.5	35.0	32.1
Household Income (\$)	36,762	41,059	34,859	32,108
Overall Cost of Living	96	83	92	73
% of College Graduates (4 Year)	12.0%	15.4%	10.5%	6.8%
% with Graduate Degrees	7.7%	7.9%	7.6%	4.2%
% Married Population	45.4%	46.4%	42.1%	35.0%

Note. All data retrieved from Sterling's Best Places web site, <http://www.bestplaces.net>.

Table 5.2 (continued).

City Characteristics	Experimental Market	Control Market	Experimental Market	Control Market
	Norfolk, VA	Grand Rapids, MI	Philadelphia	Detroit
% Mass Transit - Commute	4.6%	2.3%	25.2%	8.6%
	Dallas	Fort Worth, TX	Houston	
Population	1,232,940	653,320	2,144,491	
Number of Residents per square mile of area	3598.4	2228.4	3698.7	
Median Age	32.2	31.4	32.2	
Household Income (\$)	42,086	42,899	41,513	
Overall Cost of Living	93	78	86	
% of College Graduates (4 Year)	18.0%	15.5%	17.3%	
% with Graduate Degrees	9.5%	7.5%	9.7%	
% Married Population	49.4%	54.7%	52.1%	
% Mass Transit - Commute	5.5%	1.4%	5.9%	
	Tampa, FL	St. Petersburg, FL	Minneapolis, MN	St. Paul, MN
Population	332,888	248,098	372,833	283,620
Number of Residents per square mile of area	2975.4	4154.6	6782.1	5,283
Median Age	34.4	39.7	33.1	35.2
Household Income (\$)	39,990	40,456	44,565	
Overall Cost of Living	95	92	102	108
% of College Graduates (4 Year)	16.9%	15.1%	20.3%	21.7%

Note. All data retrieved from Sterling's Best Places web site, <http://www.bestplaces.net>.

Table 5.2 (continued).

City Characteristics	Experimental Market	Control Market	Experimental Market	Control Market
	Tampa, FL	St. Petersburg, FL	Minneapolis, MN	St. Paul, MN
% with Graduate Degrees	9.5%	8.0%	12.0%	14.5%
% Married Population	47.4%	48.7%	38.0%	35.9%
% Mass Transit - Commute	2.7%	2.9%	8.8%	9.8%
	San Diego	Phoenix, AZ	Pittsburgh	Milwaukee
Population	1,256,951	1,512,986	312,819	573,358
Number of Residents per square mile of area	3880.0	3186.4	5613.9	5970.5
Median Age	34.4	30.8	36.2	31.2
Household Income (\$)	53,707	45,931	32,601	36,187
Overall Cost of Living	147	104	84	83
% of College Graduates (4 Year)	21.7%	15.3%	14.0%	12.4%
% with Graduate Degrees	13.3%	7.6%	13.1%	6.1%
% Married Population	49.6%	53.6%	40.6%	40.6%
% Mass Transit - Commute	4.2%	3.1%	20.3%	10.3%
	Savannah, GA	Bluffton, SC	Hilton Head Island, SC	Salinas, CA Monterey, CA
Population	127,889	3,505	312,819	573,358 28,803
Number of Residents per square mile of area	1711.6	103.3	805.6	7647.6 3417.6
Median Age	31.7	34.7	45.1	29.1 37.9
Household Income (\$)	32,538	50,605	69,897	51,430 56,594

Note. All data retrieved from Sterling's Best Places web site, <http://www.bestplaces.net>.

Table 5.2: (continued).

City Characteristics	Experimental Market	Control Market	Experimental Market	Control Market
	Savannah, GA	Bluffton, SC	Hilton Head Island, SC	Salinas, CA Monterey, CA
Overall Cost of Living	89	105	165	136 194
% of College Graduates (4 Year)	13.4%	12.4%	30.8%	8.3% 27.2%
% with Graduate Degrees	6.8%	4.6%	14.6%	4.0% 18.3%
% Married Population	43.9%	55.5%	68.1%	56.5% 45.5%
% Mass Transit - Commute	2.5%	0.9%	1.5%	2.7% 3.2%
	Grand Junction, CO	Montrose, CO	Great Falls, Montana	Havre, Montana
Population	46,898	16,449	56,215	9,451
Number of Residents per square mile of area	1521.7	1433.6	2883.0	2722.7
Median Age	39.3	38.7	38.8	35.3
Household Income (\$)	37,655	40,263	36,738	34,329
Overall Cost of Living	104	96	84	85
% of College Graduates (4 Year)	17.2%	14.5%	15.2%	15.8%
% with Graduate Degrees	9.0%	7.2%	7.2%	7.4%
% Married Population	55.8%	59.8%	57.1%	55.7%
% Mass Transit - Commute	0.9%	0.3%	1.0%	0.3%

Note. All data retrieved from Sterling's Best Places web site, <http://www.bestplaces.net>.

CHAPTER 6

Methods and Results: Readership Analysis

Free and Paid Newspaper Readership Data

The readership data were provided by Scarborough Research, which has information on free and paid daily newspapers in the Top 81 Designated Market Areas (DMAs). Although DMA markets are based on television competition and are generally larger than Newspaper Designated Markets (NDMs), the paid daily newspapers in each free market are one of the main competitors.

Some of the paid newspapers and experimental markets were excluded from examining **H1**. The Norfolk experimental market was not included in the readership analysis because the data that was available for this study, 2000–2007, did not include any years to compare post-launch of the free newspaper in that market. For the San Diego experimental market, the *North County Times* and *Daily News-Sun* were excluded from the readership analysis because the sample size was considered unreliable for the *Daily News-Sun*—35 or fewer respondents each year from 2000 to 2006 (Scarborough Research). The Savannah and Grand Junction markets were not included because the readership data was only available for DMAs between 1 and 81.

Data analysis. The readership analysis used the average weekday readership and 5-day cumulative audience measures provided by Scarborough Research. A yearly percentage change in the average weekday readership was calculated for both paid and free newspapers. The change in the size of the DMAs was also accounted for in the analysis. This allowed for a more robust comparison among the paid newspapers. These

percentages were used to examine **H1a** that the percentage of adults who read the paid newspaper on an average weekday in the experimental (free) market will decline at a faster rate than the paid daily newspapers in the control market. The yearly percentage changes for the free newspapers provided additional context for a paid newspaper's decline or lack of decline in readership. The 5-day cumulative audience measure was also compared in the same manner as the average weekday readership to address **H1b**. In order to examine the significance of the differences, confidence intervals were calculated for paid newspapers in the control and experimental markets.

Newspaper readership demographics were compared between the paid and free newspapers in the experimental market to address **H2**. This involved a comparison of the percentages that made up each demographic group for age, income, education and length of residence. Chi squares were calculated to examine the significance in the demographic groups among the free and paid newspapers in the experimental market. Only four of the ten experimental markets were compared: Nashville, Philadelphia, Dallas – Fort Worth, and Tampa – St. Petersburg. Free newspapers in these experimental markets were not home-delivered, nor were they targeting affluent households – a similar model to paid newspapers.

Results

Hypothesis 1 – Readership Yearly Percentage Change Comparison. *The Baltimore Sun* and the *St. Louis Post-Dispatch* were experiencing declines in their average weekday readership beginning with the change between 2001 and 2002; an exception was a 0% difference between 2004 and 2005 for the *St. Louis Post-Dispatch* (see Table 6.1). The average percentage change prior to the launch of the free newspapers

were generally similar despite a greater decline for *The Baltimore Sun*, -3.3% compared to -0.6% (see Table 6.1). Their confidence intervals overlapped on the lower limit, -8.3% for *The Baltimore Sun* and -8.1% for the *St. Louis Post-Dispatch* (see Table 6.9).

After the *Baltimore Examiner* was introduced in the market in April 2006, there was a higher drop-off in average weekday readership for *The Baltimore Sun* compared to the *St. Louis Post-Dispatch* from 2006 to 2007, which is supportive of **H1a**. *The Baltimore Sun*'s percentage decrease was -7.9% from 2006 to 2007, while the *St. Louis Post-Dispatch* experienced a decrease of -4.8% in average weekday readership (see Table 6.1). During 2007 the *Baltimore Examiner* had an average weekday readership of 11.7% (see Table 6.1). This comparison only provides modest support for **H1a** as there was only one percentage change to compare post-launch of the free newspaper, and so confidence intervals could not be calculated.

The Baltimore Sun and the *St. Louis Post-Dispatch* had negative percentage changes for their 5-day cumulative audience from 2003 to 2004, 2004 to 2005, and 2005 to 2006 (see Table 6.2). The lower limits of the confidence intervals were similar for the average pre-launch percentage change, indicating not much of a difference in the readership changes prior to the introduction of the *Baltimore Examiner* (see Table 6.10). There is support for **H1b** because *The Baltimore Sun* experienced a greater decline than the *St. Louis Post-Dispatch* from 2006 to 2007, a 10.6% decline in 5-day cumulative audience compared to 4.0%, respectively (see Table 6.2). Again, this support is moderate as it is only based on one percentage change. During the 2007 time period, 20.5% of the adults over a 5-day period in the Baltimore DMA were reached by the free *Examiner* (see Table 6.2).

The Tennessean and *The Charlotte Observer* had similar patterns for both average weekday readership and 5-day cumulative audience so they are not supportive of **H1a** and **H1b**. *The Tennessean* and *The Charlotte Observer* experienced yearly declines in its average weekday readership and 5-day cumulative audience from 2002 to 2003, 2004 to 2005 and 2006 to 2007 (see Tables 6.2 and 6.5). The largest percentage difference between the two paid newspapers for both readership measures was from 2005 to 2006. *The Tennessean*'s yearly percentage change in average weekday readership was positive, 4.8%, while *The Charlotte Observer*'s was -8.9% (see Table 6.1). From 2005 to 2006, *The Tennessean*'s yearly percentage change in 5-day cumulative audience was also positive, 5.4%, while *The Charlotte Observer*'s was -11.1%. Both newspapers had positive yearly percentage changes in 5-day cumulative audience from 2000 to 2001 and from 2001 to 2002 (see Table 6.2).

The Tennessean had the same directional percentage change as *The City Paper* with the exception of 2006 to 2007, when *The Tennessean* had a -9.8% change in average weekday readership (see Table 6.1). *The City Paper*'s yearly percentage changes in average weekday readership, however, were on a much greater scale. *The City Paper*'s change for weekday readership from 2005 to 2006 was almost 300% while *The Tennessean*'s was 4.8% (see Table 6.1).

Table 6.1: Adults' Ave Wkdy Readership Comparison 2000–2007, Baltimore and Nashville Markets

DMA	2007 DMA Size	Newspaper (Month, Year Launched)	Yearly % Chg in Adults' Average Weekday Readership							
			'00 to '01	'01 to '02	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	
Experimental: Baltimore, MD	2,174,818									
Control: St. Louis, MO	2,413,967									
Pre-launch Free Newspaper: Average % Change	Free Newspaper: Average % Change	<i>Baltimore Examiner (April 2006) The Baltimore Sun</i>	No % Change Available							
	N/A			2.9%	-2.0%	-4.9%	-4.5%	-7.9%	-4.5%	-7.9%
	N/A	<i>St. Louis Post- Dispatch</i>	8.4%	-0.6%	-8.1%	-2.8%	0.0%		-5.2%	-4.8%
Experimental: Nashville, TN	1,875,480									
Control: Charlotte, NC	2,045,779									
Pre-launch Free Newspaper: Average % Change	Free Newspaper: Average % Change	<i>The City Paper (November 2000) The Tennessean</i>	N/A	N/A	N/A	33%	-32%	295%	2.7%	
	N/A			5.7%	2.0%	-7.9%	1.4%	-11.3%	4.8%	-9.8%
	N/A	<i>The Charlotte Observer</i>	14.6%	5.2%	-11.8%	-0.4%	-0.7%	-8.9%		-4.3%

Note. The data is from Scarborough Research reports (Release 2 2000–2007).

Bold indicates the percentage change that includes the year the free newspaper was launched.

Time periods for each year are based on the following for the different markets: Baltimore: September–August; St. Louis: August–July; Nashville: August–July; Charlotte: September–August; For example, the change from 2001 to 2002 is based on August 2000–July 2001 compared to August 2001–July 2002.

Percentage changes were calculated based on % of adults' Average Weekday Readership, which accounts for variation in DMA (population) size from year to year.

Table 6.2: 5-day Cumulative Audience Comparison 2000–2007, Baltimore and Nashville Experimental Markets

DMA	2007 DMA Size	Newspaper (Month, Year Launched)	Yearly % Change in 5-day Cumulative Audience							
			'00 to '01	'01 to '02	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	
Experimental:										
Baltimore, MD	2,174,818									
Control:										
St. Louis, MO	2,413,967									
Pre-launch Free Post-launch Free										
Newspaper:	Newspaper:	Baltimore	No % Change Available							
Average %	Average %	Examiner								
Change	Change	(April 2006)								
-1.9%	N/A	Baltimore Sun	2.8%	0.0%	-4.2%	-3.2%	-5.0%	-3.3%	-10.6%	
-0.1%	N/A	St. Louis Post-Dispatch	8.2%	-1.0%	-6.3%	-3.1%	1.7%	-4.0%	-4.0%	
Experimental:										
Nashville, TN	1,875,480									
Control:										
Charlotte, NC	2,045,779									
Pre-launch Free Post-launch Free										
Newspaper:	Newspaper:	The City Paper								
Average %	Average %	(November								
Change	Change	2000)	N/A	N/A	N/A	40.6%	-24.4%	341%	4.0%	
N/A	-2.8%	The	7.1%	2.7%	-6.5%	-1.9%	-7.8%	5.4%	-9.0%	
N/A	-3.4%	Tennessean	12.9%	3.0%	-8.2%	-2.5%	3.3%	-11.1%	-4.8%	
		Charlotte								
		Observer								

Note. The data is from Scarborough Research reports (Release 2 2000–2007).

Bold indicates the percentage change that includes the year the free newspaper was launched.

Time periods for each year are based on the following for the different markets: Baltimore: September–August; St. Louis: August–July; Nashville: August–July; Charlotte: September–August; For example, the change from 2001 to 2002 is based on August 2000–July 2001 compared to August 2001–July 2002.

Percentage changes were calculated based on % 5-day Cumulative Audience, which accounts for variation in DMA (population) size from year to year.

The *Metro Philadelphia* was introduced midway during the 1999/2000 time period so there is no data available for a full year without a free newspaper in the experimental market. Of the four newspapers, *Philadelphia Inquirer*, *Philadelphia Daily News*, *Detroit Free Press* and *Detroit News*, only the *Daily News* had a negative change from 2000 to 2001 for its average weekday readership, -4.3% (see Table 6.3). However, the post-launch free newspaper average percentage changes were the same for the *Philadelphia Inquirer* and the *Detroit Free Press*, -1.1%, which is not supportive of **H1a** (see Table 6.3). The average percentage decline following the launch of the *Metro Philadelphia* was slightly more pronounced for the control newspaper, *Detroit News*, compared to the *Philadelphia Daily News*, -4.3% and -3.2%, respectively (see Table 6.3). **H1a** was not supported for either Philadelphia paid newspapers.

In 2000 to 2001, the experimental and control newspapers followed a similar pattern for percentage changes in 5-day cumulative audience with the exception of the *Philadelphia Daily News*, which had a positive change, 2.1% (see Table 6.4). The average yearly percentage change over the time period was more negative for the *Detroit News*, -2.5%, compared to the *Philadelphia Daily News*, -1.3%, which does not support **H1b**. The *Philadelphia Inquirer* fared worse than the control newspaper on average following the launch of the free newspaper, -2.3% compared to -0.5% for the *Detroit Free Press* (see Table 6.4). This percentage change did fall within the confidence interval for the control newspaper, which does not support **H1b** (see Table 6.10).

Quick was a free newspaper published by an existing paid daily, *The Dallas Morning News*, and the publication was launched at the beginning of the 2003/2004 time period. Of the paid newspapers in the experimental market, Dallas – Fort Worth, and the

control market, Houston, only the *Fort Worth Star-Telegram* had a positive percentage change in its average weekday readership from 2003 to 2004 (see Table 6.3). All paid newspapers, *The Dallas Morning News*, *Fort Worth Star-Telegram* and the *Houston Chronicle*, had declines in their percentage of average weekday readership from 2004 to 2005 (see Table 6.3). The *Houston Chronicle* experienced the greatest average percentage decline following the launch of *Quick*, from 1.4% to -6.1%, which does not support **H1a** (see Table 6.3). *Quick*'s average weekday readership grew over 14% from 2005 to 2006, and then fell to 8.3% from 2006 to 2007 while *The Dallas Morning News*' readership remained flat (see Table 6.3).

All the paid newspapers in the Dallas-Fort Worth and Houston markets had the same directional change for 5-day cumulative audience from 2000 to 2001, positive, and negative from 2001 to 2002 (see Table 6.4). Both *The Dallas Morning News* and the *Houston Chronicle* had negative percentage changes from 2005 to 2006 (see Table 6.4). Only *Quick* had a positive change from 2006 to 2007 (see Table 6.4). Interestingly, as *Quick*'s growth slowed from 19.5% between 2005 and 2006, to 12.2% from 2006 to 2007, *The Dallas Morning News*' decline eased from -7.3% to -1.2% (see Table 6.4). However, **H1b** is not supported, because the average percentage change post launch of the free newspaper was the most negative for the *Houston Chronicle*, -5.5%.

Table 6.3: Adults' Ave Wkdy Readership Comparison 2000–2007, Philadelphia & Dallas - Fort Worth Markets

DMA	2007 DMA Size	Newspaper (Month, Year Launched)	Yearly % Change in Average Weekday Readership							
			'00 to '01	'01 to '02	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	
Experimental:										
Philadelphia	5,974,530									
Control:										
Detroit	3,786,170									
Pre-launch	Post-launch									
Free	Free									
Newspaper:	Newspaper:	<i>Metro</i>								
Average %	Average %	<i>Philadelphia</i>								
Change	Change	(January 2000)	N/A	7.1%	15.6%	-13.5%	2.2%	6.5%	-2.0%	
		<i>The Philadelphia Inquirer</i>	6.5%	-7.8%	6.1%	-3.4%	-5.9%	-1.3%	-1.9%	
N/A	-1.1%	<i>Detroit Free Press</i>	15.3%	9.0%	-9.4%	0.4%	-8.2%	-1.4%	2.9%	
		<i>Philadelphia Daily News</i>	-4.3%	3.4%	-9.8%	22.9%	-16.7%	-1.2%	-16.7%	
N/A	-3.2%	<i>The Detroit News</i>	12.9%	1.1%	-6.2%	-1.8%	-4.9%	-6.5%	-7.6%	
Experimental:										
Dallas - Fort										
Worth, TX ^a	4,836,674									
Control:										
Houston, TX	4,175,326									
Pre-launch	Post-launch									
Free	Free									
Newspaper:	Newspaper:	<i>Quick</i>								
Average %	Average %	(November								
Change ^b	Change	2003)	N/A	N/A	N/A	N/A	N/A	N/A	8.3%	
		<i>The Dallas Morning News</i>	11.7%	-5.8%	-4.6%	-3.2%	-3.7%	-8.6%	0.0%	
-5.2%	-4.1%	Fort Worth <i>Star-Telegram</i>	17.2%	-5.6%	-9.6%	3.3%	-15.1%	12.1%	-9.2%	
-7.6%	-4.0%	<i>Houston Chronicle</i>	4.1%	-6.2%	6.3%	-8.2%	-6.1%	-5.2%	-6.9%	
1.4%	-6.1%									

Note. The data is from Scarborough Research reports (Release 2 2000–2007).

Bold indicates the percentage change that includes the year the free newspaper was launched.

Years are based on the following for the Philadelphia and Detroit markets: August-July; Dallas and Houston: September-August (e.g., change from 2001 to 2002 is based on Sept. '00 - Aug '01 to Sept. '01 to Aug. '02. Percentage changes were calculated based on % of Average Weekday Readership by adults, which accounts for variation in DMA (population) size from year to year.

^aAll 2006 studies for Dallas - Fort Worth DMA newspapers were reissued in November, 2006.

^bTook out outliers: 2000 to 2001 % change for the Dallas newspapers for the calculation.

Table 6.4: 5-day Cumulative Audience Comparison 2000–2007, Philadelphia and Dallas - Fort Worth Markets

DMA	2007 DMA Size	Newspaper (Month, Year Launched)	Yearly % Change in 5-day Cumulative Audience							
			'00 to '01	'01 to '02	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	
Experimental:										
Philadelphia	5,974,530									
Control:										
Detroit	3,786,170									
Pre-launch Free Newspaper: Average % Change	Post-launch Free Newspaper: Average % Change									
		<i>Metro Philadelphia (January 2000)</i>	N/A	13.2%	2.3%	-6.8%	8.5%	2.2%	-1.1%	
N/A	-2.3%	<i>The Philadelphia Inquirer</i>	8.6%	-6.1%	3.4%	-4.1%	-3.8%	-3.2%	0.0%	
N/A	-0.5%	<i>Detroit Free Press</i>	17.5%	6.5%	-6.9%	-0.3%	-7.7%	0.9%	4.6%	
N/A	-1.9%	<i>Philadelphia Daily News</i>	2.1%	6.8%	-10.3%	15.7%	-12.3%	-2.1%	-9.4%	
N/A	-2.5%	<i>The Detroit News</i>	10.2%	4.8%	-2.5%	-5.8%	-4.6%	-4.0%	-2.9%	
Experimental:										
Dallas - Fort Worth, TX	4,836,674									
Control:										
Houston, TX	4,175,326									
Pre-launch Free Newspaper: Average % Change ^a	Post-launch Free Newspaper: Average % Change									
		<i>Quick (November 2003)</i>	N/A	N/A	N/A	N/A	N/A	N/A	12.2%	
-0.2%	-4.9%	<i>The Dallas Morning News</i>	7.9%	-5.0%	-3.5%	-2.3%	-6.1%	-7.3%	-1.2%	
-4.1%	-3.8%	<i>Fort Worth Star- Telegram</i>	19.6%	-7.7%	-0.5%	0.0%	-13.9%	9.2%	-6.8%	
1.2%	-5.5%	<i>Houston Chronicle</i>	4.7%	-4.8%	3.6%	-6.3%	-6.3%	-4.5%	-5.7%	

Note. The data is from Scarborough Research reports (Release 2 2000–2007).

Bold indicates the percentage change that includes the year the free newspaper was launched.

Years are based on the following for the Philadelphia and Detroit markets: August-July; Dallas and Houston:

September-August (e.g., change from 2001 to 2002 is based on Sept. '00 - Aug '01 to Sept. '01 to Aug. '02).

