THE EFFECTS OF TELEVISION ON FOOTBALL ATTENDANCE

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Prepared for the

National Collegiate Athletic Association
and
the Four Television Networks

by the
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University of Chicago

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Part 4 of 8

The Effects of Television on College Football Attendance

REPORT No. 4

PREPARED FOR THE

National Collegiate Athletic Association

BY THE

NATIONAL OPINION RESEARCH CENTER
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INTRODUCTION

The possibility that live football telecasts were exerting a harmful effect at the box office first began to concern the colleges of America at the close of the 1949 season. Although over-all attendance reached new high levels in 1949 and although there were still only about three million television sets in the whole country, some colleges nevertheless felt they were being hurt by the unrestricted telecasting of major games and the subject was widely discussed at the annual convention of the National Collegiate Athletic Association in January 1950. Later that year, the Big Ten Conference, comprising most of the major football-playing colleges in the Middle West, announced that none of the games played by its member schools would be televised during the coming season.

In view of the much later action by other sports interests, such as professional baseball and boxing, the establishment at the January 1950 NCAA convention of a Television Committee to investigate the problem of the effect of television on attendance proved a wise and far-sighted step. This TV Committee immediately approached the four television networks, and a joint research committee was formed to unearth factual evidence on the problem. A considerable amount of survey information had already been accumulated in the form of local interview studies, post card polls, mail questionnaires addressed to various groups, and the like, and a casual glance at these materials was sufficient to reveal the complexity of the problem and the contradictory nature of many of the surveys' conclusions.

It was at this point that the joint committee, representing both the networks and the colleges, called in the National Opinion Research Center, a non-profit social research group affiliated with the University of Chicago. The NORC was asked, in advance of the 1950 season, to evaluate and summarize the surveys which were available at that time and to recommend a research program which would provide more definite findings in the future. NORC's Report No. 1 was delivered to the joint committee in August 1950. That report noted some slight evidence of adverse television effects in the 1949 season, which could become more serious as television ownership mounted, and urged a continuous and systematic collection of attendance data from all colleges.

Such attendance data collection and analysis was authorized by the joint committee and carried out by NORC during the 1950 season. The preliminary results, available at the January 1951 annual convention of the NCAA, showed clearly that whereas attendance had increased in areas without television, considerable losses were being reported among colleges which faced TV competition. Furthermore, these losses were greater in the television areas which had the largest set ownership and in those areas where more local games were available on TV. Influenced by these findings, the NCAA overwhelmingly voted to restrict live telecasting during the 1951 season and to set up an "experimental plan" of televising different types of games which would provide an accurate test of television's effects. While the NCAA Television Committee continued to maintain close contact with the four networks, the 1951 and subsequent research conducted by NORC was commissioned exclusively by the colleges.

During the 1951 football season the NCAA's research program was expanded in order to get all possible evidence on the Television Committee's "experimental plan." This plan called for the televising of only seven games in any one TV reception area during the ten weeks of the football season, three of the Saturdays being designated as "blackouts". Further, most teams were permitted to appear on television only once, and in a few cases no more than twice, and each area was shown an approximately equal number of nearby vs. distant games. NORC again collected game-by-game attendance data, and in addition carried on a number of interview studies. Cross-sections of "football fans" in two metropolitan areas were interviewed before the season started and again every week throughout the season; with the cooperation of the universities, questionnaires were distributed to fans actually attending the games; mail questionnaires were addressed to alumni groups, etc.

The 1951 research, preliminary results of which were again presented at the annual NCAA convention in January 1952, again demonstrated clearly that live telecasts adversely affected stadium attendance, but that the program of limiting local telecasts had narrowed the TV differential in 1951. The periodic "blackouts" and the manipulation of the TV schedule to provide an approximately equal number of nearby and distant games were found to be less important, as far as attendance was concerned, probably because few fans had precise or long-range knowledge of the games scheduled on TV for their area. Once more the colleges overwhelmingly voted for continued control of football telecasting.

The 1952 Television Committee eliminated the "blackout" feature of the 1951 "experimental plan", but continued the restrictions on any team

appearing more than once during the season. Generally one big game was shown to all TV areas each Saturday, although a number of exceptions were made where local interest and a sell-out crowd dictated the substitution of a local game instead. The 1952 research again was limited to a collection and analysis of game-by-game attendance data, and these most recent results were reported to the NCAA convention in January 1953.

The present report summarizes the NORC findings over the past three seasons, and discusses their implications. It seems fitting that this fourth report should be in the form of a summary, since the period of television's advent and early mushrooming is now behind us. Thanks to the foresight of its leaders, college football has come through the early period of TV with less harm than would otherwise have occurred. In the not too distant future, TV will reach into all parts of the United States, and virtually every home will be equipped to receive whatever television entertainment is available. But already those colleges which account for more than 80% of the total football attendance have been exposed to television competition for at least one year, and most of them have managed to "live with" this new medium without too serious loss—as long as the competition of live football telecasts has been reasonably controlled.

We would like to express once more our appreciation to the hundreds of college athletic directors and business managers who supplied us with detailed football attendance reports. Special thanks must also be given to the members of the NCAA Television Committees, and particularly their chairmen, Thomas Hamilton, Ralph Furey, and Robert Hall; the NCAA program directors, Edwin S. Reynolds and Asa Bushnell; its legal counsel, Joseph Rauh Jr., and Homer Cooke and his staff of the NCAA Statistical Bureau. We are also grateful to Hugh Beville Jr. of NBC, Oscar Katz of CBS, Ben Gedalecia formerly of ABC, Leslie Aries of DuMont, and William Parker and Lansing Lindquist of Ketchum, MacLeod & Grove for their advice and technical information about television areas and programing, in connection with the 1950 and 1951 research.

Mention should likewise be made of Jerry Jordan for sending us advance proofs and supplementary details of his 1949 research; of "The Pulse" for providing useful information on the composition of television audiences; of William J. Cobb, R. Boyd Ladd and William Salkind as Statistical Consultants; of Herbert Stember, David Ryan and Ann Brunswick, NORC staff members who were responsible for much of the day-to-day execution of the research, and of the many other university and market research groups whose cooperation enabled us to complete these television studies.

Paul B. Sheatsley
Paul N. Borsky
Study Directors

SUMMARY OF FINDINGS

College football attendance suffered additional losses to television in the 1952 season.

Over-all, attendance was at 93.1% of the pre-television levels of 1947-48, but this figure merely reflects the fact that paid admissions were down 16.2% in areas where TV competition was present, while in areas where there was no television competition, attendance was 10.5% higher than in the base period.

The 1952 experience further develops the picture of TV effects that had emerged from the research of prior years. The following table summarizes attendance trends over the last three seasons.

COLLEGE FOOTBALL ATTENDANCE TRENDS, 1950-52

	Percent of 1947-48 Attendance				
Year	All Colleges	Colleges With TV Competition	Colleges Without TV Competition	TV Differential	Number of TV Sets in Millions
1950	99.5	88.6	115.1	26.5	9.2
1951	93.6	85.1	103.7	18.6	14.6
1952	93.1	83.8	110.5	26.7	19.8

In the 1950 season there were virtually no restrictions on televised football. In 1951, when the NCAA first adopted its program of limited TV, the attendance differential was cut from 26.5 to 18.6, despite a 50% increase in the number of TV sets. Last year, with close to twenty million sets in operation and extension of the interconnected network to all parts of the country, the differential again climbed to 26.7. Colleges with TV competition not only failed to share in the 7% gain recorded in non-TV areas but actually lost an additional 1% of their base attendance.

The success of the NCAA's program of limited television may be judged from the experience of the "heavily saturated" areas (40% or more of families owning TV) in 1950, when there were no restrictions on college football telecasts. In such areas attendance was down 25%, in contrast to the 15% gain recorded in non-TV areas. Under conditions of heavy saturation and unlimited telecasting, therefore, television produced a 40% decline in the expected stadium attendance.

In 1952 almost all of the colleges in television areas faced heavy saturation and most of them faced "very heavy" saturation, with 60% or more of the families owning TV. Had the 1950 policy of no restrictions continued to rule, such conditions would have produced a TV differential of at least 40 points. That the 1952 differential was instead only 26.7 points reflects the success of the NCAA plan in reducing the attendance losses which would otherwise have occurred in television areas.

