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MAXWELL E. McCOMBS

MASS MEDIA

IN THE MARKETPLACE

AUGUST

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Maxwell E. McCombs

Mass Media in the Marketplace

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MAXWELL E. McCOMBS is associate professor of journalism at the University of North Carolina. He received a B.A. degree from Tulane University in 1960 and M.A. and Ph.D. degrees from Stanford University in 1961 and 1966. He has been a reporter for the New Orleans *Times-Picayune* and formerly taught at the University of California at Los Angeles. The present study resulted from a proposal to the E. W. Scripps Co. and Scripps-Howard Foundation, which supported the study and subsidized its publication here.

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(Prior Publication)

Mass Communication in American Life

HUSBANDS READ newspapers at the breakfast table. Teenagers have their records. Transistor radios clutter the beach. An army of several million spend weekends absorbed in football and baseball on television. These typical bits of American behavior that center on mass communication create the billion-dollar mass media industries.

While all this is apparent to any casual observer, American scholars have not systematically recognized and studied the bread and butter issues in mass communications. There exists only a small "crossroad" where a few communication researchers and other behavioral scientists have paused from time to time to consider the social implications of these mass communication technologies, which produce and distribute millions of messages daily for the American public.

The scholarship that does exist emphasizes the effects of mass communication,¹ most recently the effects of television on children.² In the benchmark Erie County study of 1940 it was the effects of radio and newspapers on voting.³ But Bernard Berelson has pointed out that just as mass communication influences public opinion, public opinion—expressed primarily through purchases— influences and controls mass communication.⁴

¹ Melvin L. DeFleur, *Theories of Mass Communication* (New York: David McKay Company, 1970), pp. 6-7.

² *Television and Growing Up: The Impact of Televised Violence*. The Surgeon General's Scientific Advisory Committee on Television and Social Behavior, 1972.

³ Paul F. Lazarsfeld, Bernard Berelson and Hazel Gaudet, *The People's Choice* (New York: Columbia University Press, 1948).

⁴ Bernard Berelson, "Communication and Public Opinion," in Wilbur Schramm, ed., *Mass Communication* (Urbana: University of Illinois Press, 1960), pp. 527-43.

Viewing society as the effects-producing agent for mass communication raises a different and equally important set of questions. For example, what factors account for the rapid diffusion of television in the United States in the 1950s and for the demise of network radio as the pre-1940 generations knew it? What were the technological, social and economic conditions of our society that explain this significant shift within the mass media? Mass communication is such an integral part of American life that it is necessary to make explicit the constraints which our society imposes on the media.

In the United States one of the major constraints on the ability of any mass medium to maintain itself in the marketplace of ideas, or in the marketplace of divertissement, is the level of economic support that is available.⁵ Access to the public via mass media is theoretically open to everyone, at least for the print media. Freedom of the press is an individual right, not a protective cloak for an existing industry. But the economic requirements necessary for implementing this right clearly limit the number of available voices.⁶ And in broadcasting, apart from technological constraints, there are also economic constraints on the number of broadcasters who can survive in any market.

Aside from the powerful constraint which it places on the mass media, economic support of mass media has a methodological advantage for the study of American mass media over time. It provides a common denominator for the comparison of all mass media. The slow decline in circulation of newspapers and mass circulation magazines relative to the number of households, the rapid decrease in movie attendance and the rampant growth of television and other electronic communication media are economic trends reflecting individual consumer and advertiser choices. These decisions offer a fruitful point of view for describ-

⁵ J. Edward Gerald, "Economic Research and the Mass Media," *Journalism Quarterly*, 35:49-55, 121 (1958).

⁶ Jerome A. Barron, "Access to the Press—a New First Amendment Right," *Harvard Law Review*, 80:1641-78 (1967); Jon G. Udell, "Economic Trends in the Daily Newspaper Business, 1946 to 1970," Wisconsin Project Reports, IV, No. 6 (Madison: Bureau of Business Research and Service, University of Wisconsin, 1970), p. 3; Harvey J. Levin, "Competition Among Mass Media and the Public Interest," *Public Opinion Quarterly*, 18:62-79 (1954).

ing and explaining mass communication in American life because it is in the arena defined by these economic choices that the various mass media compete for existence.⁷

More specifically, these economic decisions show a consistent pattern over the past four decades, suggesting the existence of a rigorous economic constraint on the very size and rate of growth of all mass media of communication. Behind the voluminous annual statistics on spending for mass communication (Appendix A) there is an "unseen hand" in the marketplace. Understanding this constraining influence is crucial to any social or historical explanation of mass communication in American life.

My own understanding and interest in economic constraints on the mass media owe much to Dr. John Scott Davenport, director of research for the E. W. Scripps Company. He stimulated my interest in this area and the E. W. Scripps Company and Scripps-Howard Foundation furnished generous assistance. Two of Dr. Davenport's associates, David Eller and Pamela Dixon, and four of my graduate assistants, Linda Didow Baucom, Jeanne Penrose, Bernie Kopec and Kaye Payne, played important roles in bringing this information together. It is hoped this collective effort will stimulate thinking and research on the economic marketplace in which the mass media vie for existence.

⁷ C. V. Kinter, "How Much Income Is Available To Support Communications?" *Journalism Quarterly*, 24:38-42 (March 1948).

The Constancy Hypothesis

CHARLES DARWIN once remarked: "How odd it is that anyone should not see that all observation must be for or against some view if it is to be of any service."¹ Perusing page after page of economic statistics on consumer and advertiser spending on mass communication without any question or viewpoint in mind is a pointless and fruitless use of time. Of itself, the fact that consumers spent \$1.01 billion on books and maps in 1956 is inconsequential. It is impossible to keep all of the four thousand or so individual statistics of Appendix A in mind. Hence, there is great utility in bringing a point of view—what the scientist calls a hypothesis—to this maze of figures.

Now a point of view, as the term is intended here, is not an opinion or bias. A point of view means a vantage point, a focus on some specific set of characteristics in a situation. In the beginning a scientific point of view may be limited to simply calling attention to the importance of a few characteristics. Research coupled with this kind of elementary point of view probably will be limited to merely describing those characteristics. But as knowledge of the situation increases, the scientist's point of view becomes increasingly detailed and passes beyond isolated description to encompass more sophisticated descriptions of how numerous aspects of the situation are interrelated. At that point we have a hypothesis, a tentative statement of the relationships among several characteristics. Ultimately, this path should lead to an explanation of why these factors are related. The set of

hypotheses should begin to emerge as a full-fledged, comprehensive description and explanation.²

The advantage of holding a viewpoint, or having a hypothesis, is that it gives guidance to the observer trying to understand the complexities of reality. Those who start out to look at everything in general and nothing in particular seldom find anything at all. A hypothesis is a navigational aid through the buzzing confusion and complexity of the real world. A hypothesis is not some opinion or bias stubbornly clung to; hypotheses are frequently rejected and often modified as our experience in the empirical world dictates.

One very promising hypothesis about patterns in the economic support of mass communication media has been proposed by Charles E. Scripps, chairman of the board of Scripps-Howard Newspapers.

If we may suggest one broad generalization, it is that in spite of the increasing complexity of mass communications with the advent of new media, *the pattern of economic support has been relatively constant, and more closely related to the general economy than to the various changes and trends taking place within the mass media field itself.*

The consistency evident in the pattern of economic support for the mass media seems significant. It suggests that *mass communications have become a staple of consumption* in our society much like food, clothing, and shelter. Its stability in times of economic stress indicates that consumers feel that mass communications is a necessary of life, although their selection of media may vary.³

Scripps' *Constancy Hypothesis*—that the amount of money spent

² The need for economic theories and analysis of mass communication and the difficulties in applying traditional economic concepts to mass media are discussed in Edmund Landau and John Scott Davenport, "Price Anomalies of the Mass Media," *Journalism Quarterly*, 36:291-94 (1959); Fred Currier, "Economic Theory and Its Application to Newspapers," *Journalism Quarterly*, 37:255-60 (1960); Poynter McEvoy, "The Reader Needs a Ten Cent Newspaper—Here's Why: The ABC of Newspaper Economics," *Nieman Reports*, 8:3-8 (July 1954).

³ *Economic Support of Mass Communication Media in the United States, 1929-1963* (Cincinnati: Scripps-Howard Research, 1965), p. 4 (italics added).

¹ Quoted in Claire Sellitz, *et al.*, *Research Methods in Social Relations* (New York: Henry Holt, 1959), p. 200.

on mass communication is relatively constant—provides an *explicit point of view* against which individual statistics on mass media spending can be arrayed.⁴ His hypothesis asserts that the amount of economic support provided for mass communication media consistently follows the ebb and flow of the general economy. This means that a relatively constant *proportion* of the available wealth—Gross National Product, for example—will be devoted to mass media. When they have more money, consumers and advertisers will spend more on mass media. When they have less, they will spend less on mass media. The important point is that this ebb and flow follows the general economy, not the competition and technological changes within mass communication industries.

There has been, of course, a tremendous ebb and flow of money among the various media. The success of television was spectacular, and the movies went into a long period of decline. The trend toward fewer daily newspapers has levelled off. Many famous general circulation magazines are dead and dozens of small specialized books have appeared. The point here is that all these changes, according to the Constancy Hypothesis, take place within an arena established by the state of the general economy. Some gain, so others must lose, because no new money is diverted from other sectors of the economy. If the Constancy Hypothesis is correct, there is indeed a powerful economic constraint limiting the growth and expansion of mass communication. The media will grow and expand at a rate dictated by the general economy. While the Constancy Hypothesis describes spending on all media, others already have noted that the total growth of American newspapers (measured by newsprint consumption) has tended to parallel the general growth of the economy. For our oldest, and perhaps most stable, mass medium, the newspaper, newsprint consumption increased 127% between

⁴ The fruitfulness of this *explicit* hypothesis can be made more apparent by examining Kinter's descriptive analysis of the economic support for mass media between 1929 and 1948. See Charles V. Kinter, "How Much Income is Available to Support Communications?", *Journalism Quarterly*, 25:38-42 (1948).

1946 and 1969. During that same period the Gross National Product (measured in constant dollars) increased 130%.⁵

The Constancy Hypothesis also extends an earlier observation about constraints on the expansion of the American press. Following the national Census of 1880 which gathered detailed figures on newspapers, the sole mass medium of that day, S. N. D. North postulated a "law of newspaper growth." He asserted:

The more newspapers there are in a locality the more thrifty, intelligent, and enterprising that locality is found to be. Except in metropolitan districts, however, there is a well defined limit, having its due relations to population and the character and pursuits of that population, where too many newspapers become an impediment to the prosperity, and therefore to the usefulness of each other. There is a law of supply and demand in the matter of newspaper publication. . . .⁶

In short, North suggested the existence of a constraint on growth of the press and some likely origins, or at least correlates, of that constraint. The Constancy Hypothesis extends the principle to all mass media, present and future, and clarifies the nature of the constraint.⁷

Total Spending on Mass Communication

But our first task is to consider the historical accuracy of the Constancy Hypothesis. Detailed annual statistics on total spending for mass communication exist back to 1929.⁸ So we have an extended period of time covering major political, economic, social and mass communication epochs in which to examine the validity of the Constancy Hypothesis.

⁵ Jon G. Udell, "Economic Trends in the Daily Newspaper Business, 1946 to 1970," Wisconsin Project Reports, IV, No. 6 (Madison: University of Wisconsin, Bureau of Business Research and Service, 1970), p. 10.

⁶ S. N. D. North, *History and Present Condition of the Newspaper and Periodical Press of the United States* (Washington: Government Printing Office, 1884), p. 65.

⁷ For another early treatment of this point of view see Charles V. Kinter, "Current Trends in Income of Communications Enterprises," *Journalism Quarterly*, 29:141-47 (1952).

⁸ See Appendix A.

TABLE 1
Trends in Total Expenditures for Mass Media, 1929-1968

Correlations with Time ^a	
Actual \$	+.947
Actual \$ per Household	+.947
Constant \$ per Household	+.902
Partial Correlations (Controlling for Personal Income) ^b	
Actual \$	-.293
Actual \$ per Household	-.229 <i>p</i> =.08
Constant \$ per Household	+.462
Correlations with Time ^a	
% of GNP	-.333
% of Average Personal Income per Household	-.245 <i>p</i> =.06

^a These are the correlation coefficients for comparisons between the economic statistic listed and the time series 1929-1968.

^b These partial *r*s are based on like measures of media spending and personal income, e.g., the partial *r* of +.462 for Constant \$ per Household spent on mass media with Personal Income partialled out used a measure of Average Personal Income per Household in Constant \$. The preceding partial *r* of -.229 used Average Personal Income per Household in Actual \$.

Total spending for mass communication over these four decades shows two trends: a steady increase in the actual number of dollars flowing into mass media and a moderately declining proportion of total real wealth.

These two trends in *total expenditures* for mass communication are detailed in Table 1. (A steady increase each year, of course, would yield a trend of +1; a steady decrease, a trend of -1. The range of possible values, then, is from +1 to -1 with the sign indicating the direction of the trend and the value indicating its strength.)⁹ In terms of the actual number of dollars spent, the total expenditures by consumers and advertisers for mass communication reveal an almost monotonic increase in recent decades. From \$6.16 billion in 1929 the number of dollars flowing into mass media reached \$34.77 billion by 1968. Even when the effects of inflation and population growth are taken into account, the volume of dollars spent on mass communication shows a continued increase. However, *average personal income per household*

⁹ See Appendix B for a discussion of the statistical measurement of these trends.

hold also showed a similar near-monotonic rise during this period. Except for the depression years of the 1930s, average personal income per household has climbed each year (trend = +.971). Only \$2,873 in 1929, average personal income per household reached \$11,381 in 1968.

When this spectacular growth of the economy is taken into account, the strong positive trends in spending on mass communication tend to disappear. Measuring the trend of total spending for mass media in actual dollars (and controlling for the real growth of the economy) indicates a slight negative trend. When both population growth and inflation are taken into account (generally the best measure of any economic trend over time) there does appear to be a slight positive trend in the spending on mass communication.

Other evidence, however, indicates a lag or decline in communication spending in the United States over the past 40 years. Total mass communication expenditures represent a moderately declining proportion of the Gross National Product. In 1929 total expenditures for mass communication—that is, direct spending by consumers plus advertising support for the mass media—accounted for 5.9% of GNP. But for the next 15 years the proportion of the GNP devoted to mass media demonstrated a steady decline.¹⁰ The final years of World War II were the low point, undoubtedly reflecting the combined effects of rationing and war demands on paper, ink and electronic components plus the smaller civilian share of the GNP during years of massive government spending. By the mid-1950s total mass media expenditures seemed to have settled on a plateau of about 4.25% of the GNP.

Another way of looking at the total money spent each year for mass media is to regard it as a proportion of the average personal income of U.S. households. In 1968, as we have seen, the total personal income per household was \$11,381. In that same year total expenditures per household for mass media

¹⁰ The single exception is 1934, which showed an increase of 0.03% over 1933—a move from 4.65% to 4.68% of GNP. But in 1935 the proportion of GNP devoted to mass media dropped to 4.41% and the decline continued. This single discrepancy could well be attributable to measurement error.

averaged \$575.24. The sum of individual consumer spending plus advertiser spending, this is 5.05% of that year's average personal income. Across all 40 years the average proportion is 5.24% with a standard deviation of 0.71%. The overall pattern of this proportion during the past four decades is similar to the GNP trend: a moderately declining trend across time.

Perfect support for the hypothesis would require all zero trends. To the extent that the evidence is not fully supportive, it most often shows mass communication lagging behind the general growth of the economy in recent decades despite massive physical growth of entire new technologies of broadcast communication.

The Causes of Media Growth

Rephrased in causal terms the Constancy Hypothesis asserts: *The level of spending on mass media by consumers and advertisers is determined by the general state of the economy. Any change in the level of the economy causes a parallel change in spending on mass media.* The annual statistics in Appendix A can be used to test this causal assertion through the use of cross-lagged correlations. Using this procedure we can examine how the level of the economy in one year is related to the level of media spending the next year. The primary advantage of the cross-lagged correlation is that it provides evidence on time-order, a major requisite for asserting that one condition causes another. Further, there is a built-in alternative hypothesis generated by the opposite cross-lag: how the level of media spending in one year is related to the level of the economy the next year. The argument behind cross-lagging is that if one variable really is the *cause* of another, the correlation of *X* (hypothesized as the cause) at Time One with *Y* (hypothesized as the effect) at Time Two should be stronger than the opposite cross-lag, *Y* at Time One correlated with *X* at Time Two.

Across the 40 years between 1929 and 1968 the correlation between GNP (at Time One) and total mass media spending the next year is +.996. But the opposite cross-lag, total media spending at Time One compared with GNP the next year across the same 40 years, yields a similar correlation, +.992. Part of the

difficulty with this comparison is the high intercorrelation between the level of GNP and total mass media spending in the same year. Also, we are dealing with relatively stable variables, so that the level of GNP in any year is strongly influenced by the GNP of the previous year. Similarly, the level of spending on mass media in any year must be influenced to some degree by the amount spent for media in the previous year. Therefore, the cross-lagged correlation analysis must be taken one more step, partialling out the influence of the dependent variable at Time One on the same variable at Time Two.

This additional step in the analysis results in clear differences between the two cross-lagged *rs*. Comparing GNP at Time One with total media spending the next year across 40 years with the influence of total media spending at Time One removed yields an *r* of +.585. This is lower than the previous comparison of GNP and total media spending because *the influence of media spending at Time One has been removed*. But the result indicates that a significant effect remains.

Before accepting this evidence as support for the causal version of the Constancy Hypothesis, it is necessary to look at the alternative cross-lag, total spending on mass media at Time One compared to GNP the next year with the influence of GNP at Time One removed. The resulting correlation equals -.146. Since *p* = .19, this is most likely a chance deviation from a true correlation of zero,¹¹ indicating that the level of spending on

¹¹ It is possible empirically to obtain a non-zero trend (*r*) when the true value is 0. Therefore, all *rs*, like other statistical measures, are tested against a null hypothesis which asserts that the obtained result is due solely to chance. If the probability (*p* value) of a given *r*'s being a chance discrepancy from zero is equal to or less than five times in a hundred (*p* ≤ .05), the null hypothesis is rejected and the empirically reported value is accepted. But, if *p* > .05 than the empirical value is ignored and the *r* considered to be zero. That is, the empirical value is considered a chance discrepancy from zero. Further discussion of the criteria that support setting this particular cutting point is found in Sanford Labovitz, "Criteria for Selecting a Significance Level: A Note on the Sacredness of .05," *American Sociologist*, 3:220-22 (August 1968).

To repeat, *p* = .05 is accepted here as the cutting point. Only *p* values exceeding .05 are reported. In other words, *ps* are reported for all *rs* regarded as zero by the author.

mass media in one year has no influence on the size of GNP the next year when the effect of the previous year's GNP is controlled for. In short, the "causal" version of the Constancy Hypothesis is well supported by the cross-lagged correlation evidence.

This support is even stronger when one considers the alternative hypothesis used in the cross-lagging comparisons (that media spending determines GNP). This proposition is more than a mere foil for the Constancy Hypothesis. Some contend that in developing countries the direction of influence indeed is from media spending to GNP and the growth of the economy. This is, for example, the point of view guiding Schramm's explication of the role of mass media in national development.¹²

However, much of the actual empirical evidence on developing countries is equivocal and could be interpreted as supporting the Constancy Hypothesis. Using cross-lagged correlations to compare changes in 23 developing countries between 1951 and 1961, Schramm and Ruggles¹³ found a difference of only .04 in correlations between daily newspapers per 1000 and GNP (.90 versus .86), favoring the interpretation that the increase in newspapers influenced the level of GNP. For the cross-lagged comparison of GNP and radios per 1000 the difference was .03 in the opposite direction (.79 versus .76), supporting the interpretation that GNP determined the number of radios. In neither case do Schramm and Ruggles regard the results as significant.

To obtain a better fit for the data on developing nations and, hopefully, to obtain a more dynamic view of the relationships among GNP, mass media, urbanization and literacy,¹⁴ Schramm

¹² Wilbur Schramm, *Mass Media and National Development* (Stanford: Stanford University Press, 1964).

¹³ Wilbur Schramm and W. Lee Ruggles, "How Mass Media Systems Grow." In *Communication and Change in the Developing Countries*, Daniel Lerner and Wilbur Schramm, eds. (Honolulu: East-West Center Press, 1967), pp. 57-75.

¹⁴ Inclusion of literacy and urbanization was suggested by the work of Daniel Lerner in *The Passing of Traditional Society: Modernizing the Middle East* (Glencoe: The Free Press, 1958). The historical importance of urbanization and literacy in English to the development and growth of American newspapers is reviewed by Alfred McClung Lee, *The Daily Newspaper in America. The Evolution of a Social Instrument* (New York: Macmillan, 1937), Chapt. IV.

and Ruggles constructed two Guttman scales, one including newspapers, the other radio, because there was "no reason to think that the two media were cumulative and belonged in the same scale."¹⁵ However, the sequencing of the four variables in both scales was identical. Furthermore, in both scales based on data from 82 countries GNP precedes mass media. As Schramm and Ruggles remark:

These relationships are interesting to know. The question is whether they are merely descriptive, or dynamic. Although descriptively satisfactory, are these groupings very meaningful in terms of development? In other words, have we here the basis of a step function of media growth, such as Lerner suggested, or merely a set of artifactual relationships?¹⁶

Since their findings do support the Constancy Hypothesis, the plausibility of both is enhanced and the viability of the alternative explanation (that this is nothing more than a methodological artifact) is diminished.