Percentage changes were calculated based on % 5-day Cumulative Audience, which accounts for variation in DMA (population) size from year to year.

^aAll 2006 studies for Dallas - Fort Worth DMA newspapers were reissued in November, 2006.

^bTook out outliers: 2000 to 2001 % change for the *Fort Worth Star-Telegram* newspaper in the pre-launch % change calculation.

The comparison between the paid newspapers in the Tampa – St. Petersburg experimental market and the Minneapolis – St. Paul control market provided some support for **H1a**. The free newspaper was introduced in March of 2006, and for approximately half of the 2005/2006 time period the *Tampa Bay Times* was publishing. Only the Minneapolis *Star Tribune*, a control newspaper, had a negative percentage change from 2005 to 2006, -0.7% (see Table 6.5). The Minneapolis *Star Tribune* and the *St. Petersburg Times* had very similar percentage changes pre- and post- launch of the *Tampa Bay Times*, so hypothesis **H1a** was not supported (see Table 6.5). **H1a** was supported by the comparison between the *Tampa Tribune* and the *St. Paul Pioneer Press*. The percentage declined from -2.7% to -6.7% for the former, and actually improved for the latter, -4.2% to 5.4% (see Table 6.5). The comparison between newspapers in the Tampa – St. Petersburg and Minneapolis – St. Paul markets was limited by only one ‘post-launch’ percentage change: 2006 to 2007.

For 5-day cumulative audience, the *St. Paul Pioneer Press* was the only newspaper which had a positive change from 2006 to 2007, which was over 10% (see Table 6.6). There were similar percentage changes from 2006 to 2007 for the *St. Petersburg Times* and the Minneapolis *Star Tribune*, but more negative for the latter, which is not supportive of **H1b** (see Table 6.6). The *Tampa Tribune* had a positive change from 2005 to 2006, 6.7%, but then a negative change between 2006 and 2007, -5.2% (see Table 6.6). Prior to the launch of the *Tampa Bay Times*, the average percentage change for the *Tampa Tribune* was -1.7%, and the decline in its percentage post-launch to -5.2% supported **H1b** (see Table 6.6).

For percentage of average weekday readership, the paid newspapers in the San Diego and Phoenix markets experienced a negative change from 2004 to 2005 (see Table 6.5). The free newspaper *Today's Local News* (San Diego) was publishing for nine of the 12 months in the 2004/2005 time period (see Table 6.5). Prior to the introduction of *Today's Local News* in the market, the *U-T San Diego* newspaper had an average percentage change of 0.3%, which declined to -5.3% post-launch of the free newspaper (see Table 6.5). Although the paid newspaper in the experimental market declined and the control newspaper improved slightly following the introduction of the free newspaper, from -5.1% to -4.8%, this change was not significantly different based on the confidence intervals (see Table 6.5; see Table 6.9). The *U-T San Diego* also declined at a higher rate following the launch *Today's Local News* in its 5-day cumulative audience, but this change was also not significant (see Table 6.10). The percentage declined from 0.4% to -5.2%, which was slightly steeper than the control newspaper's decrease (see Table 6.6).

Table 6.5: Adults' Ave Wkdy Readership Comparison 2000–2007, Tampa - St. Petersburg and San Diego Markets

DMA	2007 DMA Size	Newspaper (Month, Year Launched)	Yearly % Change in Average Weekday Readership							
			'00 to '01	'01 to '02	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	
Experimental:										
Tampa - St. Petersburg	3,307,986									
Control:										
Minneapolis - St. Paul, MN	3,355,210									
Pre-launch	Post-launch									
Free	Free									
Newspaper:	Newspaper:									
Average % Change	Average % Change	<i>Tampa Bay Times</i> (<i>tbt</i> ; March 2006)	No % Change Available							
		<i>The St. Petersburg Times</i>	-2.0%	4.9%	-2.3%	-4.4%	-8.8%	4.1%	-12.3%	
-2.5%	N/A	<i>Minneapolis Star Tribune</i>	-4.5%	6.3%	-4.7%	-4.0%	-3.2%	-0.7%	-12.4%	
-2.0%	N/A	<i>The Tampa Tribune</i>	1.1%	2.2%	2.1%	-8.2%	-10.7%	13.2%	-6.7%	
-2.7%	N/A	<i>St. Paul Pioneer Press</i>	1.1%	-12.4%	1.9%	0.0%	-11.9%	5.7%	5.4%	
-4.2%	N/A									
Experimental:										
San Diego, CA	2,248,118									
Control:										
Phoenix, AZ	3,500,400									
Pre-launch	Post-launch									
Free	Free									
Newspaper:	Newspaper:									
Average % Change ^a	Average % Change	<i>Today's Local News</i> (Nov 2004)	No % Change Available							
		<i>U-T San Diego</i>	6.8%	1.5%	-0.3%	-7.1%	-6.8%	-1.5%	-9.2%	
		<i>The Arizona Republic</i>	12.7%	-8.4%	4.3%	-11.3%	-9.0%	0.0%	-9.6%	
-5.1%	-4.8%									

Note. The data is from Scarborough Research reports (Release 2 2000–2007).

Bold indicates the percentage change that includes the year the free newspaper was launched.

All years based on August–July (e.g., Change '02 to '03: August 2001–July 2002 and August 2002–July 2003).

Percentage changes were calculated based on % of Average Weekday Readership by adults, which accounts for variation in DMA (population) size from year to year.

^aThe change from 2000 to 2001 was an outlier for *The Arizona Republic* and was not included in the pre-launch % change calculation.

Table 6.6: 5-day Cumulative Audience Comparison 2000–2007, Tampa - St. Petersburg and San Diego Markets

DMA	2007 DMA Size	Newspaper (Month, Year Launched)	5-day Cumulative Audience Comparison							
			'00 to '01	'01 to '02	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	
Experimental:										
Tampa - St. Petersburg	3,307,986									
Control:										
Minneapolis - St. Paul	3,355,210									
Post-launch										
Pre-launch Free Newspaper: Average % Change	Free Newspaper: Average % Change	<i>Tampa Bay Times</i> (<i>tbt</i> ; March 2006)	No % Change Available							
-1.8%	N/A	<i>The St. Petersburg Times</i>	0.3%	6.4%	-4.2%	-3.8%	-7.7%	3.1%	-8.4%	
-1.7%	N/A	<i>Minneapolis Star Tribune</i>	-2.8%	2.1%	-3.6%	-3.1%	-0.9%	-1.1%	-10.1%	
-1.7%	N/A	<i>The Tampa Tribune</i>	3.9%	-2.4%	4.6%	-5.4%	-9.3%	6.7%	-5.2%	
-2.1%	N/A	<i>St. Paul Pioneer Press</i>	3.7%	-7.1%	-0.8%	-1.9%	-4.3%	-5.0%	10.4%	
Experimental:										
San Diego	2,248,118									
Control:										
Phoenix	3,500,400									
Post-launch										
Pre-launch Free Newspaper: Average % Change	Free Newspaper: Average % Change	<i>Today's Local News</i> (Nov 2004)	No % Change Available							
0.4%	-5.2%	<i>U-T San Diego</i>	6.8%	1.4%	0.2%	-6.6%	-4.8%	-1.4%	-9.1%	
-1.0%	-5.4%	<i>The Arizona Republic</i>	9.2%	-4.6%	3.8%	-12.1%	-4.9%	-3.1%	-7.7%	

Source: Scarborough Research (Release 2 2000–2007).

Bold indicates the percentage change that includes the year when the free newspaper was launched.

All years based on August–July (e.g., Change '02 to '03: August 2001–July 2002 and August 2002–July 2003).

Percentage changes were calculated based on % 5-day Cumulative Audience, which accounts for variation in

DMA (population) size from year to year.

The comparison of paid newspapers in Pittsburgh, the experimental market, and Milwaukee did not support **H1a and H1b**. The *Trib p.m.* became a free newspaper in October 2003, and the *Pittsburgh Tribune-Review* experienced the greatest drop in average weekday readership of the three paid newspapers, -17.4%, from 2003 to 2004 (see Table 6.7). The *Pittsburgh Tribune-Review*, however, had the smallest decline in its average percentage change from 2.3% to -1.1% for the pre- and post-launch time periods (see Table 6.7). The *Pittsburgh Post-Gazette* had the biggest drop in average percentage change pre- and post-launch of the free newspaper, from 2.6% to -6.0%, compared to 1.6% to -6.6% for the *Milwaukee Journal Sentinel* but it was not significant(see Table 6.7; see Table 6.9). There was a similar pattern for the *Pittsburgh Post-Gazette* and *Milwaukee Journal Sentinel* in the 5-day cumulative audience. The *Pittsburgh Post-Gazette* had a decline from 1.6% to -5.5% compared to 1.3% to -4.0% for the *Milwaukee Journal Sentinel* (see Table 6.8). The *Pittsburgh Tribune-Review* experienced less of a decline, with an average percentage change of -2.0% following the launch of *Trib p.m.*, compared to -0.6% prior to the introduction of the free newspaper (see Table 6.8).

Table 6.7: Adults' Ave Wkdy Readership Comparison 2000–2007, Pittsburgh Experimental Market

DMA	2007 DMA Size	Newspaper (Month and Year Launched)	Yearly % Change in Average Weekday Readership							
			'00 to '01	'01 to '02	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	
Experimental: Pittsburgh, PA	2,253,968									
Control: Milwaukee, WI	1,705,891									
Pre-launch Free Newspaper: Average % Change ^a	Post-launch Free Newspaper: Average % Change	<i>Pittsburgh Trib p.m. (October 2003) Pittsburgh Tribune- Review</i>	No % Change Available							
2.3%	-1.1%		14.8%	0.0%	4.5%	-17.4%	-0.9%	2.7%	-5.2%	
2.6%	-6.0%	<i>Pittsburgh Post-Gazette</i>	8.1%	4.1%	-4.3%	3.0%	-9.1%	-1.2%	-7.7%	
1.6%	-6.6%	<i>Milwaukee Journal Sentinel</i>	6.2%	-6.4%	4.9%	1.3%	-2.6%	-3.4%	-13.9%	

Note. The data is from Scarborough Research reports (Release 2 2000–2007).

Bold indicates the percentage change that includes the year the free newspaper was launched.

Years were based on the following for the Pittsburgh market: September-August. Milwaukee's time period was between August and July.

Percentage changes were calculated based on % of Average Weekday Readership by adults, which accounts for variation in DMA (population) size from year to year.

^aChange from 2000 to 2001 was an outlier for the *Pittsburgh Tribune-Review* and was not included in the pre-launch calculations.

Table 6.8: 5-day Cumulative Audience Comparison 2000–2007, Pittsburgh Experimental Market

DMA	2007 DMA Size	Newspaper (Month, Year Launched)	Yearly % Change in Average Weekday Readership							
			'00 to '01	'01 to '02	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	
Experimental: Pittsburgh, PA	2,253,968									
Control: Milwaukee, WI	1,705,891									
Pre-launch Free Newspaper: Average % Change ^a	Post-launch Free Newspaper: Average % Change	<i>Pittsburgh Trib p.m. (October 2003)</i>	No % Change Available							
-0.6%	-2.0%	<i>Pittsburgh Tribune- Review</i>	12.1%	4.7%	-5.8%	-12.9%	-0.5%	6.0%	-11.4%	
1.6%	-5.5%	<i>Pittsburgh Post-Gazette</i>	7.0%	3.8%	-5.8%	2.8%	-3.8%	-4.2%	-8.7%	
1.3%	-4.0%	<i>Milwaukee Journal Sentinel</i>	7.4%	-4.8%	1.3%	0.7%	-1.3%	-0.9%	-9.8%	

Note. The data is from Scarborough Research reports (Release 2 2000–2007).

Bold indicates the percentage change that includes the year the free newspaper was launched.

Years are based on the following for the Pittsburgh market: September–August. Milwaukee's time period was between August and July.

Percentage changes were calculated based on % 5-day Cumulative Audience, which accounts for variation in DMA (population) size from year to year.

^aChange from 2000 to 2001 was an outlier for the *Pittsburgh Tribune-Review* was not included in the pre-launch % change calculation.

Table 6.9: Summary of Average Weekday Readership Comparisons - Percent Changes and Confidence Intervals

95% Confidence Interval								
Pair	Newspaper	Pre-launch			Post-launch			H1 a Supported?
		Free Newspaper: Average % Change	Lower Limit	Upper Limit	Free Newspaper: Average % Change	Lower Limit	Upper Limit	
1	The Baltimore Sun	-3.3%	-8.3%	1.7%	N/A	N/A	N/A	Some Support
	St. Louis Post-Dispatch	-0.6%	-8.1%	6.8%	N/A	N/A	N/A	
2	The Tennessean	N/A	N/A	N/A	-3.5%	-10.8%	3.8%	Not Supported
	The Charlotte Observer	N/A	N/A	N/A	-3.5%	-10.0%	3.0%	
4	Philadelphia Inquirer	N/A	N/A	N/A	-1.1%	-7.4%	2.7%	Not Supported
	Detroit Free Press	N/A	N/A	N/A	-1.1%	-8.4%	6.1%	
	Philadelphia Daily News	N/A	N/A	N/A	-3.2%	-18.8%	12.8%	
	Detroit News	N/A	N/A	N/A	-4.3%	-7.8%	-0.8%	
5	The Dallas Morning News	-5.2%	-12.7%	2.3%	-4.1%	-14.9%	6.6%	Not Supported
	Fort-Worth Star Telegram	-7.6%	-33.2%	18.0%	-4.0%	-39.6%	31.5%	
	Houston Chronicle	1.4%	-15.1%	17.9%	-6.1%	-8.2%	-4.0%	
6	St. Petersburg Times	-2.5%	-8.6%	3.6%	N/A	N/A	N/A	Not Supported
	Minneapolis Star Tribune	-2.0%	-7.8%	3.8%	N/A	N/A	N/A	
	Tampa Tribune	-2.7%	-10.5%	5.0%	N/A	N/A	N/A	Some Support
	St. Paul Pioneer Press	-4.2%	-13.3%	4.8%	N/A	N/A	N/A	
7	U-T San Diego	0.3%	-8.9%	9.4%	-5.3%	-54.3%	43.7%	Not Supported
	Arizona Republic	-5.1%	-18.5%	17.2%	-4.8%	-65.5%	55.9%	
8	Pittsburgh Tribune-Review	2.3%	-26.6%	31.2%	-1.1%	-10.9%	8.6%	Not Supported
	Pittsburgh Post-Gazette	2.6%	-13.1%	18.3%	-6.0%	-16.5%	4.5%	
	Milwaukee Journal Sentinel	1.6%	-15.6%	18.7%	-6.6%	-22.2%	9.0%	

Table 6.10: Summary of 5-day Cumulative Audience Comparisons - Percent Changes and Confidence Intervals

95% Confidence Interval								
Pair	Newspaper	Pre-launch			Post-launch			H1b Supported?
		Free Newspaper: Average % Change	Lower Limit	Upper Limit	Free Newspaper: Average % Change	Lower Limit	Upper Limit	
1	The Baltimore Sun	-1.9%	-6.0%	2.1%	N/A	N/A	N/A	Some Support
	St. Louis Post-Dispatch	-0.1%	-6.9%	6.7%	N/A	N/A	N/A	
2	The Tennessean	N/A	N/A	N/A	-2.8%	-9.0%	3.3%	Not Supported
	The Charlotte Observer	N/A	N/A	N/A	-3.4%	-9.5%	2.7%	
4	Philadelphia Inquirer	N/A	N/A	N/A	-2.3%	-5.9%	1.3%	Not Supported
	Detroit Free Press	N/A	N/A	N/A	-0.5%	-6.6%	5.6%	
	Philadelphia Daily News	N/A	N/A	N/A	-1.9%	-13.6%	9.8%	
	Detroit News	N/A	N/A	N/A	-2.5%	-6.4%	1.5%	
5	The Dallas Morning News	-0.2%	-17.7%	17.3%	-4.9%	-12.9%	3.1%	Not Supported
	Fort-Worth Star Telegram	-4.1%	-50.1%	41.9%	-3.8%	-33.2%	25.5%	
	Houston Chronicle	1.2%	-11.7%	14.1%	-5.5%	-7.7%	-3.3%	
6	St. Petersburg Times	-1.8%	-8.5%	4.9%	N/A	N/A	N/A	Not Supported
	Minneapolis Star Tribune	-1.7%	-4.6%	1.2%	N/A	N/A	N/A	
	Tampa Tribune	-1.7%	-9.1%	5.7%	N/A	N/A	N/A	
	St. Paul Pioneer Press	-2.1%	-7.1%	2.9%	N/A	N/A	N/A	
7	U-T San Diego	0.4%	-8.3%	9.2%	-5.2%	-54.3%	43.9%	Not Supported
	Arizona Republic	-1.0%	-15.9%	14.0%	-5.4%	-34.6%	23.8%	
8	Pittsburgh Tribune-Review	-0.6%	-67.4%	66.3%	-2.0%	-23.8%	19.9%	Not Supported
	Pittsburgh Post-Gazette	1.6%	-14.9%	18.2%	-5.5%	-12.3%	1.3%	
	Milwaukee Journal Sentinel	1.3%	-13.8%	16.4%	-4.0%	-16.5%	8.5%	

Hypothesis 2 – Newspaper Readership Demographics. Demographics were compared among the readership measures of the paid and free newspapers and age was significantly different in the Chi square tests over the entire time period studied for the four experimental markets. This time period was limited to when the free newspaper was introduced, and so for the Tampa experimental market, there was only one year to compare, 2007. Interestingly, income was only significantly different over the time period studied for the Philadelphia market, the commuter newspaper in the sample. Education was significantly different for the Nashville and Philadelphia markets over the time period, as well as average weekday readership for comparison of newspapers in the Tampa market. The length of residence demographic was significantly different for the newspaper comparison in the Nashville and Philadelphia markets, in addition to average weekday readership for the Dallas experimental market.

For average weekday readership and 5-day cumulative audience over the time period studied, *The City Paper*'s readers were significantly different in age from that of the paid daily in Nashville, *The Tennessean* (see Tables 6.11 and 6.12). In general, the readers of *The City Paper* were younger than *The Tennessean*. In 2003, over 40% of *The City Paper*'s average weekday readers were from the 18–34 age group while only 22.7% were for *The Tennessean* (see Table 6.11). By 2007, that percentage had dropped to 35.6%, which was still much higher than *The Tennessean*, 20.1% (see Table 6.11). In 2003, 2006 and 2007 *The City Paper* had higher percentages of adults 18–34 who were part of their 5-day cumulative audience than *The Tennessean*, which is similar to average weekday readership for those years (see Tables 6.11 and 6.12). In 2007, there was a large

discrepancy again, 38.2% for *The City Paper* and 22% for *The Tennessean* (see Table 6.12).

Income was not significantly different for both readership measures for the comparison between *The City Paper* and *The Tennessean* (see Tables 6.11 and 6.12). The chi squares calculated for each year and the total time period were all insignificant (see Tables 6.11 and 6.12). There were some differences in the income distribution between the two publications. Between 2003 and 2006, *The Tennessean* had a higher percentage than *The City Paper* of average weekday readers with incomes below \$30,000 (see Tables 6.11). For 5-day cumulative audience, the newspapers have a similar pattern where *The Tennessean* has a larger share of readers with incomes below \$30,000 over the same time period (see Table 6.12). *The City Paper* had a sizable representation from the most affluent category, those with incomes of \$75,000 plus. The paper had a higher percentage of its average weekday readers with incomes of \$75,000 or more than *The Tennessean* for the first two years of the comparison, 2003 and 2004, for both readership measures (see Tables 6.11 and 6.12).

Education was significantly different for average weekday readership and 5-day cumulative audience over the entire time period (see Tables 6.11 and 6.12). Between 2003 and 2007, *The Tennessean* had a higher percentage of readers who were non-HS graduates or whose highest educational degree achieved was high school, including GED (see Tables 6.11 and 6.12). By 2007, the percentages of average weekday readers with a high school degree or less education for *The City Paper* and *The Tennessean* were close, 35.8% and 40%, respectively (see Table 6.11). In 2003, the percentages were very different, 15.4% for *The City Paper* and 38.9% for *The Tennessean* (see Table 6.11).

Readers of the free newspaper *The City Paper* in Nashville were generally more educated than *The Tennessean* because its percentage of four-year college graduates or more was higher for both readership measures from 2003 to 2007 (see Tables 6.11 and 6.12).

There was a significant difference in the length of time spent in current residence between the readership of *The City Paper* and *The Tennessean* over the time period studied (see Tables 6.11 and 6.12). For every year between 2003 and 2007, *The City Paper* had a higher percentage of average weekday readers who spent less than a year in their home (see Tables 6.11). The percentage range of average weekday readership for *The City Paper* was 7.1–17.1% and for *The Tennessean* it was 5.6–9.8% (see Tables 6.11 and 6.12). *The City Paper*'s percentage of 5-day cumulative audience fluctuates during the first few years of the comparison where it increased from 9.7% in 2003 to 13.3% in 2004 and then dropped back to 7.3% in 2005 (see Table 6.11). In 2004, *The City Paper* had a higher percentage than *The Tennessean* (see Table 6.11). *The Tennessean* had a higher percentage in 2003, 11.1% and in 2005, 7.6% (see Table 6.11). For the 5-day cumulative audience in 2006 and 2007, over 10% of the 5-day cumulative audience lived in their residence for less than a year for *The City Paper*, which was higher than *The Tennessean* for both years (see Table 6.12).