The above figures have controlled for all differences in size of college, weather and game attractiveness. In addition, it has been established that the attendance differentials cannot be attributed to changing student enrollments, ticket prices or stadium capacities, or to differences in team performance, population or economic conditions as between TV and non-TV areas. It has further been established that if gate receipts, rather than total paid admissions, are considered the measure of TV effects, the losses attributable to television are even greater than stated above.

There is still no evidence that the impact of TV on football attendance represents a "novelty effect" which will wear off as TV owners grow more accustomed to the new medium. Three-quarters of the TV sets in operation last year were over a year old, but the adverse effects on attendance have remained extremely great, in spite of a controlled telecasting policy. Further, those areas which contain the largest number of sets and the greatest proportion of long-term owners are the very areas which show the largest attendance losses due to television.

It is clear that if the NCAA had continued to permit the unrestricted televising of college football games in 1951 and 1952, on the false assumption that the "novelty" would soon wear off and attendance in TV areas would again match those elsewhere, the substantial differential noticed even under the limited program would have been very much larger.

Attendance trends within the eight NCAA geographical districts follow the same pattern as the over-all national trends. In regions where the proportion of TV owners is low, and in years in which the televised football competition is minimal, the TV differential is generally small or non-existent. But where TV saturation is heavy and/or TV football competition is strong, the differential becomes marked.

Though the total average loss attributable to television in 1952 was 26.7%, the figure naturally varies from game to game depending on such factors as attractiveness of the game, size of college, TV saturation, and the type of televised competition.

Thus, although both more attractive games and less attractive games suffered significant attendance losses due to television, it was the more attractive games which were hit hardest, both in 1951 and 1952. It is the more attractive games of any college which draw the greater number of "marginal" or less interested fans, and it is these fans who are most likely to stay away when a substitute game is provided on television. The less attractive games, on the other hand, draw a steadier attendance of "regular" fans, and these fans are less easily dissuaded from game attendance by television.

Adverse TV effects were found to operate among all sizes of colleges, but they were notably greater in the case of large and medium schools than of small. Again, it is the larger colleges which count more heavily on the attendance of the general sports public and of "marginal" fans, and it is these fans who are more likely to reduce their attendance because of television. Small college attendance is composed chiefly of students, local alumni and other "regular" fans who are not so easily deterred from attendance by the availability of televised football.

In the past, no adverse TV effects have generally been noted until an area reaches the level of "moderate" saturation, with about 30% of the families owning TV sets. The early TV buyers in former years tended to be a select group of wealthier, more sports minded individuals, for whom TV was not as satisfactory a substitute as it proved to be for the more "marginal" fan.

As TV saturation went through the "moderate" stage and into the "heavy", however, and as more and more "marginal" fans purchased sets, the adverse effects on attendance became more and more apparent. These TV owners, with lower income, less frequent college affiliation and lower average attendance, are much more likely to use television as a substitute for their former ticket purchases.

The 1950 research established that the largest losses attributable to TV occurred among those colleges which telecast their own home schedule. In the last two years, however, no test of the effect of local telecasts has been possible, since the NCAA limited program has sharply reduced the number of such opportunities.

Though interview data have established that most fans take a greater interest in local and nearby teams than in distant ones, in neither of the last two years has this preference appeared to have affected gate sales significantly. Local attendance has been about the same whether the telecast was of regional or non-regional teams.

The failure of local attendance to improve significantly when the televised game is a distant one seems due to two factors. First, almost all of the teams featured on the NCAA "Game of the Week" telecasts have been nationally prominent, with high appeal in all parts of the country. Very few of the games have had only a local or regional attractiveness.

And secondly, few fans had precise advance knowledge of the TV schedule. Most knew only that "a big game" would be on television every week, and it was not until a day or two in advance, or even until the actual Saturday afternoon, that they learned just which game was to be featured. By that time it was generally too late to make plans to attend a game, so that even if the fan was sometimes disappointed in the choice of the game to be telecast, his actual stadium attendance was not significantly increased on that account.

No solid evidence is available on the effects of TV blackouts on college football attendance. The blackout experiment of the NCAA program in 1951 was generally ineffective in raising attendance levels in TV areas, although a significant increase was noted on such days among the smaller colleges.

But the 1951 experiment was deficient as a clear-cut test of the blackout situation. One-third of the scheduled blackouts occurred on the first Saturday of the season in September, fans in many blacked-out areas could quite easily tune in a game on an adjacent channel from another city, and the randomized schedule of blackouts was not known to fans far enough in advance to exert any effect on their attendance. There is evidence that when the blackout was widely known in advance, local attendance did increase, and it is consistent that the increases which were noted occurred among the smaller colleges which rely to a greater extent on day-of-the-game ticket sales.

The fact that college football appeals mainly to a relatively small segment of the public which has attended college, is relatively well-to-do economically, and is in the younger age brackets, makes it difficult for TV to exert any strong stimulative effects on the stadium box office. Interest in college football almost invariably arises in adolescent years, and is seldom developed after adulthood is reached.

Further, the non-college alumnus, even if his interest in the sport is aroused by televised football, still finds it difficult or unprofitable to convert that interest into attendance. The tickets are expensive, the stadiums are often far away; he is offered a poorer choice of seats, and he lacks the strong incentive for attendance that the alumnus finds in returning to the old campus, hearing the old songs and meeting his old friends.

The main problem of college football lies in holding the attendance it gets from former students after they leave college, for alumni almost always reduce their attendance sharply in the

years right after graduation. That is the time when they become occupied with family and professional responsibilities, when they change their residence, when they make new friends who lack their own interest in the game.

These deterrents to continued attendance become strongly reinforced by the availability of college football on television. Without TV, these busy young alumni had to purchase a ticket in order to satisfy their football interest. With games available on TV, they have what is often the final incentive to reduce their attendance.

It is this fact which explains the success of the NCAA programs in 1951 and 1952 in reducing the attendance losses in television areas. Four fans out of five concentrate almost all their attendance on the games of only one college, and under the unrestricted televising of 1950, the full home schedule of many of these colleges was widely telecast. There was thus hardly any incentive for the "marginal" fan of these colleges to purchase a ticket to any of the games.

But in the last two seasons, the fan has known that his favorite team would not be televising any of its games—or at most, only one of them. Thus, even though he could still see a game on TV every week, an actual ticket purchase has been required if he wanted to see his own favorite team in action.

There is considerable evidence that television, as it is today, has already approached its maximum harm to college football attendance, and that, given the same type of limited TV program, the heavy losses observed in 1952 will not increase very much in future years because of continued growth in saturation. Almost 80% of the total football attendance was already in television areas last year, and nine-tenths of the colleges located in such areas were already subject to heavy saturation.

The remaining non-TV areas are minor ones in terms of college football attendance, and the remaining non-TV owners in the present TV areas are largely non-attenders. As TV ownership penetrates into the final one-third of the population, the additional effect on attendance should be relatively slight. For these families are mainly in the lower income groups, their interest in college sports is low, and whatever TV-viewing they do is not likely to reduce attendance since few of them ever attended in the past.

With new TV areas opening up rapidly and television soon to blanket the entire country, it will no longer be possible to measure future TV effects by contrasting the attendance trends of areas where it does not exist. By the Fall of 1953, so few colleges will still be located outside of any television area that their attendance experience can provide no meaningful "control" against which the trends in TV areas may be evaluated.

Lacking any objective measure of what would be happening to attendance in the complete absence of television, therefore, future research will have to concentrate on establishing the varying effects of TV under differing conditions of saturation, type of television competition, and the like. The past three years of research have added much to our knowledge of how TV effects operate and should provide a sound basis for the interpretation of future trends in college football attendance.

I

THE RESEARCH PROBLEM

The isolation and measurement of the effect of a single variable, such as television, in a complex area like college football attendance is one of the most difficult of all kinds of research.

In the physical sciences, such as biology or physics, the effect of particular variables can be precisely measured by means of laboratory experiments in which all other factors are rigidly controlled. But in the social sciences, laboratory experiments are not usually possible. People's attitudes, desires, decisions and actions cannot be controlled like physical matter, and we must rely instead on the approximations afforded by modern statistical and survey methods.

The over-all problem in social research of this kind, however, remains the same as in physical research: to adjust or equalize or control all the other factors operating on the situation, and then to examine the effect of the one variable under study.

When we consider college football attendance, a moment's thought is sufficient to suggest a host of non-television factors which affect the level of attendance.