Finally, a *caveat* that economic determinism is not the entire story of mass media growth and development. In cross-national studies, the level of literacy and urbanization often explain more of the variation in mass media growth and development than does GNP, at least for developing nations. Nevertheless, the general state of the economy is closely linked to the state of the mass media system. In a developed, mature nation such as the United States, economics may overshadow literacy and urbanization, since this country long ago passed the threshold levels suggested by Lerner and others.

Evidence that this is indeed the case was reported several decades ago by Kinter, studying differences in newspaper circulation within the United States.¹⁷ In a remarkable parallel to Lerner's analysis of the Middle East, Kinter selected income, urbanization and illiteracy as his independent variables.¹⁸ A

¹⁵ Schramm and Ruggles, *op. cit.*, p. 67.

¹⁶ *Ibid.*, p. 70.

¹⁷ Charles V. Kinter, "Effects of Differences in Income on Newspaper Circulation," *Journalism Quarterly*, 22:227-9 (1945).

¹⁸ Income was measured by per capita income; urbanization by percentage of urban population; illiteracy by percentage of population with five years or less of schooling; and newspaper circulation as per capita circulation.

score was obtained for each state and the District of Columbia, using 1940 census figures, the most recent available to Kinter. The major correlate of newspaper circulation was income ($r = +.658$). Adding urbanization to the multiple correlation raised the r to $.790$. Illiteracy contributed only a little, raising the multiple r to $.814$. While other variables are needed to account fully for differences in the size of the media systems in various parts of the United States, economic influence is a major factor in the American mass media marketplace.

Consumers in the Marketplace

AMERICANS SPEND more and more each year to obtain the pleasures and utilities of mass communication. In 1929 consumers already were spending \$2.73 billion to obtain their newspapers, magazines, radios and other mass media. Forty years later this spending totalled \$16.84 billion. Except for a decline during the depression years of the 1930s and an occasional one-year lag here and there for some particular media group, American consumers have spent more and more each year for mass communication. The single exception to these nearly straight-line increases in spending is movie admissions.

Even before population growth and inflation are considered, the lag in spending for movies is readily apparent. Movie admissions reached their peak in 1946. That year Americans spent \$1.69 billion to attend movies. Immediately afterward there was a steady decline in spending on movies that continued for about a dozen years. Those were the years, of course, during which television increasingly saturated American households. Then from 1959 to 1963 spending on movies recovered somewhat and leveled off at about \$1.25 billion. But this plateau was the prelude to another major decline in which consumer spending on movies dropped to the billion dollar level. This decline is not true for any other mass medium in the marketplace.

However, the true comparison is between increases in media spending and increases in personal income. Scripps' Constancy Hypothesis asserts that what consumers spend on mass communication is correlated with the general economy. And this is clearly the case. Total consumer spending on mass communication shows no real deviation from the general economic growth of the United States over four decades. One key piece of evidence (Table 2) is the trend in total consumer spending on mass media

TABLE 2

Consumer Spending for Mass Media, 1929-1968 (With Controls Introduced for Increases in Population Growth, Inflation and Personal Income)

	Trend	Trend (with controls)
Total Spending		
Actual \$ ^a	+.949	-.326
Actual \$ per Household ^b	+.952	-.324
Constant \$ per Household ^c	+.898	+.228 <i>p</i> =.08
By Media (Actual \$) ^a		
Newspapers, Magazines, Sheet Music	+.976	+.650
Books and Maps	+.919	-.629
All Print Media	+.958	+.054 <i>p</i> =.37
Radio/TV Receivers, Records, Musical Instruments	+.900	-.662
Radio/TV Repairs	+.940	-.015 <i>p</i> =.46
All Radio/TV	+.911	-.647
Movie Admissions	+.531	+.614
All Audio and Audio/Visual Media	+.941	-.407
By Media (Actual \$ per Household) ^b		
Newspapers, Magazines, Sheet Music	+.978	+.513
Books and Maps	+.932	-.312
All Print Media	+.969	+.143 <i>p</i> =.19
Radio/TV Receivers, Records, Musical Instruments	+.901	-.383
Radio/TV Repairs	+.954	+.294
All Radio/TV	+.917	-.307
Movie Admissions	-.061 <i>p</i> =.35	+.042 <i>p</i> =.40
All Audio and Audio/Visual Media	+.935	-.440
By Media (Constant \$ per Household) ^c		
Newspapers, Magazines, Sheet Music	+.958	+.665
Books and Maps	+.901	+.327
All Print Media	+.958	+.636
Radio/TV Receivers, Records, Musical Instruments	+.848	+.468
Radio/TV Repairs	+.961	+.851
All Radio/TV	+.885	+.558
Movie Admissions	-.692	-.777
All Audio and Audio/Visual Media	+.835	+.064 <i>p</i> =.35

^a The control variable is Total Personal Income.

^b The control variable is Average Personal Income per Household.

^c The control variable is Average Personal Income per Household in Constant \$.

stated in constant dollars per household with growth in personal income controlled. The summary trend is +.228 (*p* = .08), suggesting near constancy in total consumer spending on mass communication. The absolute number of dollars that consumers have spent on mass media has increased tremendously between 1929 and 1968. But this is hardly surprising. With rising incomes the dollar totals should increase. And when these rising incomes, along with inflation and population growth are taken into account, a picture of relative constancy in consumer spending on media emerges.

While over-all consumer spending seems to demonstrate the constancy that Scripps suggested, individual media groups show very disparate trends. As already noted, movie admissions show a strong negative trend over the past 40 years. This is apparent in the summary measures given in Table 2. It also is apparent in the ratio of 1968 spending to 1929 spending. Consumer spending on movies in 1968 was less than one and a half times what it was in 1929. But personal income was eight times larger.

This downward trend in spending on movies is counterbalanced by steady increases in consumer spending on print media and broadcasting. Both show moderately strong upward trends in consumer support. For example, newspapers, magazines and sheet music show a trend of +.665. For radio and television, the trend is +.558. In terms of actual dollars the ratio of 1968 spending to 1929 spending for both is very close to the eight-fold increase in personal income. Other spending by consumers on print and audiovisual communication also show similar trends of real growth. Real growth, of course, means expansion above that which would automatically accrue from population growth, inflation and growing incomes.

A simpler vantage point is consumer spending on mass media considered as a proportion of total consumer spending. Here a picture of constancy again emerges. In 1929 mass communication expenditures were 3.46% of total consumption expenditures. In 1968 the figure was 3.14%. The average across all 40 years is 3.04% with a standard deviation of less than 0.20%. The trend (Table 3) is +.152, but with *p* = .175, indicating that the empirical measure showing a weak positive trend is very likely a chance deviation from zero—the absence of any trend. This

TABLE 3

Consumer Expenditures for Mass Media, 1929-1968

... as % of total consumption expenditures	+ .152	<i>p</i> = .175
... as % of average personal income per household	- .439	
... as % of GNP	- .501	
... as % of total recreation expenditures	- .903	

absence of movement over time in the proportion is another way of saying that mass communication has the economic characteristics of a staple commodity. Household budgets seem to maintain a fixed proportion of the available income for mass communication.

Some other summary measures of consumer spending *vis à vis* the general economy show spending on mass media lagging behind the overall growth of the American economy. Both as a percentage of GNP and as a percentage of average personal income per household, mass media expenditures by consumers exhibit a moderately negative trend over the past 40 years (Table 3). And as a percentage of total consumer spending on all types of recreation (including media) mass media expenditures show a steep, almost monotonic decline between 1929 and 1968.

While the various summary measures of consumer spending on mass media demonstrate lack of growth in the consumer's proportionate spending on mass communication, they are not uniform trends. The exact nature of the trend in consumer spending depends on the base used for the description. Blank and Johnson¹ have demonstrated a similar discrepancy in relative spending on advertising. While advertising as a percentage of GNP has remained at its pre-World War II level in recent decades, advertising expenditures as a percentage of total consumption spending have climbed to a new plateau.

Nevertheless, the overall impression is that what Americans spend on mass communication has not increased with the advent and spread of new media such as radio and television. The money to create two ubiquitous broadcasting systems, first radio,

later television, seems to have come more from changing media habits and general economic growth than from any fundamental shifts in consumer habits—such as allocating mass media a larger share of personal income. This close relationship between general economic conditions and spending on mass communication media suggests we are dealing with a behavioral principle, the *Principle of Relative Constancy*, which describes a major constraint on the growth and expansion of American mass media. This principle appears to hold under a wide variety of historical conditions and communication technologies.

Economic Roots of Consumer Spending

There is good evidence for the *causal* version that the state of the economy determines the amount spent by consumers for mass media. This evidence is provided by a cross-lagged correlational analysis of the relationship between GNP and total consumer spending on mass media. Like the analysis reported for total spending on media it is necessary to control for the dependent variable at Time One before any meaningful ordinal comparisons appear. Comparison of the simple cross-lags is equivocal. GNP at Time One correlated with total consumer spending on media the next year from 1929 to 1968 equals +.996. Similarly, the correlation for media spending at Time One and GNP the next year across the same 40 years is +.995. However, when the dependent variable is controlled for at Time One, significant differences appear, similar to those found previously for total media spending. The correlation between GNP at Time One and total consumer spending on media the next year with total consumer spending on media at Time One controlled for is +.471. But media spending at Time One correlated with GNP the subsequent year with GNP at time one controlled for is only +.168 (*p* = .15). That means that most likely there is no relationship. In any event, the evidence clearly supports the idea that the flow of influence is from the general economy (measured by GNP) to consumer spending on mass media.

Existence of a general correlation between economic conditions and spending on mass communication media also is documented in the research literature on mass communication. Peterson found high correlations between newspaper circulation and personal

¹ D. M. Blank and Arno Johnson, cited in *The AAAA Newsletter* (American Association of Advertising Agencies), 8 (5):3 (October 5, 1970).

TABLE 4
Personal Income and Newspaper Circulation in the United States by Region, 1929 and 1957

	% of Personal Income in U.S.	% of Circulation in U.S.
1929		
New England	8.32	9.37
Mideast	32.06	32.11
Great Lakes	23.62	23.62
Plains	8.85	10.71
Southeast	11.66	10.84
Southwest	4.97	4.93
Rocky Mountain	1.88	1.55
Far West	8.63	7.52
1957		
New England	6.58	6.80
Mideast	25.46	27.49
Great Lakes	22.46	21.63
Plains	8.08	9.14
Southeast	15.37	15.29
Southwest	6.79	6.82
Rocky Mountain	2.24	2.08
Far West	13.02	10.75

income.² The proportion of total personal income in a region of the United States is an excellent predictor of its share of total newspaper circulation. For example, Table 4 indicates that in 1929 the Southeast accounted for 11.66% of personal income in the United States and for 10.84% of the total newspaper circulation. In 1929 the average discrepancy between a region's share of total personal income and share of total newspaper circulation was only 0.66%, an exceedingly small difference. In 1957 the average discrepancy was 0.84%. Peterson found similar parallels between personal income and newspaper circulation when the matching was done on a state-by-state basis.³

Willey and Rice reported a parallel between personal income

² Wilbur Peterson, "Is Daily Circulation Keeping Pace With the Nation's Growth?" *Journalism Quarterly*, 36:12-22 (1959).

³ *Ibid.*, pp. 20-21.

and the early diffusion of radio sets.⁴ "With few exceptions the cities in which three-fourths or more of all families have receiving sets are residential suburbs of larger cities, in which, accordingly average economic status is unusually high."⁵ Their analysis was based on the 1930 census, the first to ask about radios, since they scarcely existed a decade earlier. Less than two decades later the same pattern was repeated in the diffusion of television sets. Early purchase was clearly related to income. A study of one Eastern industrial city revealed that 44% of the sets bought before February of 1948 were purchased by members of the professional and proprietor class. Only 16% were purchased by semi-skilled and unskilled workers.⁶

More recently, Levin⁷ concluded that "newspaper circulation moves generally with changes in national income and general business activity."⁸ He compared 26 cities (which had TV stations) on two variables: percentage decline in circulation of dailies (ranked from high to low); per capita retail sales, his surrogate for personal income (ranked from low to high). The rank order correlation between the two is +.890. In short, high rates of decline in newspaper circulation are associated quite strongly with low per capita sales. Conversely, low rates of decline in circulation are associated with high retail sales.

A similar study using national figures for a 25-year period (1918 to 1943) found a strong correlation between changes in income and newspaper circulation.⁹ The comparison, based on percentage annual changes in per capita national income and in per capita circulation, yields a correlation of +.472. However, if four of these 25 years are omitted from the comparison (1941, 1942 and 1943, when paper shortages curtailed the growth of

⁴ Malcolm M. Willey and Stuart A. Rice, *Communication Agencies and Social Life* (New York: McGraw-Hill Book Co., 1933).

⁵ *Ibid.*, p. 192.

⁶ John W. Riley, Frank V. Cantwell and Katherine F. Ruttiger, "Some Observations on the Social Effects of Television," *Public Opinion Quarterly*, 13:226 (1949).

⁷ Harvey J. Levin, "Competition Among Mass Media and the Public Interest," *Public Opinion Quarterly*, 18:62-71 (1954).

⁸ *Ibid.*, p. 66.

⁹ Charles V. Kinter, "Effect of Differences in Income on Newspaper Circulation," *Journalism Quarterly*, 22:225-27 (1945).

newspaper circulation, and 1919, when there was a tremendous letdown in interest in foreign news with the end of World War I) the correlation increases to +.645. Either comparison asserts a significant relationship across time between newspaper circulation and the state of the economy.

To sum up the box score for the Principle of Relative Constancy and consumer spending patterns on mass media, none of the trends in total consumer spending show any real growth between 1929 and 1968 which cannot be explained by general economic growth. This is true despite the fact that during these years broadcasting—first radio and then television—became major mass media in the United States.

Out of five major consumer spending trends examined, two show precisely the constancy described by the principle:

- 1) Total consumer spending for media (in constant dollars per household with personal income controlled for).
- 2) Total consumer spending for media as a percent of total consumer spending.

The dollar increase in media spending by consumers parallels the general growth of the consumer economy almost perfectly. The competition among different media and among different communicators in the same medium has apparently failed to draw any new consumer dollars into mass communication. Indeed, some of the evidence suggests a *decline* in the number of dollars flowing into mass communication. Total consumer spending on mass media has declined as a percentage of:

- 1) Gross National Product.
- 2) Average personal income per household.
- 3) Total recreation spending by consumers.

Some of this apparent decline may be artifactual. Much of the growth in GNP, for example, is attributable to massive government spending for defense and space exploration.

Mass Communication as a Staple

Finally, to push the available aggregate data on consumer spending as far as possible, one additional line of background evidence should be considered. This is the pattern of consumer spending for various staple and luxury items. In his original

statement of the Constancy Hypothesis, Scripps equated mass communication with such staples as food, clothing and housing. In actual dollars, of course, the long-term trends for these staples and for such luxuries as jewelry, tobacco and automobiles are nearly monotonic (Table 5). Even when inflation and population growth are taken into account the long-term trend is clearly upward.

However when the general growth of the economy is considered, both food and housing do demonstrate constancy. They indeed seem true staples. In contrast, such luxuries as tobacco and automobiles show moderate growth above and beyond the general expansion of the economy.

Spending on clothing and jewelry, like some of the spending patterns for mass media, actually exhibit a sizeable decline when the expansion of the economy is considered.

The preponderance of the evidence outlined in Tables 2, 3 and 5 supports Scripps' contention that "mass communications have become a staple of consumption in our society much like food, clothing and shelter." The trends in consumer spending on these staples and on mass media are a mixture of relative constancy and decline, not growth.

TABLE 5
Consumer Spending on Staples and Luxuries, 1929-1957

	Trend		Controlling for:	
	In Actual \$	In Constant \$ per Household	Total Consumer Spending ^b	Total Personal Income ^b
Food and beverages ^a	+.961	+.797	-.063 p=.38	+.011 p=.48
Clothing	+.942	+.523	-.531	-.739
Housing	+.882	+.353	-.023 p=.45	+.263 p=.09
Jewelry and watches	+.934	+.679	-.471	-.563
Tobacco	+.961	+.866	+.318	+.405
Automobiles	+.835	+.732	+.341	+.751

^a These trend measures are based on consumer statistics reported in *Historical Statistics of the United States, Colonial Times to 1957* (U.S. Bureau of the Census), p. 178, items G192, G195, G199+G200+G201, G196, G194, and G211, respectively.

^b In constant \$ per household.

Advertisers in the Marketplace

ADVERTISERS now spend a bit more than consumers in the mass media marketplace, but the long-term trend has been an even share of spending on mass communication. Between 1940 and 1951, consumers actually outspent advertisers, but for 27 of the 40 years between 1929 and 1968 advertiser spending on media slightly exceeded consumer spending. In nearly all years, however, the differences have been small. In 1968, for example, consumers put up 48% and advertisers 52% of the money going to mass communication.

Has constancy, then, characterized the behavior of both consumers and advertisers? There is, of course, no inherent necessity for consumer and advertiser spending on mass communication to be parallel. The mass media range from movies and books, which are almost totally dependent on consumer support, to direct mail and billboards, which are entirely advertiser enterprises. In between are those media such as magazines and newspapers which depend on both sources of revenue; and broadcasting, whose revenue comes from advertising but whose existence in the U.S. is dependent upon sizeable consumer capital investment in receiving sets.

Empirically, however, consumer and advertiser spending on mass media has been highly similar over all across the past four decades. This similarity is true regardless of whether one is considering total dollar outlays for all mass media or whether the focus is on an individual mass communication medium that draws from both consumers and advertisers. As a quick introduction, Table 6 shows a nearly perfect correlation between the actual dollar expenditures of advertisers and of consumers on all mass media over the past 40 years. Introducing a control for population growth makes no real difference in the correlation,

TABLE 6
*Comparisons of Advertiser and Consumer Expenditures
for Mass Media, 1929-1968*

Total Expenditures	
Actual \$	.991
Actual \$ per Household	.979
Constant \$ per Household	.891
Expenditures by Medium (in Real Dollars)	
Newspaper and Magazines	.989
All Print Media	.985
Radio and TV	.989
All Audio and Audiovisual media	.984

and introducing controls for both population growth and inflation still leaves such a substantial correlation that one can conclude that both consumer and advertiser economic behavior basically have moved together over time.

A more detailed look focusing on individual media groups reveals additional evidence of this similarity in behavior. This is apparent both in the correlations reported in Table 6 and from inspection of the ratios of advertiser to consumer expenditures reported in the reference tables of Appendix A. For example, the near perfect correlation between advertiser and consumer expenditures for all print media reflects a fairly constant ratio of 30% to 70% in consumer/advertiser expenditures. Interestingly, this is a composite of spending ranging from direct mail (total advertiser support) through newspaper and magazines (dominant advertiser support) to books (total consumer support).

But examination of one of these components, newspapers and magazines, shows the same isomorphism. The high correlation in Table 6 between advertiser and consumer support for newspapers and magazines is just another way of summarizing the approximately constant 33%/67% division of revenues reported in Reference Table X-A (Appendix A).

Even in broadcasting, an industry which has experienced at least three major technological innovations during the 40-year period under study here, this consumer/advertiser isomorphism holds. The strong and steady growth of radio, the rapid diffusion of television in the early 1950s and the steady growth of color

TABLE 7
Advertiser Spending for Mass Media, 1929-1968 (With controls introduced for Population Growth, Inflation and Personal Income Increases)

	Trend	Trend (with controls)
Total Spending		
Actual \$ ^a	+.940	-.217 <i>p=.09</i>
Actual \$ per Household ^b	+.934	-.147 <i>p=.19</i>
Constant \$ per Household ^c	.863	.518
By Media (Actual \$) ^a		
Newspapers	.977	.423
Magazines	.988	.658
Farm Publications	.862	.683
Business Papers	.988	.769
Total Newspapers and Magazines	.983	.554
Outdoor	.912	.760
Direct Mail	.969	.239
Miscellaneous Printed	.979	.345
Total Printed Media	.981	.483
Radio	.962	.304
Television	.994	.899
Total Radio/TV	.953	-.430
Miscellaneous Audio and Audiovisual	.979	.376
Total Audio and Audiovisual	.955	-.384
By Media (Actual \$ per Household) ^b		
Newspapers	.972	.580
Magazines	.987	.552
Farm Publications	.693	.490
Business Papers	.978	.696
Total Newspapers and Magazines	.982	.648
Outdoor	.790	.440
Direct Mail	.971	.654
Miscellaneous Printed	.987	.652
Total Printed Media	.984	.681
Radio	.888	-.163 <i>p=.18</i>
Television	.994	.883
Total Radio/TV	.972	.318
Miscellaneous Audio and Audiovisual	.987	.687
Total Audio and Audiovisual	.974	.350
By Media (Constant \$ per Household) ^c		
Newspapers	.960	.931
Magazines	.986	.912
Farm Publications	.601	.712
Business Papers	.976	.873
Total Newspapers and Magazines	.978	.944
Outdoor	.781	.645

Direct Mail	.953	.924
Miscellaneous Printed	.980	.934
Total Printed Media	.977	.947
Radio	.862	.154 <i>p=.20</i>
Television	.948	.852
Total Radio/TV	.967	.846
Miscellaneous Audio and Audiovisual	.980	.939
Total Audio and Audiovisual	.968	.855

^a The control variable is Total Personal Income.