Table 6.11: Demographics - % Adults' Average Weekday Readership, Nashville Market

Age	2003		2004		2005	
	% Adults' Average Weekday Readership					
	<i>The City Paper</i>	<i>The Tennessean (Tenn)</i>	<i>The City Paper</i>	Tenn	<i>The City Paper</i>	Tenn
18-24	9.7	9.1	4.5	5.3	12.9	7.6
25-34	30.6	13.6	13.9	12.8	13.1	12.6
35-44	19.1	17	19.3	19.3	16.1	18.7
45-54	22.7	21.6	32.7	22.8	26.6	20.9
55+	17.9	38.7	29.7	39.9	31.3	40.2
Chi Square	X ² (4)=14.35, p=.01**		X ² (4)=3.37, p=.50		X ² (8)=3.37, p=.50	
Chi Square - All Years	X ² (4)=25.56, p=0**					
<i>Income</i>						
< \$20,000	2.7	7.2	1.2	9.3	2.6	2.8
\$20,000-29,999	4.8	10.1	18.7	15	8.1	9.8
\$30,000-39,999	14.6	16.5	12.6	11.2	4.6	12.5
\$40,000-\$49,999	14.5	12.7	9.6	14.7	21.8	14.2
\$50,000-\$74,999	21.4	18.4	20.9	18.6	33.3	22.7
\$75,000-\$99,999	17	15.4	13.8	14.4	17.7	16.2
\$100,000+	25	19.7	23.2	16.8	11.9	21.7
Chi Square	X ² (6)=5.10, p=.53		X ² (6)=8.98, p=.17		X ² (6)=10.35, p=.11	
Chi Square - All Years	X ² (6)=11.01, p=.09					
<i>Education</i>						
< HS graduate	1.8	7.9	3.1	6.9	1.7	6.6
HS graduate (includes GED)	13.6	31	16.2	34.9	19.5	32.2
Some College	40.1	33.3	25.1	30.3	36.8	29.5
4-year College Degree or more	44.6	27.8	55.5	27.9	42	31.7
Chi Square	N/A ^a		X ² (3)=17.9, p=0**		X ² (3)=8.26, p=.04*	
Chi Square - All Years	X ² (3)=26.36, p=0**					
<i>Length of Residence</i>						
< 6 months	6.7	5	7.5	4.3	5.9	2.3
6 months < 1 year	4.6	4.2	9.6	5.5	3.2	3.3
1 year < 2 years	5.1	7.8	6	5.5	7.2	6.1
2 years < 3 years	3.3	5.9	11.5	6.3	4.6	8.5
3 years < 5 years	28.5	13.3	18.8	12.1	9.7	14
5 years < 10 years	15.9	20	14.1	15.3	20.6	18.8
10+ years	35.8	43.9	32.5	50.9	48.8	47.1
Chi Square	N/A ^a		X ² (6)=9.1, p=.20		N/A ^a	
Chi Square - All Years	X ² (6)=14.25, p=.03*					

Note. Data is from Scarborough Research reports (Release 2 2003-2005).

Percentages are based on the number of adults in each demographic group out of the total adults who make up the average weekday readership.

^aA chi square was not provided due to more than 20% of cells with a less than 5 count.

*Significant at the .05 level.

**Significant at the .01 level.

Table 6.11: (continued).

Age	2006		2007	
	% Adults' Average Weekday Readership			
	<i>The City Paper</i>	<i>The Tennessean</i>	<i>The City Paper</i>	<i>The Tennessean</i>
18–24	6.7	7.9	9.4	7.4
25–34	26.8	15.1	26.2	12.7
35–44	20.1	15.1	16.5	17
45–54	17.9	19.8	17.2	17.9
55+	28.5	42.1	30.8	45
Chi Square	X ² (4)=6.79, p=.15		X ² (4)=7.61, p=.11	
<i>Income</i>				
< \$20,000	1.7	5.2	4	5
\$20,000–29,999	11	13.7	13.1	8.1
\$30,000–39,999	13.1	11.4	18	15.1
\$40,000–\$49,999	7.7	12.1	8.8	8.8
\$50,000–\$74,999	31	20.7	23.7	22.2
\$75,000–\$99,999	13.9	18	11.2	17.4
\$100,000+	21.6	18.9	21.2	23.5
Chi Square	X ² (6)=5.93, p=.43		X ² (6)=3.06, p=.80	
<i>Education</i>				
< HS graduate	6.9	7.6	5.3	6.1
HS graduate (includes GED)	33	36.3	30.5	33.9
Some College	32.5	30.1	32.7	30.5
4-year College Degree or more	27.7	26	31.5	29.5
Chi Square	X ² (3)=.34, p=1		X ² (3)=.38, p=.94	
<i>Length of Residence</i>				
< 6 months	2.8	2.4	3	3.1
6 months < 1 year	4.3	3.6	9	4.2
1 year < 2 years	4	4.8	3.9	6.8
2 years < 3 years	13.3	8.4	12.2	5.4
3 years < 5 years	9.6	14.3	22.8	11.8
5 years < 10 years	19.3	19.5	21.9	20.2
10+ years	46.6	46.9	27.1	48.6
Chi Square	N/A ^a		X ² (6)=14.8, p=0**	

Note. Data is from Scarborough Research reports (Release 2 2006–2007).

Percentages are based on the number of adults in each demographic group out of the total adults who make up the average weekday readership.

^aA chi square was not provided due to more than 20% of cells with a less than 5 count.

*Significant at the .05 level.

**Significant at the .01 level.

Table 6.12: Demographics - % 5-day Cumulative Audience, Nashville Market

	2003		2004		2005	
	% 5-day Cumulative Audience					
	<i>The City Paper</i>	<i>The Tennessean</i> (Tenn)	<i>The City Paper</i>	Tenn	<i>The City Paper</i>	Tenn
Age						
18–24	6.4	12.1	5.1	9.7	10.0	11.6
25–34	29.6	14.8	19.0	14.6	13.0	15.6
35–44	21.9	19.3	21.3	21.9	17.1	17.7
45–54	24.0	21.7	28.3	21.5	26.4	20.4
55+	18.0	32.2	26.4	32.3	33.5	34.7
Chi Square	X ² (4)=10.99, p=.03*		X ² (4)=3.54, p=.47		X ² (4)=1.16, p=.86	
Chi Square - All Years	X ² (4)=11.18, p=.02*					
Income						
< \$20,000	1.8	8.4	3.4	8.7	2.5	5.7
\$20,000–29,999	8.4	12.0	13.2	13.4	8.8	10.3
\$30,000–39,999	11.4	15.9	13.2	12.6	11.1	12.9
\$40,000–\$49,999	17.3	11.6	12.3	14.6	17.0	14.8
\$50,000–\$74,999	18.5	19.8	25.7	22.0	26.2	21.8
\$75,000–\$99,999	15.5	15.3	13.6	12.9	18.1	15.9
\$100,000+	27.1	17.0	18.6	15.8	16.3	18.7
Chi Square	X ² (6)=9.13, p=.17		X ² (6)=3.07, p=.80		X ² (6)=2.36, p=.88	
Chi Square - All Years	X ² (6)=7.33, p=.29					
Education						
< HS graduate	1.2	9.7	2.8	5.8	5.1	8.6
HS graduate (includes GED)	17.0	29.9	23.9	34.4	24.4	34.1
Some College	36.3	35.4	21.2	31.8	29.9	29.0
4-year College	45.5	25.0	52.1	28.0	40.5	28.2
Degree or more						
Chi Square	X ² (3)=16.15, p=0**		N/A ^a		X ² (3)=4.72, p=.19	
Chi Square - All Years	X ² (3)=78.69, p=0**					
Length of Residence						
< 6 months	6.0	5.7	5.5	4.4	3.8	3.3
6 months–1 year	3.7	5.4	7.8	6.3	3.5	4.3
1 year–2 years	8.4	8.5	4.8	6.9	11.1	7.3
2 years < 3 years	2.2	6.9	11.2	8.2	5.5	9.5
3 years < 5 years	22.3	14.5	16.0	13.6	10.7	13.4
5 years < 10 years	23.2	19.6	13.9	17.8	20.4	19.6
10+ years	34.10	39.50	40.90	42.80	44.90	42.50
Chi Square	N/A ^a		X ² (3)=1.84, p=.93		N/A ^a	
Chi Square - All Years	X ² (3)=14.25, p=.03*					

Note. Data is from Scarborough Research (Release 2 2003–2005).

Percentages are based on the number of adults in each demographic group out of the total adults who make up the 5-day cumulative audience.

^aA chi square was not provided due to more than 20% of cells with a less than 5 count.

*Significant at the .05 level.

**Significant at the .01 level.

Table 6.12: (continued).

<i>Age</i>	2006		2007	
	% 5-day Cumulative Audience			
	<i>The City Paper</i>	<i>The Tennessean</i>	<i>The City Paper</i>	<i>The Tennessean</i>
18–24	6.7	10.4	14.7	7.6
25–34	23.3	18.6	23.5	14.4
35–44	21.8	17.3	17.3	20.6
45–54	20.3	20	16.2	18.6
55+	28	33.9	28.3	38.8
Chi Square	X ² (4)=2.41, p=.66		X ² (6)=6.54, p=.16	
<i>Income</i>				
< \$20,000	3.3	5.6	5.2	4.5
\$20,000–29,999	12.5	13.4	10.9	8.4
\$30,000–39,999	13.3	12	18	18.4
\$40,000–\$49,999	8.9	12.7	10.2	9.2
\$50,000–\$74,999	27.9	21.4	21.1	21.4
\$75,000–\$99,999	13.8	17	15.8	16.8
\$100,000+	20.1	17.9	18.8	21.3
Chi Square	X ² (6)=2.68, p=.85		X ² (6)=0.62, p=1	
<i>Education</i>				
< HS graduate	7.1	8.3	6.1	6.2
HS graduate (includes GED)	30.4	36	33.8	34.1
Some College	30.5	30.3	28.8	31
4-year College Degree or more	32	25.4	31.4	28.7
Chi Square	X ² (3)=1.33, p=.72		X ² (3)=0.2, p=.98	
<i>Length of Residence</i>				
< 6 months	2.7	3	3.4	2.3
6 months–1 year	4.4	3.8	7.3	3.6
1 year–2 years	4.2	4.8	6.5	7.8
2 years < 3 years	12.2	9.4	10.2	7.2
3 years < 5 years	14.3	14.9	17.7	13.2
5 years < 10 years	20.7	22.3	22.4	20.6
10+ years	41.4	42	32.5	45.1
Chi Square	N/A ^a		X ² (6)=3.07, p=.80	

Note. Data is from Scarborough Research (Release 2 2006–2007).

Percentages are based on the number of adults in each demographic group out of the total adults who make up the 5-day cumulative audience.

^aA chi square was not provided due to more than 20% of cells with a less than 5 count.

For the Philadelphia newspaper comparison, all demographics were significantly different over the entire time period studied for both readership measures (see Tables 6.13 and 6.14). From 2001–2006, the *Philadelphia Daily News* had the highest percentage of the 25–34 age group, followed by the Metro (see Table 6.13). For the final year of the comparison, 2007, the Metro’s percentage is .4% higher than the *Philadelphia Daily News*, 17.6% compared to 17.2% (see Table 6.13). The 5-day cumulative audience followed a similar pattern except that the Metro’s percentage of the 25–34 age group was higher for both 2006 and 2007 (see Table 6.14).

Beginning in 2006, the Metro also had the highest percentage of the age groups combined, adults 34 years of age and under who read the newspaper on an average weekday. The Metro’s percentage was 34.3% compared to 17.1% for the *Philadelphia Inquirer* and 30.8% for the *Philadelphia Daily News* (see Table 6.13). Every year except 2001 and 2003, when the *Philadelphia Daily News* had the highest percentage, the *Metro Philadelphia* had the highest percentage of adults 34 and under who was part of their 5-day cumulative audience (see Table 6.14). Both the *Metro Philadelphia* and the *Daily News* had more than one-third of their 5-day cumulative audience comprised of adults between the ages of 18 and 34 for all years, 2001–2007; the *Philadelphia Inquirer* had between 20% and 25% of its audience for each year (see Tables 6.14).

The *Metro Philadelphia* captured the highest percentage of the 18-24 age group compared to the paid newspapers, *Philadelphia Inquirer* and *Philadelphia Daily News*, for the % average weekday readership and the 5-day cumulative audience for all years, 2001–2007 (see Tables 6.13 and 6.14). For the average weekday readership, the percentages ranged from 13.9% to 20.3% for the *Metro Philadelphia*, 5.7% to 9.3% for

the *Philadelphia Inquirer*, and the *Philadelphia Daily News*: 10.5% to 14.7% (see Tables 6.13). The percentage ranges were fairly similar for the 5-day cumulative audience: *Metro Philadelphia*: 13.8–21.9%; *Philadelphia Inquirer*: 7.7–12%; *Philadelphia Daily News*: 10.7–16% (see Table 6.14).

Between 2001 and 2007, the *Metro Philadelphia* had the highest percentage of average weekday readers with incomes below \$30,000 (see Table 6.13). Until 2006, that percentage was between 20–30%, but fell to 15.1% in 2006 and 15.9% in 2007 (see Table 6.13). The *Philadelphia Inquirer* and the *Philadelphia Daily News*' percentages for incomes under \$30,000 for the entire time period ranged from 9.9% to 15.8% and 12.6% to 19.7%, respectively (see Table 6.13). The *Metro Philadelphia* had the largest share of the under \$30,000 income group for 5-day cumulative audience for all the years except 2007 (see Table 6.14). The *Philadelphia Daily News* had the highest percentage in 2007, 16.2%, compared to 15.3% for the Metro and 11.4% for the Inquirer (see Table 6.14).

For average weekday readership and 5-day cumulative audience, the *Philadelphia Inquirer* had the highest percentage of readers with incomes of \$75,000 or more (see Tables 6.13 and 6.14). Between 2001 and 2007, the *Philadelphia Inquirer*'s average weekday readership and 5-day cumulative audience was at least 40% for incomes in this range (see Tables 6.13 and 6.14). By comparison, 35.1% of the adults who read the *Metro Philadelphia* on an average weekday had an income of \$75,000 or more in 2007; this is also the case for 5-day cumulative audience in 2007, 35% (see Tables 6.13 and 6.14). In 2007, the *Philadelphia Daily News* had slightly higher percentages from the \$75,000 plus income group than the *Metro Philadelphia* for both measures: 37.3% for average weekday readership and 38.1% for 5-day cumulative audience (see Tables 6.13 and 6.14).

The *Metro Philadelphia* and the *Philadelphia Daily News* had smaller percentages from the \$75,000 plus income group in 2001 for average weekday readership and 5-day cumulative audience in 2001: 21.5% and 26.7% for the *Metro Philadelphia*, 30.2% and 29.8% for the *Philadelphia Daily News*, respectively (see Tables 6.13 and 6.14).

In 2007, 61.1% of the *Metro Philadelphia*'s average weekday readership had at most a high school degree and this was the highest percentage of the three newspapers (see Table 6.13). The *Metro Philadelphia* also had the highest percentage in 2004, 56.2% (see Table 6.13). The *Philadelphia Daily News* had the highest percentage of the three newspapers for average weekday readers with a high school degree, GED, or non-HS graduate from 2001–2003 and 2005–2006 (see Table 6.13). The percentages were within the 50–60% range for the *Philadelphia Daily News* (see Table 6.13). From 2001 to 2007, the *Philadelphia Inquirer* has the lowest percentage of its average weekday readers who have a high school degree, including equivalent, or are a non-HS graduate; the range is 34.9%–36.4% (see Tables 6.13). In comparison, the lowest percentage for the Metro was 41.9% in 2003 and for the *Philadelphia Daily News* it was 51.7% in 2001 (see Table 6.13).

The *Metro Philadelphia*'s percentages of its average weekday readers with a college degree or more, the most educated group, ranged from 15.8% in 2002 to 23.1% in 2005 (see Table 6.13). These percentages are very similar to the *Philadelphia Daily News*: the lowest was 15.4% in 2007 and the highest was 19.8% in 2004 (see Table 6.13). The *Philadelphia Inquirer* had a much larger percentage of its average weekday readership with four-year college degrees or more with a range of 34.2% to 40.6% (see Tables 6.13). The Metro and Daily News have similar percentage ranges of their 5-day

cumulative audience with a college degree or higher, 16.2–21.8% and 17.2–20.8%, respectively (see Tables 6.14). The *Philadelphia Inquirer* was again much higher than the other two papers, 33.4% to 38.5% (see Tables 6.14).

For every year except 2004, the *Metro Philadelphia*'s average weekday readership had the highest percentage of adults who have lived in their residence for less than one year; the range was from 5.1% in 2007 to 10.8% in 2002 (see Table 6.13). In 2004, the *Philadelphia Daily News* had the highest percentage, 9.6%, which was the top of its range over the time period; the lowest percentage was 3.3% in 2006 (see Table 6.13). The highest percentage for the *Philadelphia Inquirer* was also in 2004, 5.4%, and the lowest percentage was in 2007, 2.9% (see Table 6.13). Similar patterns exist for those who have lived in their residence for fewer than two years. The Metro had the most percentage of average weekday readers who have lived in their residence for fewer than two years over the time period studied with the exception of 2004 when the Daily News had the highest (see Table 6.13). The Metro's range was 13–21.2% and the Daily News' was similar, 10.4–20.2%; the Inquirer's was the lowest, 6.0–10.9% (see Table 6.13).

The Metro had the highest percentage of its 5-day cumulative audience with less than one year in their current residence for every year except 2006, where the *Philadelphia Daily News* had the most (see Tables 6.14). The lowest percentage for the Metro's cumulative audience was in 2006, 4.8%, and the highest percentage was in 2002, 10.2% (see Tables 6.14). The range for the *Philadelphia Daily News* was 5.6–7.6% and the *Philadelphia Inquirer*'s was 4.2% to 6.5% (see Tables 6.14). For those who have lived in their residence for less than two years, the Metro had the highest percentages in 2001–2004 and 2006 for 5-day cumulative audience (see Tables 6.14). In 2007, the

Philadelphia Daily News was only .1 percentage point higher, 14.1% compared to 14.2% for the Metro (see Table 6.14). In comparison, the *Philadelphia Inquirer's* 2007 percentage was 10% of its 5-day cumulative audience with less than two years in their current residence (see Table 6.14).

Table 6.13: *Demographics - % Adults' Average Weekday Readership, Philadelphia Market*

	2001			2002			2003		
	% Adults' Average Weekday Readership								
	<i>Metro Philadelphia</i>	<i>The Philadelphia Inquirer</i> (Inq)	<i>Philadelphia Daily News</i> (PDN)	Metro	Inq	PDN	Metro	Inq	PDN
Age									
18–24	13.9	6.7	10.5	14.9	6.2	12	15.3	8.7	14.7
25–34	18.4	10.9	23.6	16.9	11.3	23.7	17.6	8.9	20.2
35–44	23	16.6	22.8	19.2	15.5	17.5	24.5	17.6	26.3
45–54	20.5	22.7	23.2	23.3	23.4	25.6	21	21.8	16.1
55+	24.3	43.1	20	25.7	43.5	21.1	21.6	43.1	22.6
Chi Square	X ² (8)=18.95, p=.02*			X ² (8)=17.85, p=.02*			X ² (8)=19.50, p=.01**		
Chi Square - All Years	X ² (8)=155.04, p=0**								
Income									
< \$20,000	6.8	6.4	6.7	13.3	6.3	7.8	9.2	4.4	5.7
\$20,000–29,999	14.5	8.3	11.5	13.7	6.4	11.9	11.8	8.6	11.2
\$30,000–39,999	21.2	8.7	11.7	19.9	13.6	15.8	17.9	13.7	14.5
\$40,000–\$49,999	18	11.9	13.1	15.2	12.7	19.2	14.9	12.9	15.9
\$50,000–\$74,999	18	22.5	26.8	18.8	19.3	19.7	20.6	17	19.6
\$75,000–\$99,999	14.2	18.3	18.6	9.3	18.1	13.9	16.5	16.9	20.5
\$100,000+	7.3	23.9	11.6	10	23.6	11.8	9.1	26.5	12.6
Chi Square	X ² (12)=22.14, p=.04*			X ² (8)=17.85, p=.02*			X ² (12)=14.88, p=.25		
Chi Square - All Years	X ² (12)=73.84, p=0**								
Education									
< HS graduate	8.9	5.1	10.5	10.8	6.3	9.8	7.9	5.9	5.7
HS graduate (includes GED)	35.8	29.8	41.2	38.3	29.8	44.5	34	29.3	48.2
Some College	37.2	30.9	28.9	35.1	27.3	29.3	38.9	30.2	29.1
4-year College Degree or more	18.1	34.2	19.3	15.8	36.5	16.5	19.3	34.6	17.1
Chi Square	X ² (6)=11.61, p=.07			X ² (6)=17.28, p=.01**			X ² (6)=15.11, p=.02*		
Chi Square - All Years	X ² (6)=102.96, p=0**								
Length of Residence									
< 6 months	4	2.2	1.9	2.4	1.9	2.8	5	2.2	3.2
6 months–1 year	3.8	2.8	4.7	8.4	2.3	3.9	5.6	2.3	2.4
1 year–2 years	13.4	5.9	9.1	6.7	5.1	7.2	3.8	5.4	4.8
2 years < 3 years	6.2	5.8	7.7	11.3	5.6	8.1	9.2	7.3	7.7
3 years < 5 years	9.8	11.9	13.1	9.9	10.5	14.3	13.4	9.9	16.4
5 years < 10 years	23.4	14.2	18	19	17.1	21.4	20.8	14.5	21.5
10+ years	39.4	57.4	45.5	42.4	57.7	42.3	42.2	58.4	44.1
Chi Square	X ² (12)=11.05, p=.52			X ² (12)=11.40, p=.50			X ² (12)=10.17, p=.60		
Chi Square - All Years	X ² (12)=50.75, p=0**								

Note. Data is from Scarborough Research reports (Release 2 2001–2003).

Percentages are based on the number of adults in each demographic group out of the total adults who make up the average weekday readership.

*Significant at the .05 level.

**Significant at the .01 level.

Table 6.13: (continued).