> Even at the same college, attendances vary from game to game depending upon such factors as the weather, the calibre of the opposition, and special promotional efforts such as Alumni or Homecoming Days.
>
> From college to college the level of attendance differs markedly according to the size of the stadium, the performance of the team and local interest in college football.
>
> From season to season, college football attendance is additionally affected by such factors as the level of student enrollment, the pinch of inflation or the ready spending money of boom times.

Any attempt to compare attendances as far as TV effects are concerned from one game, or one college, or one season to another, without controlling these other factors, can produce only meaningless or misleading results.

It has been argued, for example, that since over-all football attendance is off only slightly from its peak years, television cannot be exerting much harm. But this does not necessarily follow at all. The effects of television can be ascertained only by comparing attendances *with and without TV*, while holding other factors equal.

When this is done, we may find (as is actually the case) that outside of television areas attendance is the same or better than it used to be, while in areas where TV is present, attendance is down very substantially. The net effect of these two opposing trends could produce only a slight over-all loss, but by means of the comparison of teams with and without TV, we can see that actually television exerts a harmful effect.

Similarly, let us suppose that attendance actually increases among certain colleges exposed to television competition. One could not accept this fact as proof that TV does no harm to attendance, without seeing what happens at comparable colleges where TV competition does *not* exist.

If we find that attendance is up 10% when TV is present, but is up 25% without television, the comparison would clearly demonstrate, on the contrary, that TV has a depressing effect. The small gain among the TV-area colleges would obviously be due to other factors and would have been much larger had there been no television present.

Lacking controlled comparisons of this type, general statements about over-all attendance levels and inferences from these to TV effects have no real meaning, because the results cited will almost always reflect the influence of many other factors besides television.

Even when non-TV factors are controlled, the problem is still complicated by the fact that the television factor itself varies from place to place and from year to year. Two colleges may both be exposed to television, but the amount and type of TV competition may differ tremendously from one to the other.

In one area, for example, 70% of the population may own television sets, while in the other, sets are found in only 20% of the homes. In one area there may be good reception on three or four channels; in the other, somewhat poor reception on only one channel.

In 1950 many TV areas, not yet a part of the interconnected network, could receive no outside games, and no local games were televised unless they had already sold out. Under such conditions, television could hardly exert any adverse effect on attendance. But in that same year colleges in other TV areas were up against the weekly TV competition of local or top-ranking national teams which televised all their home games. In such cases, television might hurt attendance substantially.

The amount and type of TV competition has also changed over the years. The number of television receivers in American homes has increased sharply each year, and by 1952 virtually all stations were served by the interconnected network. With the ending of the FCC "freeze" order last year, TV was introduced into several new areas which had not previously known it.

In 1949 and 1950 there was unrestricted televising of college football, so that most major colleges in TV areas sold the rights to all their home games. But in 1951 and 1952 the NCAA plans drastically reduced the amount of televised football available to the fan.

All such variations in the TV variable itself must also be controlled, or at least taken into consideration, in any study of the medium's effects on football attendance.

THE METHOD

Given these complexities, how is it possible to establish any meaningful estimate of television's effects? We describe briefly here the method devised by NORC for the 1949 and 1950 analyses, and subsequently refined for the 1951 and 1952 studies. A more detailed description of the methodology is provided in NORC Reports No. 2 and 3.

The first step was to establish a "normal" or "expected" attendance level, against which the actual attendance trends in TV and non-TV areas could be compared, and for this purpose the seasons of 1947-48 were selected as base years. These were "pre-television" years, in that not enough sets had been sold at that time to offer any serious competition to game attendance.* We thus have the basic requirements for a controlled experiment of the laboratory type.

The trend in non-television areas from the pre-TV years to the present shows us what would have happened to football attendance had there been no television at all; it reflects the influence of all the non-TV factors such as changing economic conditions and student enrollment which we mentioned earlier.

The trend in television areas from the pre-TV years to the present shows us what happens when television is *added* to these other factors. By comparing the direction and magnitude of the two trends, we can thus infer the effect of television alone.

It should be noted that it makes no difference whether the base years are "normal" years, as long as they are *equally* "normal" or "abnormal" for both TV and non-TV areas.

If, because of general socio-economic factors which affected both areas alike, the base years enjoyed an unusually high attendance, we would expect that both TV and non-TV attendance trends might subsequently decline. But it is only the *difference* between the two trends which is relevant to TV effects, and if these general factors operate equally in both types of areas, there is no problem.

It has been noted, for example, that 1947 and 1948 were marked by unusually high student enrollments, brought about by large numbers of ex-GI students, and that this fact would produce abnormally high football attendance during those years. But swollen student enrollments were characteristic of *both* TV and non-TV area colleges in those years, and if the subsequent decline was about equal for both types of areas, the fact is irrelevant.

As may be seen in Table H in the Appendix, enrollment figures declined sharply in both TV and non-TV areas, but the loss was slightly larger in the *non*-television areas: 21% as compared with 18%. Thus, any large difference between the attendance trends in the two types of areas cannot be due to differential changes in student enrollment; and, if anything, the magnitude of any television difference will be *understated*, since the colleges in TV areas lost relatively less of their 1947-48 enrollment than did the colleges not exposed to TV competition.

For the 1949-50 analysis, the average attendance per game for the base years 1947-48 was calculated for each college, and the college's 1949 and 1950 attendance was expressed as a percentage of that pre-television or "expected" attendance.

Thus, if College A, a large Midwestern school, drew an average of 50,000 per game in 1947-48, and 55,000 per game in 1950, its attendance trend would be expressed as 110—an increase of 10%. If College B, a small Eastern school, drew an average of 5,000 per game in its base years and only 4,500 per game in 1950, its attendance level would be expressed as 90—a decline of 10%. In this way each college's attendance is compared to *its own* base level, and the use of index numbers like 110 and 90 facilitates comparisons.

Obviously, for any one college, the base years 1947-48 may not be "typical", and comparisons based on the trends of only a few colleges may reflect mainly the influence of changing team performance or other non-TV factors. But when many colleges are grouped for comparison, individual peculiarities tend to be equalized.

The use of an average of two years to establish the "expected" attendance is superior for a number of reasons to the use of 1947 or 1948 alone. The average of two years tends to iron out any particularly abnormal factors characteristic of only one of the two years—for example, an unusually strong or weak team. Moreover, since most college rivalries are scheduled on a home-and-home basis, the use of two years equalizes the effect of particular games being played at home one year and away the next.

In the 1949 and 1950 analyses, the attendance totals of all colleges in TV areas were compared with their "expected" attendance, based on the pre-television years 1947-48, and the same was done for the non-TV area colleges. The difference in the two index numbers was then inferred to represent the effects of television. It was assumed that given the large number of

* On November 1, 1947, only 134,000 TV sets had been sold, and by November 1, 1948, the total for the entire country was only 718,000. This represented only about 2% of all U. S. families.

colleges, such non-TV factors as weather, team performance, etc., would be approximately equal for the two groups.

But as a check on this assumption, it was possible to examine each of these extraneous factors separately. Thus, the attendance trends in large colleges in TV and non-TV areas could be sorted out and examined separately, and similarly for medium and small schools. Likewise, the difference in the TV and non-TV area trends could be studied separately for "high performance" teams, as compared with "low performance" teams. Similar analyses were made to control the possible effects of ticket price changes, weather, gate receipt trends, changing economic conditions and additions to stadium capacity.

Were any of these other factors to vary greatly between the TV and non-TV colleges, the difference could account for some of the differential attributed to television effects. But the 1950 analysis demonstrated that, even when these other factors were controlled, the adverse effects of television were still clearly apparent in the attendance trends.

The method just described was sufficiently sound to provide clear proof of an over-all television differential (the figure was reported at 8%), and to indicate roughly under what conditions TV was most and least harmful at the box office. But there were several weaknesses in the scheme which were corrected in the 1951 and 1952 analyses.

First, the earlier attendance totals included free admissions, which in some cases accounted for a substantial portion of the attendance. Since the problem of television effects is relevant only to paid admissions, the old data were revised to that basis, and 1951 and 1952 attendances were calculated on the basis of paid admissions only, excluding all free tickets. Actually, since there was no significant difference between the policies of TV and non-TV colleges in issuing free tickets, the TV differential was not seriously affected by this change.

Second, the 1949-50 analysis was concerned with absolute attendance totals for groups of colleges. Under this method, the few colleges with large average attendances, of 30,000 to 50,000 or more per game, dominated the totals, far outweighing the many more small colleges which averaged less than 5,000 per game.