^b The control variable is Average Personal Income per Household.

^c The control variable is Average Personal Income per Household in Constant \$.

TV in the 1960s and '70s are technological changes with important implications for advertising and for the sociology of mass communication audiences. But these massive technological changes did not seem to change the over-all economic patterns of support for broadcasting very much. In 1929 consumers provided 71.05% of the economic support for broadcasting (principally in the form of capital investment for radios and maintenance costs for them). In 1968 consumers provided 67.91% of the economic support for broadcasting. The variation through the years has been small.

Since broadcasting is the major segment of audio-visual communication media in the United States, it is not surprising that the same high correlation is found there for advertiser and consumer expenditures. The proportion of support coming from consumers has declined—due largely to the decline of the movies, a 100% consumer-supported medium—but the decline is not as sharp as might be expected.

Some direct evidence of the constancy in advertiser spending on mass communication—and its implications for competition among the mass media—is discussed by Levin.¹ Writing in 1954 while television was saturating the nation, he noted that advertising spending has been a fairly constant proportion of national income. Levin concluded that "the chances for successful adjustment by older advertising media would be weakened unless much of television's support comes from a rapidly expanding total of

¹ Harvey J. Levin, "Competition Among Mass Media and the Public Interest," *Public Opinion Quarterly*, 28:62-79 (1954).

TABLE 8

<i>Advertiser Expenditures for Mass Media, 1935-1968, Controlling for Gross National Product,^a</i>			
Actual \$	+.940	-.223	<i>p</i> =.09
Actual \$ per Household	+.934	-.182	<i>p</i> =.13
Constant \$ per Household	+.863	.516	

^a These partial *r*s are based on like measures of media spending and national income, e.g., the partial *r* of .516 for Constant \$ per Household spent on mass media with GNP partialled out, used a measure of GNP per Household in Constant \$. The preceding partial *r* of -.182 used GNP per Household in Actual \$.

advertising revenues, or unless non-advertising funds (e.g., subscription fees) play a sizeable role."²

Looking at the over-all trends in advertising, Table 7 shows a near-monotonic increase in the number of dollars flowing into advertising from 1929 to 1968. However, this trend is considerably deflated when controls are introduced for the huge increases in personal income during those four decades. In terms of actual dollars and actual dollars per household, advertising expenditures do show relative constancy. However, when both advertising expenditures and personal income are stated in terms of constant dollars per household, there does appear to be some real growth in advertising budgets beyond that generated by the general economy. Further consideration of this trend will be postponed until some other economic trends have been examined.

The Principle of Relative Constancy asserts that the level of spending on mass communication is correlated with the *general* economy. Now the state of the general economy can be indexed in a number of ways. Personal income is one measure. An even more common measure is Gross National Product. When GNP is used as the control variable (Table 8), the trends in advertising expenditures are highly similar to the results in Table 7 which used personal income as its index of the general economy. For actual dollars and actual dollars per household, a pattern of constancy again emerges. But when both advertising and GNP are stated in constant dollars per household, again a moderate positive trend emerges.

² *Ibid.*, pp. 78-9.

TABLE 9
Advertiser Expenditures, 1935-1968

Percent of GNP	-.219	<i>p</i> =.09
Percent of Average Personal Income per Household	+.422	

Still another vantage point—advertising as a share of the general economy—yields a mixed picture (Table 9). Spending on advertising has been a relatively constant proportion of Gross National Product, but a moderately increasing proportion of average personal income.

Interpreting the advertising data as showing some growth beyond that of the total economy is supported by the trends in Table 7 for individual media. The picture there is one of strong growth across all media, with the exception of radio, which was supplanted, of course, by television as the major broadcast medium.

Cross-lagged correlation analysis of the relationship between the state of the economy and total spending on advertising, however, yields strong support for the "causal" version of the Principle of Relative Constancy. The competing hypotheses here are *a*) the amount of spending on advertising is determined by the level of the general economy, and *b*) advertising expenditures influence the level of the economy. The former hypothesis is based on the Principle of Relative Constancy. The latter hypothesis is a Madison Avenue maxim.³

As in our other cross-lag analyses, the simple cross-lag *r*s are equivocal. For GNP at Time One and advertising expenditures the subsequent year across 40 years, *r* equals +.992. But for advertising expenditures at Time One and GNP the subsequent year across the same four decades *r* equals +.986. However, again when the dependent variable, the "effect," is controlled for at Time One, the evidence clearly supports the view that the level of the economy influences spending on advertising. For advertising expenditures at Time One correlated with GNP the subsequent year with GNP at Time One partialled out, *r* equals -.277.

³ For an earlier, more scholarly discussion of the economic impact of advertising see Neil H. Borden, *The Economic Effects of Advertising* (Chicago: Richard D. Irwin, 1942), Chaps. 24, 25.

However, for GNP at Time One correlated with advertising expenditures the subsequent year with advertising expenditures at Time One partialled out, r equals +.551. Clearly, the ordinal comparison of the two correlations supports the Principle of Relative Constancy. Even though the alternative hypothesis ends up with a negative correlation coefficient, no assertion is made here that advertising has a negative economic effect. The negative finding simply indicates the absence of any significant positive effect. The influence in the marketplace is that of economics on mass communication.

Summing up, support for the Principle of Relative Constancy is somewhat equivocal as one takes different vantage points to view the trends in advertising expenditures over the past four decades. But while it is impossible to say unequivocally that the level of advertising support for mass communication is fully determined by the level of the general economy, it is obvious that a significant economic constraint does affect the mass media marketplace. For total spending on mass communication (consumer plus advertiser spending), the Principle of Relative Constancy is both a reasonably accurate and useful organizing principle. It is equally accurate and useful for the analysis of consumer spending on mass communication. While its descriptive accuracy may be somewhat diminished when advertising alone is considered, the Principle of Relative Constancy still remains a useful conceptual device. Minimally, it challenges others to put forward a more accurate and useful conceptualization of behavior in the mass media marketplace.

The Changing Media Mix

THE FIRST THREE centuries of American history encompass only a few forms of communication. There was a vigorous colonial press, a fledgling book industry and a plethora of religious and political pamphlets. But conversations and letter writing conveyed most of the messages of the 17th and 18th centuries. The famous committees of correspondence were a key part of the communication network welding the colonies together during the American Revolution. Most of the newspapers of that day also depended heavily on reprinted correspondence for their news. Only in the 1830s did a true mass medium appear in the United States. Benjamin H. Day's *New York Sun*, with its circulation measured in thousands of copies, was an historical first.¹ But the continued emergence of mass communication proceeded at a measured pace during the 19th century. Daily newspapers and the mass magazine were the mass media of that century. Their dominance continued into the present century, but rapid technological growth began to spawn new media of mass communication. By the 1920s the cinema had become a national pastime.² Radio also appeared in that decade and the saturation of U.S. households steadily increased despite the upheavals of an economic depression and a world war. Delayed by World War II, television began appearing in American homes in the late 1940s. From a million sets in use in 1948, there was a jump to 55.5 million sets in 1960. Today the number of TV sets in use is about 100 million.³

¹ Frank M. O'Brien, *The Story of the Sun*, Rev. Ed. (New York: D. Appleton and Co., 1928).

² Lewis Jacobs, *The Rise of the American Film* (New York: Teachers College Press, Columbia University, 1967).

³ Sydney W. Head, *Broadcasting in America* (Boston: Houghton Mifflin Co., 1956).

So in a half dozen decades the number of mass communication media expanded from two or three print media—newspapers, magazines and books—to six major media. And with continued technological development new media such as cable television, the cassette and perhaps the computer itself are entering into mass communication.⁴ In the early days of this century discussion of mass communication centered on newspapers with an occasional mention of magazines and books. Now one must discuss a complex "media mix." With this proliferation of media it is necessary to examine the communication-seeking behavior of individuals who must allocate their time among these media, and even then never use much of what is available.

Given the vast volume of communication already available to Americans, how does one account for the continued proliferation of mass media? In a country already bombarded with newspapers, magazines, radio and movies, how did television, for example, manage to saturate the nation in less than a dozen years?

DeFleur suggests that the successful diffusion of any new mass medium results from technological accumulation and supportive social forces.⁵ The catalyst for these is a creative entrepreneur. Printing technology, growing literacy and Benjamin Day's imagination came together to initiate the newspaper as a mass medium. A long accumulation of photographic technology, a large non-English speaking immigrant population, and the artistry of Griffith, DeMille and others spawned the cinema as a mass medium.

Just as important as tracing and explaining the growth and diffusion of new mass media, DeFleur notes, is insight into the decline of a medium.⁶ DeFleur's comparative analysis of the diffusion of mass media in the United States notes a similar S-shaped curve for each pattern. Both newspapers and movies are in the later stages of diffusion where the curve has already turned down from its apex. Radio and television are still in the ascending stages.

⁴ E.g., "Video Cartridges: A Promise of Future Shock," *Time*, August 10, 1970, pp. 40-41.

⁵ Melvin L. DeFleur, *Theories of Mass Communication* (New York: David McKay Company, 1970).

⁶ *Ibid.*, p. 19.

The total media mix in the United States is not a random mix of technologies and sociological patterns. The composition of this media mix exhibits some regularities. For example, DeFleur's presentation of standardized diffusion curves for four major mass media suggests a complementary relationship between the "decline" of newspaper and movies on one hand and the surge of broadcasting.⁷ His explanation of this complementary relationship is in terms of *functional alternatives*. If one conceives of a mass medium as serving some social or psychological need of each individual in its audience, then the appearance of another medium which serves that need better (according to some criterion of communication performance) will result in shifts among the audiences. Over time, for example, radio, movies and television successively took over portions of the news, information and entertainment functions of the newspaper.⁸

A similar assessment of the impact of television on the media mix among children is made by Schramm, Lyle and Parker.⁹ Television captured a major segment of children's leisure time. Since parents reported no significant change in their children's bedtimes, the time had to come from some activity. There was no decrease in the time spent playing with other children, but there was an appreciable decrease in the time devoted to comic books and movies. The inference is that television programs, comic books and movies are functional equivalents for children.

The notions of functionally equivalent mass communications and complementary shifts in mass media audiences are compatible with the idea of economic constancy in consumer support of the mass media. If the major economic constraint on mass media suggested by the Principle of Relative Constancy indeed does exist, then at any given point in time a consumer will select a

⁷ Assessments of decline or growth are made here on the basis of per capita or per household statistics. Newspaper circulation per household and movie attendance per household clearly are below their historic peaks and appear to exhibit continued decline. In contrast, the number of radio and TV sets per household shows continued growth.

⁸ Leo Bogart, "Changing News Interests and the News Media," *Public Opinion Quarterly*, 32:560-74 (1968-69).

⁹ Wilbur Schramm, Jack Lyle and Edwin Parker, *Television in the Lives of Our Children* (Stanford: Stanford University Press, 1961).

limited portion of the total mass communication available. With a constant budget for mass media—about three percent of his total consumer spending—there are not enough funds to acquire all that is available (even if there were time available to attend to all the content). Since typically several media compete to serve the same communication function, the consumer must decide which of these individual media—or what mix of all that serve the function—to select. The notion of functional equivalence, then, is simply a way of describing the alternatives considered by the consumer. The complementary shifts documented by DeFleur show the historical outcome of some of these consumer decisions.

Since consumer expenditures have remained largely constant *vis à vis* average personal income per household, we will take that constancy as a given and proceed to examine the proportions of that "constant" pie going to the various media in recent decades. The most useful information on this media-mix is found in Tables VIII-A and B (Appendix A), which report consumer expenditures for media as a *percent of total mass communication expenditures per household*.

Viewed from this perspective, print media (newspapers, magazines, sheet music, books and maps) show an unchanging level of consumer support over the past four decades. (The trend noted in Table 10 is a -0.085 but since $p = .302$, it is most likely a chance departure from a true trend of zero.) Looking at the actual percentage of mass media expenditures from 1929 to

TABLE 10
Consumer Expenditures for Individual Media, 1929-1968, as a Percentage of Total Mass Media Expenditures by Consumers

Newspapers, Magazines, Sheet Music	$-.537$
Books and Maps	$+.745$
All Print Media	$-.085$ ($p=.302$)
Radio/TV receivers, Records, Musical Instruments	$+.749$
Radio/TV repairs	$+.938$
Total Radio/TV	$+.821$
Movie Admissions	$-.884$
Other Admissions	$-.882$
Total Admissions	$-.882$
All audio and audiovisual Media	$+.065$ ($p=.344$)
(Total Radio/TV + Total Admissions)	

1968 going to print, the mean is 37.96%, with a very small standard deviation (2.90%). However, this constancy results from a trade-off between newspapers, magazines and sheet music on the one hand and books and maps on the other. The yearly percentages in Table VIII-A of Appendix A show a gradual decline in the share of the consumer dollar going for newspapers, magazines and sheet music. From a high of 32.31% of all mass communication spending in 1933, these large circulation media gradually declined to a 20.25% share of mass communication spending in 1968. While spending for books and maps is considerably less in terms of the number of dollars, the trend in share of spending is inverse. In 1929 books and maps claimed only 11.36% of total mass communication spending. By 1968 their share of consumer spending on mass media had increased to 15.85%.

Total audio and audio-visual expenditures across time as a percent of total household expenditures for mass media also show a constant pattern. But this also is something of an artifact. Audio and audio-visual is an aggregate of all media except print. In other words, the percentage figure for audio and audio-visual is nothing more than 100% minus "print." If print is a constant (or near constant) percentage, then audio and audio-visual, of necessity, is constant. More meaningful traces of the media mix again are provided by the time trends for the various non-print media. The most striking trends in Table 10 among the non-print media are the mirror images of admissions and radio/TV.

Radio and TV represent an increasing share of consumer expenditures over time—an increase from 38.09% in 1929 to 53.92% in 1968. During this same period consumers spent less and less on admissions to the movies, concerts and theatres. (Admissions to professional sports are not included in these statistics.) Admissions represented nearly a third of the average household's mass media budget in 1929. Forty years later these paid admissions were a minority in the media mix, accounting for less than 10 percent of each household's spending on mass communication.¹⁰ This inverse relationship between the trends

¹⁰ Year-by-year statistics on each media group's share of total mass communication spending by consumers are found in Tables VIII-A and VIII-B, Appendix A.

TABLE 11
Consumer Expenditures for Individual Media, as a Percentage of Total Consumer Expenditures, 1929-1968

Newspapers, Magazines, Sheet Music	-.668
Books and Maps	+.747
All Print Media	+.182 ($p=.13$)
Radio/TV Receivers, Records, Musical Instruments	+.694
Radio/TV repairs	+.944
All Radio/TV	+.779
Movie Admissions	-.896
Other Admissions	-.892
Total Admissions	-.892
All Audio and audiovisual Media	+.093 ($p=.284$)
(Total Radio/TV + Total Admissions)	

for admissions and broadcasting suggests that they are treated as functionally equivalent by consumers.

In order to triangulate on these trends in media mix, another set of summary statistics is presented in Table 11. Here trends over time in total consumer spending for various media are reported in terms of the percentage they represent of total consumer expenditures of all kinds. The results replicate the trends in Table 10. Print shows an over-all constancy across the past 40 years. On the average, consumer expenditures for print were 1.15% of total consumer expenditures of all types (with a standard deviation of only 0.05%). Within print there is the previously mentioned trade-off of books and maps with newspapers, magazines and sheet music. In contrast, broadcasting increased from 1.32% to 1.69% of total consumer spending between 1929 and 1968. Again paid admissions are the mirror image of broadcasting, dropping from 1.08% in 1929 to only 0.31% of total consumer spending in 1968. Finally, total consumer spending for mass media, viewed as a percent of total consumption expenditures, demonstrate constancy.¹¹

To sum up, the available media mix has become increasingly complex over the past 40 years. In 1929 print media were dominant. Mass communication primarily was conveyed through three media—newspapers, magazines and books. Two new media,

¹¹ Year-by-year statistics on each media group's share of total consumer spending are found in Table XII, Appendix A.

movies and radio, were just appearing on the American scene. In the next decades these new media grew considerably. Radios were found in more and more households every year and movie attendance reached higher and higher levels. Then in the late 1940s a major mass communication revolution occurred. A totally new medium for the home appeared—television—and American homes were quickly saturated. The effects on other mass media were drastic as consumers and media producers adjusted their behavior to this new communication medium.¹² The entire content of radio was changed. The medium was the same, but the message was strikingly different. But this enabled radio to survive in the marketplace. In contrast, the movies were a direct casualty. Movie theatres closed by the score. The amount of money coming in at the box office declined sharply. At their peak in the early 1940s the movies claimed nearly half the dollars that families spent on mass communication. With the introduction of TV this share began to drop sharply. By 1950 it was less than a quarter of the money people spent on mass communication. By 1968 less than 10¢ out of every dollar spent on mass media was collected at the movie box office.

Newspapers and magazines also had to adjust to the competition of television. But the print media made the transition as successfully as radio. Printed media continued to claim about a third of the consumer dollars going for mass communication.

This media mix can be described in two ways: 1) the mass communication content available to audiences and 2) the amount of money spent by audiences to obtain this mass communication. There has been a considerable change in the communication services offered. And consumers have altered their behavior toward some media. The printed media have held constant, broadcasting has gained, and the movies have suffered considerable losses. But beneath all this flux in the media mix the Principle of Relative Constancy has held.

¹² Leo Bogart, *The Age of Television* (New York: Frederick Ungar Publishing Co., 1956), Chaps. 6 through 8.

Economic Constraints on the New Technology

TELEVISION CREATED a communication revolution in the United States. Within the mass media and throughout American life there were major changes, upheavals and reallocations. In 1947 television was brand new. Only 2.5% of American households had a set. Only a dozen years later, in 1959, 85.5% of American homes had television. No other mass medium saturated America so rapidly. In the process, radio was turned upside down, the movies were driven to the wall and entire new patterns of leisure behavior appeared in American homes.

Interest in professional sports soared. Television became the scapegoat for juvenile delinquency. Some even say television enabled John Kennedy to defeat Richard Nixon for the Presidency in 1960. The impact of television on American life is already part of our folklore.¹

Like other aspects of mass communication, attention has centered on the effects of television. Little has been said about the social setting in which this new communication technology thrived. Where were the economic constraints on mass communication described by the Principle of Relative Constancy in the rapid-growth days of television? Were they simply inoperative? During the 12-year period from 1948 through 1959 when television was saturating the United States, consumers invested more than \$10 billion in this new medium. This represents an average annual expenditure of about \$800 million. Where did

¹ See Sidney Kraus, ed., *The Great Debates* (Bloomington: Indiana University Press, 1962); Joseph T. Klapper, *The Effects of Mass Communication* (Glencoe: The Free Press, 1960); Leo Bogart, *The Age of Television* (New York: Frederick Ungar Publishing Co., 1956).

this money come from? What, if any, are the economic constraints on new communication technologies? What factors in the marketplace determine their success (in the case of TV) or failure (in the case of facsimile)?²

Consumers have three possible sources for money to spend on new communication media: new money in the economy, money now spent on other media and other non-media expenditures. How did each of these contribute to the successful financing of television in the United States?

The general economy was indeed growing during those years. Consequently, consumers did have more money to spend. In 1948, the average family had an income of about \$5,000. This figure climbed steadily, and by 1959 it had reached \$7,500, a 50% increase in 12 years. This "new money" represents one possible source of support for TV.

Of course, other media continued to operate during those years. After the advent of TV, some media continued to thrive financially in spite of new competition. But other media, particularly the movies, lost some of their business to TV. In 1948 when TV was still relatively new on the American market, motion picture admissions totaled \$1.50 billion. Five years later, the movies' annual income had dropped to \$1.17 billion, representing an annual net loss of \$330 million. These dollars lost by the movie industry, and money lost by other media, might well have been a significant source of TV revenue. Indeed, since the decline of the movies is commonly attributed to television, one might turn this proposition around and assert that lost movie revenue in part financed television.

Dollars lost from some non-media sources also could have helped to finance TV. In 1949, for example, consumers spent \$800 million less on jewelry, watches, houses and furniture than they had in 1947 before the advent of television.

Which of these three possible sources did, in fact, account for TV revenue from 1948 to 1959? Taking non-media sources first, if the Principle of Relative Constancy held between 1948 and 1959, no outside sources need have been tapped, and these

² Mary A. Koehler, "Facsimile Newspapers: Foolishness or Foresight?", *Journalism Quarterly*, 46:29-36 (1969).

non-media sources can be eliminated. According to this principle, consumers spend a relatively constant proportion of their income on media over the years. So, according to the principle, TV would not have brought about a significant increase in *total* media spending. Rather the money for television sets would have come from the unchanged, constant proportion of income spent on all media. Money shifting among the media together with general economic growth would sufficiently account for TV dollars in years of media constancy, and no outside sources need be tapped.

Did a condition of relative constancy exist for the years 1948-59 when TV was on the rise? The Principle of Relative Constancy has already been substantiated for the 40 years from 1929 through 1968. For the 12-year period in question here, the constancy principle was retested in four ways (Table 12). After determining the trend in consumer expenditures on media, this trend was analyzed, first controlling for fluctuations in personal income from year to year, and, second, controlling for changes in Gross National Product. Under both conditions, consumer spending on media was constant.