	2004			2005			2006			2007		
	% Adults' Average Weekday Readership											
	Metro	Inq	PDN	Metro	Inq	PDN	Metro	Inq	PDN	Metro	Inq	PDN
<i>Age</i>												
18–24	18.1	6.9	14.2	19.7	5.7	12.4	14.2	9.3	8.8	20.3	7.0	12.7
25–34	16.4	11.4	22.5	11.7	9.1	20.2	20.1	7.8	22.0	17.6	7.9	17.2
35–44	24.9	15.9	24.4	22.6	15.0	24.1	29	15	26.0	17.6	14.8	22.3
45–54	19.4	20.1	19.4	20.3	20.3	18.9	17.5	22.1	22.9	25	20.1	20.5
55+	21.2	45.7	19.4	25.6	49.8	24.4	19.2	45.8	20.3	19.5	50.2	27.4
Chi Square	X ² (8)=26.01, p=0**			X ² (8)=27.45, p=0**			X ² (8)=30.20, p=0**			X ² (8)=28.87, p=0**		
<i>Income</i>												
< \$20,000	9.7	4.3	6.4	14.3	6.9	7.2	7.2	3.4	4.4	7.8	3.5	5.4
\$20,000–29,999	18.2	9.6	13.3	9.8	8.9	10.9	7.9	6.7	8.2	8.1	6.4	8.9
\$30,000–39,999	15.3	11.5	11.9	12.4	11.1	11.6	20.1	11.1	13.1	17.5	10.9	17.3
\$40,000–\$49,999	8.3	11.7	11.4	14.8	10.6	16.4	10.1	13.3	11.1	16	12	15.3
\$50,000–\$74,999	19.8	18.5	22.6	24.9	15.6	20.6	20.1	18.8	23.2	15.5	20.2	15.8
\$75,000–\$99,999	15.1	18.7	18.7	13	17.1	14.5	13.7	16.8	17.6	14.5	14.7	12.9
\$100,000+	13.7	25.7	15.6	10.8	29.8	18.8	20.9	29.9	22.4	20.6	32.3	24.4
Chi Square	X ² (12)=11.71, p=.47			X ² (12)=17.17, p=.14			X ² (12)=8.14, p=.77			X ² (12)=8.28, p=.76		
<i>Education</i>												
< HS graduate	13.1	5.3	9.3	9.8	4.8	9.6	5.4	4.9	6.4	5.2	4.6	9.8
HS graduate (includes GED)	43.1	30.1	42.9	39.8	30.9	44.2	43.7	31.5	48.9	56.4	31.7	50.1
Some College	25.8	24.6	28	27.4	25.5	29.6	29.4	23.8	26.6	20	23.1	24.7
4-year College Degree or more	18.0	40.0	19.8	23.1	38.8	16.6	21.5	39.8	18.1	18.5	40.6	15.4
Chi Square	X ² (6)=17.90, p=.01**			X ² (6)=14.65, p=.02*			X ² (6)=14.95, p=.02			X ² (6)=25.35, p=0**		
<i>Length of Residence</i>												
< 6 months	2.8	2.3	3.8	1.3	1.0	1.7	0.7	1.9	0.8	0.2	0.5	1.1
6 months–1 year	3.9	3.1	5.8	4.9	2.0	3.4	4.9	1.8	2.5	4.9	2.4	3.2
1 year–2 years	11.5	6.3	10.6	6.9	4.0	5.8	7.4	4.4	7.6	10.2	3.1	8.5
2 years < 3 years	4.8	6.9	6.6	5.8	6.4	5.4	13.4	7.4	5.5	6.6	5.3	6.7
3 years < 5 years	19.3	11.7	13.5	19.0	10.4	14.3	10.9	8.8	14.5	11.7	7.3	10.3
5 years < 10 years	16.4	14.2	18.3	23.7	17.4	16.5	21.2	18.6	24.2	24.7	17.1	21.5
10+ years	41.3	55.4	41.6	38.3	58.8	53.0	41.7	57.0	44.8	41.7	64.4	48.7
Chi Square	X ² (12)=8.81, p=.72			X ² (12)=10.89, p=.54			p=.42			X ² (12)=13.26, p=.35		

Note. Data is from Scarborough Research reports (Release 2 2004–2007).

Percentages are based on the number of adults in each demographic group out of the total adults who make up the average weekday readership.

*Significant at the .05 level.

**Significant at the .01 level.

Table 6.14: *Demographics - % 5-day Cumulative Audience, Philadelphia*

	2001			2002			2003		
	% 5-day Cumulative Audience								
	<i>The</i>								
	<i>Metro Philadelphia</i>	<i>Philadelphia Inquirer (Inq)</i>	<i>Philadelphia Daily News (PDN)</i>	<i>Metro</i>	<i>Inq</i>	<i>PDN</i>	<i>Metro</i>	<i>Inq</i>	<i>PDN</i>
<i>Age</i>									
18–24	13.8	8.7	10.7	16.8	9.3	14.4	15.4	9.9	14.8
25–34	16.8	13.7	23.6	19.1	14.8	21.3	18.9	11.3	21.1
35–44	22.2	18.9	23.6	18.3	16.9	21.1	23.9	19.6	23.6
45–54	21	21.5	22.4	20.5	21.4	22.7	21.5	21.3	16.5
55+	26.3	37.3	19.6	25.3	37.6	20.4	20.2	37.9	24.1
Chi Square	X ² (8)=10.39, p=.24			X ² (8)=9.62, p=.29			X ² (8)=12.09, p=.15		
Chi Square - All Years	X ² (8)=78.69, p=0**								
<i>Income</i>									
< \$20,000	9.5	6.3	6	13.8	6.8	9.5	9.3	5	6.5
\$20,000–29,999	13	8.8	11.6	14	7.5	11	11.2	8.3	10.2
\$30,000–39,999	17	10.3	12	18.9	12.5	17.1	15.5	12.5	15.7
\$40,000–\$49,999	16.2	12.3	16.7	16.6	13.8	17.5	16	14.3	16.3
\$50,000–\$74,999	17.6	21.9	23.9	16.6	19.5	17.8	18.8	17.9	19.8
\$75,000–\$99,999	14.1	17.4	16.3	11.2	18.4	14	17	17.4	18.2
\$100,000+	12.6	23	13.5	8.9	21.5	13.1	12.2	24.7	13.4
Chi Square	X ² (12)=9.87, p=.63			X ² (12)=13.98, p=.3			X ² (12)=8.22, p=.77		
Chi Square - All Years	X ² (12)=58.30, p=0**								
<i>Education</i>									
< HS graduate	9.7	5.5	11.4	12.7	6.4	10	6.9	5.4	6.5
HS graduate (includes GED)	33.7	29.8	37.2	38	31	40.7	37	29.2	42.6
Some College	35.1	31.3	32.5	33.1	27.9	31.2	34.2	29.9	30.9
4-year College	21.5	33.4	18.9	16.2	34.7	18.1	21.9	35.5	20
Degree or more									
Chi Square	X ² (6)=7.99, p=.24			X ² (6)=12.89, p=.04*			X ² (6)=8.55, p=.2		
Chi Square - All Years	X ² (6)=78.21, p=0**								
<i>Length of Residence</i>									
< 6 months	3.4	3	1.7	3.9	2.4	4.2	4.9	2.6	3.4
6 months–1 year	4.2	3.5	4.6	6.3	2.9	4.3	4.5	2.8	3
1 year–2 years	11.9	6.3	9.7	8.6	6.6	8.3	4.4	6.1	6.1
2 years < 3 years	8.8	6.8	7.6	9.1	6.4	8.3	10.4	8.3	7.5
3 years < 5 years	11.8	12.5	13.5	10.1	11.7	13.2	13.9	11.1	15.8
5 years < 10 years	17.8	15.5	18.5	18.5	17.3	19.6	20.1	15.6	22
10+ years	42.2	52.3	44.3	43.5	52.8	42.1	41.6	53.3	42.2
Chi Square	X ² (12)=4.33, p=.97			X ² (12)=4.63, p=.96			X ² (12)=5.96, p=.92		
Chi Square - All Years	X ² (12)=22.93, p=.03*								

Note. Data is from Scarborough Research reports (Release 2 2001–2003).

Percentages are based on the number of adults in each demographic group out of the total adults who make up the 5-day cumulative audience.

**Significant at the .01 level.

*Significant at the .05 level.

Table 6.14: (continued).

	2004			2005			2006			2007		
	% 5-day Cumulative Audience											
	Metro	Inq	PDN	Metro	Inq	PDN	Metro	Inq	PDN	Metro	Inq	PDN
Age												
18–24	16.5	10.2	14.8	21.9	7.7	14.8	21.2	12	16	18	10.8	16
25–34	18.9	12.7	19.7	13.1	12.9	19.8	18.7	10.1	17.2	17.2	10.1	16.9
35–44	19.7	18.2	25.2	20.1	17.2	25.2	21.8	18.2	25.6	17.5	16.8	19.7
45–54	20	19.7	18.7	19.8	20.8	17.4	16.6	20.4	21.7	23.5	20.2	21.9
55+	24.9	39.3	21.6	25.2	41.4	22.7	21.7	39.3	19.4	23.6	42.3	25.5
Chi Square	X ² (8)=10.78, p=.21			X ² (8)=17.65, p=.12			X ² (8)=16.16, p=.04*			X ² (8)=11.49, p=.18		
Income												
< \$20,000	8.1	4.9	7.6	16.4	6.9	8.2	7.7	3.6	5.0	7.0	3.9	6.3
\$20,000–29,999	18.7	9.5	14.8	11.1	8.1	10.8	9.3	7.0	8.5	8.3	7.5	9.9
\$30,000–39,999	16	12.2	11.8	12.8	11.2	11.5	18.5	10.7	15	17.7	10.6	15.6
\$40,000–\$49,999	12.7	12	11.4	14.6	11	15.2	12.4	12.5	10.8	13.4	11.8	14.6
\$50,000–\$74,999	19.8	18.4	21.7	21.7	16.6	18.2	18.5	19.5	22.5	18.6	20.5	15.5
\$75,000–\$99,999	13	19.2	17.9	12.2	17.5	15.6	15.5	17.4	14.7	14.7	15.8	15.4
\$100,000+	11.9	23.8	14.8	11	28.8	20.4	18.1	29.4	23.5	20.3	29.9	22.7
Chi Square	X ² (12)=10.84, p=.54			X ² (12)=16.06, p=.19			X ² (12)=7.52, p=.82			X ² (12)=6.18, p=.91		
Education												
< HS graduate	12.9	5.6	11.2	12.3	5.5	11	5.7	3.9	8.1	5.1	4.9	10.8
HS graduate (includes GED)	42.2	31.2	43.3	41.6	31.4	41.9	45.3	32.9	46.3	50	32.3	47.8
Some College	27.9	25.1	24.8	25.3	26	29.4	27.9	25.7	26.4	23.2	24.3	21.9
4-year College Degree or more	17	38	20.8	20.8	37.2	17.7	21.1	37.5	19.2	21.8	38.5	19.5
Chi Square	X ² (6)=15.39, p=.02*			X ² (6)=13.64, p=.03*			X ² (6)=12.09, p=.06			X ² (6)=15.74, p=.02*		
Length of Residence												
< 6 months	3.2	3.4	3	2.1	1.9	1.5	1.4	2.7	3.1	1.1	1.3	2.2
6 months–1 year	4.9	3.1	4.6	5.3	2.3	4.1	3.4	1.8	2.6	5.6	3.9	4.3
1 year–2 years	10.5	7.1	10.6	5.5	5.1	7.9	9	6	6.6	7.4	4.8	7.7
2 years < 3 years	4.7	7.5	6.2	5.6	6.5	6.6	13.3	7.1	7.4	7.6	5.3	9.9
3 years < 5 years	17.1	12.5	16.1	17.6	12.2	14.8	12.2	10	13	11.2	8.2	9.8
5 years < 10 years	16.8	16.2	19.7	21.7	18	18.3	19.8	18.9	20.9	22.9	17.6	20.5
10+ years	42.7	50.1	39.9	42.2	54	46.8	40.7	53.4	46.4	44.1	58.9	45.6
Chi Square	X ² (12)=4.38, p=.98			X ² (12)=5.01, p=.96			X ² (12)=6.73, p=.87			X ² (12)=6.79, p=.87		

Note. Data is from Scarborough Research reports (Release 2 2004–2007).

Percentages are based on the number of adults in each demographic group out of the total adults who make up the 5-day cumulative audience.

*Significant at the .05 level.

In the Dallas - Fort Worth market, the free newspaper Quick is compared to *The Dallas Morning News* and the Fort Worth Star-Telegram from 2005 to 2007. Over the entire time period studied, age and length of residence were significantly different for average weekday readership, and age only for 5-day cumulative audience (see Tables 6.15 and 6.16). In 2005, 43.9% of Quick's average weekday readers were between 18 and 34 years of age, 21.6% for *The Dallas Morning News*, and 13.9% for the Fort Worth Star-Telegram (see Table 6.15). Quick's percentage of adults 18–34 jumps to 61.7% in 2006 and then back down to 34.3% the following year; in comparison, 19% of *The Dallas Morning News* and the Fort Worth Star-Telegram's readers are 34 and under in 2007 (see Table 6.15). Quick's percentage of its 5-day cumulative audience who are between 18–34 follows a similar pattern, 36.9% in 2005, 55.4% in 2006, and then 37.9% in 2007 (see Table 6.16). *The Dallas Morning News* and the Fort Worth Star-Telegram have almost the same percentages for their 5-day cumulative audiences: approximately 25% in 2005 and 26% in 2006 (see Table 6.16). In 2007, 24.8% of *The Dallas Morning News*' 5-day cumulative audience was 18–34 compared to 23% for the Fort Worth Star-Telegram (see Table 6.16).

Over the three years (2005–2007) examined, Quick had the most readers with incomes under \$30,000 in 2006 for average weekday readership, 17.4% (see Table 6.15). All three newspapers experienced a decrease over the time period, with Quick's percentage dropping from 18.8% in 2005 to 7.9% in 2007 (see Table 6.15). The Fort Worth Star-Telegram's percentage dipped from 18.9% to 11.7% (see Table 6.15). *The Dallas Morning News*' decline was on a much smaller scale: 12.7% in 2005 to 12.3% in 2007 (see Table 6.15). In 2006 and 2007, Quick had the highest percentage of its 5-day

cumulative audience from the under \$30,000 income group, 16.2% and 13.5%, respectively (see Table 6.16).

In 2007, 42.5% of Quick's average weekday readership was comprised of adults with incomes of \$75,000 and more (see Table 6.15). In that same year, *The Dallas Morning News* and the Fort Worth Star-Telegram had just over half of their average weekday readership coming from this affluent income group (see Table 6.15). Quick's percentage of 5-day cumulative audience who made \$75,000 and more was smaller than *The Dallas Morning News* for each year and smaller than the Fort Worth Star-Telegram in 2006 and 2007 but still a high representation from this income group. In 2007, the percentages were the following: Quick: 37.0%; Dallas Morning News: 48.0%; Fort Worth Star-Telegram: 48.4% (see Table 6.16).

Quick, the free newspaper in the Dallas – Fort Worth market, had the highest percentage compared to *The Dallas Morning News* and the *Fort Worth Star-Telegram* for average weekday readers with a high school degree or less in 2006 and 2007 (see Table 6.15). In 2005, the percentage was 22.9% and the *Fort Worth Star-Telegram's* was the highest, 38.7% (see Table 6.15). The following year, the percentage jumped to 40.4% and then declined to 33.7% in 2007, which was still higher than the two paid newspapers (see Table 6.15). For 5-day cumulative audience, 42.2% of Quick's readership had a high school degree or less in 2007, which was the highest percentage (see Table 6.16). Quick was only slightly less than the *Fort Worth Star-Telegram* in 2006, 34.9% to 34.7% (see Table 6.16). The Fort-Worth Star-Telegram also had the highest percentage in 2005, 38%, followed by *The Dallas Morning News* and Quick, 31.6% and 27.9%, respectively (see Table 6.16).

For both readership measures, *The Dallas Morning News* had the highest percentages for the most educated category, four-year college degree or more, between 2005 and 2007 (see Table 6.15). *The Dallas Morning News*' percentage was about 40% for each year compared to 35.6% for *Quick* in 2005 and 31.8% for the free paper in 2007 (see Table 6.15). Only the Fort Worth Star-Telegram had increases each year in both readership measures over the time period studied: 26% to 34% for average weekday readership and 25.4% to 30.7% for its 5-day cumulative audience (see Tables 6.15 and 6.16). In 2005, *Quick* had the highest percentage, 38.1%, of 5-day cumulative audience with a four-year college degree or more (see Table 6.16). By 2007 that number had decreased to 26.3% and *The Dallas Morning News* had the highest percentages, both over 35%, of the most educated demographic group in both 2006 and 2007 (see Table 6.16).

In the one year or less in their residence group, *Quick* had the highest percentage for all three years (2005-2007) for average weekday readership. In 2007, 12.3% of *Quick*'s readers fall in this group, which is compared to 7.6% for *The Dallas Morning News* and 7.4% for the Fort Worth Star-Telegram (see Table 6.15). This pattern also holds true for average weekday readership with less than two years in their residence. In 2006, *Quick* has just under one-fourth of its average weekday readership with less than two years in their residence (see Table 6.15). *The Dallas Morning News* and the *Fort Worth Star-Telegram* do not have over 20% for any of the three years (see Table 6.15).

For 5-day cumulative audience, *Quick* has the highest percentage of readers who have lived in their residence for less than one year in 2005 and 2006 (see Table 6.16). This is also true for less than two years (see Table 6.16). *The Dallas Morning News* had a slightly higher percentage than *Quick*, 9.4% versus 8.8%, in 2007 for 5-day cumulative

audience with residence of less than one year (see Table 6.16). In 2007, *The Dallas Morning News* had the highest percentage with 15.8% living in their residence less than two years, followed by 15.5% for *Quick*, and 13.9% for the *Fort Worth Star-Telegram* (see Table 6.16).

Table 6.15: Demographics - % Adults' Ave Wkdy Readership, Dallas - Fort Worth Market*

	2005			2006 ^a			2007		
	% Adults' Average Weekday Readership								
	Fort Worth								
	<i>Quick</i> ^b	<i>The Dallas Morning News</i> (DMN)	<i>Star - Telegram</i> (FWST)	<i>Quick</i>	DMN	FWST	<i>Quick</i>	DMN	FWST
<i>Age</i>									
18-24	15.5	6.7	4.7	32.3	8.6	7.7	12.1	5.3	5.0
25-34	28.4	14.9	9.2	29.4	12.8	14.6	22.2	13.7	14.0
35-44	26.3	19.2	22.7	17.8	18	15.8	32.7	19.8	15.7
45-54	26.5	24.5	18.3	12.5	22.8	21.7	21.9	23.2	23.9
55+	3.3	34.8	45.2	8	37.9	40.3	11.2	37.9	41.4
Chi Square	X2(8)=55.47, p=0**			X2(8)=58.89, p=0**			X2(8)=32.20, p=0**		
Chi Square - All Years	X2(8)=133.34, p=0**								
<i>Income</i>									
< \$20,000	8.3	5.7	6.8	7.1	4.4	5.2	2.0	3.5	3.9
\$20,000-29,999	10.5	7.0	12.1	10.3	8.1	8.1	5.9	8.8	7.8
\$30,000-39,999	11.5	9.5	16.1	19.7	10.1	10.0	14.9	9.9	10.9
\$40,000-\$49,999	15.9	12.7	13.2	12.3	10.4	12.3	11.4	10.1	11.4
\$50,000-\$74,999	7.6	18	17.7	20.8	19.8	20.5	23.3	16.0	14.5
\$75,000-\$99,999	24.8	17.8	12.7	10.3	18	18.1	14.6	15.6	19.1
\$100,000+	21.4	29.3	21.4	19.5	29.3	25.8	27.9	36.1	32.3
Chi Square	X2(12)=14.74, p=.26			X2(12)=10.54, p=.57			X2(12)=6.70, p=.87		
Chi Square - All Years	X2(12)=9.31, p=.68								
<i>Education</i>									
< HS graduate	0.8	5.7	5.5	7.2	4.8	3.4	6.0	6.8	4.8
HS graduate (includes GED)	22.1	21.8	33.2	33.2	25.4	34.2	27.7	23.1	24.2
Some College	41.5	30.7	35.3	34.8	31.9	32.9	34.5	29.8	37
4-year College Degree or more	35.6	41.8	26.0	24.7	38.0	29.5	31.8	40.2	34.0
Chi Square	N/A ^c			X2(6)=6.02, p=.42			X2(6)=2.67, p=.85		
Chi Square - All Years	X2(6)=10.76, p=.1								
<i>Length of Residence</i>									
< 6 months	1.4	4.5	4.4	4.7	4.6	3.5	4.5	3.1	4.5
6 months-1 year	11.9	3.7	4.2	11.7	5.3	3.1	7.8	4.5	2.9
1 year-2 years	10.9	8.4	5.7	8.5	7.4	12.2	6.5	5.5	5.3
2 years < 3 years	9.4	8.2	8.6	10.1	8.8	7.2	11.4	8.2	9
3 years < 5 years	19.3	16.0	10	11.8	14.4	13.5	17.7	12.6	14.2
5 years < 10 years	29.3	22.9	22.2	19.4	20.1	18.1	24.8	21.5	22.7
10+ years	17.7	36.3	44.9	33.8	39.3	42.3	27.4	44.6	41.5
Chi Square	X2(12)=25.83, p=.01**			X2(12)=9.34, p=.67			X2(12)=9.12, p=.69		
Chi Square - All Years	X2(12)=31.03, p=.0**								

Note. Data is from Scarborough Research reports (Release 2 2005-2007).

Percentages are based on the number of adults in each demographic group out of the total adults who make up the average weekday readership.

^aStudy reissued on November 22, 2006.

^bSample size is between 36-70 respondents which has stability concerns.

^cA chi square was not provided due to more than 20% of cells with a less than 5 count.

*Significant at the .05 level.

**Significant at the .01 level.

Table 6.16: *Demographics - % 5-day Cumulative Audience, Dallas - Fort Worth Market*

	2005			2006 ^a			2007		
	% 5-Day Cumulative Audience Readership								
	Quick ^b	DMN	FWST	Quick	DMN	FWST	Quick	DMN	FWST
<i>Age</i>									
18–24	14.2	9.3	10	23.4	12.1	11.2	20	8.7	7.7
25–34	22.7	15.8	15.2	32	14.8	15.1	17.9	16.1	15.3
35–44	31.5	22.2	20.7	20.7	19.8	18.4	28.7	22.4	19.2
45–54	24.8	23.8	19.1	16.7	21.9	22.2	20.6	21.4	22.7
55+	6.8	28.8	35.1	7.2	31.5	33.1	12.9	31.4	35.2
Chi Square	X2(8)=25.51, p=0**			X2(8)=34.02, p=0**			X2(8)=20.74, p=.01**		
Chi Square - All Years	X2(8)=72.18, p=0**								
<i>Income</i>									
< \$20,000	6.2	6.8	7.4	7.8	4.8	5	2.4	4	4
\$20,000–29,999	7.2	7.8	10.5	8.4	9.2	8.4	11.1	9.3	8.2
\$30,000–39,999	16.1	11.1	14.4	17.5	10.4	9.8	12.7	10.7	13
\$40,000–\$49,999	13.9	13.1	11.1	12.3	12.4	12.4	13.7	12.6	12.8
\$50,000–\$74,999	15.8	17	19.6	20	18.7	20	23	15.4	13.6
\$75,000–\$99,999	20.3	17.1	16.6	15	17.6	20	12.4	15.6	16.6
\$100,000+	20.5	27.1	20.3	18.9	26.8	24.4	24.6	32.4	31.8
Chi Square	X2(12)=4.30, p=.98			X2(12)=6.10, p=.91			X2(12)=6.05, p=.91		
Chi Square - All Years	X2(12)=7.05, p=.85								
<i>Education</i>									
< HS graduate	3.1	7.5	7.6	6.1	6.4	5.1	6.5	7.5	8.6
HS graduate (includes GED)	24.8	24.1	30.4	28.6	24	29.8	35.7	25.8	25
Some College	34.1	30.9	36.6	38.6	33.6	36.2	31.5	29.3	35.7
4-year College Degree or more	38.1	37.5	25.4	26.7	35.9	28.8	26.3	37.4	30.7
Chi Square	X2(6)=6.61, p=.36			X2(6)=2.71, p=.84			X2(6)=5.4, p=.49		
Chi Square - All Years	X2(6)=7.55, p=.27								
<i>Length of Residence</i>									
< 6 months	2.7	5.1	3.8	7.2	4.6	3	3.3	4	3.8
6 months–1 year	9.4	4.6	5.7	8.7	6	5.6	5.5	5.4	2.8
1 year–2 years	9.4	8.5	6.8	7.8	7.9	11.2	6.7	6.4	7.3
2 years < 3 years	11.6	9.4	10.2	11.8	9.3	7	10.3	8.5	8.5
3 years < 5 years	19	14.9	12.2	17.3	15.4	15.4	14.1	13.9	16.4
5 years < 10 years	26.9	23.3	23.5	17.9	20.1	18	30.2	23.1	22.2
10+ years	21	34.2	37.8	29.4	36.8	39.8	29.8	38.7	39
Chi Square	X2(12)=10.24, p=.59			X2(12)=6.67, p=.88			X2(12)=4.71, p=.97		
Chi Square - All Years	X2(12)=13.56, p=.33								

Note. Data is from Scarborough Research reports (Release 2 2005–2007).