This method of computation had the result of considerably understating the full effect of television, for it failed to give due weight to the adverse television effects felt at hundreds of games at scores of smaller colleges. Further, a sellout crowd at the one big game of a particular college could, by this method, obscure the adverse TV effects felt at two or three other games on the school's schedule.

Thirdly, the 1949-50 method of classifying colleges according to TV or non-TV area resulted in a substantial understatement of the actual television effect. Every college whose football stadium was within a 50-mile radius of a television transmitter was classified as a TV-area college, and all others were considered as "non-TV".

Thus, most colleges in the Southwestern region, which was marked by high football attendance in 1950, were assigned to the TV group, although due to lack of network facilities and no local telecast competition, TV could not possibly have affected attendance in this area.* Other colleges assigned to the non-TV group were nevertheless exposed to television competition, since a large part of their usual audience was drawn from television areas. Both of these factors additionally obscured the full effects of TV competition.

A final weakness in the earlier method was the inability to control the non-television variables *simultaneously* and to measure their interactions.

As we have seen, it was possible to examine TV effects on colleges of various size, for example, and also to examine television's effects on teams of varying performance.

But only 220 colleges were available for analysis, so that if more than one variable were controlled at the same time, there were not enough cases to establish any significant differences. Thus, if we wanted to look at the attendance trends of large colleges, with poor performance records, in non-television areas, for instance, we might find only six or eight such institutions—far too small a number to justify any generalizations.

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* Although Houston U. televised its games in 1950, its attendance reports could not be used in the analysis because adequate base year records were not available. No other local university was affected by the Houston telecasts. New Mexico, which also televised its games is now part of the Mountain States District and does not affect the Southwest.

1951-52 REFINEMENTS

As we have seen, the 1950 research design represented a significant advance over previous approaches to the problem, and it provided a conservative estimate of the adverse TV effects in operation that year. But with the benefit of a year's experience on the problem, and more time to plan, a number of changes suggested themselves in the design of the subsequent research.

First, as we have noted, all the old data were revised to exclude free admissions, and only paid attendance figures were considered.* Second, the 1951 and 1952 figures were based on individual *game* indexes, rather than on seasonal totals for each college. Each game had an "expected" figure, based on the average attendance per game drawn by the home team during the base years.

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* Student admissions posed a slight problem here, but it was decided that if students paid an "activity fee" which entitled them to the games, they would be counted as paid admissions.

By using the game as our unit, rather than the college, we automatically increased the number of cases we could examine. Instead of two or three hundred colleges, we could now classify and analyze more than 1,200 different games and thereby do a better job of controlling the non-television variables.

The first of these non-TV factors to be controlled in the 1951-52 analyses was weather. Each game attendance report furnished information on whether the weather was "good" or "bad", and also on the number of different types of tickets sold: season tickets, other advance sales, and gate or day of the game sales. Since bad weather significantly affected only gate sales, it was possible to adjust the low gate sales on bad-weather days to the average level of such sales on good-weather days, and thus to eliminate the weather factor from our data.

On the basis of the earlier research, we had determined that the other major determinants of game attendance were 1) the size of the college, 2) the relative attractiveness of the game; and in television areas, 3) the level of "saturation" or number of TV sets in the area, and 4) the type of football competition on television. It was then possible to classify each game according to each of these four variables and to apply a scheme of variance analysis.

The larger the number of analytical groups in the classification scheme, the more accurate and precise are the findings. Ideally, it would have been desirable to divide the colleges into five or six size classes, for example, or to classify the television reception areas into five or six levels of saturation. But the limited number of games available for analysis necessarily restricted the number of groups which could be distinguished. We discuss briefly the classifications employed for each variable.

1) ***Size:*** Since the size of college football audiences range all the way from a few hundred to upwards of 100,000 paid admissions, and since TV effects might well vary considerably from one school size to another, it was important to control for this factor.

In order to get enough colleges in each category, the following size intervals were used:

Large
15,000 or more per game in 1947-48

Medium
5,000 to 14,999 per game in 1947-48

Small
Less than 5,000 per game in 1947-48

As network TV was extended to additional areas in 1952, only seven "large" colleges continued to report no television competition. With so few cases, chance team fluctuations could obscure any analysis of television effects, so that in the most recent season large and medium colleges were combined, and the 1951 data were re-computed on the same basis to make them comparable.

2) ***Game Attractiveness:*** Obviously, some games on a college's schedule are more attractive than others: the opponent is a traditional rival or has an unusually fine team, it's the "home-coming" game, or some other feature makes it especially attractive. Other games are less attractive: the opponent is far too strong or weak to make it much of a contest, or has perhaps never played in town before and arouses little interest.

Television effects might operate differentially on these two types of games, so each college athletic director was asked to designate each game on his home schedule, in advance, as "more attractive" or "less attractive." A number of procedural safeguards were employed to check the accuracy of these ratings, and experience proved a high degree of reliability and objectivity on the part of the athletic director.

In non-TV areas, therefore, every game was classified in one of six groups: large school, more attractive; large school, less attractive; medium school, more attractive; medium school, less attractive, etc.

3) ***TV Saturation:*** "Saturation" refers to the extent of television ownership in a TV reception area. Based on dealer reports and other sources, the National Broadcasting Company publishes monthly estimates of the number of TV sets owned in each area. By expressing this number in terms of a proportion of all families in the area, it is possible to classify each area according to its relative saturation.

In 1950 three degrees of saturation had been distinguished:

Light
Fewer than 20% of families own TV

Moderate
20-39% of families own TV

Heavy
40% or more of families own TV

In 1951 only one minor area fell into the "light" saturation group, so that "light" and "moderate" were combined. In 1952, with average saturation close to 70%, it was possible to compare only those areas with less than 60% saturation ("heavy") with those reporting 60% or more ("very heavy").

4) ***Type of TV Competition:*** Past research enabled us to distinguish four major types of television competition to football attendance:

a) A *local* telecast, in which one of the televised teams is located in the same area as the game under study. Thus, if a Columbia game is televised in New York while Fordham is playing at home, Fordham would be exposed to local telecast competition.

b) *Regional* telecasts, in which one or both of the televised teams come from the same region, but not the same area, as the game under study. If a Yale-Cornell game were televised in New York while Fordham was

playing at home, Fordham would then be subject to regional telecast competition.

c) *Non-regional* telecasts, in which the televised teams are located outside the region of the game under study. Fordham would face non-regional telecast competition if a Notre Dame-Purdue game were aired in New York at the time.

d) *Blackouts,* in which no collegiate football is televised while the game is being played. Such might be the case if Fordham played a Friday night or Sunday game when there was no football on TV, or if the New York area were "blacked out" while Fordham played a Saturday afternoon game.

In the TV areas, therefore, each game was further classified according to saturation and type of television competition.

Thus, all large college games, which were more attractive, played in heavily saturated areas, under local telecast competition, were grouped together. All medium college games, of less attractiveness, played in lightly saturated areas, under blackout conditions, were placed in the same cell. And so with all the other possible combinations of the four factors—a total of 54 different groups or cells.

Within each cell, therefore, all the TV and non-TV factors we have mentioned were simultaneously controlled. The variance analysis then enabled us to determine statistically whether the difference in attendances from one cell to another was greater than the attendance variations within any single cell, and to what degree of statistical reliability.

We could then say positively that, with all these other factors controlled, television affects attendance by X%, and we could also state the magnitude of the television effect under varying conditions of size, game attractiveness, saturation and TV competition.

II

THE EFFECTS OF TELEVISION

While over-all attendance trends of all colleges combined tell us nothing about television effects, a brief review of such national totals will indicate the general framework of the problem. Table 1 summarizes the over-all trend of college football attendance in the last five years.

TABLE I*

PAID ATTENDANCE AT NCAA COLLEGE FOOTBALL GAMES

Year	Paid Attendance	Percent of "Expected" Attendance
1947-48 average	15,248,000	100.0
1949	15,675,000	102.8
1950	15,172,000	99.5
1951	14,272,000	93.6
1952	14,196,000	93.1

To the extent that non-NCAA colleges are not included in the analysis, the above figures are somewhat less than the total number of paid admissions to all college football games. The NCAA membership, however, includes virtually all senior colleges which charge admission to their games, so that it is unlikely that the minor non-NCAA schools could account for more than a few hundred thousand admissions.

The table shows that the peak in paid admissions was reached in 1949 when 15,675,000 tickets were sold.** In 1950 ticket sales dropped 3% and in 1951 the over-all loss was an additional 6%, or almost a million and a half less than the peak. During the 1952 season, stadium attendance remained about the same as in 1951, approximately 7% below the pre-television base years of 1947-48.