The third test for constancy examined the trend between 1948 and 1959 in consumer spending on media expressed as a percentage of total consumption spending. Here the trend is negative, not a constant pattern of spending. This even more strongly rejects non-media sources as a source of money to buy television sets. This would indicate that families did not cut other expenses to buy a TV set while maintaining previous levels

TABLE 12
Trends in Consumer Spending on Media, 1948-1959

Dollars Spent by Consumers on Media Over Time, Controlling for Average Personal Income ^a	.228 ($p=.250$)
Dollars Spent by Consumers on Media Over Time, Controlling for Gross National Product ^a	.344 ($p=.150$)
Percent of Total Consumption Dollars Spent by Consumers on Media Over Time	-.510
Percent of Income Spent by Consumers on Media Over Time	-.658

^a In constant dollars per household.

of spending on mass media. All in all, the proportion of consumption spending going to mass media *declined* during the very period that television was growing. Finally, the trend in percentage of total personal income spent by consumers on mass media was examined. Here again a negative trend emerges. People were devoting less, not more, of their income to mass media.

On the basis of this evidence, we can eliminate the non-media category as a source of TV financing and turn to the two other categories to find the source of the TV dollars.

With regard to new money in the economy, did the economy actually grow enough during the years 1948-59 so that new money could have supplied all the TV dollars? A comparison of the percentage changes in media spending and in aggregate personal income over the 12-year period in Table 13 shows³ that, except for 1949 and 1950, general economic expansion did exceed increases in consumer spending on media. In most years, the economy grew 10 to 20% faster than did media expenditures.

³ In choosing the base for computing this and subsequent tables, several problems were considered. First, there is the problem of the discontinuity of TV investments by consumers. The same people are likely to attend movies, and resubscribe to newspapers and magazines year after year, but the people who buy TV sets this year are probably not the same ones who bought TV sets last year. Does the fact that TV investments are made by largely differing populations of consumers from year to year make TV figures less comparable to investments in other media, which are made by largely continuous consumer populations? It was decided that our interests here concern total annual investments and net changes in the various media and are independent of the individuals who are doing the investing. Regardless of whether it comes from the same or different consumer, the total number of dollars spent annually on each of the media are directly comparable.

Secondly, what base should be used in computing change figures? Should 1947 figures be used as a fixed base, or should changes be calculated with a floating base, from year to year? It was decided that a fixed 1947 base would be preferable, largely to avoid having to ignore certain years because of negative numbers which would result if a floating base were used. Table 15, for example, when calculated using a floating base, yields 7 unuseable years: TV dollars were negative in 1951, 1952 and 1954-58; therefore it would not make sense to look for any source of TV revenue in those years, and we are left with only 5 out of 12 useable years. Since this problem arose in Tables 12, 14 and 15, all the tables were calculated using 1947 as a fixed base to achieve maximum consistency.

TABLE 13
Increases in Media Dollars and Personal Income, 1948-1959
(Using 1947 Figures as a Base)

	Media Dollars	Personal Income
1948	3.31%	9.84%
1949	9.55	8.74
1950	25.92	19.25
1951	25.73	34.03
1952	30.01	42.63
1953	36.84	50.61
1954	41.91	51.51
1955	47.95	62.19
1956	54.38	74.20
1957	61.79	83.90
1958	69.78	88.31
1959	84.79	100.91

Only in 1949 and 1950 did media spending grow faster than aggregate income, and the discrepancy between the two was less in those years than at any other time. Instead of income being ahead by its usual 10-20%, media spending did exceed income but only by 0.18% in 1949 and 6.67% in 1950. Although the magnitudes of these differences are small, there does seem to be some short-term dislocation of consumer spending on media in these two aberrant years. But these years are balanced out by

TABLE 14
Television Revenue and New Media Dollars, 1948-1959 (in Billions of Actual Dollars, Using 1947 Figures as a Base)

	Television Revenue	New Media Dollars
1948	\$.15	\$.17
1949	.47	.49
1950	1.12	1.33
1951	1.01	1.32
1952	1.02	1.54
1953	1.05	1.89
1954	.99	2.15
1955	.99	2.46
1956	.86	2.79
1957	.85	3.17
1958	.69	3.58
1959	.73	4.35

other years, such as 1956 and 1957, when increases in media spending lagged far behind the growth of the economy.

Thus except in the two aberrant years 1949 and 1950, "new money" in the economy could have accounted for all increased spending on media. Did this in fact occur? Did the media actually take in enough new money to cover all TV dollars? Table 14 shows that the answer is an empirical "yes": in all years, the increase in the number of new dollars actually taken in by the media was enough to cover the increase in spending on TV sets entirely. Does this mean that those who claim TV prospered at the movies' expense are wrong? TV would not have needed any dollars lost by the movie industry if television set spending came solely from new money in the economy.

But other media, such as newspapers, magazines, sheet music, books and maps, also were consistently gaining revenue during these same years. Some of the new money must have gone to them, leaving an inadequate supply to cover TV. Thus the third source, losses from other media, must also have contributed to TV.

How did these two sources, new money and other media, combine to account for TV revenue? By definition:

$$A+B+C=D$$

where A = money lost from other media, B = money gained by other (non-TV) media, C = TV spending and D = new money in the economy going to mass media. In 1955, for example, the \$2.46 billion of new media money (D) is a result of \$.99 billion gained by TV (C), plus \$1.84 billion gained by the print media and non-TV audio-visual media (B), minus the \$.37 billion lost by movies (A). Our concern now becomes: in what ways could A , B and D have combined to account for C ?

There is an analogue here to the annual international balance of payments, a summary which obscures thousands of individual transactions. Here too, we have only yearly dollar figures and net change scores with which to work. We can never trace the exact path a dollar or individual consumer follows from year to year. We can, however, make certain assumptions about various combinations of factors which could have accounted for TV dollars and determine the empirical outcome of these assumptions.

First, let us suppose that all money lost by various media went directly to the other non-TV media which were gaining. What

would then have been left for TV? (This assumption also implies that new money would have been the dominant source of TV revenue.)

Table 15 reveals that in every year, the actual dollar gains by non-TV media exceeded the losses. The gaining non-TV media would thus have absorbed all the money lost by other media (plus some of the "new money"), and TV's sole source of money would have been new dollars in the economy. While this assumption is theoretically possible, it is intuitively implausible. The concept of functional equivalence is inconsistent with the details of the assumption as it empirically turns out. Movies, the dominant if not the sole medium involved in *A* over all 12 years, are not functionally equivalent to the dominant factors in *B*, newspapers and books. It seems inconceivable that people would take dollars from the movies (*A*) to invest more in print media (*B*). Thus we reject our first model and proceed to a second, more plausible one.

Suppose that the money lost by the movie industry went directly to TV; that money lost by other media went to gains in

TABLE 15
Dollars Shifting Among Media, Television Revenue and New Media Dollars, 1948-1959 (in Billions of Actual Dollars, Using 1947 Figures as a Base)

	Give-ups (<i>A</i>)			Gains (<i>B</i>)			New Television Revenue (<i>C</i>)	Media Dollars (<i>D</i>)
	Print Media	Audio- Visuals ^a	Movie Admissions	Print Media	Audio- Visuals			
1948	.11	.09	.18	.03	.15	.17		
1949	.21	.14	.30	.06	.47	.49		
1950	.09	.22	.40	.14	1.12	1.33		
1951	.18	.29	.57	.21	1.01	1.32		
1952	.08	.36	.70	.25	1.02	1.54		
1953		.42	.83	.43	1.05	1.89		
1954		.38	.86	.70	.99	2.15		
1955		.37	1.03	.83	.99	2.46		
1956		.36	1.18	1.12	.86	2.79		
1957		.47	1.46	1.34	.85	3.17		
1958		.42	1.63	1.68	.69	3.58		
1959		.32	1.88	2.05	.73	4.35		

^a Includes all audiovisuals except television and movies.

non-TV media;⁴ and that the remaining TV dollars were again supplied by new money. Functional equivalence supports the plausibility of this assumption: TV provides many of the same satisfactions that movies do, and Machlup considers them functional equivalents.⁵ It is likely that consumers did indeed attend fewer movies as they started watching TV: the positive correlation between TV set sales and the decrease in movie ticket sales from 1948-59 ($r = +.62$) suggests equivalence and supports the plausibility of our second assumption.

What pattern of support for TV follows from this assumption? In terms of actual dollars, while movies (*A*) would have provided a portion of TV revenue (*C*), new money (*D*) would also have been tapped to provide many TV dollars. For at least eight of the twelve years studied, new money accounts for two-thirds of the increase in TV set investment by consumers.

A better indicator can be obtained, however, when the actual dollars are corrected to constant dollars per household, i.e. when controls for population and inflation are introduced. The purchasing power of the dollar in terms of 1957-1958 dollars fell over the twelve-year period from \$1.19 in 1948 to \$0.98 in 1957. In addition to this variation, a growing population could have further confounded the figures on media spending. From 1948 to 1959 the number of households jumped from 40 million to over 50 million. When our second model is analyzed in constant dollars per household (Table 16), the dominant source of TV money shifts from new money to movie losses.

A possible third model is based on these assumptions: All money lost by other media went to TV. Money gained by other non-TV media would have come from new money, and any remaining new money would also have gone to TV. This assumes it is plausible to lump the other media losing money between 1948 and 1959 with movies as functional equivalents of TV.⁶

⁴ Several pieces of evidence suggesting a lack of impact by television on newspaper circulation are reported by Harvey J. Levin, "Competition Among Mass Media and the Public Interest," *Public Opinion Quarterly*, 18 (1954), pp. 73-4.

⁵ Fritz Machlup, *The Production and Distribution of Knowledge in the United States* (Princeton: Princeton University Press, 1962), pp. 246-7.

⁶ See Table I in Appendix A; also Machlup, *ibid.*, Table VI-14 and p. 225.

TABLE 16

Dollars Shifting Among Media, Television Revenue and New Media Dollars, 1948-1959 (in Constant Dollars per Household, Using 1947 Figures as a Base)

	Give-ups (A)			Gains (B)			New Media Dollars (D)
	Print Media	Audio- Visuals ^a	Movie Admissions	Print Media	Audio- Visuals	Television Revenue (C)	
1948	.76	8.82	8.06		.40	4.47	-12.43
1949		12.75	10.83	.92	1.11	13.22	- 8.31
1950	1.86	11.21	14.69	1.26	3.08	30.62	+ 8.66
1951	1.96	17.37	20.12	1.53	4.04	24.67	- 9.16
1952	.63	16.27	23.05	1.01	4.65	23.80	-10.23
1953		12.12	25.21	1.81	5.34	23.82	- 6.32
1954		7.80	24.70	1.60	6.33	22.18	- 2.85
1955		7.10	26.96	4.37	7.03	21.87	+ 1.25
1956		3.42	25.69	5.42	8.14	18.21	+ 2.47
1957		2.36	29.23	8.10	8.76	17.00	+ 2.25
1958		.15	29.21	10.65	10.52	13.11	+ 2.96
1959			27.93	12.60	15.52	13.57	+12.80

^a Includes all audiovisuals except television and movies.

In terms of actual dollars, other media and new money contributed approximately equal portions to TV revenue. But again we have a better analysis of the assumption in terms of constant dollars per household. When we correct the figures for population and inflation, other media provide ample money to cover TV revenue, except in 1950, when they leave 16% of TV revenue to be supplied by new money.

To sum up, the Principle of Relative Constancy held during the twelve years that television saturated America. That is, the proportion of consumer money flowing to mass media remained fixed, and, despite significant economic growth—a 50% increase in personal incomes—TV's share of the consumer dollars was wrested away from other mass media, primarily the movies.⁷

Two conclusions can be drawn from this case study of TV, conclusions which may well apply to any communication medium

⁷ For a detailed case study of television's impact on the movies and other mass media see Paul T. Scott, "The Mass Media in Los Angeles Since the Rise of Television," *Journalism Quarterly*, 31:161-66, 192 (1954).

trying to build an audience. First, the Principle of Relative Constancy is a valid description of audience spending behavior even when highly fascinating new media appear in the marketplace. Access to the public has a major economic constraint, in addition to the commonly discussed legal and technological constraints. Second, even in periods of rapid economic growth new media must battle some of the established media for a share of the market. It is unlikely that a new communication technology provides a totally new service. Rather such technologies are likely to be extensions of existing services. These functional equivalents must battle for economic survival or economic accommodation in the marketplace.

New Communication Technology

Just as significant technological advances in electronics provided the groundwork for television, new electronic advances in the last decade have placed a host of new audio-visual communication devices in the realm of the technologically possible. Audio cassettes already are on the market. Video cassettes will be reaching the marketplace in the immediate future. Some speak of computers as a new mass medium. Others speak of cable television as a total alternative both to network commercial television and to the telephone system. Along with these projected networks of computer systems and ubiquitous cable TV are proposals for national satellite communication systems, either to facilitate existing forms of communication or to carry truly national mass communication that might even bypass the local relay between the source and the consumer. What implications does the Principle of Relative Constancy have for these new communication technologies? What economic constraints will influence whether the diffusion of these new media are as successful as television in the late 1940s and early 1950s or whether these technologies become the communication analogues of the Kaiser and the Edsel?

For some of these new technologies, there are legal as well as economic constraints on their success. Cable television and satellite systems may have their fate decided by the Federal Communications Commission, not by the consumer.

The audio cassette is essentially a simple change of packaging for the phonograph record. While the hardware required is different, an audio cassette or tape deck performs exactly the same service as the phonograph record. It does offer the relatively minor advantages of longer playing time and suitability for use in automobiles. Otherwise, cassettes and phonograph records are functionally equivalent. One would anticipate that changes in consumer spending would occur almost wholly within this narrow sphere of the mass communication market.

The video cassette, on the other hand, represents a significantly new set of alternatives for the consumer. Basically, the hardware using video cassettes (also variously called video cartridges and video discs) will convert the family TV into a kind of home movie projector and screen. Once this hardware is in place, the consumer can select from a plethora of available program cassettes. Everything now available on film and videotape can be repackaged. Some manufacturers promise the customer the option of recording his own cassettes from regular television programming, either for permanent archiving or simply for viewing at a more convenient time and then erasing it.⁸

But antecedent to any sweeping changes in communication service is the successful diffusion of the communication medium among the population. Money for new mass media must be taken away from older media and/or be created by economic growth. Since the consumer of video cassettes still must own an operating television set, spending cannot be cut here. The money must come from elsewhere.

Considering which of the media are functional equivalents of video cassettes, its primary competitors would seem to be movies, cable fees, recordings and live performances. Since the movies, particularly, suffered a severe set-back with the initial introduction of television, it is reasonable to ask whether even a deathblow to the movie theatre would yield sufficient revenue to finance video cassettes as a mass medium.

Just as video cassettes could eliminate the local broadcaster

⁸ Hollis Alpert, "The Cassette Man Cometh" and Ivan Berger, "Someday Morning for the Culture Cans," *Saturday Review*, 54, No. 5: 42-47, 60 (January 30, 1971).

in the distribution of programs, there is a similar potential in nationwide space satellite communication systems.⁹ In 1971 the Federal Communications Commission began considering eight separate proposals. Since the various satellite proposals would require capital outlays of \$40 million to \$250 million, shifting existing communications traffic to a new system should insure its success.

While most of the communication satellite proposals focus on television network transmissions—a source of revenue estimated at \$40 million annually if one system gets the entire business—the Hughes Aircraft Company proposal envisions a new communication service aimed directly at the consumer in the marketplace. Hughes proposes to distribute at least a dozen simultaneous programs to cable TV systems (CATV) throughout the country. On its dozen channels, Hughes is considering offering all-news, all-sports, all-science and all-public affairs stations. Since many CATV systems have a capacity of 20 to 40 channels, this kind of satellite communication distribution system would help utilize this capacity and add a measure of diversity to existing television.

Obviously, a major factor in the success of this proposal is the successful diffusion of CATV and the creation of demand for the variety of audio-visual services planned by Hughes. Here the Principle of Relative Constancy again describes a key constraint. CATV and the program services it offers must compete with existing open-circuit TV, with the movies, with video cassettes and perhaps with other communication technologies waiting in the wings.

While the ultimate fate of CATV also may be decided by the FCC, not the marketplace, CATV has already begun to diffuse across the country.¹⁰ In 1971 there were about 2500 CATV operations serving 4500 communities and viewed by approximately 15 million people daily at an annual consumer outlay of \$300 million. That is still a small fraction of the aggregate

⁹ Wilbur Schramm, *Communication Satellites for Education, Science and Culture*. (Paris: UNESCO, 1968, Reports and Papers on Mass Communication, No. 53).

¹⁰ Ralph Lee Smith, "The Wired Nation," *The Nation*, 210:582-606 (May 18, 1970). Also, H. J. Barnett and E. Greenberg, "On the Economics of Wired City Television," *American Economic Review*, 58:503-8 (1968).

consumer spending on all broadcasting, but the growth rate is about 20% annually and CATV is beginning to move from the rural, isolated regions where it was born into the big cities.

CATV moves television further away from mass communication. Its 20- to 40-channel capacity fragments the mass audience. As the president of TelePrompTer Corporation, the largest CATV operator, has remarked, "Commercial television is in the scarcity business." With only 24 hours in the day and with the ability to broadcast only one program at a time, the commercial broadcaster is highly constrained in the programming he can offer and the amount of advertising he can sell. CATV is not in the scarcity business and can offer a greater variety of programming.¹¹

But CATV will not necessarily sell more advertising. There are two reasons for this. First, CATV's multiple channel capacity fragments the audience so there are fewer viewers per program to market to the advertiser. Second, since each viewer pays directly for watching CATV—\$5 a month in the case of TelePrompTer—advertising income is less essential.

Furthermore, a variety of income sources other than television programs are envisioned for CATV. Some predict CATV will become a two-way communication system, a viable alternative to the telephone and postal systems handling most of our business and personal messages. Others see CATV as a common carrier, that is, a physical facility to be used by consumers to carry whatever information or entertainment they desire. This point of view envisions the creation of large information storage and retrieval systems where films, TV shows, reference materials, perhaps even complete news services are available on call. CATV would be the medium linking individuals to these vast data banks, enabling each household to print its own newspapers, books and magazines. Mass communicators would continue to produce programs and news copy, but this work would not be disseminated in its present forms. Rather it would be "warehoused" in computer systems to which the public has access through CATV. If a particular program or piece of information was desired, the

¹¹ William J. Slattery, "Do You Know What's Going to Happen to Cable TV?," *TV Guide*, Vol. 19, No. 14 (April 3, 1971).

consumer would call for it. Each consumer could become his own programming director and news editor if he desired. Perhaps there will even be audio/visual town meetings and individually produced programs offered to whomever is interested.¹² The future promises a whole new realm of communication experiences and services—if consumer support is available to establish them in the marketplace.¹³

While these new technologies promise amazing new individual communication services, they are very costly. Technically, a CATV system with a host of auxiliary gadgets could create a versatile home communication center. This center would supplant—tremendously exceed—the present services of newspapers, movies, television, the post office, telephone and many other communication media. But the estimated cost for a million such consoles in American homes is \$250 per month for each console.¹⁴ That is almost as much a month as consumers now spend in an entire year on mass communication. In 1968 consumers directly spent an average of \$278.60 per household on mass communication. Advertisers spent a little more that year per household—\$296.64—for a total annual expenditure of \$575.24 per household on mass media. Even if the costs of telephone and postal services are added on to that total, we would still account for no more than four or five months rental on a home communication center. To succeed in the marketplace with a monthly fee of \$250 would require that the home communication center must displace most of the existing communication services now in the marketplace. The Principle of Relative Constancy could no longer hold and there would not be enough money available to pay the bills. More likely, the advent of the home communication center depends on technological advances that will lower the cost. A cheaper price makes the odds more favorable for a

¹² William C. Woods, "When the Boob on the Tube Is You," *Washington Post*, April 30, 1971, B-1.

¹³ Ben H. Bagdikian, *The Information Machines: Their Impact on Men and the Media* (New York: Harper and Row, 1970).

¹⁴ Bruce M. Owen, "Public Policy and Emerging Technology in the Media," Studies in the Economics of Mass Communication, Memorandum No. 92 (Research Center in Economic Growth, Stanford University, November 1969), pp. 8-9.

successful competitive struggle with existing media and communication services.

All our previous experience in mass communication suggests that new media must battle the established channels of communication for a foothold in the marketplace. Even when exciting and fascinating new mass media have appeared in the past the Principle of Relative Constancy has held. With the constraint described by that principle operating, a struggle between the new media and those already in the marketplace is inevitable. The decline of the newspaper dates from the appearance of the movie. Decades later the movies were battered in turn by the appearance of television. But the new media do not always succeed in wresting part of the market away from the older media. FM radio still remains a marginal mass medium; facsimile never made it at all. In calculating the odds on all the communication technologies now on the horizon actually becoming mass communication services, the economic constraint in the marketplace is a key factor.