*Percentages are based on the number of adults in each demographic group out of the total adults who make up the 5-day cumulative audience.

^aStudy reissued on November 22, 2006.

^bSample size is between 36–70 respondents which has stability concerns.

**Significant at the .01 level.

In 2007, the only year available for the Tampa newspaper comparison, only age was significant for both readership measures, and education for average weekday readership (see Table 6.17). The *Tampa Bay Times* had a higher percentage of young adults who comprised their average weekday readership and 5-day cumulative audience than the *St. Petersburg Times* and the Tampa Tribune in 2007. The percentage of average weekday readers who were 34 years of age and under was 28.2% in 2007 for the *Tampa Bay Times*; both the *St. Petersburg Times* and the Tampa Tribune were under 20% (see Table 6.17). The *Tampa Bay Times*' 5-day cumulative audience was also higher for adults 34 and under, 33.8%, compared to 19.1% for the *St. Petersburg Times* and just over 20% for the Tampa Tribune (see Table 6.17).

The two paid newspapers in the Tampa – St. Petersburg market had higher percentages of its average weekday readership and 5-day cumulative audience with incomes below \$30,000 than the *Tampa Bay Times* (see Table 6.17). For average weekday readership, both the *St. Petersburg Times* and the Tampa Tribune had 19.4% of their readers with incomes below \$30,000 while only 10.8% of the *Tampa Bay Times*' readers fell in this income group. The percentages were closer for the 5-day cumulative audience when comparing the two paid publications to the free newspaper: 20.6% for the *St. Petersburg Times* and 17% for the Tampa Tribune while the *Tampa Bay Times* was 16.8% (see Table 6.17). The *Tampa Bay Times* had a higher percentage of their average weekday readers' with incomes of \$75,000 or more, 38.9%, compared to the *St. Petersburg Times* (31.4%) and the Tampa Tribune, 18.9% (see Table 6.17). This is also true for the 5-day cumulative audiences, with percentages of 21.7%, 16% and 19.9%, respectively (see Table 6.17).

The two paid newspapers in the Tampa – St. Petersburg market comparison, *St. Petersburg Times* and the Tampa Tribune, have over 40% of their average weekday readership from the high school graduate or less demographic group in 2007 (see Table 6.17). In comparison, only 26% of the *Tampa Bay Times*' average weekday readers had their highest education level as high school or are non-HS graduates (see Table 6.17). Interestingly, the 5-day cumulative audience percentages were over 40% for all three newspapers with readers from this lower educational group (see Table 6.17). The percentages were also very similar for the most educated category, four-year college degree or more, for both average weekday readership and 5-day cumulative audience; these percentages fell within the 22.2%–27.7% range (see Table 6.17).

There is support that the *Tampa Bay Times*' readers have spent less time in their residence than the *St. Petersburg Times* and the Tampa Tribune. The *Tampa Bay Times* had the highest percentage of average weekday readers who spent less than a year in their current residence (see Table 6.17). For the *Tampa Bay Times*, 13.4% of the average weekday readers had lived in their residence for less than one year in 2007; for 5-day cumulative audience, the percentage is slightly lower, 11.4% (see Table 6.17). The *St. Petersburg Times* and the Tampa Tribune are under 10% for both readership measures in 2007 (see Table 6.17). The *Tampa Bay Times* also had the highest percentage of both average weekday readers and 5-day cumulative audience whom have lived in their residence for less than two years (see Table 6.17). The percentage is 29.3% for average weekday readership and 23.6% for 5-day cumulative audience (see Table 6.17). Neither the *St. Petersburg Times* nor the Tampa Tribune had a percentage over 20% for the two readership measures with residents of less than two years (see Table 6.17).

Table 6.17: Demographics - % Adults' Ave Wkdy Rdrship & 5-day Cumulative Audience, Tampa - St. Petersburg Mkt

	2007			2007		
	% Adults' Average Weekday Readership			% 5-day Cumulative Audience		
	<i>Tampa Bay Times</i>	<i>The St. Petersburg Times</i>	<i>The Tampa Tribune</i>	<i>Tampa Bay Times</i>	<i>The St. Petersburg Times</i>	<i>The Tampa Tribune</i>
Age						
18-24	3.1	7.2	6.7	7.3	8.6	8.3
25-34	25.1	6.7	9.3	26.5	10.5	11.8
35-44	23.7	10	19.3	22.2	13.2	19.8
45-54	22.7	18.3	19.4	23.8	18.6	18.4
55+	25.5	57.8	45.4	20	49.2	17.7
Chi Square	X2(8)=34.68, p=0**			X2(8)=28.72, p=0**		
Income						
< \$20,000	6.9	6.8	5.6	6.4	7.1	6
\$20,000-29,999	3.9	12.6	13.8	10.4	13.5	11
\$30,000-39,999	7.3	14.6	12.1	8.6	15	13.2
\$40,000-\$49,999	13.2	13.2	15.7	13.5	13.3	16.5
\$50,000-\$74,999	29.7	21.4	17.3	23.4	21.2	18.4
\$75,000-\$99,999	17.9	14.2	17.3	16	13.9	15
\$100,000+	21	17.2	18.9	21.7	16	19.9
Chi Square	X2(12)=13.04, p=.37			X2(12)=4.41, p=.97		
Education						
< HS graduate	0	5.6	6.6	4.7	7.3	9.5
HS graduate (includes GED)	26	37	37.7	36.5	36.8	34.2
Some College	46.4	31.3	30.5	36.6	31.8	32
4-year College Degree or more	27.7	26.1	25.2	22.2	24.1	24.4
Chi Square	X2(6)=13.36, p=.04*			X2(6)=2.29, p=.89		
Length of Residence						
< 6 months	6.8	1.6	3.2	6.6	3.3	3
6 months-1 year	6.6	3.1	3.8	4.8	3	5.3
1 year-2 years	15.9	6	6.6	12.2	8.3	7.9
2 years < 3 years	7.1	7.2	5.7	9.4	8.4	6
3 years < 5 years	20.3	13.7	16.4	19.7	15.6	15.6
5 years < 10 years	16.6	23.1	25.3	20	21.7	26
10+ years	26.9	45.2	39	27.3	39.8	36.2
Chi Square	X2(12)=19.76, p=.07			X2(12)=8.40, p=.75		

Note. Data is from Scarborough Research reports (Release 2 2007).

Percentages are based on the number of adults in each demographic group out of the total adults for each measure: average weekday readership and 5-day cumulative audience.

*Significant at the .05 level.

**Significant at the .01 level.

CHAPTER 7

Method and Results: Circulation Analysis

Newspaper Circulation

Circulation data was compared in a similar manner to the readership data, but for paid daily newspapers within each pair of experimental and control markets. Only audit reports were used, and these were conducted almost entirely on an annual basis. Single copy sales were compared to examine **H3**, and total paid circulation for **H4**.

Free Newspaper Circulation Data. Information on the circulation of the following free newspapers was accessed from the Certified Audit of Circulations (CAC) web site: *Baltimore Examiner*, *Metro Philadelphia*, *Quick*, *Today's Local News*, *Grand Junction Free Press* and *Bluffton Today*. Verified Audit Circulation Corporation (VAC) web site provided information on The City Paper's circulation. The CAC audits numerous free newspapers, and only included the number of publications picked up as part of its circulation figures. In the case of VAC, the circulation is based on the number distributed. The *Link* was not audited and circulation data for the *Tampa Bay Times (tbt)* and *Trib p.m.* were provided by their Publisher's Statements included in SRDS Circulation (2008).

Paid Newspaper Circulation Data. Paid newspaper circulation data was mainly provided by the Audit Bureau of Circulations (ABC), based on the number of papers distributed. This data included single copy sales, daily, weekly, Monday-Saturday, and Sunday circulation figures. Historical circulation information, back through 1995, was

purchased and publisher's statements and audit reports were accessed online. Only audit report circulation figures were used in the analysis.

Results

Hypothesis 3 – Single Copy Sales Percentage Change Comparison. For all of the single copy sales' comparisons between the paid newspapers in the experimental and control markets there was not support for **H3** (see Table 7.7). In some cases, there was a greater percentage decline for the paid newspaper in the experimental market compared to the control paid newspaper, but the differences were not significant (e.g., *St. Petersburg Times* and the *Minneapolis Star-Tribune*). The percentage change for the experimental newspaper still fell in the confidence interval of the post-launch percentage change for the control newspaper, rather than below the confidence interval, which would indicate a significant difference. Some of the confidence intervals were very large (e.g., *The Baltimore Sun* post-launch percentage change) (see Table 7.7). The time period studied and the yearly data available was limited, as well as instances of high fluctuations in single copy sales from year to year.

The Baltimore Sun and the *St. Louis Post-Dispatch* had very similar patterns both prior to and following the introduction of *The Baltimore Examiner* in April 2006. The average non-weighted yearly percentage change in single copy sales between 2001 and 2005 was -6.1% for the Sun and -4.6% for the *St. Louis Post-Dispatch* (see Table 7.1). The average change from 2006 to 2007 and 2007 to 2008 was -16.7% for the former and -15.7% for the latter (see Table 7.1). As with the readership analysis, the change from 2006 to 2007 is the focus rather than 2005 to 2006. In this case the time period for

2006—October 2005 to September 2006— included just under a half year of publishing for the free newspaper.

The percentage change from 1999 to 2000, prior to the introduction of the free newspaper in the Nashville experimental market, was similar for both paid newspapers: -5.6% for *The Tennessean* and -4.5% for *The Charlotte Observer* (see Table 7.1). As was the case with some newspapers in this analysis, there was an extreme spike in single copy sales in 2001, so that year was excluded from the comparison following the launch of *The City Paper* (see Table 7.1). From 2002 to 2008, the average yearly percentage of single copy sales improved to -2.6% from -4.5% for *The Charlotte Observer*, while *The Tennessean's* improved slightly from -5.6% to -5.1%.

Prior to the launch of *The Link* in the Norfolk experimental market in November of 2006, *The Virginian-Pilot* averaged a -3.4% decrease in total single copy circulation between 2001 and 2005; the *Grand Rapids Press* was only slightly lower, -2.6% (see Table 7.1). From 2007 to 2008, following the launch of the free newspaper, both newspapers had similar percentage declines in single copy sales (see Table 7.1).

Table 7.1: Total Single Copy Circulation Comparison - Baltimore, Nashville and Norfolk Experimental Markets

Paid Newspapers Total Single Copy Circulation										
DMA/Paid Newspaper	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Experimental: Baltimore, MD										
Control: St. Louis, MO										
<i>The Baltimore Sun</i>			54,841	51,962	48,291	47,447	42,466	37,428	34,206	25,733
<i>St. Louis Post-Dispatch</i>			63,382	59,911	57,288	54,856	52,513	45,790	44,392	31,804
	Pre-launch Free Newspaper: Average % Change	Post-launch Free Newspaper: Average % Change								
% Change				'01 to '02	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08
<i>The Baltimore Sun</i>	-6.1%	-16.7%		-5.2%	-7.1%	-1.7%	-10.5%	-11.9%	-8.6%	-24.8%
<i>St. Louis Post-Dispatch</i>	-4.6%	-15.7%		-5.5%	-4.4%	-4.2%	-4.3%	-12.8%	-3.1%	-28.4%
Experimental: Nashville, TN										
Control: Charlotte, NC										
<i>The Tennessean</i>	19,451	18,369	29,351	27,666	26,139	24,731	23,696	23,873	22,121	20,312
<i>The Charlotte Observer</i>	12,264	11,710	27,178	26,478	25,916	26,371	25,534	24,422	23,703	22,535
	Post-launch Free Newspaper: Average % Change	'99 to '00 (Pre- launch)								
% Change			'00 to '01	'01 to '02	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08
<i>The Tennessean</i>	-5.1%	-5.6%	59.8%	-5.7%	-5.5%	-5.4%	-4.2%	0.7%	-7.3%	-8.2%
<i>The Charlotte Observer</i>	-2.6%	-4.5%	132.1%	-2.6%	-2.1%	1.8%	-3.2%	-4.4%	-2.9%	-4.9%
Experimental: Norfolk, VA										
Control: Grand Rapids, MI										
<i>The Virginian-Pilot</i>			24,208	23,232	21,860	21,583	20,749	20,305	18,802	17,091
<i>Grand Rapids Press</i>			12,460	12,946	11,778	11,271	10,841	10,866	10,116	9,281
	Pre-launch Free Newspaper: Average % Change	Post-launch Free Newspaper: Average % Change								
% Change				'01 to '02	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08
<i>The Virginian-Pilot</i>	-3.4%	N/A		-4.0%	-5.9%	-1.3%	-3.9%	-2.1%	-7.4%	-9.1%
<i>Grand Rapids Press</i>	-2.6%	N/A		3.9%	-9.0%	-4.3%	-3.8%	0.2%	-6.9%	-8.3%

Note. Single copy average circulation data for Monday-Saturday from the Audit Bureau of Circulation (ABC) Audit Reports.

Bold indicates the percentage change that includes the year the free newspaper was launched.

The comparison between the Philadelphia and *Detroit Newspapers'* total single copy circulation was similar to the readership analysis. The average percentage changes were more negative for the control papers following the introduction of the *Metro Philadelphia* in January 2000 (see Table 7.2). The average percentage change between 1997 and 2000 was -6.1% for the *Philadelphia Inquirer*, -4.1% for the *Philadelphia Daily News*, -3.4% for the *Detroit Free Press* and -7.6% for the *Detroit News* (see Table 7.2). Both of the Philadelphia newspapers averaged about the same percentage change from 2001 to 2008. In contrast, the paid newspapers in the Detroit market went from positive growth in single copy sales to a decline of over -5%.

Table 7.2: Total Single Copy Circulation Comparison - Philadelphia Experimental Market

		Paid Newspapers Total Single Copy Circulation				
DMA		1997	1998	1999	2000	
Experimental: Philadelphia						
Control:						
Detroit, MI						
	<i>The Philadelphia Inquirer</i>	125,958	118,862	111,116	99,938	
	<i>Detroit Free Press</i>	128,058	139,753	136,463	125,091	
	<i>Philadelphia Daily News</i>	156,884	155,126	144,067	138,202	
	<i>The Detroit News</i>	94,354	104,871	109,208	104,508	
% Change	Pre-launch Free Newspaper: Average % Change		Post-launch Free Newspaper: Average % Change ^a	'97 to '98	'98 to '99	'99 to '00
	<i>The Philadelphia Inquirer</i>	-6.1%	-5.9%	-5.6%	-6.5%	-10.1%
	<i>Detroit Free Press</i>	3.4%	-6.0%	9.1%	-2.4%	-8.3%
	<i>Philadelphia Daily News</i>	-4.1%	-3.3%	-1.1%	-7.1%	-4.1%
	<i>The Detroit News</i>	7.6%	-5.4%	11.1%	4.1%	-4.3%

Note. Single copy average circulation data for Philadelphia and Detroit newspapers' circulation was Monday-Friday from the Audit Bureau of Circulation (ABC) Audit Reports. .

^aPost-launch % change does not include changes from 2004 to 2005 and 2005 to 2006 for consistency among papers.

Table 7.2: (continued).

DMA	Paid Newspapers Total Single Copy Circulation							
	2001	2002	2003	2004	2005	2006	2007	2008
Experimental:								
Philadelphia								
Control:								
Detroit, MI								
<i>The Philadelphia Inquirer</i>	92,547	88,943	82,346	78,091	N/A	66,758	62,866	56,945
<i>Detroit Free Press</i>	119,451	114,248	108,520	95,954	91,337	86,726	82,691	79,736
<i>Philadelphia Daily News</i>	134,434	133,724	130,613	125,114	118,485	107,092	99,869	91,426
<i>The Detroit News</i>	104,942	98,535	95,044	83,053	80,537	76,840	73,074	69,701
% Change		'01 to	'02 to	'03 to	'04 to	'05 to		
	'00 to '01	'02	'03	'04	'05^a	'06^a	'06 to '07	'07 to '08
<i>Philadelphia Inquirer</i>	-7.4%	-3.9%	-7.4%	-5.2%	N/A	N/A	-5.8%	-9.4%
<i>Detroit Free Press</i>	-4.5%	-4.4%	-5.0%	-11.6%	-4.8%	-5.0%	-4.7%	-3.6%
<i>Philadelphia Daily News</i>	-2.7%	-0.5%	-2.3%	-4.2%	-5.3%	-9.6%	-6.7%	-8.5%
<i>Detroit News</i>	0.4%	-6.1%	-3.5%	-12.6%	-3.0%	-4.6%	-4.9%	-4.6%

Note. Single copy average circulation data for Monday-Saturday (San Diego & Phoenix) from the Audit Bureau of Circulation (ABC) Audit Reports. Philadelphia and Detroit newspapers' circulation was Monday-Friday. Bold indicates the percentage change that includes the year the free newspaper was launched.

^aPost-launch % change does not include changes from 2004 to 2005 and 2005 to 2006 for consistency among papers.

The Dallas Morning News' had limited years during the time period studied where the yearly percentage changes could be compared due to circulation problems in 2004 and resulting censures by ABC (see Table 7.3). From 2002 to 2003, which was prior to their introduction of *Quick* in the market, the *Morning News*' percentage change was 6.4% (see Table 7.3). In comparison, from 2007 to 2008, where the audit periods both ended in March of the respective years, the percentage change was a -6.3% (see Table 7.3). The control newspaper, the *Houston Chronicle*, had similar average percentage changes pre- and post-launch, and the *Fort Worth Star-Telegram* actually

improved slightly following the launch of *Quick*, from -7.6% to a -2.9% average yearly change.

The *St. Petersburg Times* averaged a -9.1% yearly drop in total single copy circulation in the first two full years following their launch of the *Tampa Bay Times*, *tbt*, in April of 2006 (see Table 7.3). The comparative newspaper in the control market, the Minneapolis *Star-Tribune* averaged a -2.9% drop during the two years' post-launch (see Table 7.3). However, the audit reports do differ in that the *St. Petersburg Times*' yearly audit ended in December and the *Star Tribune* ended in March over the time period studied. The *St. Petersburg Times* had a -3.8% average yearly percentage change prior to the introduction of the free newspaper before dropping to -9.1%, while the *Star Tribune* had a -4.9% and improved to -2.9%. The average yearly percentage change prior to the launch of the *tbt* was -4.4% for the *Tampa Tribune* and dropped to a -10.9% average for the two percentage changes following the launch of the free newspaper (see Table 7.3). The control newspaper, *St. Paul Pioneer Press*, went from flat to -6.6% (see Table 7.3).

Table 7.3: Total Single Copy Circulation Comparison - Dallas and Tampa - St. Petersburg Exp Markets

DMA		Paid Newspapers Total Single Copy Circulation*							
		2002	2003	2004	2005	2006	2007	2008	
Experimental: Dallas, TX									
Control: Houston, TX									
<i>The Dallas Morning News**</i>		130,238	138,566	N/A	82,844	67,961	67,291	63,032	
<i>Fort Worth Star-Telegram</i>		28,385	26,235	24,907	23,853	23,560	23,451	22,367	
<i>Houston Chronicle</i>		82,229	77,377	72,355	64,196	63,555	60,363	54,039	
% Change	Pre-launch Free Newspaper: Average % Change	Post-launch Free Newspaper: Average % Change ^b	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08	
<i>The Dallas Morning News^a</i>		N/A	-12.1%	6.4%	N/A	N/A	-18.0%	N/A	-6.3%
<i>Fort Worth Star-Telegram</i>		N/A	-2.9%	-7.6%	-5.1%	-4.2%	-1.2%	-0.5%	-4.6%
<i>Houston Chronicle</i>		N/A	-5.7%	-5.9%	-6.5%	-11.3%	-1.0%	-5.0%	-10.5%
Experimental: Tampa - St. Petersburg, FL									
Control: Minneapolis - St. Paul, MN									
<i>St. Petersburg Times</i>		52,163	48,901	49,074	46,331	44,568	40,762	36,861	
<i>Minneapolis Star Tribune</i>		72,080	72,863	67,792	61,897	59,330	56,506	55,953	
<i>The Tampa Tribune</i>		46,437	43,478	42,373	40,545	37,690	34,384	29,885	
<i>St. Paul Pioneer Press</i>		40,709	43,105	43,100	40,626	40,875	40,158	35,565	
% Change	Pre-launch Free Newspaper: Average % Change	Post-launch Free Newspaper: Average % Change	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08	
<i>St. Petersburg Times</i>		-3.8%	-9.1%	-6.3%	0.4%	-5.6%	-3.8%	-8.5%	-9.6%
<i>Minneapolis Star Tribune</i>		-4.9%	-2.9%	1.1%	-7.0%	-8.7%	-4.1%	-4.8%	-1.0%
<i>Tampa Tribune</i>		-4.4%	-10.9%	-6.4%	-2.5%	-4.3%	-7.0%	-8.8%	-13.1%
<i>St. Paul Pioneer Press</i>		0.0%	-6.6%	5.9%	0.0%	-5.7%	0.6%	-1.8%	-11.4%

Note. Single copy average circulation data for Monday-Saturday from the Audit Bureau of Circulation (ABC) Audit Reports. ^aThe Dallas Morning News did not have an audit report for 2004 due to a circulation scandal. This caused the newspaper to be censured by ABC in 2005 and 2006, where the circulation was only based on a six month time period. The 2005 and 2006 circulation figures were from audit reports ending on Sept 30 in their respective years. % changes were only given when the time periods being compared match.