* Attendance in 1952 is based on estimated ticket sales for all games at 315 NCAA colleges. Figures for prior years are based on a link relative for reporting colleges. Differences from previously published estimates are due to the larger number of NCAA colleges included in the series and to adjustments for free admissions which accounted for about 10% of prior totals.

** It may be noted that the Department of Commerce estimates that college football admissions, including Bowl games, approximate 100 million dollars per year. On the basis of the NCAA attendance reports, it would appear that this *level* is about twice as high as it should be. The year to year trends, however, are not significantly different from the NCAA data. The Commerce Department level is based on a private study made over twenty years ago, without any correction in the bench mark level since then.

As will be shown in the following analysis, however, these over-all trends merely reflect the increasing spread of television, with the gains in areas outside the range of TV failing to offset the sharp losses among the large group of colleges which have become exposed to the new medium.

OVER-ALL TELEVISION EFFECTS

There can be no reasonable doubt that telecast football games which provide fans with "free 50-yard seats" seriously affect stadium attendance.

Some games will continue to sell out, of course, regardless of TV, and others may be affected only slightly by the competition of televised contests. But by and large, there is clear proof that when top-notch games are available to the public on home television, stadium attendance declines—and under many circumstances, it declines drastically.

In each of the last three seasons—the only years in which TV set ownership has attained significant proportions—colleges without television competition were able to exceed their "expected" attendance, while those competing against televised football experienced *declines* from their pre-TV levels. Table 2 summarizes the over-all trends.

TABLE 2 *
ATTENDANCE TRENDS WITH AND WITHOUT TELEVISION

Year	Percent of "Expected" Attendance			
	All Colleges	Colleges With TV Competition	Colleges Without TV Competition	TV Differential
1950	99.5	88.6	115.1	26.5
1951	93.6	85.1	103.7	18.6
1952	93.1	83.8	110.5	26.7

In 1949 the "TV differential" (difference in attendance trends attributable to the effects of television) had been insignificant. Colleges without television competition had reported a gain of 4% in comparison with a 2% improvement by TV colleges.

But television ownership was also insignificant in that year. In November 1949, only three million families owned TV, representing an average of merely 7% of all families and less than 16% of families in television reception areas. Even in 1949, however, it could be seen that colleges in the East, where saturation was heaviest, generally showed attendance losses, in contrast to the gains recorded elsewhere in the country.

During 1950 the number of TV sets in U. S. homes more than tripled, with over nine million sets reported in operation in November of that year. The average saturation in TV areas rose from 16% to 36%, and a significant number of television areas had already reached the "heavy" concentration of more than 40%.

Reflecting this sharp rise in the availability of television, the TV differential jumped to an average of almost 27 points. While colleges with no television competition were 15% *higher* than their "expected" levels, the colleges exposed to TV were almost 12% *below* their pre-television attendances.

It will be noted that over-*all* attendance in 1950 was less than 1% below "expected", thus demonstrating the point made earlier that gross attendance trends provide no clue to television effects.

Evaluation of the 1951-52 trends is complicated by two major changes in the TV variable itself. First, saturation increased substantially in both years so that for the first time a majority of the households in TV reception areas were equipped to receive home telecasts.

And secondly, the unrestricted televising of college football games which had been the practice in 1949 and 1950 was replaced by the limited programs adopted by the NCAA. There was thus a sharp reduction in the number and type of games available on TV.

Tables 3 and 4 summarize the trend of television ownership toward increasing saturation.

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* Estimates for 1951 and 1952 based on variance analysis data in which non-TV factors are simultaneously controlled. Estimates for 1951 differ from those previously published because large and medium colleges are combined in this table. Estimates for 1950 based on trend in weighted mean attendances in 1950-51.

TABLE 3
THE TREND OF TELEVISION OWNERSHIP

Year	No. of TV Sets November 1	Percent of All U. S. Families	Percent Families in TV Areas
1949	3,025,000	7%	16%
1950	9,169,300	20	36
1951	14,555,800	33	53
1952	19,751,200	44	69

The impact of the rapid rise in TV set ownership on the college football stadiums of the country is evident from the data included in the following Table 4.

In 1950 only 40% of the 130 colleges in television areas faced a situation in which as many as 40% of the families in the area owned TV sets; the majority were in areas of light and medium saturation, where effects on attendance are considerably less severe.

By the following year, 1951, only three colleges near Nashville remained in areas of light saturation, while more than 80% of the TV-area colleges were exposed to heavy local saturation. By the middle of the 1952 season, the lightly saturated areas had completely disappeared, save for Denver, to which television had just been introduced, and 91% of the TV-area colleges were in localities of heavy saturation.*

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* Television was also introduced into the Portland, Oregon area toward the end of the season, but no reports from this area were included in the attendance analysis. The one minor college located in Portland was unable to provide data for the base year period, so that current reports could not be used.

TABLE 4 **

PERCENT OF COLLEGES IN TV AREAS OF VARIOUS SATURATION

Year	Light (Under 20%)	Medium (20-39%)	Heavy (40% & over)	
1950	24%	36	40	=100%
1951	2%	15	83	
1952	2%	7	91	

EFFECTS OF THE NCAA PLAN

As we shall see in more detail in a subsequent section, heavy TV saturation in an area produces greater attendance losses than light or medium saturation. This fact has been demonstrated in each of the most recent four seasons.

In 1950, under the unrestricted televising of football games then in effect, the average loss of all colleges in television areas, from their pre-TV attendance levels, was 11.4%. But TV saturation averaged only 36% for all areas in that year, and in those areas which were then *heavily* saturated, the loss in attendance was *13 points greater*, or almost 25% below pre-television years.

In other words, in 1950, under unlimited telecasting, the colleges in heavily saturated areas drew only 75% of their "expected" attendance, while colleges not exposed to television competition at all boosted their "expected" attendance to the level of 115%. Under conditions of *heavy saturation* and *unlimited telecasting,* therefore, we may say that television resulted in a 40% reduction in the "expected" stadium attendance.

In 1951, however, 83% of the colleges in TV areas were exposed to heavy saturation. Had all other factors remained equal, therefore, we would have expected the attendance in TV areas, which had sagged to 88.6% in 1950, to decline an additional 10 points to 79% as a result of this increasing saturation.

Actually, all other factors did not remain constant, as a glance at the attendance trends outside of television areas shows (Table 2). The year of 1951 brought the peak of the post-Korea inflation. Sports and amusements expenditures were down generally and the colleges were especially hard hit by the sharpest drop in any single year of student enrollment. Reflecting these factors, attendance levels outside of television areas suffered an 11-point drop between 1950 and 1951.

These same general factors operated equally in the television areas, of course, so that in addition to the 10-point decline expected because of increasing saturation, we would have expected an additional loss of 11 points attributable to higher living costs and declining student enrollment. Such a combination of adverse conditions would have brought TV-area football attendance down to only 68% of its pre-television levels.

As shown in Table 2, however, average attendance in TV areas in 1951 dropped only *3.5 points* to 85.1% of "expected", rather than 21 points to 68% of "expected."

What could have accounted for the prevention or "saving" of this additional anticipated attendance loss of almost 18%, under conditions of heavier saturation and declining expenditures on college sports? The only major variable which is known to have changed between 1950 and 1951 and which has not been controlled is the difference in the type of television competition brought about by the introduction of the NCAA program of limited TV.

In 1950 there was uncontrolled television competition in all regions.* In most TV areas, this meant that on every Saturday afternoon, a fan could choose between buying a ticket to a local game and watching one or, if several channels were available to him, his choice of top-notch televised games, "free." In many instances the complete home schedule of his favorite local or national team was available "free" on television.

Alarmed by the effects of this wide-open TV competition, which had produced an attendance differential of 26.5% even under conditions of moderate saturation, the NCAA adopted in 1951 its experimental plan of controlled telecasting.

Under this plan, in 1951, every television area was "blacked out" on three of the ten Saturdays during the season, so that there was no TV football competition at all on these days. Only one

**Saturation level is based on NBC estimates of TV sets sold in TV reception areas. These figures may be somewhat overstated to the extent that obsolescence and multiple set ownership have not been adequately accounted for. Such overstatement is likely to be small, however, and would be concentrated in the heavily saturated areas. Since most of these areas were far above the 40% level, this small overstatement would not affect our classification.

