

By F. Gerald Kline

Media Time Budgeting as a Function of Demographics and Life Style

Using path analysis to examine causal connections, education is found to be a negative predictor of time spent with both newspapers and TV. Among life style variables, anomia predicts TV time best.

► Two ubiquitous phenomena in our society at mid-twentieth century are an enormous expansion in the mass media and rapid urbanization. Well over two-thirds of the nation's people now live in cities, and more than half of our inhabitants live in 213 urbanized areas.¹ Ninety-five per cent of homes have a radio or television set, while more than 570 TV stations and 5,000 radio stations broadcast daily. There

¹ A complete definition of urbanized areas can be found in *U.S. Census of Population: 1960, Number of inhabitants, State, Final Reports, PC* (Washington: U.S. Government Printing Office, 1960).

² *Statistical Abstract of the United States, 1965.*

³ Among them, Otis Dudley Duncan and Albert J. Reiss, Jr., *Social Characteristics of Urban and Rural Communities* (1950, New York: John Wiley and Sons, Inc., 1956); William M. Dobriner (ed.), *The Suburban Community* (New York: G. P. Putnam's Sons, 1958); Ernest W. Burgess and Donald Bogue (eds.), *Contributions to Urban Sociology* (Chicago: The University of Chicago Press, 1964).

⁴ Joseph T. Klapper, *The Effects of Mass Communication* (Glencoe: The Free Press, 1960); Alex S. Edelstein, *Perspectives in Mass Communication* (Kobenhavn: Einar Harcks Forlag, 1966); Melvin DeFleur, *Theories of Mass Communication* (New York: David McKay Co., Inc., 1966); Walter Weiss, "The Effects of Mass Communication," in Gardner Lindzey and E. Aronson, *Handbook of Social Psychological* (2nd ed., Cambridge, Mass.: Addison-Wesley Co., 1969).

⁵ Louis Wirth, "Urbanism as a Way of Life," *American Journal of Sociology*, 44:1-24 (July, 1938), p. 18.

are approximately 1,760 daily newspapers printing more than 62 million copies a day, and at least 300 million general and specialized magazines and periodicals are purchased every month in the U.S.² Although figures such as these are gross, they represent or reflect two highly dynamic social forces.

Many studies have attempted to spell out the effect of urbanization on our social institutions and patterns of living.³ Similarly, studies have been undertaken to measure the effect of media on social institutions.⁴ This project grew out of an interest in the characteristics of styles of life that seem to differentiate urban from suburban families in a metropolitan community and a concern with the relationships of these differences to media use habits.

Wirth⁵ suggests that the personality development and life style of an urban inhabitant is rooted in his ecological location. The urbanite is typically indifferent and reserved and has a blasé view of the world; he is also sophisticated and cosmopolitan, rational with a relativistic perspective, competitive

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and self-aggrandizing, irritable and nervous, accepting of instability and insecurity, and tolerant of the eccentric and novel.⁶ Also associated with this urban style are more secondary contacts, greater specialization, group dependence, utilitarian social contacts, time orientation, flexibility in caste structure interacting with sharper economic and social status differentiation, involuntary segregation, stereotyping, standardization, weakened kinship bonds, disintegration of family, decline in neighborhood interaction, increasing employment rate and development of interest group power.⁷

And what of the media in this urban scheme? Following the pioneer work of Park and his associates and others of the "Chicago School,"⁸ we posed the following questions for study:

- 1) In what ways may we characterize "life style" in a city: family time budgeting, family interaction, social participation, and character typologies?
- 2) Is ecological location associated with the major demographic variables? If so, what are the effects of these ecological-demographic variables on varieties of urban life style?
- 3) To what extent is media use in contemporary society related to the family life style or to the ecological-demographic location of the media users?

This paper attempts an answer for the third question. (Answers to the two previous questions have been attempted elsewhere.⁹)

Modern urban society is made up of a wide variety of groups whose members represent a wide range of social interests. In such a complex situation the various parts of the society, or community, must communicate with one another. And in a society as complex as this the very magnitude of such a task limits the possibilities for interpersonal communication. It is in this situation that mass communication provides the basis for what Wirth called consensus and collective social action.¹⁰

Aside from theoretical treatments of

its importance, there has not been a great deal of research explicitly investigating the role of the mass media in an urban setting. There has, of course, been considerable research into the "effects" of the media but little specifically related to ecological and family variables.

Morris Janowitz, in his now classic study of the role of the community press in an urban setting, saw the city as made up of many communities, each needing some specialized communication agency to provide channels for handling local problems.¹¹ He viewed the urban community press as "one of the social mechanisms through which the individual is integrated into the urban social structure."¹² Survey data and readership information enabled Janowitz to test a number of propositions generated from his theoretical scheme—developed out of his affiliation with the "Chicago School."