The Fate of Existing Media

WHILE ALL THE NEW communication technologies and services joust for a place in the marketplace, what is the fate of existing communication media? The constraint described by the Principle of Relative Constancy implies that significant shifts will occur in the older media. Usually it will be a mixture of decline and restructuring. The movies, and to some extent the newspaper, already reflect this. Both have suffered some decline in the relative popularity of their service. Both have modified their mass communication product and both exhibit some organizational changes.

At the far edge of the established media marketplace lie the fine arts. "The arts cannot live on what the market can offer."¹ They never really have and are less likely to with increasing competition from new communication media. In short, survival of the fine arts may depend entirely on the willingness to subsidize this communication service from public funds. There have been numerous demands in recent years to do exactly this, recognition that the money in the marketplace is insufficient and that donations from private patrons and foundations are too erratic to support a sustained communication system of fine arts.

Just short of actual appropriations from public funds to support some communication medium is the use of government power to intervene in the marketplace and establish conditions under which the medium can survive economically. Generally, this means limiting the competition. This is precisely what the major movie producers attempted to do through the federal

¹ Fritz Machlup, *The Production and Distribution of Knowledge in the United States* (Princeton: Princeton University Press, 1962), p. 224. Also see W. J. Baumol and W. G. Bowen, "On the Performing Arts: The Anatomy of Their Economic Problems," *American Economic Review*, 55:495-502 (1965).

courts in 1970. Charging that two television networks, CBS and ABC, had violated the anti-trust laws, seven major movie producers sought a permanent injunction barring them both from film production and also from filming television programs. For an industry that has been in decline—both absolutely and relatively—since 1946 this attempt at manipulation of the marketplace by means of the legal system represents a last ditch defense. The only major studio not participating in the suit was Twentieth Century Fox. The next year leaders of the motion picture industry met with President Nixon to plead for special tax relief for their industry. The importance of these efforts are underscored by the trends in movie expenditures by consumers over the past twenty-five years and by the looming competition for movies from the new audiovisual communication technologies. These are *last ditch* efforts because the movie industry already has passed through the traditional economic solutions to overwhelming competition. Many of the famous studios of the past no longer exist. They long ago darkened their stages and went out of business. Other studios survived through merger, either with other movie producers or with non-media enterprises able to back them financially. Two of the biggest Hollywood studios, Warner Bros. and Columbia Pictures, consolidated their physical plants while maintaining separate production and business operations. The precedent for this kind of merger is, of course, found in the joint-operating agreements of the daily newspaper business.

Newspaper Retrenchment

For decades there has been considerable concern over the decreasing number of American dailies, especially the decreasing number of competing dailies.² While some attribute this trend

² Raymond B. Nixon, "Implications of the Decreasing Numbers of Competitive Newspapers." In Wilbur Schramm, ed., *Communications in Modern Society* (Urbana: University of Illinois Press, 1948). Also, Nixon, "Trends in Daily Newspaper Ownership Since 1945," *Journalism Quarterly*, 31:161-66, 192 (1954); "Local Monopoly in the Daily Newspaper Industry," *Yale Law Journal*, 61:948-1009 (1952); Nixon and Jean Ward, "Trends in Newspaper Ownership and Inter-Media Competition," *Journalism Quarterly*, 38:3-14 (1961).

to monopolistic and anticompetitive business practices by newspaper publishers seeking higher profits,³ examination of newspaper trends in light of the Principle of Relative Constancy offsets many of the arguments advanced to prove the anticompetition thesis.

The high water mark for the total number of daily newspapers in the United States was reached in 1909-10.⁴ At that time there were 2,202 daily newspapers in the United States. The number of daily newspapers steadily declined after that, although there is some indication of a leveling off at about 1,750 in recent years. This peak year for the number of newspapers, 1909-10, coincides closely with the rise of the movie as a new mass communication medium. As the movie began to make rapid gains in the marketplace, as the consumer began to shift some of his media dollars, it is plausible, according to the Principle of Relative Constancy, to find a decline in the number of daily newspapers able to exist in the marketplace.

Looking more specifically at the lack of competition among newspapers—a situation true for 97% of the United States' 1500 daily newspaper cities in 1968—this is a trend that has been running since 1880. In that year 38.6% of the American cities with daily newspapers had no newspaper competition. By 1920 it was over half (57.4%) and by 1930, it had passed the three-quarters mark (79.4%). This trend suggests that the combination of rising costs,⁵ limited consumer and advertiser spending on media,⁶

³ Keith Roberts, "Antitrust Problems in the Newspaper Industry," *Harvard Law Review*, 82:319-66 (1968).

⁴ Raymond B. Nixon, "Trends in U.S. Newspaper Ownership: Concentration with Competition," *Gazette*, 14:181-93 (1968).

⁵ Detailed statistical data are found in Richard E. Chapin, *Mass Communications* (East Lansing: Michigan State University Press, 1957), p. 12 and Tables 10-12. See also Charles V. Kinter, "Economic Problems in Private Ownership of Communications," in Schramm (1948), *op. cit.*; James E. Pollard, "Spiraling Newspaper Costs Outrun Revenues 1939-1949," *Journalism Quarterly*, 26:270-76 (1949); Leslie McClure, "Mounting Production Costs: The Newspaper's Dilemma," *Journalism Quarterly*, 31:304-10 (1954).

⁶ The parallel trends in consumer and advertiser spending on mass media are reported above.

and competition from new communication media have resulted in fewer newspapers.⁷

Newspaper circulation per household also peaked and began to decline as the movie established itself in the marketplace. Less than a decade after the highwater mark for total number of producing units, circulation per household hit a peak of 1.38 copies per household and began a slow decline that is still continuing.⁸

The fact that locally competing newspapers virtually have disappeared from all except the largest cities has led even a former attorney for the Antitrust Subcommittee of the U.S. Senate to admit that there seems to be an 'economic spectrum' which limits the number of papers the country can support, just as there is a physical spectrum which limits the number of broadcasting stations.⁹

The behavior pattern described by the Principle of Relative Constancy is a key determinant of this "economic spectrum." Because of the limited amount of money available to support *all* mass communication, the present pattern is for a single daily in cities up to approximately 150,000 population; one morning and one evening paper under single ownership (or in joint operating arrangements) in cities from 150,000 to 650,000; and two or more competing dailies only in cities of over 650,000. In short, economic constraints on mass media in the marketplace suggest that the observed disappearance through merger and suspension of dozens of daily newspapers was economically inevitable. Or, as Nixon put it: ". . . the natural working of economic laws is almost entirely responsible for the trend toward the elimination of local newspaper competition."¹⁰

Of course, in 88% of the cities in which a daily newspaper

⁷ Royal H. Ray, "Economic Forces as Factors in Daily Newspaper Concentration," *Journalism Quarterly*, 29:31-42 (1952); Paul Block Jr., "Facing Up to the 'Monopoly' Charge," *Nieman Reports*, 9:3-7 (1955); Milburn P. Akers, "Chicago's Newspaper Concentration," *Nieman Reports*, 13:21 (July 1959).

⁸ Melvin L. DeFleur, *Theories of Mass Communication* (New York: David McKay Company, 1970), p. 20.

⁹ Nixon (1968) *op. cit.*, p. 185.

¹⁰ Raymond B. Nixon, "Who Will Own the Press in 1975?," *Journalism Quarterly*, 32 (1955), p. 14, italics supplied.

operates without competition from other newspapers it does have competition from broadcast media.¹¹ As radio and TV entered the mass communication market, the economic pie was resliced to include their share. As the Principle of Relative Constancy predicts, the result is a smaller slice for daily newspapers. As costs continue to increase, more newspapers may disappear from the market. Given the constraint of relative constancy, only so much of the increase in operating costs can be passed on to advertisers and consumers. Put another way, the existence of a newspaper—or any mass medium—depends on two questions: 1) how much does it cost to operate? and 2) given the constraint described by the Principle of Relative Constancy and the existence of other media in the same market, is enough money available to meet these operating costs? In many communities the threshold of profitable—or even break-even—operation for two competing newspapers is far above the level of economic support that actually is available. In some communities not enough money is available to support even a single newspaper.

Efforts to start new newspapers have frequently overlooked the economic facts of life described by the Principle of Relative Constancy. To compete against an established newspaper it is clearly necessary to offer a strong editorial product. But, as attempts in Atlanta and several other cities demonstrate, even where the new paper offers an attractive alternative editorial viewpoint, this is not enough to insure success.¹² A popular, appealing editorial package is a necessary, but not sufficient, condition for survival in the mass communication marketplace; the market must be large enough to provide sufficient money to support competing newspapers. As the success of urban community newspapers—the suburban shoppers among them—demonstrate,¹³ it is necessary

¹¹ Guido H. Stempel, "A New Analysis of Monopoly and Competition," *Columbia Journalism Review*, 6:11-12 (1967).

¹² Frank Veale, *The Atlanta Times Inside Story* (Greenville, Ga.: Gresham Printing Co., 1965); John M. Harrison, "The End at Lima," *Columbia Journalism Review*, 3:58-9 (1964), and "Post-Mortem: Too Late for Lima," *Columbia Journalism Review*, 5:38 (1966); Lewis Donohew, "PM: An Anniversary Assessment," *Columbia Journalism Review*, 4:33-6 (1965).

¹³ Morris Janowitz, *The Community Press in an Urban Setting* (Glencoe: The Free Press, 1952), pp. 46-52.

to consider both the social function and economics of a mass medium.¹⁴

This is not the place to pursue all the implications of these economic patterns for antitrust litigation. However, the economic situation outlined by the Principle of Relative Constancy becomes the key to antitrust suits against so-called *failing businesses*. This refers to the legal doctrine which holds that the acquisition of a company by a competitor does not violate the antitrust laws if the firm taken over is in grave danger of bankruptcy. In the landmark Tucson case (U.S. vs Citizen Publishing Co.) the Justice Department antitrust division attacked the legality of joint operating agreements. Under a joint operating agreement two competing newspapers in a single city combine their printing, advertising, circulation and business operations while the news and editorial operations of the two newspapers remain separate and independent. Since one newspaper appears in the morning and the other in the afternoon, the sharing of printing and business facilities is feasible and results in marked economies. The major argument advanced by the defense for the Tucson newspapers was that joint operating agreements are necessary for the economic survival of two independent newspapers in many cities. Twenty-two cities have such arrangements. But in the Tucson case the Supreme Court did not see the danger of economic demise and rejected the failing-company doctrine.¹⁵ The Principle of Relative Constancy suggests the inevitability of some mergers or joint operating agreements. But, of course, evaluations and decisions must be made on a case-by-case basis.

¹⁴ George Fox Mott, *et al.*, *New Survey of Journalism*, Fourth Edition Revised (New York: Barnes & Noble, 1958), Chapter 40; Poynter McEvoy, "The Reader Needs a Ten Cent Newspaper—Here's Why—The ABC of Newspaper Economics," *Nieman Reports*, 8, July 1954, 3-8; *Yale Law Journal*, "Local Monopoly in the Daily Newspaper Industry," Vol. 61, No. 6, p. 959.

¹⁵ For additional discussion of the legal implications in this case, see Harold L. Nelson and Dwight L. Teeter Jr., *Law of Mass Communications* (Mineola, N. Y.: The Foundation Press, 1969), pp. 500-504; and Donald M. Gillmor and James A. Barron, *Mass Communication Law* (St. Paul: West Publishing Co., 1969), pp. 556-66.

Television

Just as television dislocated the older media, especially radio and the movies, it in turn is being confronted by the new technology. With cable TV and cassettes on the horizon, there are predictions that at least one network will be forced out of prime time—or that another may turn exclusively to news and sports. As yet these are only speculations. But by 1971 cigarette advertising was off the air and coupled with a slowed down economy, the golden days of TV appeared to be over.

Michael Dann, who guided CBS's programming strategy at the height of its dominance of the ratings, believes "it would be a grave mistake to assume that a healthy economy would return the networks to the profit levels of 1969. Those days will never return any more than the movies will ever again enjoy the profits of the 1930s." Dann was referring to the 1970 decline in television network revenues, the television industry's first. Until then, each year had surpassed the previous year. "By the time we enter into the wired-home society, probably by 1980, I think the service will be so fragmentized with 40 channels going into the home that the long run looks far more serious than the short run. Network service as we've known it cannot exist."¹⁶ The economic factors affecting television in the early 1970s—a slowing economy and the loss of a major segment of advertising—may be short lived. But the long run promised a major confrontation in the marketplace,¹⁷ a confrontation whose outcome is shadowed by the economic constraints of the mass media marketplace.

¹⁶ Jerry Buck, "TV Industry in Midst of Upheaval," Associated Press. (*Durham Morning Herald*, March 14, 1971, p. 7D.)

¹⁷ "What's Ahead for Television," *Newsweek*, 77:72-79 (May 31, 1971).

The End of Mass Communication

MANY OF THE current technological barriers to information-seeking and divertissement-seeking should dissolve with the advent of the new communication media. Video cassettes, cable television and computerized home communication centers each promise that a wealth of material now packaged for disparate media will become available in a single medium that is receiver-controlled. Prime time can be individually determined. It will depend on the schedule of each individual and when he wishes to use mass communication.

Mass communication will no longer mean the simultaneous diffusion of identical messages to mass audiences. There will still be mass production of identical massages: on the production end, there may be little change except in packaging. But on the receiving end there may be a true revolution in human behavior. The mass audience—millions of people simultaneously (or, nearly simultaneously) receiving identical messages—may well become a thing of the past. Each individual can structure his own individual "mass" communication. From the audience viewpoint, what was mass communication may become a more personal and individual thing.

In line with this possibility we already have seen many of the mass circulation magazines disappear. Specialty magazines with relatively small audiences dominate the industry in terms of proportion of total magazine circulation. Similarly, the traditional strength of the newspaper has been its ability to satisfy the specialized needs of thousands of individuals with a single daily product. Increasing fragmentation and individualization of mass communication has numerous behavioral implications. Toffler argues that one of these new communication technologies, video cassettes, will quicken the pace of change in American life,

moving us away from national conformity and standardization in the arts and popular culture.¹ Marshall McLuhan also predicts that video cassettes will influence "every aspect of our lives—will give us new needs, goals, and desires, and will upset all political, educational and commercial establishments."² Similar predictions might be made for the other new communication technologies which expand the flexibility and scope of communication.

But this fundamental change in the nature of the "mass media" is subject to very severe economic constraints. All our experience over the past four decades substantiates the Principle of Relative Constancy. Only a small and fixed proportion of the economy is available to finance mass communication. Over the years the pie has grown, but at the same rate as the economy which produced the pie was growing. New media in the marketplace did not produce a bigger pie; instead, the old pie was resliced to feed the newcomer. Some of the new communication technologies now on the horizon require such large dollar support, such a large slice of the pie, that they must drastically reduce the share of several existing competitors if they are to survive in the marketplace.

Not only do the older mass media tend to shrink—relatively, if not absolutely—with the advent of new communications technologies; it may be that eventually all real media growth will come to a halt. Over past decades the amount of mass communication—and mass media hardware—acquired by the average American has grown fantastically, as have personal incomes. Homes now are a clutter of TV and radio sets, stereos, newspapers, magazines and other artifacts of mass communication. The clutter is not likely to disappear, but it may stop growing despite continued economic growth.

Economic growth has brought a proliferation of goods, gadgets and services. The consumption of these, Staffan Linder observes in *The Harried Leisure Class*, costs time.³ As consumption continues to increase—time may become increasingly scarce.

¹ Alvin Toffler, *Future Shock* (New York: Random House, 1970).

² Quoted in *Time*, August 10, 1970, p. 40.

³ Staffan B. Linder, *The Harried Leisure Class* (New York: Columbia University Press, 1970).

The clearest examples of pleasure that are on the increase will be found among activities based on the use of things. The average income elasticity of such pursuits will be high. The environment of the typical consumer is a dense jungle of things: a house and a summer cottage; cars and a boat; TV, radio and a record player; records, books, newspapers, and magazines; clothes and sport clothes; tennis racket, badminton racket, . . . It is the total time spent in using all these things that increases; simultaneously, however, the time allocated to each of them individually is declining.⁴

For a time the consumer can increase the amount or number of goods enjoyed per time unit. He sips his martini, scans his newspaper and listens to the stereo simultaneously. But there must be some limit. Indeed, signs of the limit already are appearing. We are already in the age of half-read and unread magazines. Americans also seem less eager to acquire so many new machines, whether it be a car every year or the latest wrinkle. If indeed the goals or needs of each consumer are fixed, a voluntary consumption maximum eventually has to be reached. As incomes grow, more and more wants will be gratified. Ultimately, the utility of additions to income and, especially consumption, will be zero. It can be argued, of course, that the tremendous growth of mass communication—growth perhaps constrained only by the consumer's ability to finance it—refutes this notion of fixed wants.

At least so far in our economic history consumers have continued to want more and more. The scope of consumer demand has increased along with income.⁵

But even if our needs are infinite and production techniques continue to improve, there is a further possibility of the scope for continued consumption increases becoming exhausted. . . . The limit need not be set by our resources on the production side or by needs on the consumption side. The decisive factor can instead be a resource on the consumption side, namely time.⁶

The Principle of Relative Constancy describes a major

⁴ *Ibid.*, p. 90.

⁵ George Katona, *The Mass Consumption Society* (New York: McGraw-Hill, 1964).

⁶ Linder, *op. cit.*, p. 125.

economic constraint on the growth of media in the marketplace over at least the past 40 years. But even with continued economic growth, mass media consumption may reach asymptote, with the ultimate constraint likely to be scarcity of time. For the immediate decades ahead, these two factors—time and money—will jointly constrain the growth of mass media in the marketplace.

Appendix A

Annual Spending on Mass Media, 1929-1968

Annual estimates of consumer expenditures by detailed category are published as part of the national income accounts each July in the *Survey of Current Business*, a U.S. Department of Commerce publication. Early years, dating back to 1929, are in *The National Income and Product Accounts of the United States, 1929-1965*, issued as a supplement to the *Survey of Current Business*. These reports include consumer spending on six categories of mass media. Essentially comparable information on advertising expenditures, dating back to 1935 and covering 10 categories of mass media, are available in *Marketing/Communications* (formerly *Printer's Ink*). For recent years these statistics have been published during the first quarter of each odd-numbered year. For example, the 1967 and 1968 figures on advertising expenditures appeared in the February, 1969 issue of *Marketing/Communications*.

The six-year difference in the starting points for these statistical series and the difference in the number of subcategories for mass media are not surprising considering the general state of statistics on mass communication in the United States. Some years ago Chapin¹ sought to bring "together in one place all the statistical information on the mass communication industries." His effort made apparent the large number of gaps in our knowledge, the incompleteness of much that exists and in particular the problem of comparability. Since mass communication is private enterprise in the United States, the collection of statistics has remained largely in the hands of individual mass communication agencies or industry-wide trade associations. This has resulted in a lack of uniform starting dates and sometimes a lack of continuity in the figures that are available. For some media the industry-wide statistics available are frag-

¹ Richard E. Chapin, *Mass Communications, A Statistical Analysis* (East Lansing: Michigan State University Press, 1957), p. 1. This book evaluates both the overall quality of mass communication statistics and the quality of specific sources of individual media data.

mentary. For nearly all the media, detailed breakdowns of the totals are fragmentary. Even in the federal statistics on consumer spending for mass communication detailed breakdowns are missing for many individual media. For example, newspapers, magazines and sheet music are lumped together in a single category. Similarly, radio and TV receivers, records and musical instruments are combined in a single yearly statistic.

Chapin also noted that much of the information potentially available is restricted in circulation and that even for publicly disseminated information, the method of collection, verification and analysis is often secret. Comparable data covering several media are almost non-existent. To these problems we should add the bias (inherent or unintentional) that creeps into statistics compiled in part to serve a vested interest. Under such conditions, as Biderman remarks, social indicators sometimes become social vindicators.²

With all these problems in mind, the annual availability of reasonably detailed mass communication statistics on consumer spending compiled by a federal government agency has persuasive quality. (The existence of comparable advertising statistics represents a bonus.) Although the complete set of comparable consumer statistics goes back only to 1929 because of the collection procedures, this is ample data for analysis. The four decades, 1929-1968, cover a major economic depression, at least one mild recession, a world war and two minor wars, and a sustained period of rapid economic growth. In terms of mass communication these decades cover most of the history of mass communication as a complex social system in the United States. Prior to 1929 mass communication was primarily newspapers, with magazines and movies playing a secondary role. Radio was in its infancy. The next decades saw the rapid diffusion of radio, the steady growth and later decline of the movies, and the rapid saturation of America by television. Only the full history of newspapers and magazines is incompletely represented in the four decades between 1929 and 1968. But the emphasis here is on the total mass communication system and its place in American society. These reference tables on total mass communication expenditures and their economic context were first published in 1965 as *Economic Support of Mass Communication Media in the United States, 1929-1963* by Scripps-Howard Research. They have been expanded and updated to cover 40 years for this monograph.

² Albert D. Biderman, "Social Indicators and Goals," in Raymond A. Bauer, ed., *Social Indicators* (Cambridge: M.I.T. Press, 1966), pp. 78-9; also Chaps. 1,2, *passim*.

Glossary

Most of the categories of economic statistics presented here are obvious enough (e.g., consumer spending on books and maps). But there are several category names that involve a technical definition, or where the exact components of the category may be ambiguous to the reader.