* The Big Ten Conference, representing most of the major colleges of Region 4, banned any televising of their home games during 1950, but Notre Dame telecast its full home schedule throughout most of the region and many of the major Eastern college games were available in Midwestern television areas. Conference contral over television was also exercised in the Southeast and Southwest, and since those areas were off the network at that time, there was little or no effective competition in those regions.

game could be telecast in an area on any particular Saturday, so that the fan had no choice of games available on TV. No team could appear on television more than twice during the season, so that the fan knew that the great majority of the games played by his favorite team would *not* be telecast.

Further, there was a sharp reduction in the number of *local* games which were televised. Only the Chicago area had the opportunity to watch as many as two local games on television; eleven areas could view the telecast of one scheduled local game during the season, and the other 43 network TV areas had no local football telecasts at all.

Finally, of the seven Saturdays on which televised football was permitted in each area, three or four were assigned to teams from outside the fan's own region. Thus, a fan in an Eastern television area could get only a Midwestern game on about half the Saturdays. The purpose of these restrictions, of course, was to reduce the attendance losses in TV areas, while yet giving the public a major grid spectacle on television practically every week.

It is reasonable to infer that this sharp change in the amount and type of college football competition on television was almost entirely responsible for the estimated attendance savings of 18% in TV areas which we previously noted. It is possible, of course, that some unconsidered and uncontrolled factor could have accounted for part of this difference, although none suggests itself.

We know that in 1950, under unlimited TV competition, there was a 40% attendance differential which could be attributed to television in the heavily saturated areas. With heavy saturation facing over 80% of the TV-area colleges in 1951, we would have expected this 40% differential to be observable in virtually all TV areas during that season. Instead, the differential was less than 20 points. The impact of such non-television factors as inflation and lowered student enrollments has been controlled, and the only major uncontrolled variable was the NCAA plan.

It is proper to conclude, therefore, that the NCAA's limited TV program saved on the average about 18% of the normal attendance in television areas during 1951; and even allowing for the intervention of some additional uncontrolled factor, the most conservative estimate of the saving could not be lower than 15%.

Even with the advantage of limited TV competition, however, it should be noted that the colleges in television areas continued worse off in 1951 than those which were not exposed to the new medium.

Outside of TV areas, football attendance was still almost 4% better than "expected", in spite of the drop since 1950; but colleges with even limited TV competition were 15% below their pre-television levels—a sizeable differential of 18.6%. What the foregoing analysis suggests is that *without* the NCAA's limited TV program, this differential would have been around 35% as the result of increasing saturation.

The 1952 attendance pattern confirms these findings.

Colleges with no television competition at all improved their average ticket sales almost 7 points over 1951. This gain presumably reflects the general stabilization of prices, increases in personal incomes and other socio-economic improvements. (Student enrollment was almost identical with the previous year.)

Accordingly, without considering possible changes in the TV variable, attendance in television areas should also have risen about 7 points, as a result of these better conditions. Instead, ticket sales at colleges in television areas were just about the same as they had been in 1951; instead of a 7-point gain, they registered a small loss of about 1%.

This failure of the TV-area colleges to share in the attendance gains chalked up in the control areas where there was no television increased the TV differential by 8 points, putting it back to the 1950 level of almost 27%.

Looking again at possible changes in the TV variable itself between 1951 and 1952, we find that the type of televised games available in both years was pretty much the same. The 1952 NCAA Plan eliminated the "three-blackout" rule of 1951, but most of the other restrictions were maintained: only one game per area each Saturday, no team to appear more than once, very few local telecasts, and a large proportion of games emanating from outside the fan's own region. Consequently, the increase in the TV differential could not have been caused by changes in the type of football fare provided to the television fan.

When we look at the trend of TV saturation, however, one explanation of the increased differential becomes clearly apparent. With an additional five million sets sold between the 1951 and 1952 seasons, TV saturation rose to an average of practically 70% in those areas where reception was possible. Only five TV areas, and those without major football competition, remained in the lower saturation groups; everywhere else saturation had become heavy and in many cases very heavy.

In 1951, the heavily saturated areas drew only 80.9% of their "expected" attendance, while the average for all TV areas was 85.1%. Taking account, therefore, of the fact that virtually all the TV-area colleges were now exposed to this heavy saturation, we would expect about a 4-point drop due to this factor.

The other 4 points of the 8-point increase in the differential can be accounted for by the extension of network television competition to 36 additional colleges in the South, Southwest and Mountain states.

In 1951 the areas in which these colleges were located were not yet connected to the network,

and since virtually no local games were telecast that year under the NCAA Plan, they were, in effect, not exposed to any televised football competition. In 1952 the average attendance at these newly affected colleges was substantially below previous levels, and the decline owing to this factor undoubtedly contributes to the remainder of the differential.

It may thus be said that the failure of the TV-area colleges to share in the general attendance advance experienced by the non-TV-area colleges in 1952 was caused by the offsetting downward influences of additional TV saturation and the extension of network television to new areas. As will be noticed later, the largest declines among the TV-area colleges occurred in the South and Midwest where saturation increased most sharply.

THE POSSIBLE ROLE OF NON-TELEVISION VARIABLES

We have stated that in the attendance trends just described, the factors of weather, game attractiveness and size of college have been simultaneously controlled. The substantial TV differentials reported for each of the three years 1950-52 cannot, therefore, be ascribed to poorer weather, less attractive games or a greater proportion of small colleges in the television areas.

But these three factors obviously do not exhaust the list of variables which could conceivably account for the difference in the attendance trends. Perhaps one or more other factors besides television have been operating to depress attendance in the TV areas, but have not been present in the areas without television.

In the course of our research, a number of such possible factors have been suggested, and all have been investigated. Particularly during the 1950 study, when the difference in attendance trends in TV and non-TV areas was first employed to ascertain television effects, every effort was made to insure that the differential attributed to the adverse effects of television could not actually have reflected some other factor. We describe briefly here some of the hypotheses which proved false.

An obvious possibility is declining *student enrollments*, for it is well known that enrollments have dropped considerably at many colleges since the base years 1947-48 and it is also well known that students account for a substantial portion of the total paid football attendance. Thus, it might be that if enrollment declines were heavier in the television areas, this fact, rather than TV, could produce the observed differential.

As a check on this hypothesis, student enrollment figures for the years 1947 to date were obtained from the reporting colleges, and were tabulated separately for the TV and non-TV areas. The results proved a substantial decline in enrollments, but this decline was just about evenly apportioned between the two types of areas. Indeed, in each of the past three years the loss has been greater in non-TV areas than where television was present, so that if anything, the failure to control for this factor produced a slight understatement of the adverse effect of TV.

A second hypothesis was concerned with *ticket prices*. Conceivably, the price of football tickets in the larger metropolitan centers (where the TV-area colleges are predominantly located) had generally increased since the base years, while in the smaller towns outside the TV areas, the price level had remained about the same. If such were the case, it might be argued that the attendance decline in TV areas, as opposed to the rise elsewhere, merely reflects public reaction to the higher prices, rather than the impact of television competition.

Actually, when this factor was investigated, it was found that higher ticket prices went with greater attendance, rather than less. And on reflection, this finding is quite natural. Colleges do not normally raise their ticket prices in the face of declining attendance; under such conditions, they are more likely to lower them, to obtain larger crowds. It is only when attendance is already high, or gives promise of being high, that price rises are considered.

Analysis of the effects of ticket price changes showed that this factor could not possibly have accounted for any part of the television differential.* In the controlled situation where prices were the same as in the base years, the TV differential was about the same as had been noted; and among those colleges which were forced to reduce their prices, the TV differential was even larger than usual. Where ticket prices had been boosted (chiefly in the booming Southwest region), no significant differences could be established.

A third non-TV factor which was intensively investigated in 1950 for its possible contribution to the differential attributed to television was *changes in stadium capacity*. Again, if stadiums were generally enlarged in the non-TV areas, while remaining the same in areas where television was present, this factor might account for the differential attendance trends.

But again, when this factor was controlled, the observed TV differential still persisted. Indeed, since much of the stadium expansion in the country took place in the booming Southwest region, which was then classed as a television area, the magnitude of the TV differential was again understated when this factor was omitted from the calculations.

Fourthly, it was suggested that the superior attendance trends in the non-TV areas might be attributed to differential *population and economic changes*, rather than to the absence of television. If the greatest population growth since the base years occurred in the non-TV areas, and if

* For detailed discussion and supporting statistical tables relating to this and other non-TV factors, see NORC Report No. 2, "The Effects of Television on College Football Attendance", April 30, 1951.

employment, income and spending were all up more in these areas than where TV was present, then here was another factor which might make our attendance differential a spurious measure of TV effects.