⁶ Richard Dewey, "The Rural Urban Continuum: Real but Relatively Unimportant," *American Journal of Sociology*, 66:60-66 (July, 1960), p. 61.

⁷ *Ibid.*, pp. 61-62.

⁸ Walter Firey, *Land Use in Central Boston* (Cambridge: Harvard University Press, 1964); Wirth, *op. cit.*; William F. Ogburn, *Social Change* (New York: Viking Press, 1922).

⁹ F. Gerald Kline, "Urban-Suburban Family Structure and Media Use," unpublished Ph.D. dissertation, University of Minnesota, 1969.

¹⁰ Louis Wirth, "Consensus and Mass Communication," *American Sociological Review*, 13:3-15 (February, 1948).

¹¹ Morris Janowitz, *The Community Press in an Urban Setting* (Glencoe: The Free Press, 1952).

¹² *Ibid.*, pp. 21-22.

¹³ Alex S. Edelstein and Otto N. Larsen, "The Weekly Press' Contribution to a Sense of Urban Community," *JOURNALISM QUARTERLY*, 37:489-98 (Autumn 1960); Alex S. Edelstein and Blaine J. Schulz, "The Weekly Newspaper's Leadership Role as Seen by Community Leaders," *JOURNALISM QUARTERLY*, 40:565-74 (Autumn 1963); Otto N. Larsen and Alex Edelstein, "Communication, Consensus and the Community Involvement of Husbands and Wives," *Acta Sociologica*, 5:15-30 (1960); and Alex S. Edelstein and Joseph J. Contris, "The Public View of the Weekly Newspapers' Leadership Role," *JOURNALISM QUARTERLY*, 43:17-24 (Spring 1966); Leo Bogart and Frank E. Orenstein, "Mass Media and Community Identity in an Interurban Setting," *JOURNALISM QUARTERLY*, 42:179-88 (Spring 1965); Jack Lyle, *The News in Megalopolis* (San Francisco: Chandler Publishing, 1967); Roy E. Carter, Jr. and Peter Clarke, "Suburbanites, City Residents and Local News," *JOURNALISM QUARTERLY*, 40:548-58 (Autumn, 1963).

Since then, Edelstein and Larsen have focused on the weekly press, Bogart and Orenstein on the "inter-urban" setting, Lyle the megalopolis and Carter and Clarke have examined the content urban and suburban inhabitants use in weekly and daily papers.¹³

Other approaches to the problem of media use were contributed by McLeod, Chaffee and Wackman in their examination of family communication patterns; by Westley and Severin in their profiles of newspaper non-readers and by Bogart and others in class and occupational differences in reading habits.¹⁴ In all of them there has been a con-

sistent search for a relationship between education and media use.¹⁵

Of fairly recent vintage has been the concern with the ubiquitousness of television. As of 1965, there were sets in 95% of the U.S. homes.¹⁶ And according to a survey reported by Bogart, between 3.5 and 4 hours a day are spent viewing television.¹⁷ Robinson and Converse report just over 3 hours a day of TV viewing for men and women in their 1966 survey of urban locations.¹⁸

Since the advent of widespread television penetration, radio, once the basic aural medium, now plays a secondary role. A 1962 study found that adults spend an average of 3.5 hours a day with radio.¹⁹

In examining use made of magazines, researchers generally find a stronger relationship between education and magazine usage than of newspaper usage. Bogart found that blue-collar workers read less than does the rest of the population.²⁰

The evidence makes it readily apparent that a conceptual scheme is necessary to relate the urban-suburban family to its media use. The scheme chosen draws from earlier literature and from contemporary radical and reformist literature. The classical conception of man contains implicit and explicit statements to the effect that when economic conditions are changed so that man can be free to pursue his personal development, he will improve his education, develop his esthetic sensitivity and fulfill his creative needs. This reliance on an economic interpretation of history can be found in Marx, Tönnies and Durkheim.²¹ The "rational will" found in urban development is a basic economic concept in Tönnies' scheme. For Durkheim, specialization, division of labor and interdependence are basic to "organic solidarity." Each of them is an economic term. Likewise, for Simmel and Wirth, the market-centered urban life produces distinctive types of people.²² In a similar vein Weber and Warner stress the impor-

¹³ Jack McLeod, Steven H. Chaffee and Daniel B. Wackman, "Family Communication: An Updated Report," Paper presented to the Association for Education in Journalism, Boulder, Colorado, 1967; Bruce H. Westley and Werner J. Severin, "A Profile of the Daily Newspaper Non-Reader," *JOURNALISM QUARTERLY*, 41:45-50 (Winter 1964); "A National Study of Newspaper Reading," Newsprint Information Committee, March-April, 1961, as reported in Leo Bogart, "The Mass Media and the Blue-Collar Worker," in Arthur B. Shostak and William Gomberg (eds.), *Blue-Collar World: Studies of the American Worker* (Englewood Cliffs, N.J.: Prentice-Hall, Inc.) pp. 420-23; Alfred C. Clark, "The Use of Leisure and Its Relations to Levels of Occupational Prestige," *American Sociological Review*, 21:301-7 (June 1956); Clyde R. White, "Social Class Differences in the Uses of Leisure," *American Journal of Sociology*, 61:145-50 (September 1955); Leonard Reissman, "Class, Leisure, and Social Participation," *American Sociological Review*, 19:76-84 (February, 1954).