Gross National Product—"The market value of the output of goods and services produced by the nation's economy, before deduction of depreciation charges and other allowances for business and institutional consumption of durable capital goods." Other business products used by business in the accounting period are excluded. The nation's economy in this context refers to the labor and property supplied by residents of the nation. Gross national product comprises the purchases of goods and services by consumers and government, gross private investment (including the change in business inventories) and net exports (exports less imports).³

Other Admissions—Movie admissions are separated from other admissions, which includes legitimate theatre and opera and entertainments of non-profit institutions (except athletics). It is particularly important to note that admissions to athletic events are not included here—neither professional nor school athletics. In the Department of Commerce's annual report on consumer spending sports are a sub-category of non-mass communication recreation. See the breakdown of Total Consumer Spending which follows.

Total Consumer Spending/Personal Consumption Expenditures—"The market value of purchases of goods and services by persons and non-profit institutions and the value of food, clothing, housing and financial services received by them as income in kind. It includes the rental value of owner-occupied houses, but does not include purchases of dwellings, which are classified as capital goods."⁴

Total Consumption, as measured by the Department of Commerce,⁵ includes: 1) Food and tobacco; 2) clothing, accessories, and jewelry; 3) personal care (toilet articles, etc.); 4) housing; 5) household operation; 6) medical care and health expenses; 7) personal business; 8) transportation and 9) recreation.

It also includes A) Mass Communication Recreation: 1) Magazines, newspapers, sheet music; 2) books and maps; 3) radio, TV, musical

³ U.S. Department of Commerce, *The National Income and Product Accounts of the United States, 1929-1965*, p. viii.

⁴ *Ibid.*, pp. viii-ix.

⁵ U.S. Department of Commerce, *National Income* (1954) pp. 206, 209.

instruments, etc.; 4) radio, TV repair; 5) motion picture admissions, and 6) other admissions (the six mass media categories used in the tables here) and B) Non-Mass Communication Recreation: 1) Non-durable toys and sports supplies, photo equipment, etc.; 2) wheel goods, durable toys, sports equipment, boats and pleasure aircraft; 3) flowers, seeds and potted plants; 4) admissions to spectator sports;⁶ 5) clubs and fraternal organizations except insurance;⁷ 6) commercial participant amusement;⁸ 7) pari-mutual net receipts and 8) other.⁹

⁶ Comprises professional baseball, football and hockey, horse and dog race tracks, college football and other amateur spectator sports.

⁷ Comprises gross receipts less cash benefits of fraternal, patriotic and women's organizations except insurance; and dues and fees of athletic, social and luncheon clubs and school fraternities.

⁸ Comprises billiard parlors, bowling alleys, dancing, riding, shooting, skating and swimming places, amusement devices and parks, daily fee golf course green fees, golf instruction, club rental and caddy fees, sightseeing buses and guides and private flying operations.

⁹ Comprises photograph developing and printing, photographic studies, collectors' net acquisitions of stamps and coins, hunting dog purchase and training, sports guide service, veterinary service, purchase of pets, camp fees, non-vending coin machine receipts minus payoff, and other commercial amusements.

Table I
Consumer Expenditures For Media Of Mass Communications In The United States, 1929-1968
(In Billions of Dollars)

Year	Newspapers	Books	Total	Radio	Total	Motion	Other	Total	Total	Total	
	Magazines	and	Printed	TV Receivers	Records	Radio	Picture	Admissions*	Admissions	Audio and	All
	Sheet Music	Maps	Media	TV Musical	Instruments	and TV	Admissions	Admissions*	Admissions	Media	Media
<i>Sub-Totals in Parentheses</i>											
1929	.54	.31	(.85)	1.01	.03	(1.04)	.72	.13	(.85)	(1.89)	2.73
1930	.51	.26	(.78)	.92	.03	(.95)	.73	.10	(.83)	(1.78)	2.55
1931	.48	.25	(.73)	.48	.02	(.50)	.72	.08	(.80)	(1.30)	2.03
1932	.43	.15	(.58)	.27	.02	(.29)	.53	.06	(.58)	(.87)	1.45
1933	.42	.15	(.57)	.20	.01	(.21)	.48	.04	(.52)	(.73)	1.30
1934	.44	.17	(.61)	.23	.02	(.25)	.52	.04	(.56)	(.81)	1.41
1935	.46	.18	(.64)	.25	.02	(.27)	.56	.04	(.60)	(.87)	1.51
1936	.49	.21	(.70)	.33	.02	(.35)	.63	.05	(.68)	(1.03)	1.73
1937	.52	.24	(.76)	.39	.02	(.41)	.68	.05	(.73)	(1.14)	1.90
1938	.51	.22	(.74)	.34	.03	(.36)	.66	.06	(.72)	(1.09)	1.82
1939	.55	.23	(.78)	.42	.03	(.45)	.66	.06	(.72)	(1.17)	1.95
1940	.59	.23	(.82)	.49	.03	(.53)	.74	.07	(.81)	(1.33)	2.16
1941	.64	.26	(.89)	.61	.04	(.64)	.81	.08	(.89)	(1.53)	2.42
1942	.70	.29	(.99)	.63	.05	(.68)	1.02	.09	(1.11)	(1.79)	2.79
1943	.84	.37	(1.20)	.40	.06	(.46)	1.28	.12	(1.39)	(1.86)	3.06
1944	.88	.45	(1.33)	.31	.07	(.38)	1.34	.14	(1.48)	(1.87)	3.20
1945	.97	.52	(1.49)	.34	.09	(.43)	1.45	.15	(1.60)	(2.03)	3.52
1946	1.10	.59	(1.69)	1.14	.12	(1.26)	1.69	.17	(1.87)	(3.12)	4.82
1947	1.24	.54	(1.78)	1.43	.14	(1.57)	1.59	.19	(1.78)	(3.35)	5.13
1948	1.37	.59	(1.96)	1.48	.17	(1.65)	1.50	.18	(1.69)	(3.34)	5.30

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1949	1.45	.63	(2.08)	1.70	.20	(1.91)	1.45	.18	(1.63)	(3.53)	5.62
1950	1.50	.68	(2.17)	2.46	.28	(2.74)	1.37	.19	(1.55)	(4.29)	6.46
1951	1.57	.78	(2.35)	2.26	.35	(2.61)	1.30	.19	(1.49)	(4.10)	6.45
1952	1.69	.79	(2.48)	2.37	.39	(2.76)	1.23	.19	(1.43)	(4.19)	6.67
1953	1.78	.83	(2.61)	2.61	.43	(3.04)	1.17	.20	(1.37)	(4.41)	7.02
1954	1.83	.81	(2.63)	2.74	.48	(3.22)	1.21	.23	(1.44)	(4.65)	7.28
1955	1.92	.89	(2.81)	2.79	.52	(3.31)	1.22	.25	(1.47)	(4.78)	7.59
1956	1.95	1.01	(2.96)	2.87	.59	(3.46)	1.23	.28	(1.50)	(4.96)	7.92
1957	2.09	1.15	(3.24)	3.00	.65	(3.65)	1.12	.30	(1.42)	(5.07)	8.30
1958	2.21	1.20	(3.41)	3.10	.72	(3.82)	1.17	.31	(1.48)	(5.30)	8.71
1959	2.31	1.35	(3.66)	3.42	.78	(4.20)	1.27	.34	(1.61)	(5.81)	9.48
1960	2.44	1.55	(3.98)	3.62	.86	(4.48)	1.30	.37	(1.67)	(6.15)	10.13
1961	2.56	1.69	(4.25)	3.76	.90	(4.67)	1.28	.40	(1.68)	(6.35)	10.60
1962	2.66	1.69	(4.34)	4.00	.95	(4.95)	1.24	.42	(1.66)	(6.61)	10.95
1963	2.78	1.75	(4.52)	4.31	1.01	(5.32)	1.28	.43	(1.71)	(7.02)	11.55
1964	2.74	1.97	(4.70)	5.41	.95	(6.36)	.91	.48	(1.40)	(7.76)	12.46
1965	2.84	2.05	(4.89)	6.11	1.03	(7.14)	.93	.50	(1.42)	(8.56)	13.46
1966	3.00	2.35	(5.35)	6.90	1.11	(8.02)	.98	.53	(1.46)	(9.48)	14.82
1967	3.22	2.67	(5.89)	7.41	1.14	(8.55)	.99	.61	(1.60)	(10.15)	16.04
1968	3.41	2.67	(6.08)	7.85	1.23	(9.08)	1.05	.63	(1.68)	(10.76)	16.84

Mass Media in the Marketplace

*Legitimate theaters and opera, and entertainments of non-profit institutions (except athletics). See glossary.

SOURCE: 1929-1947, 1954 National Income Supplement, U. S. Department of Commerce.

1948-1956, U. S. Income and Output, U. S. Department of Commerce, 1958.

1957-1968, Survey of Current Business, U. S. Department of Commerce, July 1959, July 1964, and July 1969.

Note: Failure of individual items, when added, to agree with sub-totals and total is due to rounding. All sub-totals and totals were rounded from the basic data.

Table II
Advertising Expenditures For Mass Media In The United States 1935-1968
(In Billions of Dollars)

Year	Total News- papers										Total Radio and TV	Total Tele- vision	Total Radio and Audio- visual**	Misc. Audio and Audio- visual**	Total All Media
	News- papers	Maga- zines	Farm Publi- cations	Busi- ness Papers	Total and Mag- azines	Out- door	Direct Mail	Misc. Printed**	Total Printed Media	Radio					
<i>Sub-Totals in Parentheses</i>															
1935	.76	.14	.01*	.05	(.95)	.03	.28	.28	(1.55)	.11	....	( .11)	.03	(.14)	1.69
1936	.84	.16	.01*	.06	(1.07)	.04	.32	.32	(1.75)	.12	....	( .12)	.03	(.15)	1.90
1937	.87	.19	.01	.07	(1.14)	.04	.33	.35	(1.86)	.16	....	( .16)	.04	(.20)	2.07
1938	.78	.17	.01*	.06	(1.01)	.04	.32	.32	(1.69)	.17	....	( .17)	.04	(.21)	1.90
1939	.79	.18	.01	.07	(1.05)	.04	.33	.33	(1.75)	.18	....	( .18)	.04	(.22)	1.98
1940	.82	.20	.01	.08	(1.10)	.04	.33	.36	(1.88)	.22	....	( .22)	.04	(.26)	2.09
1941	.84	.21	.01	.09	(1.15)	.05	.35	.39	(1.94)	.25	....	( .25)	.04	(.29)	2.24
1942	.80	.20	.01	.10	(1.10)	.04	.33	.38	(1.85)	.26	....	( .26)	.04	(.30)	2.16
1943	.90	.27	.01	.14	(1.33)	.04	.32	.44	(2.13)	.31	....	( .31)	.05	(.36)	2.50
1944	.89	.32	.01	.18	(1.40)	.06	.33	.49	(2.28)	.39	....	( .39)	.05	(.45)	2.72
1945	.92	.36	.01	.20	(1.50)	.07	.29	.53	(2.39)	.42	....	( .42)	.06	(.48)	2.87
1946	1.16	.43	.01	.21	(1.81)	.09	.33	.61	(2.84)	.45	....	( .45)	.07	(.52)	3.36
1947	1.48	.49	.02	.23	(2.22)	.12	.58	.75	(3.67)	.51	....	( .51)	.08	(.59)	4.26
1948	1.75	.51	.02	.25	(2.53)	.13	.69	.85	(4.21)	.56	....	( .56)	.09	(.66)	4.86
1949	1.92	.49	.02	.25	(2.68)	.13	.76	.91	(4.47)	.57	.06	(.63)	.10	(.73)	5.20
1950	2.08	.51	.02	.25	(2.86)	.14	.80	1.01	(4.82)	.61	.17	(.78)	.11	(.89)	5.71
1951	2.26	.57	.03	.29	(3.15)	.15	.92	1.14	(5.36)	.61	.33	(.94)	.13	(1.07)	6.43
1952	2.47	.62	.03	.37	(3.48)	.16	1.02	1.27	(5.94)	.62	.45	(1.08)	.14	(1.22)	7.16
1953	2.64	.67	.03	.40	(3.74)	.18	1.10	1.37	(6.39)	.61	.61	(1.22)	.15	(1.37)	7.76
1954	2.70	.67	.03	.41	(3.80)	.19	1.20	1.44	(6.64)	.56	.81	(1.37)	.16	(1.53)	8.16
1955	3.09	.73	.03	.45	(4.30)	.19	1.30	1.65	(7.44)	.54	1.03	(1.57)	.18	(1.75)	9.19
1956	3.24	.79	.04	.50	(4.56)	.20	1.42	1.75	(7.94)	.57	1.21	(1.77)	.19	(1.97)	9.90
1957	3.28	.81	.03	.57	(4.70)	.20	1.47	1.85	(8.22)	.62	1.27	(1.88)	.21	(2.09)	10.31
1958	3.19	.77	.03	.52	(4.52)	.19	1.59	1.83	(8.13)	.62	1.35	(1.97)	.20	(2.18)	10.30
1959	3.55	.87	.04	.57	(5.02)	.19	1.69	1.99	(8.88)	.66	1.49	(2.15)	.22	(2.37)	11.25
1960	3.70	.94	.03	.61	(5.29)	.20	1.83	2.10	(9.42)	.69	1.59	(2.28)	.23	(2.52)	11.93
1961	3.62	.92	.03	.58	(5.16)	.18	1.85	2.05	(9.24)	.68	1.69	(2.37)	.23	(2.60)	11.85
1962	3.68	.97	.03	.60	(5.29)	.17	1.93	2.12	(9.51)	.74	1.90	(2.63)	.24	(2.87)	12.38
1963	3.80	1.03	.03	.62	(5.49)	.17	2.09	2.31	(10.05)	.76	2.03	(2.80)	.26	(3.05)	13.05
1964	4.14	1.11	.03	.62	(5.90)	.17	2.18	2.47	(10.73)	.83	2.29	(3.12)	.27	(3.40)	14.16
1965	4.46	1.20	.03	.67	(6.36)	.18	2.32	2.65	(11.52)	.89	2.52	(3.41)	.29	(3.71)	15.26
1966	4.90	1.29	.03	.71	(6.93)	.18	2.45	2.90	(12.46)	1.00	2.78	(3.79)	.32	(4.11)	16.60
1967	4.94	1.28	.03	.71	(6.96)	.19	2.49	2.96	(12.60)	1.03	2.91	(3.94)	.32	(4.26)	16.86
1968	5.24	1.32	.03	.72	(7.31)	.21	2.61	3.16	(13.29)	1.15	3.14	(4.29)	.35	(4.64)	17.93

*More than justifiable by rounding.

**Miscellaneous divided on basis of 90% Printed, 10% Audio and Audiovisual.

SOURCE: Constructed from *Printer's Ink* estimate of Total Advertising Expenditures in the United States, 1935-1966, as prepared by McCann-Erickson, 1967-1968, *Printers Ink Marketing Communications*, Feb. 1969.

Note: Failure of items to agree with total and sub-totals in some instances is due to rounding.

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Mass Media in the Marketplace

Table III
Total Expenditures For Mass Media In The United States, 1929-1968
(In Billions of Dollars)

Year	Consumer Expenditures	Advertising Expenditures	Total Expenditures	GNP (In Billions of \$)	—Per Cent of Total—		Total Media Expenditures (i.e. Cons. & Adv.) As % of GNP
					Consumers	Advertisers	
1929	\$ 2.73	\$ 3.43	\$ 6.16	103.1	44.32%	55.68%	5.97%
1930	2.55	2.61	5.16	90.4	49.42	50.58	5.71
1931	2.03	2.28	4.31	75.8	47.10	52.90	5.69
1932	1.45	1.63	3.03	58.0	47.03	52.92	5.31
1933	1.30	1.30	2.60	55.6	50.00	50.00	4.68
1934	1.41	1.63	3.04	65.1	46.38	53.62	4.67
1935	1.51	1.69	3.20	72.2	47.19	52.81	4.43
1936	1.73	1.90	3.63	82.5	47.66	52.34	4.40
1937	1.90	2.07	3.97	90.4	47.86	52.14	4.39
1938	1.82	1.90	3.72	84.7	48.92	51.03	4.39
1939	1.95	1.98	3.93	90.5	49.62	50.38	4.34
1940	2.16	2.09	4.25	99.7	50.82	49.18	4.27
1941	2.42	2.24	4.66	124.5	51.93	48.07	3.74
1942	2.79	2.16	4.95	157.9	56.36	43.64	3.13
1943	3.06	2.50	5.56	191.6	55.04	44.96	2.90
1944	3.20	2.72	5.92	210.1	54.05	45.95	2.82
1945	3.52	2.87	6.39	211.9	55.09	44.91	3.02
1946	4.82	3.36	8.18	208.5	58.92	41.08	3.92
1947	5.13	4.26	9.39	231.3	54.63	45.37	4.00
1948	5.30	4.86	10.16	257.6	52.17	47.83	3.94

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1949	5.62	5.20	10.82	256.5	51.94	48.06	4.22
1950	6.46	5.71	12.17	284.8	53.08	46.92	4.27
1951	6.45	6.43	12.88	328.4	50.08	49.92	3.92
1952	6.67	7.16	13.83	345.5	48.23	51.77	4.00
1953	7.02	7.76	14.78	364.6	47.50	52.50	4.05
1954	7.28	8.16	15.44	364.8	47.15	52.85	4.23
1955	7.59	9.19	16.78	398.0	45.23	54.77	4.22
1956	7.92	9.90	17.82	419.2	44.44	55.56	4.25
1957	8.30	10.31	18.61	441.1	44.60	55.40	4.22
1958	8.71	10.30	19.01	447.3	45.82	54.18	4.25
1959	9.48	11.25	20.73	483.7	45.73	54.27	4.29
1960	10.13	11.93	22.06	503.7	45.92	54.08	4.38
1961	10.60	11.85	22.45	520.1	47.22	52.78	4.32
1962	10.95	12.38	23.33	560.3	46.94	53.06	4.16
1963	11.55	13.05	24.60	590.5	46.95	53.05	4.17
1964	12.46	14.16	26.62	632.4	46.81	53.19	4.21
1965	13.46	15.26	28.72	684.9	46.87	53.13	4.19
1966	14.82	16.60	31.42	749.9	47.17	52.83	4.19
1967	16.04	16.86	32.90	793.5	48.75	51.25	4.15
1968	16.84	17.93	34.77	865.7	48.43	51.57	4.02

SOURCE: Consumer Expenditures: Table I

Advertising Expenditures: Table II, 1929-1935 Totals, *Printers Ink*, Guide to Marketing for 1963, August 31, 1963, page 384.Gross National Product: 1929-1947, *National Income and Output*, United States Department of Commerce, Table I-1. 1947-1968, *Survey of Current Business*, United States Department of Commerce, Table I, July 1964 and July 1969.

Table IV
*Average Mass Communications Expenditures Per Household
 In The United States 1929-1968
 (In Actual Dollars)*

Year	Number of Households (In Thousands)	—Average Expenditure Per Household—			Average Personal Income Per Household	Per Cent Spent on Mass Communications	Per Cent Spent By Consumers Directly
		By Consumers	By Advertisers	Total			
1929	29,849	\$ 91.46	\$114.91	\$206.37	\$ 2,873	7.18%	3.18%
1930	29,905	85.27	87.28	172.55	2,571	6.71	3.32
1931	30,409	66.76	74.98	141.74	2,106	6.73	3.17
1932	30,914	46.90	52.73	99.63	1,622	6.14	2.89
1933	31,418	41.38	41.38	82.76	1,503	5.51	2.75
1934	31,923	44.17	51.06	95.23	1,678	5.68	2.63
1935	32,427	46.57	52.12	98.69	1,857	5.31	2.51
1936	32,931	52.53	57.70	110.23	2,079	5.30	2.53
1937	33,436	56.82	61.91	118.73	2,211	5.37	2.57
1938	33,940	53.62	55.98	109.60	2,020	5.43	2.65
1939	34,445	56.61	57.48	114.09	2,116	5.39	2.68
1940	34,949	61.80	59.80	121.60	2,251	5.40	2.75
1941	35,850	67.50	62.48	129.98	2,685	4.84	2.51
1942	36,450	76.54	59.26	135.80	3,388	4.01	2.26
1943	36,875	82.98	67.80	150.78	4,106	3.67	2.02
1944	37,100	86.25	73.32	159.57	4,466	3.57	1.93
1945	37,500	93.87	76.53	170.40	4,566	3.73	2.06
1946	38,183	126.23	88.00	214.23	4,696	4.56	2.69
1947	39,107	131.18	108.93	240.11	4,899	4.90	2.68
1948	40,532	130.76	119.66	250.42	5,192	4.82	2.52
1949	42,182	133.23	123.28	256.51	4,939	5.19	2.70
1950	43,554	148.32	131.10	279.42	5,246	5.33	2.83
1951	44,673	144.38	143.93	288.32	5,748	5.02	2.51
1952	45,538	146.47	157.23	303.70	6,001	5.06	2.44
1953	46,385	151.34	167.30	318.64	6,221	5.13	2.43
1954	46,962	155.02	173.76	328.78	6,181	5.32	2.51
1955	47,874	158.54	191.96	350.50	6,491	5.40	2.44
1956	48,902	161.96	202.45	364.40	6,825	5.34	2.37
1957	49,673	167.09	207.56	374.65	7,093	5.28	2.36
1958	50,474	172.56	204.07	376.63	7,148	5.27	2.41
1959	51,435	184.31	218.72	403.03	7,484	5.39	2.46
1960	52,799	191.85	225.95	417.81	7,627	5.48	2.52
1961	53,464	198.26	221.64	419.91	7,836	5.36	2.53
1962	54,652	200.36	226.52	426.88	8,096	5.27	2.47
1963	55,189	209.28	236.46	445.74	8,409	5.30	2.49
1964	55,996	222.52	252.88	475.39	8,884	5.35	2.50
1965	57,251	235.11	266.55	501.65	9,393	5.34	2.50
1966	58,092	255.11	285.75	540.87	10,053	5.38	2.54
1967	58,845	272.58	286.65	559.09	10,696	5.23	2.55
1968	60,444	278.60	296.64	575.24	11,381	5.05	2.45

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Mass Media in the Marketplace

Table V-A
*Average Consumer Spending Per Household For Printed Media
 In The United States, 1929-1968
 (In Actual Dollars)*

Year	<i>Newspapers Magazines and Sheet Music</i>	<i>Books and Maps</i>	<i>Total* Printed Media</i>
1929	\$18.09	\$10.39	\$28.48
1930	17.05	8.69	26.08
1931	15.78	8.22	24.01
1932	13.91	4.85	18.76
1933	13.37	4.77	18.14
1934	13.78	5.33	19.11
1935	14.19	5.55	19.74
1936	14.88	6.38	21.26
1937	15.55	7.18	22.73
1938	15.03	6.48	21.80
1939	15.97	6.68	22.64
1940	16.88	6.58	23.46
1941	17.85	7.25	24.83
1942	19.20	7.96	27.16
1943	22.78	10.03	32.54
1944	23.72	12.13	35.85
1945	25.87	13.87	39.73
1946	28.81	15.45	44.26
1947	31.71	13.81	45.52
1948	33.80	14.56	48.36
1949	34.37	14.94	49.31
1950	34.44	15.61	49.82
1951	35.14	17.46	52.60
1952	37.11	17.35	54.46
1953	38.37	17.89	56.27
1954	38.97	17.25	56.22
1955	40.11	18.59	58.70
1956	39.88	20.65	60.53
1957	42.08	23.15	65.23
1958	43.78	23.77	67.56
1959	44.91	26.25	71.16
1960	46.21	29.36	75.38
1961	47.88	31.61	79.49
1962	48.67	30.92	79.41
1963	50.37	31.71	81.90
1964	48.93	35.18	83.93
1965	49.61	35.81	85.41
1966	51.64	40.45	92.10
1967	54.72	45.37	100.09
1968	56.42	44.17	100.59

*Failure of individual items, when added, to agree with total is due to rounding.