^bPercentage changes from '04 to '05 and '06 to '07 were excluded for all Dallas and Houston newspapers.

Prior to the introduction of the free newspaper *Today's Local News* in November of 2004, *U-T San Diego* averaged a -6.4% between 1999 and 2003, excluding 2001 (see Table 7.4). This exclusion was due to spikes in circulation across all the paid newspapers compared in the San Diego and Phoenix markets in 2001 (see Table 7.4). Following the launch of *Today's Local News* the average yearly percentage change fell to -10% for *U-T San Diego*. The *Arizona Republic* experienced a similar drop, -2.9 % vs. 9.3%, while the *East Valley Tribune* saw a drastic difference during those same time periods, from 1.4% to -16.1%. The comparative paid daily in the experimental market, the *North County Times*, experienced only a slight decline in its average percentage change, from -1.5% to -2.8% (see Table 7.4).

Table 7.4: Total Single Copy Circulation Comparison - San Diego Experimental Market

Paid Newspapers Total Single Copy Circulation*										
DMA	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Experimental: San Diego										
Control: Phoenix										
<i>U-T San Diego</i>	52,908	53,531	67,831	64,227	59,395	51,040	43,856	43,378	39,043	31,697
<i>The Arizona Republic</i>	42,930	43,239	61,471	60,336	58,533	54,045	52,057	49,088	44,408	38,754
<i>North County Times</i>	6,178	6,341	8,972	9,017	8,854	8,214	8,882	8,181	8,221	8,137
<i>East Valley Tribune</i>	4,176	4,747	5,722	5,315	6,654	4,920	4,041	3,829	2,846	2,355
% Change			'00 to '01	'01 to '02	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08
<i>U-T San Diego</i>		1.2%	26.7%	-5.3%	-7.5%	-14.1%	-14.1%	-1.1%	-10.0%	-18.8%
<i>The Arizona Republic</i>		0.7%	42.2%	-1.8%	-3.0%	-7.7%	-3.7%	-5.7%	-9.5%	-12.7%
<i>North County Times</i>		2.6%	41.5%	0.5%	-1.8%	-7.2%	8.1%	-7.9%	0.5%	-1.0%
<i>East Valley Tribune</i>		13.7%	20.5%	-7.1%	25.2%	-26.1%	-17.9%	-5.2%	-25.7%	-17.3%
	Pre-launch Free Newspaper: Average % Change ^a	Post-launch Free Newspaper: Average % Change								
<i>U-T San Diego</i>	-6.4%	-10.0%								
<i>The Arizona Republic</i>	-2.9%	-9.3%								
<i>North County Times</i>	-1.5%	-2.8%								
<i>East Valley Tribune</i>	1.4%	-16.1%								

Note. Single copy average circulation data for Monday-Saturday from the Audit Bureau of Circulation (ABC) Audit Reports.

^aPercentage change from '00 to '01 was excluded from the calculation due to being an outlier.

The *Trib p.m.* became a free newspaper in October 2003, and the *Pittsburgh Tribune-Review* continued to grow in single copy sales post-launch, but at a slightly slower pace, 8.5% versus 6.9% (see Table 7.5). The control newspaper, the *Milwaukee Journal*, experienced a decline from -0.1% to -5.5% in its average percentage change pre- and post-launch of the *Trib p.m.* (see Table 7.5). The other experimental paid newspaper, the *Pittsburgh Post-Gazette*, also experienced a decline but it was slightly less, from -4.9% to -7.8%.

The *Savannah Morning News* improved its percentage change in single copy sales post-launch of *Bluffton Today* in April 2005, from -2.8% to flat (see Table 7.5). The Monterey County Herald also improved in single copy sales during this time period, from -6.2% to -0.4% (see Table 7.5). The *Island Packet* stayed flat while *The Salinas Californian* declined from -3.6% to -6.7%, but the post-launch calculation excluded the change from 2007 to 2008 due to data availability for *The Salinas Californian*. The *Island Packet* had a decrease in single copy sales from 2007 to 2008 of -25%.

Table 7.5: Total Single Copy Circulation Comparison - Pittsburgh and Savannah Experimental Markets

Paid Newspapers Total Single Copy Circulation							
DMA		2000	2001	2002	2003	2004	
Experimental: Pittsburgh, PA							
Control: Milwaukee, WI							
	<i>Pittsburgh Tribune-Review</i>			19,255	20,899	20,530	
	<i>Milwaukee Journal Sentinel</i>			54,250	54,221	50,441	
	<i>Pittsburgh Post-Gazette</i>			51,383	48,864	47,512	
% Change		Pre-launch Free Newspaper: Average % Change	Post-launch Free Newspaper: Average % Change		'02 to '03	'03 to '04	
	<i>Pittsburgh Tribune-Review</i>	N/A	6.9%		8.5%	-1.8%	
	<i>Milwaukee Journal Sentinel</i>	N/A	-5.5%		-0.1%	-7.0%	
	<i>Pittsburgh Post-Gazette</i>	N/A	-7.8%		-4.9%	-2.8%	
Experimental: Savannah, GA							
Control: Salinas - Monterey, CA							
	<i>Savannah Morning News</i>	7,985	7,455	8,269	7,642	7,046	
	<i>The Monterey County Herald</i>	4,278	4,376	3,879	3,416	3,289	
	<i>The Island Packet</i> (Bluffton)	4,080	4,211	4,245	4,343	4,200	
	<i>The Salinas Californian</i>	5,425	5,310	4,962	4,696	4,685	
% Change		Pre-launch Free Newspaper: Average % Change	Post-launch Free Newspaper: Average % Change ^a	'00 to '01	'01 to '02	'02 to '03	'03 to '04
	<i>Savannah Morning News</i>	-2.8%	0.0%	-6.6%	10.9%	-7.6%	-7.8%
	<i>The Monterey County Herald</i>	-6.2%	-0.4%	2.3%	-11.4%	-11.9%	-3.7%
	<i>The Island Packet</i> (Bluffton)	0.8%	0.8%	3.2%	0.8%	2.3%	-3.3%
	<i>The Salinas Californian</i>	-3.6%	-6.7%	-2.1%	-6.6%	-5.3%	-0.2%

Note. Single copy average circulation data for M-Sa from the Audit Bureau of Circulation (ABC) Audit Reports. For all paid newspapers except *The Monterey County Herald* and *The Salinas Californian* (September), the audit period ended in March (e.g., 2004 is defined as April 2003 - March 2004).

Bold indicates the percentage change that includes the year the free newspaper was launched.

^aThe percentage change from 2007 to 2008 was excluded from the calculation for *The Island Packet* because *The Salinas Californian* did not have data available in 2008.

Table 7.5 (continued).

Paid Newspapers Total Single Copy Circulation				
DMA	2005	2006	2007	2008
Experimental: Pittsburgh, PA				
Control: Milwaukee, WI				
<i>Pittsburgh Tribune-Review</i>	18,884	17,287	21,667	25,726
<i>Milwaukee Journal Sentinel</i>	46,149	43,633	41,962	40,157
<i>Pittsburgh Post-Gazette</i>	45,448	41,817	36,519	34,252
% Change	'04 to '05	'05 to '06	'06 to '07	'07 to '08
<i>Pittsburgh Tribune-Review</i>	-8.0%	-8.5%	25.3%	18.7%
<i>Milwaukee Journal Sentinel</i>	-8.5%	-5.5%	-3.8%	-4.3%
<i>Pittsburgh Post-Gazette</i>	-4.3%	-8.0%	-12.7%	-6.2%
Experimental: Savannah, GA				
Control: Salinas - Monterey, CA				
<i>Savannah Morning News</i>	7,068	6,551	6,883	7,038
<i>The Monterey County Herald</i>	3,328	3,059	3,115	3,270
<i>The Island Packet (Bluffton)</i>	4,507	4,511	4,581	3,437
<i>The Salinas Californian</i>	4,216	3,586	3,644	N/A
% Change	'04 to '05	'05 to '06	'06 to '07	'07 to '08
<i>Savannah Morning News</i>	0.3%	-7.3%	5.1%	2.3%
<i>The Monterey County Herald</i>	1.2%	-8.1%	1.8%	5.0%
<i>The Island Packet (Bluffton)</i>	7.3%	0.1%	1.6%	-25.0%
<i>The Salinas Californian</i>	-10.0%	-14.9%	1.6%	N/A

Note. Single copy average circulation data for M-Sa from the Audit Bureau of Circulation (ABC). For all paid newspapers except *The Monterey County Herald* and *The Salinas Californian* (Sept the audit period ended in March (e.g., 2004 is defined as April 2003 - March 2004). Bold indicates the percentage change that includes the year the free newspaper was launched.

The *Grand Junction Free Press* was introduced in 2003, and pre-launch *The Daily Sentinel* averaged a -1.3% change in single copy sales (see Table 7.6). The control newspaper, *Great Falls Tribune*, averaged a 3.2% pre-launch, which fell to -3.6% in the years after the *Grand Junction Free Press* was launched (see Table 7.6). The experimental newspaper also experienced a decline, but only to -2.9% (see Table 7.6).

Table 7.6: Total Single Copy Circulation Comparison - Grand Junction Experimental Market

Paid Newspapers Total Single Copy Circulation										
DMA	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Experimental: Grand Junction, CO										
Control: Great Falls, MT										
<i>The Daily Sentinel</i>	2,567	2,570	3,267	3,176	3,105	2,762	2,743	2,835	2,792	2,666
<i>Great Falls Tribune</i>	4,771	4,744	6,442	6,888	6,625	6,456	6,222	5,975	5,802	5,500
% Change			'00 to '01	'01 to '02	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08
<i>The Daily Sentinel</i>		0.1%	27.1%	-2.8%	-2.2%	-11.0%	-0.7%	3.4%	-1.5%	-4.5%
<i>Great Falls Tribune</i>		-0.6%	35.8%	6.9%	-3.8%	-2.6%	-3.6%	-4.0%	-2.9%	-5.2%
	Pre-launch	Post-launch								
	Free	Free								
	Newspaper:	Newspaper:								
	Average %	Average %								
	Change ^a	Change								
<i>The Daily Sentinel</i>	-1.3%	-2.9%								
<i>Great Falls Tribune</i>	3.2%	-3.6%								

Note. Single copy average circulation data for Monday-Saturday from the Audit Bureau of Circulation (ABC) Audit Reports.

^aChanges from 2000 to 2001 were outliers and were not included in the pre-launch % change calculations.

Table 7.7: Summary of Single Copy Sales - Percent Changes and Confidence Intervals

95% Confidence Interval								
Pair	Newspaper	Pre-launch			Post-launch			H3 Supported?
		Free Newspaper: Average % Change	Lower Limit	Upper Limit	Free Newspaper: Average % Change	Lower Limit	Upper Limit	
1	The Baltimore Sun	-6.1%	-11.9%	-0.3%	-16.7%	-119.4%	86.0%	Not Supported
	St. Louis Post-Dispatch	-4.6%	-5.5%	-3.7%	-15.7%	-176.5%	145.1%	
2	The Tennessean	N/A	N/A	N/A	-5.1%	-7.7%	-2.3%	Not Supported
	The Charlotte Observer	N/A	N/A	N/A	-2.6%	-4.6%	-0.6%	
3	The Virginian-Pilot	-3.4%	-5.8%	-1.0%	N/A	N/A	N/A	Not Supported
	Grand Rapids Press	-2.6%	-8.7%	3.5%	N/A	N/A	N/A	
4	Philadelphia Inquirer	-6.1%	-11.7%	-0.5%	-6.5%	-8.6%	-4.5%	Not Supported
	Detroit Free Press	3.4%	-69.6%	76.4%	-5.6%	-8.7%	-2.5%	
	Philadelphia Daily News	-4.1%	-42.3%	34.0%	-4.2%	-7.3%	-1.1%	
	Detroit News	7.6%	-36.9%	52.2%	-5.2%	-9.7%	-0.8%	
5	The Dallas Morning News	N/A	N/A	N/A	-12.1%	-88.2%	64.2%	Not Supported
	Fort-Worth Star Telegram	N/A	N/A	N/A	-2.9%	-24.5%	18.6%	
	Houston Chronicle	N/A	N/A	N/A	-5.7%	-62.7%	51.7%	
6	St. Petersburg Times	-3.8%	-12.6%	4.6%	-9.1%	-15.9%	-3.1%	Not Supported
	Minneapolis Star Tribune	-4.9%	-17.8%	8.1%	-2.9%	-26.9%	21.2%	
	Tampa Tribune	-4.4%	-8.1%	-0.5%	-10.9%	-36.4%	14.4%	
7	St. Paul Pioneer Press	0.0%	-14.4%	14.5%	-6.6%	-68.1%	54.9%	Not Supported
	U-T San Diego	-6.4%	-16.4%	3.6%	-10.0%	-32.0%	12.0%	
	Arizona Republic	-2.9%	-8.5%	2.6%	-9.3%	-18.1%	-0.6%	
	North County Times	-1.5%	-8.2%	5.3%	-2.8%	-13.9%	8.3%	
	East Valley Tribune	1.4%	-34.7%	37.5%	-16.1%	-41.6%	9.4%	Not Supported

Table 7.7: (continued).

		95% Confidence Interval						
Pair	Newspaper	Pre-launch Free Newspaper:			Post-launch Free Newspaper:			H3 Supported?
		Average % Change	Lower Limit	Upper Limit	Average % Change	Lower Limit	Upper Limit	
8	Pittsburgh Tribune- Review	N/A	N/A	N/A	6.9%	-21.2%	35.0%	
	Milwaukee Journal Sentinel	N/A	N/A	N/A	-5.5%	-8.9%	-2.2%	
	Pittsburgh Post-Gazette	N/A	N/A	N/A	-7.8%	-13.5%	-2.1%	
9	Savannah Morning News	-2.8%	-17.3%	11.8%	0.0%	-16.1%	16.1%	Not Supported
	The Monterey County Herald	-6.2%	-17.0%	4.6%	-0.4%	-17.4%	16.5%	
	The Island Packet (Bluffton)	0.8%	-3.8%	5.3%	0.8%	-8.5%	10.1%	Not Supported
	The Salinas Californian	-3.6%	-8.2%	1.1%	-6.7%	-111.8%	98.5%	
10	The Daily Sentinel	-1.3%	-19.8%	17.1%	-2.9%	-9.5%	3.8%	Not Supported
	Great Falls Tribune	3.2%	-44.4%	50.8%	-3.6%	-4.9%	-2.4%	

Hypothesis 4 – Total Circulation Percentage Change Comparison. Similar to the single copy sales' comparison of paid newspapers, there was not support for **H4** for any of the pairs examined. Prior to the introduction of the free newspaper *Baltimore Examiner* in April of 2006, *The Baltimore Sun* averaged a -3.1% yearly change in total paid circulation between 1998 and 2005 (see Table 7.8). The control newspaper, *St. Louis Post-Dispatch*, averaged a -1.6% change (see Table 7.8). During the time where the free newspaper existed for at least part of the year, *The Baltimore Sun* slightly declined to -3.4% but the *St. Louis Post-Dispatch* fell to a -5.5% yearly average change (see Table 7.8).

The Tennessean and *The Charlotte Observer* both averaged a -2.5% for their average total paid circulation between the years of 2002 and 2008 (see Table 7.8). Prior to the introduction of the free publication, the percentage change was also very similar, -0.9% for *The Tennessean* compared to -1.5% for *The Charlotte Observer* (see Table 7.8).

Between 1997 and 2006, *The Virginian-Pilot* averaged a 1.0% decrease in total paid circulation and the control newspaper, the *Grand Rapids Press*, had a -0.1% average change (see Table 7.8). Once the *Link* launched in November 2006, both newspapers had similar average percentage changes in total paid circulation, -3.9% for *The Virginian-Pilot* and -4.7% for the *Grand Rapids Press* (see Table 7.8).

Table 7.8: Total Paid Circulation Comparison - Baltimore, Nashville and Norfolk Experimental Markets

Paid Newspapers Total Circulation							
DMA/Paid Newspaper	1997	1998	1999	2000	2001	2002	
Experimental: Baltimore, MD							
Control: St. Louis, MO							
<i>The Baltimore Sun</i>	319,730	320,568	321,164	321,809	295,935	290,331	
<i>St. Louis Post-Dispatch</i>	319,887	324,059	307,375	301,718	296,235	288,894	
	Pre-launch Free Newspaper: Ave. % Change	Post-launch Free Newspaper: Ave. % Change					
% Change			'97 to '98	'98 to '99	'99 to '00	'00 to '01	'01 to '02
<i>Baltimore Sun</i>	-3.1%	-3.4%	0.3%	0.2%	0.2%	-8.0%	-1.9%
<i>St. Louis Post-Dispatch</i>	-1.6%	-5.5%	1.3%	-5.1%	-1.8%	-1.8%	-2.5%
Experimental: Nashville, TN							
Control: Charlotte, NC							
<i>The Tennessean</i>			195,405	193,562	187,577	188,293	
<i>The Charlotte Observer</i>			245,735	242,125	238,209	235,469	
	Pre-launch Free Newspaper: Ave. % Change	Post-launch Free Newspaper: Ave. % Change					
% Change				'99 to '00	'00 to '01	'01 to '02	
<i>Tennessean</i>	N/A	-2.5%		-0.9%	-3.1%	0.4%	
<i>Charlotte Observer</i>	N/A	-2.5%		-1.5%	-1.6%	-1.2%	
Experimental: Norfolk, VA							
Grand Rapids, MI							
<i>The Virginian-Pilot</i>	204,910	202,909	202,809	201,584	198,861	200,112	
<i>Grand Rapids Press</i>	138,818	140,011	141,735	141,747	140,013	139,890	
	Pre-launch Free Newspaper: Ave. % Change	Post-launch Free Newspaper: Ave. % Change					
% Change			'97 to '98	'98 to '99	'99 to '00	'00 to '01	'01 to '02
<i>The Virginian-Pilot</i>	-1.0%	-3.9%	-1.0%	0.0%	-0.6%	-1.4%	0.6%
<i>Grand Rapids Press</i>	-0.1%	-4.7%	0.9%	1.2%	0.0%	-1.2%	-0.1%

Note. Total paid average circulation data for Monday-Saturday from the Audit Bureau of Circulation (ABC) Audit Reports.

Bold indicates the percentage change that includes the year the free newspaper was launched.

Table 7.8: (continued).

Paid Newspapers Total Circulation*						
DMA/Paid Newspaper	2003	2004	2005	2006	2007	2008
Experimental: Baltimore, MD						
Control: St. Louis, MO						
<i>Baltimore Sun</i>	279,203	273,976	247,368	237,060	231,043	221,323
<i>St. Louis Post-Dispatch</i>	286,190	283,773	281,461	278,317	273,198	248,431
% Change	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08
Experimental: Nashville, TN						
Control: Charlotte, NC						
<i>The Tennessean</i>	181,343	173,304	172,879	170,836	164,705	157,068
<i>The Charlotte Observer</i>	231,336	229,440	222,187	215,178	211,127	199,975
% Change	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08
<i>The Tennessean</i>	-3.8%	-1.9%	-9.7%	-4.2%	-2.5%	-4.2%
<i>St. Louis Post-Dispatch</i>	-0.9%	-0.8%	-0.8%	-1.1%	-1.8%	-9.1%
Experimental: Nashville, TN						
Control: Charlotte, NC						
<i>The Tennessean</i>	181,343	173,304	172,879	170,836	164,705	157,068
<i>The Charlotte Observer</i>	231,336	229,440	222,187	215,178	211,127	199,975
% Change	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08
<i>The Tennessean</i>	-3.7%	-4.4%	-0.2%	-1.2%	-3.6%	-4.6%
<i>The Charlotte Observer</i>	-1.8%	-0.8%	-3.2%	-3.2%	-1.9%	-5.3%
Experimental: Norfolk, VA						
Control: Grand Rapids, MI						
<i>The Virginian-Pilot</i>	201,163	197,319	196,259	186,632	181,850	174,836
<i>Grand Rapids Press</i>	139,385	138,294	137,323	137,210	134,218	127,918
% Change	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08
<i>The Virginian-Pilot</i>	0.5%	-1.9%	-0.5%	-4.9%	-2.6%	-3.9%
<i>Grand Rapids Press</i>	-0.4%	-0.8%	-0.7%	-0.1%	-2.2%	-4.7%

Note. Total paid average circulation data for Monday-Saturday from the Audit Bureau of Circulation (ABC) Audit Reports.

Bold indicates the percentage change that includes the year the free newspaper was launched.

The Philadelphia and Detroit newspapers' total paid circulation all declined following the launch of the *Metro Philadelphia* in 2000 over the time period studied (see Table 7.9). The *Philadelphia Inquirer* averaged a -1.2% change between 1997 and 2000, while the *Philadelphia Daily News* was -2.6% (see Table 7.9). From 2001 to 2008, the *Inquirer's* average change was -2.9%, while the *Daily News* had a -5.3% change (see Table 7.9). The *Philadelphia Daily News* experienced a greater decline than the *Inquirer* in terms of percentage points following the launch of the *Metro*, but the average percentage changes were very similar to the respective *Detroit Newspapers* (see Table 7.9).

Table 7.9: Total Paid Circulation Comparison - Philadelphia Experimental Market

Paid Newspapers Total Circulation						
DMA/Paid Newspaper	1997	1998	1999	2000	2001	
Experimental: Philadelphia, PA						
Control: Detroit, MI						
<i>The Philadelphia Inquirer</i>	425,063	430,740	414,815	401,955	396,668	
<i>Detroit Free Press</i>	365,790	383,638	373,667	362,841	365,168	
<i>Philadelphia Daily News</i>	175,476	176,934	166,353	161,755	153,127	
<i>The Detroit News</i>	239,853	246,302	240,126	239,503	237,697	
	Pre-launch Free Newspaper: Average %	Post-launch Free Newspaper: Average %	'97 to '98	'98 to '99	'99 to '00	'00 to '01
<i>The Philadelphia Inquirer</i>	-1.2%	-2.9%	1.3%	-3.7%	-3.1%	-1.3%
<i>Detroit Free Press</i>	1.1%	-1.7%	4.9%	-2.6%	-2.9%	0.6%
<i>Philadelphia Daily News</i>	-2.6%	-5.3%	0.8%	-6.0%	-2.8%	-5.3%
<i>The Detroit News</i>	0.1%	-2.6%	2.7%	-2.5%	-0.3%	-0.8%

Note. Total paid average circulation data for Monday-Saturday from the Audit Bureau of Circulation (ABC) Audit Reports.