¹⁴ Merrill Samuelson, Richard F. Carter and Lee Ruggels, "Education, Available Time and Use of Mass Media," *JOURNALISM QUARTERLY*, 40:491-6 (Autumn 1963).

¹⁵ *Statistical Abstract of the United States*, 1965.

¹⁶ *Supra*, 16.

¹⁷ John P. Robinson and Philip E. Converse, "Sixty-six Basic Tables of Time-Budget Data for the United States, 1966," the *American Behavioral Scientist*, pp. 1-31 (December 1966).

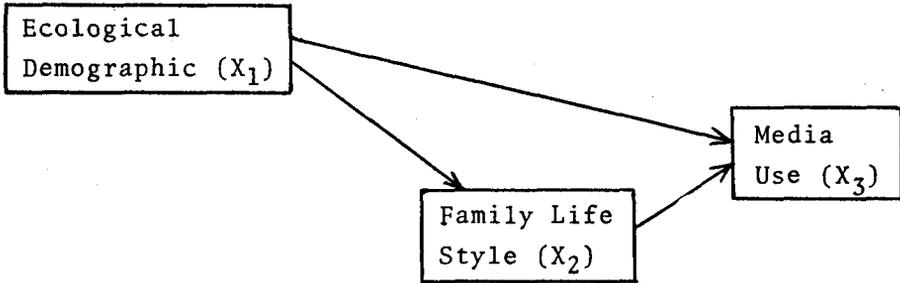
¹⁸ Reported in *Broadcasting*, 63:33 (September 1962) and cited by Harold Mendelsohn, "Listening to Radio," in Lewis Anthony Dexter and David Manning White, *People, Society and Mass Communications* (Glencoe: The Free Press, 1964), pp. 239-49.

¹⁹ *Supra*, 16, p. 427.

²⁰ Ferdinand Tönnies, *Community and Society*, translated and edited by Charles P. Loomis (East Lansing, Michigan: Michigan State University Press, 1957); Emile Durkheim, *The Division of Labor in Society*, translated by George Simpson (Glencoe: The Free Press, 1947).

²¹ George Simmel, "The Metropolis and Mental Life," in *The Sociology of George Simmel*, edited and with an introduction by Kurt H. Wolff (Glencoe: The Free Press, 1950); Wirth, "Consensus and Mass Communication," *op. cit.*

FIGURE 1



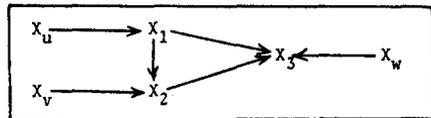
tance of life style and group life as intervening variables in the process of social mobility in society.²³ This is the major proposition underpinning Ogburn's progressivist theory of the family. He saw the family as a passive institution that was acted upon by economic and technological change. And Parsons, although differing in many ways from Ogburn, emphasized the family's dependence upon the economic system.²⁴

By broadly defining the economic conditions to include indices related to ecological and demographic descriptions used in sociological analysis, and by accepting the notion that life style variables act as intervening variables in a social process, we may say: Changes in life style are caused by changes in ecological demographic variables. The next step is to relate these variable sets to media use. According to Gordon and Anderson, "Changes in cultural behavior systems, such as clique activities, associational relationships, family interaction and life style, are said to be produced by the dynamic operation of the economic variable, and these changes then act as intervening variables contributing to mobility in the social-status dimension."²⁵ And what are the consequences for changes in this dimension? The authors of the above quote offer movement up the social ladder, from working-class to middle-class, as the test of change. They say that an examination of group ties and cultural attributes will help to answer the question: Does

the upwardly mobile working-class person pursue middle-class norms with regard to group relationships and leisure time activities such as media use? If so, we can say: Changes in media use behavior exhibited by families are caused by changes in life style and by changes in ecological-demographic variables. These causal statements may be represented as shown in Figure 1.