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Mass Media in the Marketplace

Table V-B
Average Consumer Spending Per Household For Audiovisual Media In The United States, 1929-1968
(In Actual Dollars)

Year	Radio TV Receivers Records and Musical Instruments	Radio and TV Repairs	Total Radio* and TV Expenditures	Motion Picture Admissions	Other Admissions	Total* Admissions	Total Audio* and Audiovisual Media
	Sub-Totals in Parentheses						
1929	\$ 33.84	\$ 1.01	(\$ 34.84)	\$24.12	\$ 4.36	(\$28.48)	\$ 63.32
1930	30.76	1.00	(31.77)	24.41	3.34	(27.75)	59.52
1931	15.78	0.66	(16.44)	23.68	2.63	(26.31)	42.75
1932	8.73	0.65	(9.38)	17.14	1.94	(18.76)	28.14
1933	6.37	0.32	(6.68)	15.28	1.27	(16.55)	23.24
1934	7.20	0.63	(7.83)	16.29	1.25	(17.54)	25.37
1935	7.71	0.62	(8.33)	17.27	1.23	(18.50)	26.83
1936	10.02	0.61	(10.63)	19.13	1.52	(20.65)	31.28
1937	11.66	0.60	(12.26)	20.34	1.50	(21.83)	34.09
1938	10.02	0.88	(10.61)	19.45	1.77	(21.21)	32.12
1939	12.19	0.87	(13.06)	19.16	1.74	(20.90)	33.97
1940	14.02	0.86	(15.17)	21.17	2.00	(23.18)	38.06
1941	17.02	1.12	(17.85)	22.59	2.23	(24.83)	42.68
1942	17.28	1.37	(18.66)	27.98	2.47	(30.45)	49.11
1943	10.85	1.63	(12.47)	34.71	3.25	(37.69)	50.44
1944	8.36	1.89	(10.24)	36.12	3.77	(39.89)	50.40
1945	9.07	2.40	(11.47)	38.67	4.00	(42.67)	54.13
1946	29.86	3.14	(33.00)	44.26	4.45	(48.97)	81.71
1947	36.57	3.58	(40.15)	40.66	4.86	(45.52)	85.66
1948	36.51	4.19	(40.71)	37.01	4.44	(41.70)	82.40
1949	40.30	4.74	(45.28)	34.37	4.27	(38.64)	83.68
1950	56.48	6.43	(62.91)	31.46	4.36	(35.59)	98.50
1951	50.59	7.83	(58.42)	29.10	4.25	(33.35)	91.78
1952	52.04	8.56	(60.60)	27.01	4.17	(31.18)	92.01
1953	56.27	9.27	(65.54)	25.22	4.31	(29.53)	95.07
1954	58.35	10.22	(68.57)	25.77	4.90	(30.67)	99.02
1955	58.28	10.86	(69.14)	25.48	5.22	(30.70)	99.85
1956	58.69	12.06	(70.75)	25.15	5.73	(30.88)	101.43
1957	60.44	13.09	(73.53)	22.55	6.04	(28.59)	102.07
1958	61.42	14.26	(75.68)	23.18	6.14	(29.32)	105.00
1959	66.49	15.16	(81.65)	24.69	6.61	(31.30)	112.96
1960	68.56	16.29	(84.85)	24.62	7.01	(31.63)	116.48
1961	70.33	16.83	(87.16)	23.94	7.48	(31.42)	118.77
1962	73.19	17.38	(90.57)	22.69	7.68	(30.37)	120.95
1963	78.10	18.30	(96.40)	23.19	7.79	(30.98)	127.20
1964	96.61	16.97	(113.58)	16.25	8.57	(24.80)	138.58
1965	106.72	17.99	(124.71)	16.24	8.73	(25.00)	149.52
1966	118.78	19.11	(138.06)	16.01	9.12	(25.13)	163.19
1967	125.92	19.37	(145.30)	16.82	10.37	(27.19)	172.49
1968	129.87	20.35	(150.22)	17.37	10.42	(27.79)	178.02

*Failure of individual items, when added, to agree with sub-totals is due to rounding.

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Table VI
*Average Mass Communications Expenditures Per Household
 In The United States, 1929-1968
 (In Constant Dollars)*

Year	Purchasing Power 1957-1959 Dollar	Average Expenditure Per Household		
		By Consumers	By Advertisers	Total*
1929	\$1.674	\$153.10	\$192.36	\$345.46
1930	1.719	146.58	150.03	296.61
1931	1.889	126.11	141.64	267.75
1932	2.101	98.54	110.79	209.32
1933	2.218	91.78	91.78	183.56
1934	2.145	94.74	109.52	204.27
1935	2.091	97.38	108.98	206.36
1936	2.069	108.68	119.38	228.07
1937	1.999	113.58	123.76	237.34
1938	2.034	109.06	113.86	222.93
1939	2.066	116.96	118.75	235.71
1940	2.048	126.57	122.47	249.04
1941	1.951	131.69	121.90	258.59
1942	1.761	134.79	104.36	239.14
1943	1.658	137.58	112.41	249.99
1944	1.632	140.76	119.66	260.42
1945	1.595	149.72	122.07	271.79
1946	1.471	185.68	129.45	315.13
1947	1.285	168.57	139.98	308.54
1948	1.194	156.13	142.87	299.12
1949	1.205	160.54	148.55	309.09
1950	1.194	177.09	156.53	333.67
1951	1.104	159.40	158.90	318.31
1952	1.081	158.33	169.97	328.30
1953	1.072	162.24	179.35	341.58
1954	1.069	165.72	185.75	351.47
1955	1.071	169.80	205.59	375.39
1956	1.056	171.03	213.79	384.81
1957	1.021	170.60	211.92	382.52
1958	0.994	171.52	202.85	374.37
1959	0.985	181.55	215.44	396.98
1960	0.971	186.29	219.40	405.69
1961	0.959	190.13	212.55	402.69
1962	0.949	190.14	214.97	405.11
1963	0.937	196.10	221.56	417.66
1964	0.925	205.83	233.91	439.74
1965	0.910	213.95	242.56	456.50
1966	0.884	225.52	252.60	478.13
1967	0.860	234.42	246.52	480.97
1968	0.825	229.85	244.73	474.57

*Failure of individual items, when added, to agree with total is due to rounding.

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Mass Media in the Marketplace

Table VII-A
*Average Consumer Spending Per Household For Print Media
 In The United States, 1929-1968
 (In Constant Dollars)*

<i>Year</i>	<i>Newspapers Magazines and Sheet Music</i>	<i>Books and Maps</i>	<i>Total* Printed Media</i>
1929	\$30.28	\$17.39	\$47.68
1930	29.31	14.94	44.83
1931	29.78	15.51	45.31
1932	29.22	10.19	39.41
1933	29.65	10.58	40.23
1934	29.56	11.43	40.99
1935	29.67	11.61	41.28
1936	30.79	13.20	43.99
1937	31.08	14.35	45.44
1938	30.57	13.18	44.34
1939	32.99	13.80	46.77
1940	34.57	13.48	48.05
1941	34.83	14.14	48.44
1942	33.81	14.02	47.83
1943	37.77	16.63	53.95
1944	38.71	19.80	58.51
1945	41.26	22.12	63.37
1946	42.38	22.73	65.11
1947	40.75	17.75	58.49
1948	40.36	17.38	57.74
1949	41.42	18.00	59.42
1950	41.12	18.64	59.49
1951	38.79	19.28	58.07
1952	40.12	18.76	58.87
1953	41.13	19.18	60.32
1954	41.66	18.44	59.86
1955	42.96	19.91	62.87
1956	42.11	21.81	63.92
1957	42.96	23.64	66.60
1958	43.52	23.63	67.15
1959	44.24	25.86	70.09
1960	44.87	28.51	73.19
1961	45.92	30.31	76.23
1962	46.19	29.34	75.36
1963	47.20	29.71	76.74
1964	45.26	32.54	77.64
1965	45.15	32.59	77.72
1966	45.65	35.76	81.42
1967	47.06	39.02	86.08
1968	46.55	36.44	82.99

*Failure of individual items, when added, to agree with total is due to rounding.

Table VII-B
Average Consumer Spending Per Household For Audiovisual Media In The United States, 1929-1968
(In Constant Dollars)

Year	Radio TV Receivers Records and Musical Instruments	Radio and TV Repairs	Total Radio* and TV Expenditures	Motion Picture Admissions	Other Admissions	Total* Admissions	Total Audio* and Audiovisual Media
Sub-Totals in Parentheses							
1929	\$ 56.65	\$ 1.69	(\$ 58.32)	\$40.38	\$7.30	(\$47.68)	\$106.00
1930	52.88	1.72	(54.61)	41.96	5.74	(47.70)	102.31
1931	29.78	1.25	(31.02)	44.68	4.96	(49.65)	80.67
1932	18.34	1.37	(19.71)	36.01	4.08	(39.41)	59.12
1933	14.13	0.71	(14.82)	33.89	2.82	(36.71)	51.55
1934	15.44	1.35	(16.80)	34.94	2.68	(37.62)	54.42
1935	16.12	1.30	(17.42)	36.11	2.57	(38.68)	56.10
1936	20.73	1.26	(21.99)	39.58	3.14	(42.72)	64.72
1937	23.31	1.20	(24.51)	40.66	3.00	(43.64)	68.15
1938	20.38	1.79	(21.58)	39.56	3.60	(43.14)	65.33
1939	25.18	1.80	(26.98)	39.58	3.59	(43.18)	70.18
1940	28.71	1.76	(31.07)	43.36	4.10	(47.47)	77.95
1941	33.21	2.19	(34.83)	44.07	4.35	(48.44)	83.27
1942	30.43	2.41	(32.86)	49.27	4.35	(53.62)	86.48
1943	17.99	2.70	(20.68)	57.55	5.39	(62.49)	83.63
1944	13.64	3.08	(16.71)	58.95	6.15	(65.10)	82.25
1945	14.47	3.83	(18.29)	61.68	6.38	(68.06)	86.34
1946	43.92	4.62	(48.54)	65.11	6.55	(72.03)	120.20
1947	46.99	4.60	(51.59)	52.25	6.25	(58.49)	110.07
1948	43.59	5.00	(48.61)	44.19	5.30	(49.79)	98.39

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1949	48.56	5.71	(54.56)	41.42	5.15	(46.56)	100.83
1950	67.44	7.68	(75.11)	37.56	5.21	(42.49)	117.61
1951	55.85	8.64	(64.49)	32.13	4.69	(36.82)	101.33
1952	56.26	9.25	(65.51)	29.20	4.51	(33.71)	99.46
1953	60.32	9.94	(70.26)	27.04	4.62	(31.66)	101.92
1954	62.38	10.93	(73.31)	27.55	5.24	(32.79)	105.85
1955	62.42	11.63	(74.05)	27.29	5.59	(32.88)	106.94
1956	61.98	12.74	(74.72)	26.56	6.05	(32.61)	107.11
1957	61.71	13.36	(75.07)	23.02	6.17	(29.19)	104.21
1958	61.05	14.17	(75.22)	23.04	6.10	(29.14)	104.37
1959	65.49	14.93	(80.42)	24.32	6.51	(30.83)	111.27
1960	66.57	15.82	(82.39)	23.91	6.81	(30.72)	113.10
1961	67.45	16.14	(83.59)	22.96	7.17	(30.13)	113.90
1962	69.46	16.49	(85.95)	21.53	7.29	(28.82)	114.78
1963	73.18	17.15	(90.33)	21.73	7.30	(29.03)	119.19
1964	89.36	15.70	(105.06)	15.03	7.93	(23.13)	128.19
1965	97.12	16.37	(113.49)	14.78	7.94	(22.57)	136.06
1966	105.16	16.89	(122.05)	14.15	8.06	(22.21)	144.26
1967	108.29	16.66	(124.96)	14.47	8.92	(23.38)	148.34
1968	107.14	16.79	(123.93)	14.33	8.60	(22.93)	146.87

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*Failure of individual items, when added, to agree with sub-totals and totals is due to rounding.

Table VIII-A
*Percentage Of Consumer Spending On Mass Media Going To Print Media
 In The United States, 1929-1968*

<i>Year</i>	<i>Newspapers Magazines and Sheet Music</i>	<i>Books and Maps</i>	<i>Total* Printed Media</i>
1929	19.78%	11.36%	31.14%
1930	20.00	10.19	30.19
1931	23.61	12.30	35.93
1932	29.65	10.34	39.99
1933	32.31	11.53	43.83
1934	31.20	12.06	43.27
1935	30.47	11.92	42.39
1936	28.33	12.15	40.48
1937	27.36	12.63	40.00
1938	28.03	12.09	40.12
1939	28.21	11.80	39.99
1940	27.31	10.65	37.96
1941	26.45	10.74	36.78
1942	25.08	10.40	35.48
1943	27.45	12.09	39.21
1944	27.50	14.07	41.57
1945	27.56	14.77	42.33
1946	22.82	12.24	35.07
1947	24.17	10.53	34.70
1948	25.85	11.13	36.98
1949	25.80	11.21	37.01
1950	23.22	10.53	33.59
1951	24.33	12.09	36.43
1952	25.34	11.85	37.18
1953	25.35	11.82	37.18
1954	25.14	11.13	36.12
1955	25.30	11.73	37.03
1956	24.62	12.75	37.37
1957	25.18	13.86	39.04
1958	25.37	13.78	39.15
1959	24.37	14.24	38.61
1960	24.09	15.30	39.29
1961	24.15	15.94	40.09
1962	24.29	15.43	39.63
1963	24.07	15.15	39.13
1964	21.99	15.81	37.72
1965	21.10	15.23	36.33
1966	20.24	15.86	36.10
1967	20.08	16.65	36.72
1968	20.25	15.85	36.11

*Failure of individual items, when added, to agree with total is due to rounding.

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Table VIII-B
Percentage Of Consumer Spending On Mass Media Going to Audiovisual Media In The United States, 1929-1968

Year	Radio TV Receivers Records and Musical Instruments	Radio and TV Repairs	Total Radio* and TV Expenditures	Motion Picture Admissions	Other Admissions	Total* Admissions	Total Audio* and Audiovisual Media
<i>Sub-Totals in Parentheses</i>							
1929	37.00%	1.10%	(38.09)%	26.38%	4.77%	(31.14)%	69.24%
1930	36.08	1.17	(37.26)	28.63	3.92	(32.54)	69.80
1931	23.61	0.99	(24.60)	35.43	3.93	(39.37)	63.97
1932	18.61	1.39	(20.00)	36.54	4.14	(39.99)	60.00
1933	15.40	0.77	(16.15)	36.93	3.07	(40.00)	56.17
1934	16.30	1.42	(17.73)	36.88	2.83	(39.71)	57.44
1935	16.55	1.33	(17.89)	37.08	2.64	(39.72)	57.61
1936	19.07	1.16	(20.23)	36.42	2.89	(39.31)	59.55
1937	20.52	1.06	(21.58)	35.80	2.64	(38.42)	60.00
1938	18.69	1.64	(19.79)	36.27	3.30	(39.56)	59.90
1939	21.53	1.54	(23.07)	33.84	3.07	(36.92)	60.00
1940	22.68	1.39	(24.55)	34.26	3.24	(37.51)	61.59
1941	25.22	1.66	(26.45)	33.46	3.30	(36.78)	63.23
1942	22.58	1.79	(24.38)	36.55	3.23	(39.78)	64.16
1943	13.08	1.96	(15.03)	41.83	3.92	(45.42)	60.79
1944	9.69	2.19	(11.87)	41.88	4.37	(46.25)	58.43
1945	9.66	2.56	(12.22)	41.20	4.26	(45.46)	57.67
1946	23.65	2.49	(26.14)	35.07	3.53	(38.79)	64.73
1947	27.88	2.73	(30.60)	31.00	3.71	(34.70)	65.30
1948	27.92	3.20	(31.13)	28.30	3.39	(31.89)	63.02
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1949	30.25	3.56	(33.99)	25.80	3.21	(29.00)	62.81
1950	38.08	4.34	(42.41)	21.21	2.94	(23.99)	66.41
1951	35.04	5.42	(40.46)	20.16	2.94	(23.10)	63.57
1952	35.53	5.84	(41.37)	18.44	2.85	(21.29)	62.82
1953	37.18	6.13	(43.31)	16.67	2.85	(19.52)	62.82
1954	37.64	6.60	(44.24)	16.62	3.16	(19.79)	63.87
1955	36.76	6.85	(43.61)	16.07	3.29	(19.36)	62.99
1956	36.24	7.44	(43.68)	15.53	3.54	(19.07)	62.63
1957	36.17	7.83	(44.00)	13.49	3.62	(17.11)	61.08
1958	35.59	8.26	(43.79)	13.43	3.56	(16.99)	60.85
1959	36.07	8.22	(44.29)	13.40	3.59	(16.98)	61.29
1960	35.73	8.49	(44.22)	12.83	3.66	(16.49)	60.71
1961	35.48	8.49	(43.97)	12.08	3.77	(15.85)	59.91
1962	36.53	8.67	(45.20)	11.32	3.83	(15.16)	60.37
1963	37.32	8.75	(46.07)	11.08	3.72	(14.80)	60.78
1964	43.41	7.63	(51.04)	7.30	3.85	(11.24)	62.28
1965	45.39	7.65	(53.05)	6.91	3.71	(10.55)	63.59
1966	46.56	7.49	(54.12)	6.27	3.57	(9.85)	63.97
1967	46.19	7.11	(53.31)	6.17	3.81	(9.97)	63.28
1968	46.61	7.30	(53.92)	6.23	3.74	(9.98)	63.90

*Failure of individual items, when added, to agree with sub-totals and total is due to rounding.