Bold indicates the percentage change that includes the year the free newspaper was launched.

Table 7.9 (continued).

DMA/Paid Newspaper	Paid Newspapers Total Circulation						
	2002	2003	2004	2005	2006	2007	2008
Experimental: Philadelphia, PA							
Control: Detroit, MI							
<i>The Philadelphia Inquirer</i>	372,931	380,207	381,912	366,929	354,081	341,384	317,411
<i>Detroit Free Press</i>	368,020	366,206	353,644	346,419	343,513	329,579	314,554
<i>Philadelphia Daily News</i>	152,144	150,429	141,868	132,345	110,836	106,092	103,492
<i>The Detroit News</i>	241,170	237,935	226,412	220,936	215,909	201,939	193,207
% Change	'01 to '02	'02 to '03	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08
<i>The Philadelphia Inquirer</i>	-6.0%	2.0%	0.4%	-3.9%	-3.5%	-3.6%	-7.0%
<i>Detroit Free Press</i>	0.8%	-0.5%	-3.4%	-2.0%	-0.8%	-4.1%	-4.6%
<i>Philadelphia Daily News</i>	-0.6%	-1.1%	-5.7%	-6.7%	-16.3%	-4.3%	-2.5%
<i>The Detroit News</i>	1.5%	-1.3%	-4.8%	-2.4%	-2.3%	-6.5%	-4.3%

Note. Total paid average circulation data for Monday-Saturday from the Audit Bureau of Circulation (ABC) Audit Reports.

Between 1997 and 2003, which was prior to their introduction of *Quick* in the market, the *Dallas Morning News*' total paid circulation average percentage yearly change was 1.2% (see Table 7.10). There were limited years where the total paid circulation was compared following the launch of *Quick* due to circulation problems with the *Dallas Morning News*. Nevertheless, those percentage changes were very negative, -18.0% between 2005 and 2006, and -6.3% between 2007 and 2008 (see Table 7.10). However, the post-launch percentage change still fell within the confidence interval for the *Houston Chronicle* (see Table 7.14). The control paid newspaper, the *Houston Chronicle*, was flat prior to *Quick*'s launch, and averaged a -4.8% change after the launch. While the *Fort Worth Star-Telegram* average yearly total paid circulation change

declined from -0.3% to -4.1%, it was a smaller difference in terms of percentage points compared to the *Houston Chronicle*.

Prior to the launch of the *Tampa Bay Times (tbt)*, the *Tampa Tribune's* average change was 1.3%, but then dropped to -4.4% while the free newspaper was in the market (see Table 7.10). The other paid newspaper in the experimental market, the *St. Petersburg Times*, also declined but not by as much, from -1.6% to -3.2% (see Table 7.10). The control newspaper Minneapolis *Star-Tribune* had a fairly steep decline like the *Tampa Tribune*, averaging 0.3% prior to the free publication and then -5.0% post-launch, between 2006 and 2008 (see Table 7.10). The *St. Paul Pioneer Press* total paid circulation stayed mostly flat over the time period studied.

Table 7.10: Total Paid Circulation - Dallas - Fort Worth and Tampa - St. Petersburg Exp Markets

		Paid Newspapers Total Circulation							
DMA		1997	1998	1999	2000	2001	2002	2003	
Experimental:									
Dallas, TX									
Control:									
Houston, TX									
<i>The Dallas Morning News**</i>		518,508	519,158	514,368	520,809	521,345	522,063	529,484	
<i>Fort Worth Star-Telegram</i>		240,139	245,294	245,332	239,979	235,622	228,573	235,917	
<i>Houston Chronicle</i>		549,448	550,962	542,104	549,440	549,280	548,857	550,717	
% Change	Pre-launch Free Newspaper: Average % Change								
	Post-launch Free Newspaper: Average % Change ^b								
			'97 to '98	'98 to '99	'99 to '00	'00 to '01	'01 to '02	'02 to '03	
<i>The Dallas Morning News^a</i>		1.2%	-12.1%	0.1%	-0.9%	1.3%	0.1%	0.1%	6.4%
<i>Fort Worth Star-Telegram</i>		-0.3%	-4.1%	2.1%	0.0%	-2.2%	-1.8%	-3.0%	3.2%
<i>Houston Chronicle</i>		0.0%	-4.8%	0.3%	-1.6%	1.4%	0.0%	-0.1%	0.3%
Experimental:									
Tampa - St. Petersburg, FL									
Control:									
Minneapolis - St. Paul, MN									
<i>St. Petersburg Times</i>							333,702	334,336	
<i>Minneapolis Star Tribune</i>							376,218	375,506	
<i>The Tampa Tribune</i>							216,690	224,630	
<i>St. Paul Pioneer Press</i>							186,844	187,831	
% Change	Pre-launch Free Newspaper: Average % Change								
	Post-launch Free Newspaper: Average % Change								'02 to '03
<i>St. Petersburg Times</i>		-1.6%	-3.2%						0.2%
<i>Minneapolis Star Tribune</i>		0.3%	-5.0%						-0.2%
<i>The Tampa Tribune</i>		1.3%	-4.4%						3.7%
<i>St. Paul Pioneer Press</i>		0.0%	-0.4%						0.5%

Note. Total paid average circ data for M-Sa from the Audit Bureau of Circulation (ABC) Audit Reports.

^aThe Dallas Morning News did not have an audit report for 2004 due to a circulation scandal. This caused the newspaper to be censured by ABC in 2005 and 2006, where the circulation was only based on a six month time period. Percentage changes are only given when the time periods being compared match.

^bPercentage changes from '04 to '05 and '06 to '07 were excluded for all Dallas and Houston newspapers.

Table 7.10 (continued).

DMA	Paid Newspapers Total Circulation*				
	2004	2005	2006	2007	2008
Experimental:					
Dallas, TX					
Control:					
Houston, TX					
<i>The Dallas Morning News</i> ^a	N/A	462,075	405,048	407,518	370,096
<i>Fort Worth Star-Telegram</i>	235,194	235,447	222,587	211,046	205,429
<i>Houston Chronicle</i>	551,958	524,571	505,868	500,666	470,744
% Change	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08
<i>The Dallas Morning News</i> ^a	N/A	N/A	-18.0%	N/A	-6.3%
<i>Fort Worth Star-Telegram</i>	-0.3%	0.1%	-5.5%	-5.2%	-2.7%
<i>Houston Chronicle</i>	0.2%	-5.0%	-3.6%	-1.0%	-6.0%
Experimental:					
Tampa - St. Petersburg, FL					
Control:					
Minneapolis - St. Paul, MN					
<i>St. Petersburg Times</i>	327,390	317,840	308,256	307,879	288,470
<i>Minneapolis Star Tribune</i>	378,727	379,713	371,258	355,011	334,964
<i>The Tampa Tribune</i>	226,315	225,196	217,791	209,562	198,855
<i>St. Paul Pioneer Press</i>	189,899	186,753	190,980	191,155	189,361
% Change	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08
<i>St. Petersburg Times</i>	-2.1%	-2.9%	-3.0%	-0.1%	-6.3%
<i>Minneapolis Star Tribune</i>	0.9%	0.3%	-2.2%	-4.4%	-5.6%
<i>The Tampa Tribune</i>	0.8%	-0.5%	-3.3%	-3.8%	-5.1%
<i>St. Paul Pioneer P</i>	1.1%	-1.7%	2.3%	0.1%	-0.9%

Note. Total paid average circ data for M-Sa from the Audit Bureau of Circulation (ABC) Audit Reports. Bold indicates the percentage change that includes the year the free newspaper was launched.

^aThe Dallas Morning News did not have an audit report for 2004 due to a circulation scandal. This caused the newspaper to be censured by ABC in 2005 and 2006, where the circulation was only based on a six month time period. The 2005 and 2006 circulation figures are from audit reports ending on September 30 in their respective years. Percentage changes are only given when the time periods being compared match.

Prior to the introduction of *Today's Local News* in November of 2004, the *U-T San Diego* averaged a -2.1% yearly drop in total average paid circulation between 1999 and 2003, while the *Arizona Republic* declined by -1.0% (see Table 7.11). After the free newspaper launched, the *U-T San Diego's* average yearly total paid circulation change was -4.9% versus -3.6% for the *Arizona Republic*, a very similar percentage difference (see Table 7.11). The total paid average yearly circulation for the *North County Times* only went from flat to -2.1% prior to and post the launch of the free newspaper into the market, but the *East Valley Tribune* in the control market declined from -0.3% to -15.8% during the same time periods (see Table 7.11).

Table 7.11: Total Paid Circulation Comparison - San Diego Experimental Market

Paid Newspapers Total Circulation						
DMA	1999	2000	2001	2002	2003	
Experimental:						
San Diego						
Control:						
Phoenix						
<i>U-T San Diego</i>	378,766	374,856	359,899	361,726	355,676	
<i>The Arizona Republic</i>	457,623	469,864	472,318	469,403	454,580	
<i>North County Times</i>	91,330	94,456	91,000	92,642	93,265	
<i>East Valley Tribune</i>	106,228	99,652	101,153	103,997	104,203	
	Pre-launch Free Newspaper: Average % Change	Post-launch Free Newspaper: Average % Change	'99 to '00	'00 to '01	'01 to '02	'02 to '03
<i>U-T San Diego</i>	-2.1%	-4.9%	-1.0%	-4.0%	0.5%	-1.7%
<i>The Arizona Republic</i>	-1.0%	-3.6%	2.7%	0.5%	-0.6%	-3.2%
<i>North County Times</i>	0.0%	-2.1%	3.4%	-3.7%	1.8%	0.7%
<i>East Valley Tribune</i>	-0.3%	-15.8%	-6.2%	1.5%	2.8%	0.2%

Note. Total paid average circulation data for Monday-Saturday from the Audit Bureau of Circulation (ABC) Audit Reports.

Table 7.11 (continued).

Paid Newspapers Total Circulation*					
DMA	2004	2005	2006	2007	2008
Experimental:					
San Diego					
Control:					
Phoenix					
<i>U-T San Diego</i>	340,799	326,209	313,616	292,928	84,146
<i>The Arizona Republic</i>	435,338	429,199	418,477	407,997	84,146
<i>North County Times</i>	91,303	89,746	88,252	87,154	84,146
<i>East Valley Tribune</i>	104,230	97,863	90,753	69,615	57,933
% Change	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08
<i>U-T San Diego</i>	-4.2%	-4.3%	-3.9%	-6.6%	-4.3%
<i>The Arizona Republic</i>	-4.2%	-1.4%	-2.5%	-2.5%	-5.8%
<i>North County Times</i>	-2.1%	-1.7%	-1.7%	-1.2%	-3.5%
<i>East Valley Tribune</i>	0.0%	-6.1%	-7.3%	-23.3%	-16.8%

Note. Total paid average circulation data for Monday-Saturday from the Audit Bureau (ABC) Audit Reports.

Bold indicates the percentage change that includes the year the free newspaper was launched.

Prior to the change of the *Trib p.m.* from a paid to a free newspaper in October 2003, the *Pittsburgh Post-Gazette* averaged a 1.6% yearly change in total paid circulation between 1998 and 2003 (see Table 7.12). Between 2004 and 2008, however, the *Pittsburgh Post-Gazette* averaged a yearly -3.8% decline in total paid circulation (see Table 7.12). The *Pittsburgh Tribune-Review* remained flat, with a 7.4% average prior to the *Trib p.m.* becoming a free newspaper and 7.5% in the years after, 2005 through 2008 (see Table 7.12). The control paid newspaper, the *Milwaukee Journal Sentinel*, slightly improved its average circulation change in yearly total paid circulation from -3.0% to -2.3% during the same time periods (see Table 7.12).

The *Island Packet*, in the Savannah experimental market, had a greater percentage decline than *The Salinas Californian* when comparing the time periods both prior to and after the launch of the free newspaper *Bluffton Today* (see Table 7.12). Between 1997 and 2005, the *Island Packet* had a 5.2% increase in total average paid circulation and between 2006 and 2008, that percentage dropped to 2.3% (see Table 7.12). *The Salinas Californian* stayed mostly flat, from 1.1% to 0.9%. The *Savannah Morning News*, the other paid newspaper in the experimental market, dropped from -1.5% to -4.9% during the same time periods (see Table 7.12). The *Monterey County Herald* had a slightly steeper decline from 0% to -3.6%.

Table 7.12: Total Paid Circulation Comparison - Pittsburgh and Savannah Experimental Markets

DMA	Paid Newspapers Total Circulation							
	1997	1998	1999	2000	2001	2002	2003	
Experimental: Pittsburgh, PA								
Control: Milwaukee, WI								
<i>Pittsburgh Tribune-Review</i>		84,701	98,033	106,114	109,481	115,910	120,318	
Milwaukee <i>Journal Sentinel</i>		286,793	283,642	281,067	270,686	250,356	245,864	
<i>Pittsburgh Post- Gazette</i>		225,785	242,690	239,800	240,018	242,958	243,509	
% Change	Pre-launch Free Newspaper: Average % Change	Post- launch Free Newspaper: Average % Change	'98 to '99	'99 to '00	'00 to '01	'01 to '02	'02 to '03	
<i>Pittsburgh Tribune-Review</i>	7.4%	7.5%	15.7%	8.2%	3.2%	5.9%	3.8%	
Milwaukee <i>Journal Sentinel</i>	-3.0%	-2.3%	-1.1%	-0.9%	-3.7%	-7.5%	-1.8%	
<i>Pittsburgh Post- Gazette</i>	1.6%	-3.8%	7.5%	-1.2%	0.1%	1.2%	0.2%	
Experimental: Savannah, GA								
Control: Salinas - Monterey, CA								
<i>Savannah Morning News</i>		61,391	60,706	60,756	61,940	62,259	58,751	55,912
<i>The Monterey County Herald</i>		34,558	34,488	35,033	35,150	34,657	35,157	35,040
<i>The Island Packet (Bluffton)</i>		13,152	13,969	14,739	15,473	15,849	17,261	17,985
<i>The Salinas Californian</i>		19,880	19,732	19,400	19,401	19,001	18,826	18,726
% Change	Pre-launch Free Newspaper: Average % Change	Post- launch Free Newspaper: Average % Change	'97 to '98	'98 to '99	'99 to '00	'00 to '01	'01 to '02	'02 to '03
<i>Savannah Morning News</i>	-1.5%	-4.9%	-1.1%	0.1%	1.9%	0.5%	-5.6%	-4.8%
<i>The Monterey County Herald</i>	0.0%	-3.6%	-0.2%	1.6%	0.3%	-1.4%	1.4%	-0.3%
<i>The Island Packet</i>	5.2%	2.3%	6.2%	5.5%	5.0%	2.4%	8.9%	4.2%
<i>The Salinas Californian</i>	-1.1%	-0.9%	-0.7%	-1.7%	0.0%	-2.1%	-0.9%	-0.5%

Note. Total paid average circulation data for Monday-Saturday from the Audit Bureau of Circulation (ABC) Audit Reports for the experimental and control newspapers.

Table 7.12 (continued).

DMA	Paid Newspapers Total Circulation				
	2004	2005	2006	2007	2008
Experimental: Pittsburgh, PA					
Control: Milwaukee, WI					
<i>Pittsburgh Tribune-Review</i>	115,743	106,702	103,873	125,913	150,337
Milwaukee <i>Journal Sentinel</i>	240,106	239,975	235,188	230,414	218,336
<i>Pittsburgh Post- Gazette</i>	241,367	233,509	224,521	210,105	206,365
% Change	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08
<i>Pittsburgh Tribune-Review</i>	-3.8%	-7.8%	-2.7%	21.2%	19.4%
Milwaukee <i>Journal Sentinel</i>	-2.3%	-0.1%	-2.0%	-2.0%	-5.2%
<i>Pittsburgh Post- Gazette</i>	-0.9%	-3.3%	-3.8%	-6.4%	-1.8%
Experimental: Savannah, GA					
Control: Salinas - Monterey, CA					
<i>Savannah Morning News</i>	54,978	55,121	51,665	50,262	47,437
<i>The Monterey County Herald</i>	34,552	32,003	30,056	29,602	28,625
<i>The Island Packet</i> (Bluffton)	18,712	19,223	20,003	20,098	18,624
<i>The Salinas Californian</i>	18,413	17,787	18,156	17,464	N/A
% Change	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08^a
<i>Savannah Morning News</i>	-1.7%	0.3%	-6.3%	-2.7%	-5.6%
<i>The Monterey County Herald</i>	-1.4%	-7.4%	-6.1%	-1.5%	-3.3%
<i>The Island Packet</i>	4.0%	2.7%	4.1%	0.5%	-7.3%
<i>The Salinas Californian</i>	-1.7%	-3.4%	2.1%	-3.8%	N/A

Note. Total paid average circulation data for Monday-Saturday from the Audit Bureau of Circulation (ABC) Audit Reports for the experimental and control newspapers.

Bold indicates the percentage change that includes the year the free newspaper was launched.

^aThe percentage change from '07 to '08 was excluded from the post-launch % change calculation for *The Island Packet* and *The Salinas Californian*.

Prior to the introduction of the free newspaper the *Grand Junction Free Press* in 2003, *The Daily Sentinel* (Grand Junction) averaged a yearly total paid circulation change of 0.6% (see Table 7.13). Between 2004 and 2008, *The Daily Sentinel* only dropped to 0.2% for its yearly total paid circulation average change (see Table 7.13). In comparison, the *Great Falls Tribune* went from a -0.2% to a -1.8% during those same time periods (see Table 7.13).

Table 7.13: Total Paid Circulation Comparison - Grand Junction Experimental Market

		Paid Newspapers Total Paid Circulation						
DMA		1997	1998	1999	2000	2001	2002	2003
Experimental: Grand Junction, CO								
Control: Great Falls, MO								
<i>The Daily Sentinel</i>		29,514	29,492	29,766	30,205	30,245	30,419	30,334
<i>Great Falls Tribune</i>		33,362	33,728	33,668	33,954	33,416	33,092	33,333
% Change	Pre-launch Free Newspaper: Average % Change	Post-launch Free Newspaper: Average % Change	'97 to '98	'98 to '99	'99 to '00	'00 to '01	'01 to '02	'02 to '03
	<i>The Daily Sentinel</i>	0.6%	0.2%	-0.1%	0.9%	1.5%	0.1%	0.6%
<i>Great Falls Tribune</i>	-0.2%	-1.8%	1.1%	-0.2%	0.8%	-1.6%	-1.0%	0.7%

Note. Total paid average circulation data for Monday-Saturday from the Audit Bureau of Circulation (ABC) Audit Reports.

Bold indicates the percentage change that includes the year the free newspaper was launched.

Table 7.13 (continued).

DMA	Paid Newspapers Total Paid Circulation				
	2004	2005	2006	2007	2008
Experimental: Grand Junction, CO					
Control: Great Falls, MO					
<i>The Daily Sentinel</i>	29,921	30,423	30,800	31,110	30,686
<i>Great Falls Tribune</i>	33,435	32,919	32,446	32,060	30,419
% Change					
	'03 to '04	'04 to '05	'05 to '06	'06 to '07	'07 to '08
<i>The Daily Sentinel</i>	-1.4%	1.7%	1.2%	1.0%	-1.4%
<i>Great Falls Tribune</i>	0.3%	-1.5%	-1.4%	-1.2%	-5.1%

Note. Total paid average circulation data for Monday-Saturday from the Audit Bureau of Circulation (ABC) Audit Reports.

Table 7.14: Summary of Total Paid Circulation - Percent Changes and Confidence Intervals

95% Confidence Interval								
Pair	Newspaper	Pre-launch			Post-launch			H3 Supported?
		Free Newspaper: Average % Change	Lower Limit	Upper Limit	Free Newspaper: Average % Change	Lower Limit	Upper Limit	
1	The Baltimore Sun	-3.1%	-6.3%	0.1%	-3.4%	-14.0%	7.2%	Not Supported
	St. Louis Post-Dispatch	-1.6%	-3.1%	0.0%	-5.5%	-51.4%	40.5%	
2	The Tennessean	N/A	N/A	N/A	-2.5%	-4.4%	-0.6%	Not Supported
	The Charlotte Observer	N/A	N/A	N/A	-2.5%	-3.9%	-1.0%	
3	The Virginian-Pilot	-1.0%	-2.3%	0.3%	N/A	N/A	N/A	Not Supported
	Grand Rapids Press	-0.1%	-0.7%	0.5%	N/A	N/A	N/A	
4	Philadelphia Inquirer	-1.2%	-33.2%	30.8%	-2.9%	-5.4%	-0.3%	Not Supported
	Detroit Free Press	1.1%	-46.4%	48.7%	-1.7%	-3.5%	0.0%	
	Philadelphia Daily News	-2.6%	-45.8%	40.7%	-5.3%	-9.4%	-1.2%	
	Detroit News	0.1%	-32.9%	33.1%	-2.6%	-4.7%	-0.5%	
5	The Dallas Morning News	1.2%	-1.6%	4.0%	-12.1%	-86.1%	61.8%	Not Supported
	Fort-Worth Star Telegram	-0.3%	-2.9%	2.4%	-4.1%	-21.9%	13.7%	
	Houston Chronicle	0.0%	-1.0%	1.0%	-4.8%	-20.1%	10.5%	
6	St. Petersburg Times	-1.6%	-5.6%	2.4%	-3.2%	-42.5%	36.1%	Not Supported
	Minneapolis Star Tribune	0.3%	-1.0%	1.6%	-5.0%	-13.1%	3.1%	
	Tampa Tribune	1.3%	-4.0%	6.6%	-4.4%	-12.9%	4.0%	
7	St. Paul Pioneer Press	0.0%	-3.6%	3.6%	-0.4%	-7.0%	6.1%	Not Supported
	U-T San Diego	-2.1%	-4.6%	0.4%	-4.9%	-8.6%	-1.3%	
	Arizona Republic	-1.0%	-4.4%	2.5%	-3.6%	-8.3%	1.1%	
	North County Times	0.0%	-3.6%	3.6%	-2.1%	-5.0%	0.8%	
	East Valley Tribune	-0.3%	-4.6%	4.0%	-15.8%	-35.8%	4.2%	Not Supported

Table 7.14 (continued).