These causal statements may also be presented in a formal way to take advantage of classical statistical techniques to estimate the parameters in our model. Essentially this calls for construction of a set of equations to represent the causal process. Thus, letting the ecological-demographic set

FIGURE 2



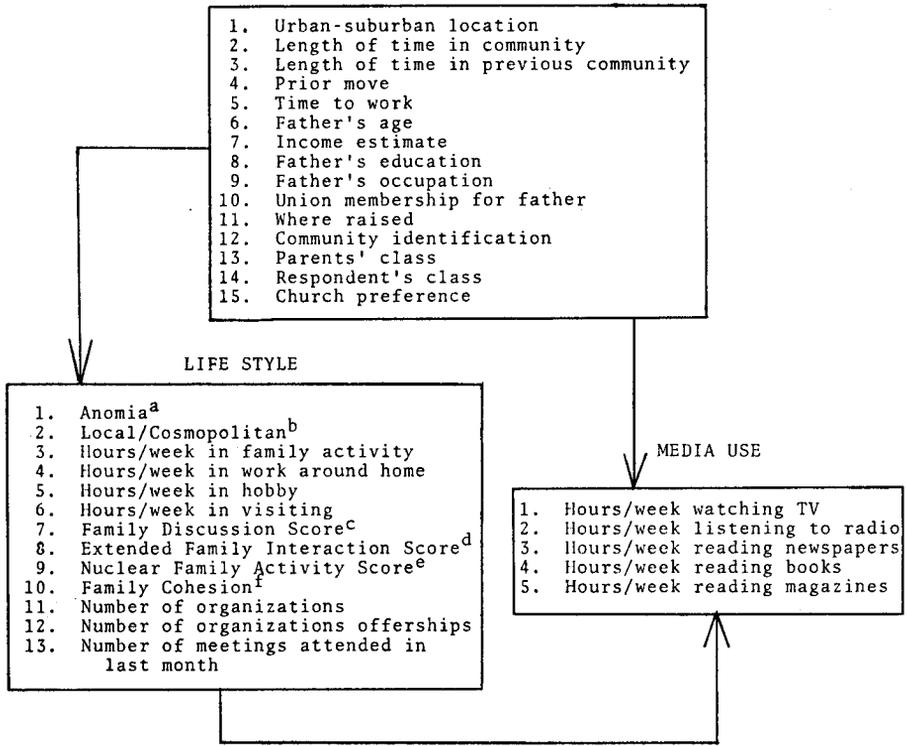
²³ Hans H. Gerth and C. Wright Mills, *From Max Weber, Essays in Sociology* (New York: Oxford University Press, 1958); W. L. Warner and Paul S. Lunt, *The Social Life of a Modern Community*, (New Haven: Yale University Press, 1941).

²⁴ Cf. Talcott Parsons and Robert F. Bales, *Family, Socialization and Interaction Process* (Glencoe: The Free Press, 1955); and "The Social Structure of the Family," in Ruth N. Anshen (ed.), *The Family: Its Function and Density* (New York: Harper and Brothers, 1959); William F. Ogburn and Clark Tibbitts, "The Family and Its Function," *Recent Social Trends in the United States* (New York: McGraw-Hill Book Co., 1934) and William F. Ogburn, *Social Change* (New York: Viking Press, 1922).

²⁵ Milton M. Gordon and Charles H. Anderson, "The Blue-Collar Worker at Leisure," in Shostak and Gomberg, *op. cit.*, pp. 407-408.

FIGURE 3

ECOLOGICAL-DEMOGRAPHIC



^a Leo Srole, "Social Integration and Certain Corollaries: An Exploratory Study," *American Sociological Review*, 21:709-12 (December 1956). He calls his items "... a measure of interpersonal alienation or 'anomia'." In other papers he says anomia is linked to interpersonal dysfunction in the social realm.

^b Thomas R. Dye, "The Local-Cosmopolitan Dimension and the Study of Urban Politics," *Social Forces*, 41:239-46 (March 1963).

^c The items used for this index were modified versions of items found in Verling C. Troidahl and Robert Van Dam, "A New Scale for Identifying Public Affairs Opinion Leaders," *JOURNALISM QUARTERLY*, 42:635-7 (Autumn 1964).

^d William H. Key, "Rural-Urban Differences and the Family," *The Sociological Quarterly*, 2:49-56 (January 1961).

^e *Ibid.*

^f The items were devised from Burgess and Locke's five components of familism. Ernest W. Burgess and Harvey J. Locke, *The Family, From Institution to Companionship*, 2nd ed. (New York: American Books, 1953), pp. 71-2.

be represented by X_1 , the life style by X_2 , and the media set by X_3 , we obtain the following equations:

$$X_1 = a + b_{1u}X_u \quad (1)$$

$$X_2 = a + b_{21}X_1 + b_{2v}X_v \quad (2)$$

$$X_3 = a + b_{31}X_1 + b_{32}X_2 + b_{3w}X_w \quad (3)$$

These would correspond to the diagram in Figure 2. And rewriting these equa-

tions in their standardized form where $Z_1 = (X_1 - M_1)/\sigma_1$ we obtain:

$$Z_1 = p_{1u}Z_u \quad (4)$$

$$Z_2 = p_{21}Z_1 + p_{2v}Z_v \quad (5)$$

$$Z_3 = p_{31}Z_1 + p_{32}Z_2 + p_{3w}Z_w \quad (6)$$

The coefficients, p_{ij} 's, are partial regression coefficients where all of the variables are measured. However,

following Wright's description, they may represent unmeasured hypothetical variables and can be referred to as standardized path coefficients.²⁶ A path coefficient is a number such that P_{ij} measures the fraction of the standard deviation of the variable for which it is directly responsible. Thus in the above equation (5) P_{21} measures the direct effect Z_1 has on Z_2 while P_{2v} measures the direct effect not measured by Z_2 and which may be attributed to one or a cluster of exogenous variables.