Table IX
*Percentage of Advertising Expenditures On Mass Media Going To Individual Media
 In The United States 1935-1968*

<i>Year</i>	<i>Newspapers and Magazines</i>	<i>Outdoor</i>	<i>Direct Mail</i>	<i>Misc. Printed</i>	<i>Total Printed Media</i>	<i>Radio and TV</i>	<i>Misc. Audio and Audiovisual Advertising</i>	<i>Total Audio and Audiovisual Media</i>
<i>Sub-Totals in Parentheses</i>								
1935	56.21%	1.78%	16.57%	16.57%	(91.72)%	6.51%	1.78%	(8.28)%
1936	56.32	2.11	16.84	16.84	(92.11)	6.32	1.58	(7.89)
1937	55.07	1.93	15.94	16.91	(89.86)	7.73	1.93	(9.66)
1938	53.16	2.11	16.84	16.84	(88.95)	8.95	2.11	(11.05)
1939	53.03	2.02	16.67	16.67	(88.38)	9.09	2.02	(11.11)
1940	52.63	1.91	15.79	17.22	(87.56)	10.53	1.91	(12.44)
1941	51.34	2.23	15.63	17.41	(86.61)	11.16	1.79	(12.95)
1942	50.93	1.85	15.28	17.59	(85.65)	12.04	1.85	(13.89)
1943	53.20	1.60	12.80	17.60	(85.20)	12.40	2.00	(14.40)
1944	51.47	2.21	12.13	18.01	(83.82)	14.34	1.84	(16.54)
1945	52.26	2.44	10.10	18.47	(83.27)	14.63	2.09	(16.72)
1946	53.87	2.68	9.82	18.15	(84.52)	13.39	2.08	(15.48)
1947	52.11	2.82	13.62	17.61	(86.51)	11.97	1.88	(13.85)
1948	52.06	2.67	14.20	17.49	(86.63)	11.52	1.85	(13.58)
1949	51.54	2.50	14.62	17.50	(85.96)	12.12 *	1.92	(14.04)
1950	50.09	2.45	14.01	17.69	(84.41)	13.66	1.93	(15.59)
1951	48.99	2.33	14.31	17.73	(83.36)	14.62	2.02	(16.64)
1952	48.60	2.23	14.25	17.74	(82.96)	15.08	1.96	(17.04)
1953	48.20	2.32	14.18	17.65	(82.35)	15.72	1.93	(17.65)
1954	46.57	2.33	14.71	17.65	(81.37)	16.79	1.96	(18.75)
1955	46.79	2.07	14.15	17.95	(80.96)	17.08	1.96	(19.04)
1956	46.06	2.02	14.34	17.68	(80.20)	17.88	1.92	(19.90)
1957	45.59	1.94	14.26	17.94	(79.73)	18.23	2.04	(20.27)
1958	43.88	1.84	15.44	17.77	(78.93)	19.13	1.94	(21.17)
1959	44.62	1.69	15.02	17.69	(78.93)	19.11	1.96	(21.07)
1960	44.34	1.68	15.34	17.60	(78.96)	19.11	1.93	(21.12)
1961	43.54	1.52	15.61	17.30	(77.97)	20.00	1.94	(21.94)
1962	42.73	1.37	15.59	17.12	(76.82)	21.24	1.94	(23.18)
1963	42.07	1.30	16.02	17.70	(77.01)	21.46	1.99	(23.37)
1964	41.67	1.20	15.40	17.44	(75.78)	22.03	1.91	(24.01)
1965	41.68	1.18	15.20	17.37	(75.49)	22.35	1.90	(24.31)
1966	41.75	1.08	14.76	17.47	(75.06)	22.83	1.93	(24.76)
1967	41.28	1.13	14.77	17.56	(74.73)	23.37	1.90	(25.27)
1968	40.77	1.17	14.56	17.62	(74.12)	23.93	1.95	(25.88)

*TV not presented until 1949.

Note: Failure of individual items, when added, to agree with sub-totals and total is due to rounding. Rows add to 100%.

Table X-A
Expenditures On Newspapers And Magazines In The United States, 1935-1968

Year	EXPENDITURES (In Billions of Dollars)			% OF TOTAL	
	Consumers*	Advertisers	Total	From Consumers	From Advertisers
1935	\$.46	\$.95	\$ 1.41	32.62%	67.38%
1936	.49	1.07	1.56	31.41	68.59
1937	.52	1.14	1.66	31.33	68.67
1938	.51	1.01	1.52	33.55	66.45
1939	.55	1.05	1.60	34.38	65.62
1940	.59	1.10	1.69	34.91	65.09
1941	.64	1.15	1.79	35.75	64.25
1942	.70	1.10	1.80	38.89	61.11
1943	.84	1.33	2.17	38.71	61.29
1944	.88	1.40	2.28	38.60	61.40
1945	.97	1.50	2.47	39.27	60.73
1946	1.10	1.81	2.91	37.80	62.20
1947	1.24	2.22	3.46	35.84	64.16
1948	1.37	2.53	3.90	35.13	64.87
1949	1.45	2.68	4.13	35.11	64.89
1950	1.50	2.86	4.36	34.40	65.60
1951	1.57	3.15	4.72	33.26	66.74
1952	1.69	3.48	5.17	32.69	67.31
1953	1.78	3.74	5.52	32.25	67.75
1954	1.83	3.80	5.63	32.50	67.50
1955	1.92	4.30	6.22	30.87	69.13
1956	1.95	4.56	6.51	29.95	70.05
1957	2.09	4.70	6.79	30.78	69.22
1958	2.21	4.52	6.73	32.84	67.16
1959	2.31	5.02	7.33	31.51	68.49
1960	2.44	5.29	7.73	31.57	68.43
1961	2.56	5.16	7.72	33.16	66.84
1962	2.66	5.29	7.95	33.46	66.54
1963	2.78	5.49	8.27	33.62	66.38
1964	2.74	5.90	8.64	31.71	68.29
1965	2.84	6.36	9.20	30.87	69.13
1966	3.00	6.93	9.93	30.21	69.79
1967	3.22	6.96	10.18	31.63	68.37
1968	3.41	7.31	10.71	31.81	68.19

*Sheet Music Included.

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Table X-B
Expenditures On Radio And Television In The United States, 1935-1968

Year	EXPENDITURES (In Billions of Dollars)			% OF TOTAL	
	Consumers*	Advertisers	Total	From Consumers	From Advertisers
1935	\$.27	\$.11	\$.38	71.05%	28.95%
1936	.35	.12	.47	74.47	25.53
1937	.41	.16	.57	71.93	28.07
1938	.36	.17	.53	67.92	32.08
1939	.45	.18	.63	71.43	28.57
1940	.53	.22	.75	70.67	29.33
1941	.64	.25	.89	71.91	28.09
1942	.68	.26	.94	72.34	27.66
1943	.46	.31	.77	59.74	40.26
1944	.38	.39	.77	49.35	50.65
1945	.43	.42	.85	50.59	49.41
1946	1.26	.45	1.71	73.68	26.32
1947	1.57	.51	2.08	75.48	24.52
1948	1.65	.56	2.21	74.66	25.34
1949	1.91	.63	2.54	75.20	24.80
1950	2.74	.78	3.52	77.84	22.16
1951	2.61	.94	3.55	73.52	26.48
1952	2.76	1.08	3.84	71.87	28.13
1953	3.04	1.22	4.26	71.36	28.64
1954	3.22	1.37	4.59	70.15	29.85
1955	3.31	1.57	4.88	67.83	32.17
1956	3.46	1.77	5.23	66.16	33.84
1957	3.65	1.88	5.53	66.00	34.00
1958	3.82	1.97	5.79	65.98	34.02
1959	4.20	2.15	6.35	66.14	33.86
1960	4.48	2.28	6.76	66.27	33.73
1961	4.67	2.37	7.04	66.34	33.66
1962	4.95	2.63	7.58	65.30	34.70
1963	5.32	2.80	8.12	65.52	34.48
1964	6.36	3.12	9.48	67.09	32.91
1965	7.14	3.41	10.55	67.68	32.32
1966	8.02	3.79	11.81	67.91	32.09
1967	8.55	3.94	12.49	68.45	31.55
1968	9.08	4.29	13.37	67.91	32.09

*Includes Records and Musical Instruments; Television Not Present Until 1949.

Table XI
*Consumer Spending On Mass Media Compared With
 Total Consumer Spending In The United States, 1929-1968*
(In Billions of Dollars)

Year	Mass Communications Expenditures	Total Consumption Expenditures	Mass Communications As a % of Total Consumption Expenditures
1929	\$ 2.73	\$ 78.95	3.46%
1930	2.55	70.97	3.59
1931	2.03	61.33	3.31
1932	1.45	49.31	2.94
1933	1.30	46.39	2.80
1934	1.41	51.89	2.72
1935	1.51	56.29	2.68
1936	1.73	62.62	2.76
1937	1.90	67.26	2.82
1938	1.82	64.64	2.82
1939	1.95	67.58	2.89
1940	2.16	71.88	3.01
1941	2.42	81.88	2.96
1942	2.79	89.75	3.11
1943	3.06	100.54	3.04
1944	3.20	109.83	2.91
1945	3.52	121.70	2.89
1946	4.82	146.62	3.29
1947	5.13	164.97	3.11
1948	5.30	178.31	2.97
1949	5.62	181.16	3.10
1950	6.46	195.01	3.31
1951	6.45	209.81	3.07
1952	6.67	219.77	3.03
1953	7.02	232.65	3.02
1954	7.28	238.03	3.06
1955	7.59	256.94	2.95
1956	7.92	269.40	2.94
1957	8.30	284.76	2.91
1958	8.71	292.96	2.97
1959	9.48	313.54	3.02
1960	10.13	328.23	3.09
1961	10.60	337.35	3.14
1962	10.95	356.75	3.07
1963	11.55	374.96	3.08
1964	12.46	401.22	3.11
1965	13.46	433.10	3.11
1966	14.82	465.95	3.18
1967	16.04	492.27	3.26
1968	16.84	536.65	3.14

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Table XII
*Consumer Spending on Individual Mass Media As A Percentage
 Of Total Consumer Spending In The United States 1929-1968*

Year	Newspapers	Magazines	Books	Total Printed Media	Radio		TV Receivers	Total Radio	Movie Admissions	Other Admissions	Total Admissions	Total* Mass Media
	and Sheet Music	and Maps			Records and Musical Instruments	TV Repairs	TV etc.	Expenditures				
<i>Sub-Totals in Parentheses</i>												
1929	0.68%	0.39%	(1.08)%		1.28%	0.04%	(1.32)%		0.91%	0.16%	(1.08)%	3.46%
1930	0.72	0.37	(1.10)		1.30	0.04	(1.34)		1.03	0.14	(1.17)	3.59
1931	0.78	0.41	(1.19)		0.78	0.03	(0.82)		1.17	0.13	(1.30)	3.31
1932	0.87	0.30	(1.18)		0.55	0.04	(0.59)		1.07	0.12	(1.18)	2.94
1933	0.91	0.32	(1.23)		0.43	0.02	(0.45)		1.03	0.09	(1.12)	2.80
1934	0.85	0.33	(1.18)		0.44	0.04	(0.48)		1.00	0.08	(1.08)	2.72
1935	0.82	0.32	(1.14)		0.44	0.04	(0.48)		0.99	0.07	(1.07)	2.68
1936	0.78	0.34	(1.12)		0.53	0.03	(0.56)		1.01	0.08	(1.09)	2.76
1937	0.77	0.36	(1.13)		0.58	0.03	(0.61)		1.01	0.07	(1.09)	2.82
1938	0.79	0.34	(1.14)		0.53	0.05	(0.56)		1.02	0.09	(1.11)	2.82
1939	0.81	0.34	(1.15)		0.62	0.04	(0.67)		0.98	0.09	(1.07)	2.89
1940	0.82	0.32	(1.14)		0.68	0.04	(0.74)		1.03	0.10	(1.13)	3.00
1941	0.78	0.32	(1.09)		0.74	0.05	(0.78)		0.99	0.10	(1.09)	2.96
1942	0.78	0.32	(1.10)		0.70	0.06	(0.76)		1.14	0.10	(1.24)	3.11
1943	0.84	0.37	(1.19)		0.40	0.06	(0.46)		1.27	0.12	(1.38)	3.04
1944	0.80	0.41	(1.21)		0.28	0.06	(0.35)		1.22	0.13	(1.35)	2.91
1945	0.80	0.43	(1.22)		0.28	0.07	(0.35)		1.19	0.12	(1.31)	2.89
1946	0.75	0.40	(1.15)		0.78	0.08	(0.86)		1.15	0.12	(1.28)	3.29
1947	0.75	0.33	(1.08)		0.87	0.08	(0.95)		0.96	0.12	(1.08)	3.11
1948	0.77	0.33	(1.10)		0.83	0.10	(0.93)		0.84	0.10	(0.95)	2.97
1949	0.80	0.35	(1.15)		0.94	0.11	(1.05)		0.80	0.10	(0.90)	3.10
1950	0.77	0.35	(1.11)		1.26	0.14	(1.41)		0.70	0.10	(0.79)	3.31
1951	0.75	0.37	(1.12)		1.08	0.17	(1.24)		0.62	0.09	(0.71)	3.07
1952	0.77	0.36	(1.13)		1.08	0.18	(1.26)		0.56	0.09	(0.65)	3.03
1953	0.77	0.36	(1.12)		1.12	0.18	(1.31)		0.50	0.09	(0.59)	3.02
1954	0.77	0.34	(1.10)		1.15	0.20	(1.35)		0.51	0.10	(0.60)	3.06
1955	0.75	0.35	(1.09)		1.09	0.20	(1.29)		0.47	0.10	(0.57)	2.95
1956	0.72	0.37	(1.10)		1.07	0.22	(1.28)		0.46	0.10	(0.56)	2.94
1957	0.73	0.40	(1.14)		1.05	0.23	(1.28)		0.39	0.11	(0.50)	2.91
1958	0.75	0.41	(1.16)		1.06	0.25	(1.30)		0.40	0.11	(0.51)	2.97
1959	0.74	0.43	(1.17)		1.09	0.25	(1.34)		0.41	0.11	(0.51)	3.02
1960	0.74	0.47	(1.21)		1.10	0.26	(1.36)		0.40	0.11	(0.51)	3.09
1961	0.76	0.50	(1.26)		1.11	0.27	(1.38)		0.38	0.12	(0.50)	3.14
1962	0.75	0.47	(1.22)		1.12	0.27	(1.39)		0.35	0.12	(0.47)	3.07
1963	0.74	0.47	(1.21)		1.15	0.27	(1.42)		0.34	0.11	(0.46)	3.08
1964	0.68	0.49	(1.17)		1.35	0.24	(1.59)		0.23	0.12	(0.35)	3.11
1965	0.66	0.47	(1.13)		1.41	0.24	(1.65)		0.21	0.11	(0.33)	3.11
1966	0.64	0.50	(1.14)		1.48	0.24	(1.72)		0.20	0.11	(0.31)	3.18
1967	0.65	0.54	(1.20)		1.51	0.23	(1.74)		0.20	0.12	(0.33)	3.26
1968	0.64	0.50	(1.13)		1.46	0.23	(1.69)		0.20	0.12	(0.31)	3.14

*Failure of individual items, when added, to agree with total is due to rounding.

Table XIII
*Consumer Expenditures For Recreation And Mass Media In The
 United States, 1929-1968*
 (In Billions of Dollars)

Year	Mass Communications	Non-Mass Communications Recreation	Total* Recreation	Mass Communications Expenditures As % of Total Recreation	Total Recreation As % of Total Consumption Expenditure
1929	\$ 2.73	\$ 1.60	\$ 4.33	63.04%	5.48%
1930	2.55	1.44	3.99	63.90	5.62
1931	2.03	1.27	3.30	61.51	5.38
1932	1.45	0.99	2.44	59.42	4.95
1933	1.30	0.90	2.20	59.09	4.74
1934	1.41	1.03	2.44	57.78	4.70
1935	1.51	1.12	2.63	57.41	4.67
1936	1.73	1.29	3.02	57.28	4.82
1937	1.90	1.48	3.38	56.21	5.03
1938	1.82	1.42	3.24	56.17	5.01
1939	1.95	1.50	3.45	56.52	5.11
1940	2.16	1.61	3.76	57.44	5.23
1941	2.42	1.82	4.24	57.07	5.18
1942	2.79	1.89	4.68	59.61	5.21
1943	3.06	1.90	4.96	61.69	4.93
1944	3.20	2.23	5.42	59.04	4.93
1945	3.52	2.62	6.14	57.32	5.05
1946	4.82	3.80	8.62	55.91	5.88
1947	5.13	4.22	9.35	54.86	5.67
1948	5.30	4.51	9.81	54.02	5.50
1949	5.62	4.51	10.12	55.53	5.59
1950	6.46	4.82	11.28	57.26	5.78
1951	6.45	5.25	11.70	55.12	5.58
1952	6.67	5.59	12.26	54.40	5.58
1953	7.02	5.88	12.89	54.46	5.54
1954	7.28	5.97	13.26	54.90	5.57
1955	7.59	6.63	14.22	53.37	5.53
1956	7.92	7.24	15.16	52.24	5.63
1957	8.30	7.78	16.08	51.61	5.65
1958	8.71	8.27	16.97	51.32	5.79
1959	9.48	8.83	18.31	51.77	5.84
1960	10.13	8.39	19.52	51.89	5.95
1961	10.60	8.96	20.56	51.55	6.09
1962	10.95	10.54	21.50	50.93	6.03
1963	11.55	11.17	22.70	50.88	6.05
1964	12.46	12.11	24.57	50.71	6.12
1965	13.46	12.93	26.39	51.00	6.09
1966	14.82	13.85	28.67	51.69	6.15
1967	16.04	14.86	30.90	51.90	6.28
1968	16.84	16.71	33.55	50.19	6.25

*Failure of individual items, when added, to agree with total is due to rounding.

Table XIV
Comparisons of Time Trends Measured By Pearson Product-Moment
And Spearman's Rho Correlation Coefficients

	<i>r</i>	<i>rho</i>
Total Expenditure for Mass Media		
As Percent of GNP	.333	.391
Per Household	.947	.949
Per Household in Constant Dollars	.902	.897
As Percent of Personal Income per Household	.245	.280
Consumer Expenditures for Mass Media		
As Percent of GNP	.501	.506
Per Household	.952	.950
Per Household in Constant Dollars	.897	.917
As Percent of Personal Income per Household	.439	.488

Appendix B

Measurement

Correlational statistics commonly are employed to summarize the relationship between a locator variable and some criterion: for example, level of education as a predictor of number of magazines subscribed to; GNP of nations as a predictor of their newspaper circulations. But correlational statistics may be used to measure the relationship between any two variables, so long as the measured relationship has some empirical meaning. A chronological time series (1929, 1930 . . .) and any of the economic statistics reported in Appendix A are such a pair of variables, and, as we have seen, their measured correlation has a clear, straightforward empirical meaning.

Strictly speaking, correlating a data series with chronological time calls for ordinal measurement. What we are interested in is the rank-order of each year's score (e.g., total dollars spent on all mass media) across the years being considered. If the scores show a monotonic increase over time, then the most recent years will rank 1, 2, 3 and with the earliest years ranked lowest. If a rank-order correlation statistic, such as *Spearman's rho*, is calculated for such a comparison (ranking both the years and score from high to low), the result will be $\rho = +1.0$. That is, the sign indicates the direction of the trend and in this case a value of 1.0 indicates a perfectly monotonic trend. A ρ of +.78 for a similarly measured relationship summarizes a strong positive (but not monotonic) trend. Similarly, negative ρ s would indicate the reverse: if monotonic, then the value is -1.0.

A ρ of 0.0 (or a small positive or negative value best interpreted as a chance discrepancy from zero) means there is no relationship between the two variables. But there are two possible situations underlying a zero correlation. Distinguishing between the two is crucial for testing Scripps' Constancy Hypothesis.

Whenever one variable is constant year after year (or closely approximates a constant value) the correlation will be or will approximate zero. Scripps predicts such constancy for certain economic

indicators and, therefore, zero correlations are supportive evidence, but only if the zero correlation is really due to *constancy* in the economic variable. One can also obtain a zero correlation when the economic indicator fluctuates wildly from year to year. Across time there would be no consistent positive or negative trend, but neither would there be any constancy. Therefore, when a zero correlation is obtained, one additional piece of information is needed for its interpretation: the standard deviation of the scores about their mean. If the standard deviation is small, the constancy interpretation can be accepted. If the standard deviation is large, the constancy interpretation must be rejected. Alternatively, choice of the proper interpretation may be made by inspection of the ranks (or the scattergram).

Since interest centers on the relative ranking of the years on whatever economic indicator is under consideration, the proper statistic is a rank-order correlation. But there is an advantage in using Pearson's product-moment correlation (r) even though it assumes interval measurement, and is therefore a higher order metric.

The major advantage is the ability to move directly to partial correlations, and to control for various factors that may create the appearance of growth where in reality there is constancy. If all the original time trends of the economic indicators are measured in rs , no assumptions about compatibility are required.

But the final justification for imposing interval measures is empirical. Either ρ or r used to summarize the trend of an economic indicator across time yields the same picture. Table XIV compares the use of these two statistics as a time trend measure for eight different economic indicators. They all agree on the direction and approximate magnitude of the time trend. The average discrepancy is .022 with a standard deviation of .023.

No. 16

Elmer A. Beck, "Autopsy of a Labor Daily: The Milwaukee *Leader*." *August 1970*

No. 17

Jim A. Richstad, "The Press Under Martial Law: The Hawaiian Experience." *November 1970*

No. 18

Mary A. Gardner, "The Press of Guatemala." *February 1971*

No. 19

Robert L. Bishop and LaMar S. Mackay, "Mysterious Silence, Lyrical Scream: Government Information in World War II." *May 1971*

No. 20

Philip Palmgreen, "A Daydream Model of Communication." *August 1971*

No. 21

William E. Francois, "Evaluating Programmed News-Writing Instruction." *November 1971*

No. 22

David Gordon, "The 1896 Maryland Shield Law: The American Roots of Evidentiary Privilege for Newsmen." *February 1972*

No. 23

Karlen Mooradian, "The Dawn of Printing." *May 1972*

No. 24

Maxwell E. McCombs, "Mass Media in the Marketplace." *August 1972*