		95% Confidence Interval						
Pair	Newspaper	Pre-launch Free Newspaper:			Post-launch Free Newspaper:			H4 Supported?
		Average % Change	Lower Limit	Upper Limit	Average % Change	Lower Limit	Upper Limit	
8	Pittsburgh Tribune- Review	7.4%	1.1%	13.7%	7.5%	-16.2%	31.3%	
	Milwaukee Journal Sentinel	-3.0%	-6.4%	0.4%	-2.3%	-5.8%	1.1%	Not Supported
9	Pittsburgh Post-Gazette	1.6%	-2.7%	5.8%	-3.8%	-6.9%	-0.7%	
	Savannah Morning News	-1.5%	-4.1%	1.1%	-4.9%	-9.6%	-0.2%	
	The Monterey County Herald	0.0%	-1.1%	1.1%	-3.6%	-9.4%	2.1%	Not Supported
	The Island Packet (Bluffton)	5.2%	3.3%	7.1%	2.3%	-20.5%	25.0%	Not Supported
	The Salinas Californian	-1.1%	-1.8%	-0.4%	-0.9%	-38.3%	36.5%	
10	The Daily Sentinel	0.6%	-0.2%	1.4%	0.2%	-1.6%	2.1%	
	Great Falls Tribune	-0.2%	-1.6%	1.3%	-1.8%	-4.3%	0.7%	Not Supported

CHAPTER 8

Method and Results: Modified Content Analysis

Method

In addition to the secondary analysis of circulation and readership data, a modified content analysis was conducted on nine out of the ten free newspapers that were analyzed for circulation. Only *Link* (Norfolk) was excluded because the print edition was not able to be obtained. Newspapers, an example of “recorded human communication,” are a suitable choice for a content analysis (Babbie, 2007, p. 320). Although this particular method was modified, the purpose of the analysis was to examine the major characteristics of free newspapers to get a sense of the tone and type of coverage, rather than an in-depth look at the content of these publications. A content analysis of free newspapers to examine their coverage would certainly be a useful method for future research. This study, however, was based primarily on the secondary analysis of the circulation and readership data.

The following free publications were part of this analysis: *Baltimore Examiner*, *The City Paper*, *Metro Philadelphia*, *Quick*, *Tampa Bay Times* (tbt), *Today's Local News* (San Diego), *Trib p.m.*, *Bluffton Today* and the *Grand Junction Free Press*. Five weekdays from three different weeks were chosen, week of March 24, 31, and April 7, 2008, to form a constructed week. The following days made up the constructed week:

Monday, March 24

Tuesday, April 8

Wednesday, April 2

Thursday, March 27

Friday, April 4

Tuesday, April 1 was not chosen because of its unusual status as April Fool's Day. For *Today's Local News*, the print editions for one week were sent by mail, Wednesday through Sunday, March 19–23, 2008, as the newspaper was published only on these days of the week. For the 45 editions chosen, each was examined to see if entertainment coverage was featured on the front page, and the number of pages was counted for all the editions. Entertainment coverage included music, movies, sports and/or celebrities.

Ten of the 45 editions were selected for further review. This examination included the front page story coverage beyond entertainment, review of staff writer versus wire stories, and advertising content. The number of pages was counted that included any advertising as well as the number of pages that consisted of only advertising. The tone of the edition was also examined and newspapers were classified as traditional, conversational or a hybrid of both styles. One of the limitations of this study was that the coding of these publications was done only by the researcher for this study.

Free publications with a traditional tone had section names that were most similar to paid newspapers, such as Sports, News and Business. These were not standalone sections as the free newspapers were in a tabloid format, except for *Today's Local News*. Some of these sections were very short, just one or two pages. Free newspapers that were categorized as conversational had section names that were designed to be interactive between a reader and the publication. Newspapers classified as hybrid reflected both styles. This content analysis will help address **R3** by providing a glimpse into the offerings of free newspapers: Are the free newspapers providing “healthy” competition,

in terms of both content and advertising, for existing dailies that may be the only major local paper in town?

The ten editions were chosen using the random number generator on *Random.org*. In order to choose the edition that represented each weekday, except Saturday and Sunday where the only option was *Today's Local News*. The newspapers were assigned the numbers 1-8:

Bluffton Today – 1

Trib p.m. – 2

The City Paper – 3

Grand Junction Free Press – 4

Baltimore Examiner – 5

Quick – 6

Metro Philadelphia – 7

Tampa Bay Times – 8

Using the random number generator, the first number was 8, the *Tampa Bay Times*, which was for Monday. This was followed by 5 for Tuesday, the *Baltimore Examiner*. The number 1 was chosen next, *Bluffton Today*, to represent Wednesday. On Thursday, the number 8 was chosen but was eliminated because the *Tampa Bay Times* edition was already selected for Monday. The *Metro Philadelphia*, number 7, was selected and used for the Thursday edition. The next selection was *The City Paper*, number 3, for Friday.

In order to randomly choose which days had more than one edition, a random generator was again used, this time for the days of the weeks:

Monday – 1

Tuesday – 2

Wednesday – 3

Thursday – 4

Friday – 5

The first number chosen was number 2, Tuesday. Next the free edition was selected using the same method with each newspaper assigned to numbers 1-8, and number 4 was selected, the *Grand Junction Free Press*. The second day of the week selected was Wednesday, number 3, and *Trib p.m.* was then selected with number 2. Finally the last day of the week with two editions was selected, number 1 for Monday. *Quick* was assigned Monday because it had not been chosen yet. Following completion of this selection process, all days of the week were represented and all free editions available had at least one day where its publication was examined in more depth.

Results

Length of the Free Newspapers – Number of Pages. The length of the free newspaper editions ranged from 20 to 72 pages (see Table 8.1). The publications generally had the most number of pages on Fridays, with the exception of *Today's Local News*, which had a Sunday edition with 42 pages (see Table 8.1). The *Metro Philadelphia*, the shortest publication, had 24 pages each day except for Tuesday, which had only 20 pages. *The City Paper* also had 24 pages every day except Fridays, when the number went up to 32. The *Baltimore Examiner* had 40 pages Monday–Thursday and 48 pages on Friday. *Bluffton Today* doubled its pages from

32 Tuesday–Thursday to 64 on Friday. The *Grand Junction Free Press*’ had a range of page counts from 28 to 40, and *Quick* had a similar range: 24 to 40.

Front Page Coverage – Entertainment. For the majority of the publications, the main story on the front page was not entertainment related. *Quick* had the most entertainment coverage featured on the front page with four out of the five days (see Table 8.1). The only other publications that had entertainment coverage as the main story on the front page was the *Tampa Bay Times* and *Bluffton Today*, both on Fridays (see Table 8.1).

Table 8.1 *Free Newspapers Characteristics - Page Numbers and Entertainment Front Page Coverage*

Free Newspaper	Total Number of Pages per Edition						
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Baltimore Examiner	40	40	40	40	48		
The City Paper	24	24	24	24	32		
Metro Philadelphia	24	20	24	24	24		
Quick	28 (E)	24 (E)	32	40 (E)	40 (E)		
Tampa Bay Times	32	32	43	40	72 (E)		
Today's Local News			24	24	20	22	42
Trib p.m.	32	32	32	36	36		
Bluffton Today	24	32	32	32	64 (E)		
Grand Junction Free Press	28	28	36	32	40		

Note. (E) indicates that the main story on the front page was related to entertainment.

Newspaper Tone. Four of the nine newspapers were categorized as conversational (see Table 8.2). These publications had section headings such as “Good Day” and “Night In”, the *Baltimore Examiner*, and “Log On” in *Quick*. The other newspapers that were categorized as conversational were *Bluffton Today* and *Tampa Bay Times*. The former had a section entitled “Just Laugh” and the latter had the

“Thejuice”section. Perhaps not surprisingly, the newspapers with entertainment as the main story on the front page were all deemed to have a conversational style.

The following newspapers were classified as traditional: *The City Paper*, *Metro Philadelphia*, *Trib p.m.*, and the *Grand Junction Free Press* (see Table 8.2). These publications generally had more traditional section names such as News, Sports and Business. Only *Today’s Local News* had a hybrid tone.

Front Page Coverage. National news dominated the front page of the *Trib p.m.’s* April 2, 2008, edition. The main headline and accompanying graphic on the front page of the Wednesday edition of the *Trib p.m.*, April 2, 2008 was regarding the massive profits for oil executives with large typeset of “NOT OUR FAULT.” Some of the free newspapers highlighted the local angle of stories with a national interest or implications that appeared on the front page. The front page story on the *Tampa Bay Times* on Monday, March 24, 2008 was regarding Major Brian Dennis who was from St. Petersburg, Florida. When Major Brian Dennis returned from Iraq, he was reunited with Nubs, the abused dog he saved. The story involved raising \$3,500 with the help of family and friends to have Nubs flown to San Diego while Major Dennis was in a war zone in Iraq where pets were not allowed. The main headline and graphic on the front page of the *The City Paper’s* Friday, April 4, 2008 edition focused on homelessness and the database that was being created to track services that homeless individuals received in the city.

In the case of *The Grand Junction Free Press’* Tuesday, April 8, 2008 edition, the main story and graphic featured on the front page was a local story but still had a national component. The Dewey Bridge over the Colorado River had burned down due to a seven-

year-old who, went camping with his family, allegedly lit a brush fire while playing with matches. This suspension bridge was on the National Register of Historic Places.

The Special Report on the front page of the Tuesday, April 8 edition of the *Baltimore Examiner* focused on local government and their budget cutbacks. The front page of the Thursday edition of the *Metro Philadelphia*, March 27, 2008, main headline was regarding the transportation system, SEPTA, and their extension of rail service later on Friday and Saturday nights. Consistent with the edgier tone of free newspapers, the headline for this story implied having an additional alcoholic drink on weekend nights: “Have one more, a later train is coming.”

The main story for *Today's Local News* on Saturday, March 22, 2008 was also local, regarding the new partner of Police Officer Kendrick Sadler. Sadler worked for the Oceanside canine department and a Belgian Malinois named Ranger now joined him in his patrol car following training. In the Sunday edition of *Today's Local News*, March, 23, 2008, the main story and picture on the front page was regarding the third annual Peter Rabbit Egg Decorating Party.

For *Bluffton Today's* Wednesday, April 2 edition, the main story on the front page was regarding a local resident, Matt Richardson, who had been going kayaking in the area with his dog Cotton for close to ten years. *Quick* focused on entertainment beginning with its front page coverage. For the Monday edition, the main image was about their pro basketball team, the Dallas Mavericks. Also included on the front page were references to the Male NCAA Basketball tournament and their “Pop Life” section.

Advertising Content. There was varying levels of advertising within the free publications. The highest percentage of pages with at least some advertising content was

on Friday, *The City Paper*, at 91% (see Table 8.2). This was followed by the Thursday edition of the *Metro Philadelphia* with 88% (see Table 8.2). These publications had a lower percentage of pages with only advertising content, both under 20%, compared to the other newspapers. The Monday edition of *Tampa Bay Times* had 43% of its pages solely devoted to advertising. Interestingly, the lowest was also on Monday, 9% for *Quick*. The lowest percentage of pages with any form of advertising was 28% for the *Trib p.m.*'s Wednesday edition. *Trib p.m.* did have advertising at the bottom of the front page.

The Monday edition of the *Tampa Bay Times* had an advertisement along the bottom of the front page, as well as advertising content on 26 of 32 pages, 81% (see Table 8.2). Outside of classified advertising, the Monday edition of *Quick* had three full-page advertisements, including one for the newspaper itself. There were six other pages that had ads; in total, 54% of the publication's pages had some advertising content (see Table 8.2). The *Grand Junction Free Press*' Tuesday publication had advertising on almost 80% of the pages, including 11 pages of classified ads and one full-page advertisement. Advertising content appeared on 75% of the pages for *The Baltimore Examiner*'s Tuesday edition. Seven of the 32 pages in *Bluffton Today*'s Wednesday, April 2, 2008 publication were for classified advertising, in addition to one full-page advertisement. In total, almost two-thirds of the pages for this edition had at least some advertising content.

In the Saturday Coastal edition of *Today's Local News*, an ad ran along the bottom of the front page, and advertising content appeared on 73% of the pages (see Table 8.2). The Sunday edition of *Today's Local News* had a smaller classified advertising section than Saturday's publication; another difference was that there were no

advertisements on the front page of the newspaper. There was also a *U-T San Diego* advertising supplement, “San Diego’s Best.” This section included a two page ballot for readers to write-in their picks for the County’s best in categories ranging from retail to home improvement services. Overall for the Sunday edition, there was advertising content on 76% of the pages, 32 of 42 (see Table 8.2).

Staff Writing vs. Wire Coverage. One of the criticisms that were previously discussed was that a large portion of the editorial content in free newspapers consisted of wire stories. Examining these free newspapers on the days chosen revealed that the staff written versus wire stories make-up was largely dependent on the type of publication, and whether or not it was associated with a paid daily newspaper. As anticipated due to the findings by the Project for Excellence in Journalism study, the *Baltimore Examiner* had a greater presence of staff written articles than the other free newspapers. This newspaper had positioned itself as more on par with the paid daily newspapers in terms of its characteristics, including hiring some higher profile journalists.

For the Wednesday edition of the *Bluffton Today*, a hyper-local newspaper, much of its content was written by staff members. The *Grand Junction Free Press*’ Tuesday edition also contained mainly articles by staff writers. Both articles on the front page were written by staff members, along with local news stories. *The City Paper* had a high number of staff written articles regarding the news in its Friday edition. Staff writers covered such topics as homelessness, the Tennessee GOP requests for gun records, and School Board elections. There were a few stories provided by the wires, mainly world briefs and news about Washington.

The *Metro Philadelphia's* Thursday edition had numerous wire stories, but also contained a fair amount of articles written by staff members of other *Metro* editions. The front page of *Today's Local News*, a Union-Tribune publication, on Saturday had four articles; three of them were written by staff members and the other article was provided by *U-T San Diego*. These articles were locally focused, in line with the publication's mission, and the fourth article covered entertainment, the People's Choice Nominations. On Sunday, the front page of *Today's Local News* had two staff written articles, about nuclear energy jobs and the local police department. The other article, regarding the Peter Rabbit Egg Decorating Party at the library, was written by a special contributor to the publication. Articles in the A section were predominantly written by the staff members of *Today's Local News* and the *U-T San Diego*.

The Wednesday edition of the *Trib p.m.*, the afternoon newspaper of the *Pittsburgh Tribune-Review*, was made up of numerous stories that were compiled by the wire services or had previously appeared in the *Tribune-Review*. This was also the case for *Quick's* Monday edition, the *Dallas Morning News's* publication targeted to young adults.

In the *Tampa Bay Times's* Monday edition, there was not a staff written article until page six of the publication. Two pages of photos in its "World in a Snap" were all provided by the wire services, including AP. The majority of the articles covering hard news were not written by *tbt* staff members.

Summary. The free newspapers had variations on a number of characteristics, including page numbers, tone and advertising content. In general, the coverage was less entertainment and celebrity focused than expected. Main stories on the front page that

were more locally focused often had a national angle. Consistent with the criticisms, there was a high use of wire stories in some of the publications and advertising content was prevalent. The high degree of advertising was not surprising in light of the fact that it is the sole revenue stream.

Overall, the characteristic and content did differ from the paid newspapers. Free newspapers generally covered local, regional, national and international news, business and sports, among other topics in paid publications, but the in-depth reporting did not appear to be at the same level. Sections were sometimes one or two pages as previously mentioned, the publications were generally shorter, and the articles appeared to be shorter too. The tone was often different from paid dailies and advertising appeared more often than what would be expected in paid newspapers. There also appeared to be a higher reliance on wire stories. While the entertainment and celebrity coverage was not at the level expected, there was still a fair amount of content. This analysis does not support **H5** that there would be few differences in characteristics and content between the paid and free newspapers. Thus, substitution is not supported by the modified content analysis.

Based on these findings, the results were mixed as to whether the free newspapers provide 'healthy' competition in terms of their editorial and advertising content, to address **R3**. The free publications may rely on wire stories, but they are still providing news coverage to their readers. The shorter length of some publications and the high level of advertising were some of the bigger drawbacks.

Table 8.2 *Free Newspapers Characteristics - Tone, Front Page Coverage, Number of Pages and Advertising Content*

Free Newspaper	Edition(s) Examined	Tone	Front Page Coverage - Main Story	# of Pages	% of Pages with any Advertising Content	% of Pages with only Advertising Content
Baltimore Examiner	Tuesday, April 8, 2008	Conversational	Local news	40	75%	15%
The City Paper	Friday, April 4, 2008	Traditional	Local news with a national angle	32	91%	16%
Metro Philadelphia	Thursday, March 27, 2008	Traditional	Local news	24	88%	13%
Quick	Monday, March 24, 2008	Conversational	Entertainment	28	54%	9%
Tampa Bay Times	Monday, March 24, 2008	Conversational	Local news with a national angle	28	81%	43%
	Saturday, March 22, 2008		Local news	22	73%	41%
Today's Local News	Sunday, March 23, 2008	Hybrid	Local news	42	76%	33%
Trib p.m. Bluffton	Wednesday, April 2, 2008	Traditional	National news	32	28%	13%
Today	Wednesday, April 2, 2008	Conversational	Outdoor Activities	32	66%	25%
Grand Junction Free Press	Tuesday, April 8, 2008	Traditional	Local news with a national angle	36	80%	33%

CHAPTER 9

Discussion

This study examined the impact of free newspapers on paid newspapers, and to see if substitution was occurring. Paid newspapers have faced declines in circulation and advertising as the media environment has become hypercompetitive, particularly with the emergence of advanced technologies. Consumers may have increased their time spent with media, and resulting multitasking, but generally not with paid newspapers. Free daily newspapers are another competitor for readers and advertising dollars, which have increasingly been shifting online. The results of this study do not support that free newspapers are having much impact on paid dailies.

Substitution

Neither the readership nor the circulation analysis provided support for substitution of paid newspapers with the free. This was particularly surprising with single copy sales, as it would seem that purchasing in this manner would indicate less investment in the paid product and the likely type of circulation that would show an impact of the free newspaper. The results of the readership demographic comparison support that the free newspaper was reaching a significantly different audience though. Along with the readership and circulation analysis, the difference in reader demographics suggests a complementary rather than substitution role for free dailies.

One of the purposes, and claims, of many free newspapers has been to capture a younger audience. The higher level of young adult readership was supported by a direct comparison of demographic data between free and paid newspapers in the experimental markets. In order to reach the younger audience, free publications have reduced the

number of pages, shortened articles and adopted an edgier style. Almost half of the free newspapers in the modified content analysis were classified as having a conversational tone rather than paid newspapers' traditional. While there were some variations in characteristics among the different types of free newspapers, the underlying differences between free and paid did not support substitution.

Younger adults represent the overshot consumers (and nonconsumers) that Christensen et al. (2004) was referring to for disruptive innovations. While the launch of free newspapers was initially successful—growth rates in market shares, circulation and number of newspapers in distribution—the story since 2008 has been similar to paid newspapers, with cutbacks, declining circulation and closures.

Some of the free newspapers have cut back to a weekly status, and may continue to find success, but it is likely that their impact on paid daily newspapers will be weak or nonexistent with only a once a week publishing schedule. However, free weeklies may update their web site daily, which is the case with *The City Paper* and *Bluffton Today*, a biweekly. Future studies should examine both the print and online version of free and paid newspapers. One of the limitations of this study is the focus on the print edition, as data was even less available for the online counterparts for the time period studied.

It is important to note that there are numerous factors that can impact paid newspaper readership in a mid-sized market. The media environment is hypercompetitive and technological developments continue to enter the marketplace at a rapid rate. There are other business factors that impact the level of success a newspaper has and in turn how vulnerable it is to competitors. The characteristics of a paid newspaper, such as quality of the content and the financial health of the organization, will have an impact on

how a paid newspaper will perform when a competitor is introduced into the market. The state of the economy may also have an impact; during a Recession consumers are generally looking to cut costs, and cancelling newspaper subscriptions is one way to do so.

As discussed with readership, there are several factors that affect circulation, particularly with the rapid decline in circulation over the past decade as the Internet and smartphones grew in popularity. In addition, newspapers in the control market could have seen greater declines in circulation due to other issues such as the quality of the newspaper's content.

Study Limitations

Two major limitations of this study are the short time period and that the data was available on an annual basis. The modern free newspaper era only began in 1995, and statistics regarding readership have been available for even less time. Also the percentage change comparison among the newspapers was statistically limited as the time periods both pre- and post-launch were usually only a couple years. Readership data was based on DMAs, rather than counties or another smaller unit of analysis for examining this type of competition. The use of only one coder, the researcher for this study, for the modified content analysis was another limitation previously mentioned. Future studies could involve a full content analysis of both the free and paid newspapers.

Suggestions for Future Research. A future study could compare paid and free readership data in a similar manner but over a longer period of time. The use of bi-annual information would provide more data points. A smaller unit of analysis, such as a county, would provide a more focused comparison of newspaper competition. Another option is

to compare smaller markets, which have fewer variables to consider when studying what impacts a newspaper's readership. More examples of each type of newspapers, home-delivery, distribution via transportation and/or newspaper racks, and the hybrid model, would also be recommended for future studies. Another study could focus on how the economy impacts the success of a free newspaper, pre-Recession, during the Recession, and Recovery. Free newspapers, and their online counterparts, that were launched during different economic times and how their readership and circulation fared could be examined.

CHAPTER 10

Conclusion

Free newspapers have been hit hard by the economic struggles that are part of day-to-day life for many people across the globe. While free newspapers may have a benefit in terms of providing a product free of cost to consumers compared to the much maligned paid newspaper industry, it is still necessary to secure advertising – and to find a way to convince advertisers to invest in print versus going online. This study is characteristic of the difficulties in staying afloat as only 20% of the free newspapers in this sample are still operating on a daily basis, compared to 2007 when the sample was chosen.

Bluffton Today, with its highly local focus in a smaller community, connected with its audience and is still in business six years following its launch. *Bluffton Today* has changed its status multiple times and is only publishing biweekly though, but with daily updates to its web site. In the case of *The Baltimore Examiner* and a few other newspapers, the home delivery method did not ultimately succeed as the publication stopped publishing. The distribution method needs to be considered with respect to not only circulation size but also the dynamics of the region within which the newspaper is being offered. This is similar to understanding newspaper readers, where demographics help explain readership, but there are still other key, more intangible factors that play a role (Malthouse & Calder, 2006).

As is the case with paid newspapers that struggle to stay in business, free publications tried cutting back, typically moving to a weekly first before eventually

ceasing publication. Some free newspapers have found success as a weekly, and this study found support for a complementary role to paid newspapers, rather than substitution.

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