In an early effort to get at causal systems and link theory to empirical research, Blalock used partial correlation to test different theoretical structures.²⁷ Duncan pointed to the similarity between Blalock's approach and that of Wright cited above and indicated how stepwise regression analysis would eliminate the tedious procedure outlined by Blalock.²⁸ Each time a postulated relationship was not found, Blalock argued the analyst should eliminate the causal link and conduct a re-analysis. In essence, using path coefficients, this would correspond to a stepwise regression analysis where nonsignificant coefficients were deleted and the model rerun.

The analysis that follows is based on the conceptual organization described above in combination with the modifications prescribed by Blalock and Duncan.²⁹ Figure 3 presents the variables chosen for inclusion in this study. To estimate the parameters stepwise regression was used to regress each of the life style variables on the ecological-demographic variables. Where the parameter estimate was not significant at the .05 level it was removed and the analysis rerun. A similar set of regressions was run with media use variables being regressed on both life style and ecological-demographic variables. In subsequent presentations the existence of a path arrow means that the relationship was statistically significant. Thus to construct each set of path diagrams the following equations were estimated for $X_1 =$

ecological-demographic, $X_2 =$ life style, $X_3 =$ media use, and $X_u, X_v, X_w =$ unmeasured exogenous variables:

Using path analysis to examine

$$X_{1j} = p_{1u} X_u \quad (i = 1, 15) \quad (7)$$

$$X_{2i} = \sum_{j=1} p_{ij} X_{1j} + p_{2v} \quad (i = 1, 13; j = 1, 15) \quad (8)$$

$$X_{3k} = \sum_{j=1} p_{kj} X_{1j} + \sum_{l=1} p_{kl} X_{2l} + p_{3w} X_w \quad (i = 1, 20; j = 1, 15; k = 1, 13) \quad (9)$$

The variables listed in Figure 3 are made up in part by time-budget activities, Likert-type scales and categorical descriptions. For present purposes the major dependent variables of media time use were obtained from interval-level time budget data summed across husband and wife. The life-style variables were also in the form of time budget data and Likert-type scale scores.

The data were collected during the Spring of 1966, using field survey techniques. Two regions were chosen for sampling—an urban core as measured by population density and the suburban ring contiguous to the Minneapolis political boundary.³⁰ Both mother and father in a sample home were

²⁶ Sewall Wright, "Path Coefficients and Path Regressions: Alternative or Complementary Concepts?" *Biometrics*, 16:189-202 (September 1960).

²⁷ Hubert M. Blalock, *Causal Inference in Non-experimental Research* (Chapel Hill: University of North Carolina Press, 1964).

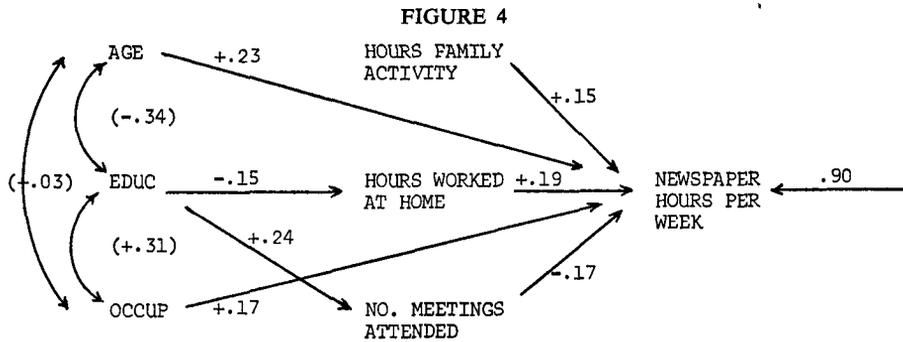
²⁸ Otis D. Duncan, "Path Analysis: Sociological Examples," *American Journal of Sociology*, 72:1-16 (July 1966).

²⁹ Stepwise regression analysis may erroneously select something other than the best linear additive combination of independent variables. For example, where there are four independent variables the best set of independent variables would be selected from the 15 possible combinations. With stepwise regression the elimination of one variable in the first set means it cannot enter into any subsequent combinations. Thus some method for selecting the best subset of predictors would be most appropriate but beyond the scope of this analysis. The implication of this caveat is that a particular variable left in after the stepwise procedure may not produce the same results if some other combination of independent variables were more appropriate. Thus our findings are subject to this weakness if the stepwise procedure and the "best subset" procedure are widely divergent.