Careful tabulation of population and "effective buying income" trends in the two types of areas soon disposed of this argument. Both in television and in non-television areas, population was up 3% or 4% and "effective buying income" was up 12% or 14%, but the differences between them were not significant. The striking fact was that football attendance in TV areas was declining, in the face of both population and income gains, while where television was absent, football attendance was keeping pace with those rises.

A fifth hypothesis was concerned with *gate receipts*. Theoretically, the greater losses in attendance in television areas could be more than compensated by higher prices and a larger "take" at the box office.

Analysis of the detailed gate receipts data obtained in 1950 showed that this factor actually worked in the opposite direction. While the trend in gate receipts was up in both types of areas, owing to rises in ticket prices since the base years, the differential in favor of the non-TV areas in terms of box office dollars was even greater than it was in terms of attendance.

In 1951 and 1952 a sixth factor, *team performance*, from season to season, was subsumed more precisely under "game attractiveness", but in the 1950 research, team performance was a separate area of investigation. It was, of course, possible that the attendance differential found in that first year simply reflected improved performance on the part of the non-TV teams, as compared with those in TV areas, rather than the effects of television competition.

When performance was controlled, however, it was found that the TV differential persisted in every case. Superior teams in non-TV areas had better attendance trends than superior teams in TV areas, and the same held true for average teams and for inferior teams. It was interesting that although the TV differential manifested itself on each of the three levels, it became progressively larger as team performance declined.

It could, of course, be argued indefinitely that some unknown factor never examined could have operated differentially in the two types of areas in recent years, and thus produced the attendance differential we have attributed to television. Thus, one could speculate that in the TV areas, more than in the non-TV areas, the football public has become disillusioned with the "commercialization" of the sport, or that parking and transportation difficulties have become progressively worse in TV areas but not in non-TV areas.

But all such speculations are merely that; and lacking any factual backing, they deserve little weight. One could as plausibly argue that the TV differential is understated because interest in football has increased more in the television areas or because promotional efforts have been more greatly intensified there than in areas where there is no TV.

All of the major factors known to affect college football attendance have either been controlled in the variance analysis or investigated independently, and it has been shown that none of them can account for the fact that while attendance has been consistently up where television is absent, it has been consistently down when TV competition is present.

The further evidence, to be shown, that the unfavorable effects of TV have manifested themselves logically in each of the NCAA regional districts and that the attendance differential becomes greater as the intensity and directness of television competition is increased, and less as it is reduced, merely underscore the over-all finding —that the live telecasting of college football games reduces stadium attendance to the degree we have stated.

THE "NOVELTY" THEORY OF TV EFFECTS

Though it is now less frequently cited as an explanation of television effects, it will be well to examine the applicability of the so-called "novelty" theory to actual attendance experience during the past three years.

The "novelty" theory was first propounded by Jerry Jordan, as the result of a 1949 study of football attendance among TV owners and non-owners in the Philadelphia area.* Jordan found that only 24% of *new* television owners (3 months or less) reported any football attendance in 1949, but that as length of ownership rose, so did the number reporting such attendance. Among the *long-term* owners (over 2 years), 54% said they attended a game in 1949, while only 46% of *non*-owners claimed such attendance.

From this Jordan concluded that when a fan first buys a TV set, his attendance falls off sharply. But as time goes on and the "novelty" of television wears off, he resumes his old attendance habits; and indeed, as indicated by the figure for long-term owners, he actually increases his attendance in later years, presumably as a result of the greater interest in the sport stimulated by televised football.

On the basis of this theory, Jordan pointed out: "1949 was the last year when such high percentages of new owners will exist in most TV markets. By 1950, in some of them, long-term owners will outnumber the new owners. This should mean balancing out part of the hurt from new owners, and eventually the elimination of much of the worry over TV."

Following the 1950 season, when the attendance differential attributable to TV jumped to 26.5 points, Jordan elaborated his theory and applied it to the progress of TV saturation. He

* "The Long Range Effect of Television on Sports Attendance", published by Radio-Television Manufacturers Association, 1950.

distinguished a "novelty" period, when saturation is at the 20-50% level and most owners have had their sets for less than a year, from the "normal" stage, when most owners have had their sets for over a year and the effects of novelty and cost have worn off.**

Jordan then noted that the "novelty" period was the stage of greatest danger to sports attendance, and attributed the 1950 attendance losses in TV areas to the fact that most of the areas were then in that stage. When the "normal" stage was reached, he said, "My studies indicate that attendance picks up again."

It is certainly plausible, and indeed the facts have proved, that when a football fan buys a television set, his actual attendance drops off. But no evidence has yet appeared, to show that as the period of ownership lengthens, the fan "resumes his former attendance habits" or increases his attendance.

Jordan's original finding that 8% more long-term owners than non-owners attended games in 1949 was based on a very small sample of only 36 cases in the former group.* The 8% difference represents the additional attendance of less than three respondents, and is not a statistically valid finding. With a sample of this size, a sampling variation of as much as 15-20% could be due to chance.

Jordan's other conclusion that new owners attend less frequently than long-term owners is also open to serious question. He completely failed to take account of the *prior* attendance habits of the groups he interviewed. His research assumed that all his respondents had equal attendance records in the past, and that any differences between them in 1949 attendance could be attributed to television.

Actually, there is abundant evidence to prove that the early buyers of TV sets were a highly selected group with high income, college education, great interest in sports and an unusually high pre-television sports attendance record. That 54% of them claim to have attended a game in 1949, after two years of ownership, tells us nothing about TV effects, for it may well have been that in 1947, before their TV ownership, 80% or 90% of them had attended a game.

Similarly, it is improper to conclude that the attendance of newer owners will ever reach the level of the older owners, since their prior or normal attendance was unquestionably lower. They are less well off economically and their average interest in college sports is less.

That the "novelty" theory offers no explanation of recent football attendance trends may be seen from the following table:

**"Sports Met TV's First Big Threat in 1950", talk by Jerry M. Jordan at annual convention of Collegiate Physical Education Association, December 1950, published by Radio-Television Manufacturers Association.

* A chi-square test indicates the observed difference could have occurred by chance in 45 cases out of 100 (p .05).

TABLE 5
TV OWNERSHIP, 1949-52

Year	Number of TV Sets in U. S.	New Sets (under 1 year old)	Percent New Sets	Average TV Area Saturation
1949	3,025,000	2,307,000	76	16
1950	9,169,300	6,144,300	67	36
1951	14,555,800	5,386,500	37	53
1952	19,751,200	5,195,400	26	69

In 1951 about two-thirds of all TV owners had had their sets for more than one year and, according to the theory, the "novelty" period should have been passed. Yet while attendance outside of television areas was 4% above the 1947-48 base period, in the TV areas it was down 15% from the pre-television levels.

In 1952, with almost three TV owners out of four beyond the "novelty" stage, TV areas were still 16% below their "expected" attendance, while in non-television areas attendance improved to 11% above "expected"—a TV differential of 27 percentage points. And it should be emphasized that 1951 and 1952 were the first two years of the NCAA's limited TV program, while 1950 was a year of unrestricted televising of football games.

If there were any validity to the "novelty" theory—that early attendance losses are later recovered as the novelty wears off—the TV differential should have been drastically reduced between 1950, when two-thirds of all TV owners were new owners, and 1952, when only one-fourth of them had owned their sets less than a year. Yet, as we have seen, the differential remained about the same, and would even have been considerably higher had it not been for the NCAA's limited program.

Further evidence contradicting the "novelty" theory is available from the differential TV effects in areas of varying set saturation. According to the theory, those areas with the highest level of saturation (over 60%), and consequently the largest proportion of long-term owners for whom

the "novelty" has passed, should be the TV areas in which attendance losses are smallest. And similarly, those areas where saturation averages 40-60% should show smaller losses, by reason of their greater proportion of long-term owners, than areas in which saturation is 20-39%.

But the facts have proved the very opposite of these hypotheses. Attendance trends in the 20-39% areas are markedly higher than those in the 40-60% areas; and the losses in the over-60% areas are not a bit less heavy than they are in the 40-60% group.