³⁰ For a fuller discussion of the sampling plan and variable construction see Kline, *op. cit.*

TABLE 1
Average Time, Standard Deviation and Percent of Media Time
Spent Each Week With the Various Media for Husband and Wife

Media	Av. Hrs./Wk.	SD	Percent of Media Time
Television	29.5	19.5	37.3
Newspapers	11.4	6.8	14.3
Radio	25.0	17.8	31.6
Magazines	7.1	9.7	8.9
Books	6.0	7.7	7.9
All Media	79.1	33.1	100.0



interviewed and all of the data analyzed here involves summed scores for both parents unless otherwise specified.

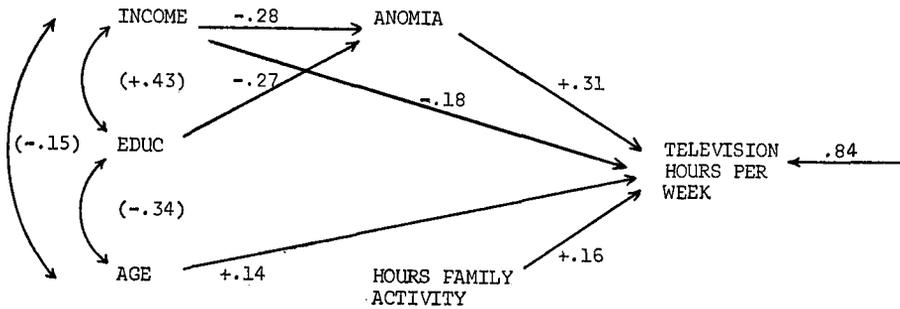
Findings

Table 1 displays the total mean time spent with each of the media for the mothers and fathers in our sample. The findings provide corroboration for research cited above. TV makes up a little more than 37% of time devoted to all media mentioned; radio is second with 25 hours per week of primary and secondary listing activity; newspapers are a distant third with just over 11 hours per week; while magazines and books make up about 7 and 6 hours per week respectively. The figures for the print media are slightly higher than in other studies.

In first examining the major predictors of newspaper hours per week it is apparent that a combination of demographic and life style variables is necessary for maximum explanation of

variance. The numbers attached to each of the arrows in Figure 4 represent standardized regression coefficients or path coefficients as explained above. The explanation of 19% of the variance points to a fairly powerful predictor set for newspaper reading time. However, examination of the five coefficients points to no single cause. We find that older families, higher on the occupation ladder, are more likely to read newspapers, and time spent around the home contributes to this effect. Only organizational participation seems to cut into reading time. In other research dealing with similar demographic variables education has been found to be positively correlated with reading time. In this study controlling on other demographic variables seems to limit the direct effect but does not prevent it from working through three of the life style measures. In effect, families with higher education spend less time with newspapers: higher edu-

FIGURE 5



cation is associated with organizational participation and lower time spent in working around the home. Also the indirect effect of education through age ($r = -.34$) also promotes such a negative relationship. Part of the explanation may be that better education improves capability for selective reading or faster reading.³¹

In the research undertaken by Samuelson, Carter and Ruggels cited earlier, zero order correlations of the same magnitude were found.³² That is, the correlation between education and daily newspaper hours per week was $+0.02$ while in this study it was -0.08 (both nonsignificant at the .95 level). And their correlation between age and newspaper hours was $+0.29$ whereas ours was $+0.26$. When they controlled for age, the education/newspaper hours correlation approached significance. When we controlled for age and other demographic predictors, the path coefficient was reduced to nonsignificance. It appears that the findings here conflict with theirs. Where we find a decrement in newspaper hours due to education they find "orientation toward any mass medium progressively increases with level of education."³³ They do, however, offer another inference which squares better with the above analysis: "roles associated with education pre-empt time that the more educated man would otherwise be inclined to spend in mass media use, particularly of television, radio and newspapers."³⁴ Their statement that "newspaper reading gets

strong competition from job-connected activities and child-rearing, particularly among the educated"³⁵ is not supported in the present data, which show family activity hours a small positive predictor of newspaper reading time.

Turning to the analysis of television hours per week, Figure 5 provides the path diagram characterizing the set of significant predictors. Here a combination of demographic and life style variables combines to explain 30% of the variance. Age and education are in the demographic set along with income. Hours spent in family activity is also present in conjunction with anomia. Here age is a factor in TV use although not as strong an effect variable as with newspapers. Income shows its effect in two ways, first directly with a negative path coefficient of $.18$ and second through anomia. Thus as income goes up TV usage goes down; as income goes up, anomia drops and accordingly so does TV hours. Education plays a similar role through anomia and via the

³¹ In Figures 4 through 8 the curved two-headed arrows represent the zero-order correlation coefficients for the variables. For a discussion of direct and indirect effects analysis in path analysis see Kenneth C. Land, "Principles of Path Analysis," in Edgar F. Borgatta and George W. Bohrnstedt (eds.), *Sociological Methodology 1969* (San Francisco: Jossey-Bass Inc., 1969).

³² *Loc. cit.* It should be pointed out that where we compare correlations across studies we are aware that unless there is some specification of the standard deviations for the noted correlations that we are treading on thin ice. However, in no instances were such standard deviations published.

³³ *Ibid.*, p. 496.

³⁴ *Loc. cit.*

³⁵ *Loc. cit.*

strong correlation (+.43) with income. Of the direct predictors, anomia is the dominant effect variable with a path coefficient of +.31. There is also an indirect effect of +.14 associated with this variable.

Interpretation of this path diagram locates two focal points: 1) the role of education in this analysis, and 2) the explanatory power of anomia with regard for TV usage. Samuelson, *et al.* found that when they adjusted for the role involvement associated with job-connected hours, hobby hours, organization membership and number of children, the correlation between education and television hours changed from -.11 to +.02. In our analysis, although education yielded a zero order correlation of -.33 with TV time, the effect was reduced to zero by our controls.

In accounting for anomia's predictive capabilities the first explanation that comes to mind is "escape" viewing. Early research suggested that anomic or alienated people should be using the media as a compensatory mechanism for their lack of interest in the world around them.³⁶ They should flee "into" the fantasy world of the media to protect themselves from the hostile forces around. McLeod, Ward, and Tancill found little relationship between their measure of alienation and hours spent with the media; education was the better predictor of media use (TV hours with alienation +.10, TV hours and education -.42).³⁷ In this study our correlations were +.45 and -.33 respectively. This sharp difference could be due to differences in the measure. When age was correlated with TV

hours McLeod, *et al.* obtained a +.20 and we obtained a +.22. However, where they had a correlation of +.11 between radio hours and alienation ours was +.01. When we computed a standardized partial regression coefficient, age remained a significant predictor, along with anomia, whereas education dropped out. McLeod, *et al.* found that age disappeared when controlled for by education—but apparently they did not control the education/alienation correlation for age.

Thus, unlike the Samuelson and McLeod studies, the analysis here indicates a negative indirect effect for education rather than a mixed direct effect as they infer. And anomia seems to be quite an important predictor of TV time. Our data also support the escape hypothesis if one accepts the assumption that the predominant content on TV is escape entertainment.

Radio, a victim of television penetration, has taken on a new role in the modern scene as a secondary medium which can be used, on demand, for news, information and entertainment. It would be this role as a medium used in conjunction with other activities that balloons the family mean usage time to 25 hours a week. This is the implication of Figure 6. As in the previous path diagrams education has an indirect effect which deflates the hours spent with the radio. And the positive effect of nuclear family activity along with time spent around the home would seem to point to radio usage in combination with home chores or family listening—with this listening readily interpretable as a secondary activity. The lack of other predictors points to the prevalence of radio listening across all ranges of demographic and life style categories.

The magazine path diagram is shown in Figure 7. Here education plays a direct role as predictor, as it did with newspaper reading: as education goes up so does the time spent with magazines. As education goes up union membership goes down (here union

³⁶ E. E. Elihu Katz and David Foulkes, "On the Use of Mass Media as 'Escape'," *Public Opinion Quarterly*, 26:377-88 (Fall 1962); Leonard Perlin, "Social and Personal Stress and Escape Television Viewing," *Public Opinion Quarterly*, 23:255-9 (Summer 1959); Eleanor Maccoby, "Why Children Watch TV," *Public Opinion Quarterly*, 15:421-44 (Fall 1954).

³⁷ Jack McLeod, Scott Ward and Karen Tancill, "Alienation and Uses of the Mass Media," *Public Opinion Quarterly*, 29:583-94 (Winter 1965).

FIGURE 6

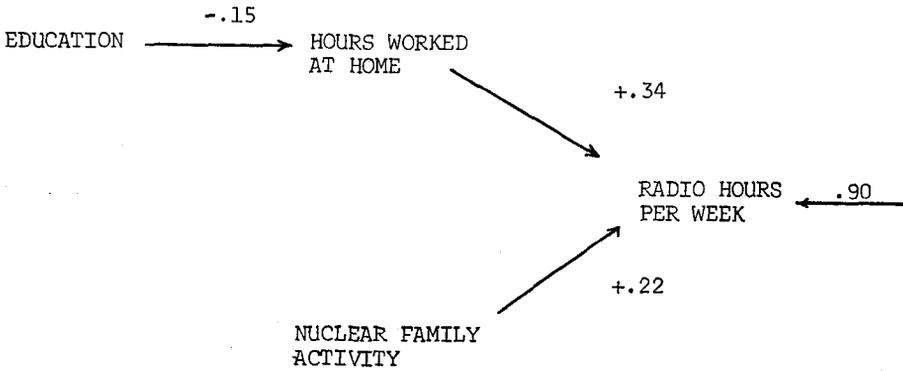
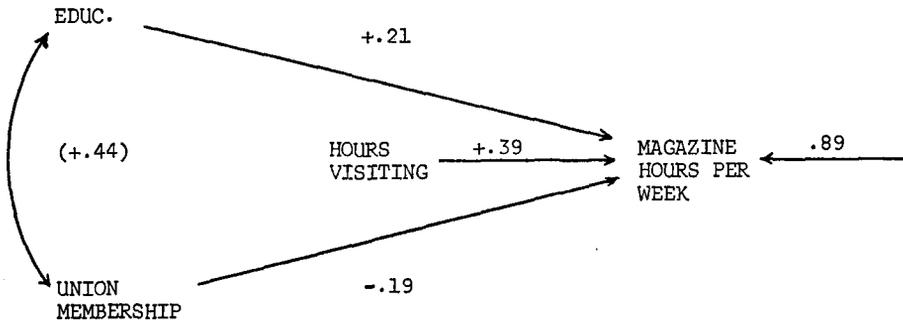


FIGURE 7

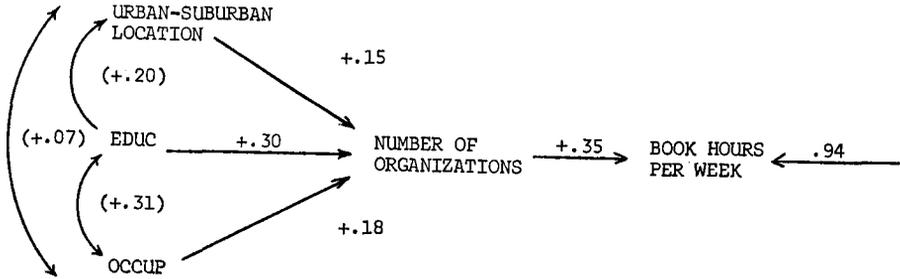


membership = 0 and nonmembership = 1). As union membership goes down, more time is spent with magazines. For the path diagram the indirect effect of education through union membership is $+.10$. The most difficult finding to explain, however, is the predominant effect of hours per week visiting on magazine time. There seems to be no obvious reason why this should be the case. Can it be that the content sought in such magazine usage has something to do with the high predictive power? Or is there some other correlate with visiting that does not show in our analysis that is producing this effect?

Finally book reading time for husband and wife is six hours per week. The kind of path diagram which best explains the variance in book reading

time is shown in Figure 8. We can only explain 12% of the variance in this analysis compared to the 19 to 30% of variance explained in the other media time analyses. The life style measure of organization membership is the only predictor. Though relatively strong it is not important compared to the exogenous factors which combine to produce a residual path coefficient of $.94$. Education is again the ubiquitous element associated with media time use. Here the positive effect of education through the number of organizations and through urban-suburban location seems to be predominant. We see that more highly educated suburban families in the higher occupational categories are more likely to be group members and in turn be book readers.

FIGURE 8



Summary

Our analysis of the amount of time families devote to each of five media points to the importance of both demographic and life style variables for explanation. In three instances out of five direct effects were found associated with demographic variables. In one of the instances education proved to have a direct effect but in every other instance it proved to be a variable which exerted important effects via other variables with which it is linked. The higher the education the less hours spent with newspapers and television. Education also depressed radio usage, but boosted magazine and book time. Occupation, age, and union membership were the other demographic variables that exerted significant effects on time spent with the media.

The life style variables that were important ranged from a character measure to family time budgeting and

organizational activity. Anomia was a significant measure affecting television use while formal group participation and membership had an effect on newspaper and book reading respectively. Hours spent visiting was significantly related to magazine readership but at this stage of the analysis there was no way to disentangle this effect for further explanation. When it came to newspaper, television and radio hours, there was a consistent positive effect of family time budgeting on use of these three media. The more time spent around home the higher the time spent with the media.

Ecological location as a factor in life style and media time budgeting in only one instance appeared in our analysis. This finding points up the need for replicating this kind of research in other urban areas where urban-suburban life styles are less homogeneous.

AEJ Archives Seeking Old Records, Documents

► The Mass Communications History Center of the State Historical Society of Wisconsin in Madison—recently designated as the official repository for Association for Education in Journalism archives—is seeking AEJ historic materials. Especially needed, according to Center director, Mrs. BARBARA J. KAISER, are materials concerning journalism education from about 1912 to 1920, files of past presidents, copies of old constitutions, bylaws and amendments, convention materials relating to the American Association of Teachers of Journalism and specifically for the conventions during 1920-29, 1932, 1939, 1940-41, 1953-54, 1959, 1961 and 1962. Already in the archives are documents from the executive secretary's office and files of many former officers.