As will be shown in the next section of this report, attendance losses are minor until saturation reaches the 20% level. Then the adverse effects of TV become progressively worse until saturation reaches about 60%. Thereafter, as the new TV owners are drawn largely from lower economic levels with little college football attendance at any time, the heavy TV effects previously noted remain about the same.

But at no point—at least during the last four seasons—has there been evidence that the losses attributable to television are ever recovered, or that TV owner-fans resume their prior attendance patterns as long as football is available free on home television.

It should be noted, furthermore, that in the 1951 NORC research, when thousands of personal interviews were conducted with all sorts of fans, no significant differences could ever be established in the attendance behavior of old vs. new TV owners, when the two groups were equated in terms of such characteristics as income, education and prior attendance.

In Boston and Pittsburgh, where carefully chosen cross-sections of fans were interviewed in detail on their attitudes and behavior, only *one* in a hundred mentioned television as a *cause* of their interest in football, while in contrast *ten* in a hundred spontaneously mentioned television as a reason they would *not* attend any games in 1951.

In summary, then, there is no valid evidence to substantiate the "novelty" theory, while both interview data and, more important, the actual attendance trends in television areas during the past three years, quite completely disprove it.

Actually, when one considers the problem carefully, it is difficult to see why a fan who has reduced his attendance because of television should later resume his old habits. He may spend fewer hours watching his set as the "novelty" wears off, or he may spend less time viewing events which he would not attend in any case. But if he has the opportunity, on his set at home without any charge, to watch a football game which interests him and which he could not otherwise see without buying a ticket, there would certainly appear to be less incentive for him to go out to the stadium—no matter how long he had owned his set.

Certainly it is clear that if the NCAA had continued to permit the unrestricted televising of college football games during 1951 and 1952, on the false assumption that the "novelty" would soon wear off and attendance in TV areas would again match those elsewhere, the substantial differential noticed even under the limited program would have been very much larger.

THE ATTENDANCE PATTERN BY REGION

Separate analyses of the 1949-52 attendance trends in each of the eight NCAA districts reveal the same patterns as the over-all national trends previously reported. In general, where saturation is light and/or televised football competition is minimal, the TV differential for any region is small or non-existent. But where saturation is heavy and/or TV football competition is strong, the differential becomes marked.

The fact that the adverse effects of TV on actual stadium attendance are clearly apparent in almost every one of the eight regions reaffirms the soundness of our over-all conclusions. It answers the theoretical question of whether the over-all national totals merely reflect the peculiar problems of one or two regions, or whether they are truly representative of what has been happening almost everywhere in the country.

Interpretation of regional attendance averages must, however, be made with some caution. In the first place, there are relatively few colleges in some of the districts, and where this is the case the trends in attendance could easily reflect the influence of such non-television factors as the unusually good or bad performance of two or three teams. It is only when trends are based on the experience of at least six or eight colleges that these non-TV factors begin to cancel out.

Secondly, in contrast to the national trends presented in Table 2, the regional data are based on team attendance totals *uncorrected* for such differences as size, weather, game attractiveness, TV saturation, etc. As noted in our earlier discussion of methods, failure to correct for these differences results in an *understatement* of the magnitude of TV effects; but when one deals separately with each of the eight regions, there just aren't enough colleges to permit the more refined analyses that are possible on a national basis.

It is highly significant, therefore, that even with less refined data and smaller numbers of colleges, the harmful effects of television on stadium attendance nevertheless manifest themselves clearly in most of the eight regions. Table 6 reports these regional trends.

TABLE 6

REGIONAL ATTENDANCE TRENDS FOR COLLEGES WITH AND WITHOUT TELEVISION

1949-1952

NCAA District	Percent of "Expected" Attendance			
	1949	1950	1951	1952
1—New England				
TV competition	99.8	80.2	75.2	74.7
No TV competition	112.7	101.9*	63.8*	84.3*
2—Middle Atlantic				
TV competition	92.7	83.2	74.0	74.9
No TV competition	114.6	103.4*	83.8*	100.4*
3—Southeast				
TV competition	102.0	99.1	95.6	88.4
No TV competition	108.8	103.9	95.6	120.3
4—Midwest				
TV competition	103.0	101.2	99.4	95.6
No TV competition	105.1	99.6	98.2	104.9
5—West Central				
TV competition	112.4	96.7	98.9	99.7
No TV competition	88.6	128.0	103.4	95.4
6—Southwest				
TV competition	128.1*	—	—	114.7*
No TV competition	105.2	127.3	125.8	130.4
7—Mountain				
TV competition	92.0*	81.8*	58.5*	69.1
No TV competition	102.9	91.5*	51.6*	143.6*
8—Pacific				
TV competition	100.7*	90.9	90.6	92.4
No TV competition	95.8*	114.1	102.0	99.3

* Figures marked with asterisk are based on fewer than eight colleges.

Even in 1949, when the over-all TV effect was slight and saturation averaged only 16%, five of the eight NCAA districts reported higher attendance trends outside of television areas. It should be noted, too, in 1949, that it was in Districts 1 and 2, where saturation was then heaviest, that the colleges facing television competition suffered most notably. In these districts a 13 to 22-point differential could be observed.

In 1950, with over-all saturation in TV areas rising to 36%, the adverse effects of television were felt in every district except the Midwest. That the Midwest should be an exception to the general pattern of TV effects that year is an interesting finding, and one which supports the case for limited football telecasts.

For after the 1949 season the Big Ten Conference, which accounts for most of the attendance in Region 4, banned all live telecasting of their home games during 1950. In effect, then, the Midwest had limited television one year in advance of the NCAA program which was introduced in 1951, and this fact saved the Midwestern colleges in TV areas from the larger losses which were reported in TV areas everywhere else in the country.

The 1951 pattern reinforces this interpretation, for again the Midwest is an exception to the rest of the country. As a result of the NCAA program of limited TV, the TV-area colleges in every other region lost less attendance from 1950 than did the non-TV area colleges—reflecting the reduc-

tion in the amount of television competition with which they were faced. But in the Midwest, which had already had a form of limited TV in 1950 and for whom the NCAA plan represented no great change, the TV differential remained almost exactly the same as it had been in the preceding year.

Even under the limited televising of 1951, however, the TV differentials generally persisted, and were greatest in those regions where saturation was heaviest—the Middle Atlantic and Pacific Coast. The regions in which the differential failed to manifest itself in 1951 were either those containing only a few colleges in the TV or non-TV groups, such as New England and the Mountain region, or those with only moderate saturation and no network hookup, such as the Southeast. Nationally, as we have seen, there remained an attendance differential of 18.6% between TV and non-TV areas in that year.

It will be noted that all of the 19 colleges in the Southwest region have been classed as "no TV competition" in 1950 and 1951. Though many of these were located in television areas, no network games could be received in the region and after the 1949 season local telecasts were permitted by the Southwest Conference only when the game was already sold out. In all other parts of the country, there was at least some TV competition, but here there was none.

The unusually high attendances in the Southwest during those years cannot, of course, be attributed solely to the absence of football telecasts except under sell-out conditions. Nation-wide, attendance in areas without television was only moderately above the 1947-48 "expected" levels, while in the Southwest it was up 25% or more. The large attendance gains reported in this region are due chiefly to increased stadium capacity, expanding population and wealth, and high-performance teams.

That the unusually high Southwestern attendances which we have classed as "no TV competition" cannot have brought about the national TV differential of 26.5% in 1950 and 18.6% in 1951 is demonstrated first by the fact that the differential is found in most of the other regions, and second by the fact that when the region was exposed to TV competition in 1952, through its affiliation with the network, the national differential rose even higher. As a final test, it was found that when the Southwestern games were removed from the no-TV classification and the adjusted national differential for 1951 was recomputed, the figure dropped only 2.5% to 16.1%.

In 1952, the second year of the NCAA limited TV program, most television areas reported attendance at close to the 1951 levels, with TV differentials persisting in seven of the eight districts. In the sole exception, the West Central region, there were major shifts in TV classification with the introduction of the interconnected network to that area, and only one large college remained in the no-TV group.

The slightly larger declines in the TV areas of the Southeast and Midwest probably reflect the more rapid increase in saturation in those regions during 1952. In addition, many colleges in the Southeast were faced with network TV competition for the first time.

III

VARIATIONS IN TV EFFECTS

The national TV differentials which we reported in the preceding section represent *averages.*

The 26.7% differential found in 1952, for example, may be expressed as follows: Given the 1952 saturation levels and the amount and type of live football telecasts available during that season, and controlling for weather conditions, game attractiveness and size of college, those games which were exposed to television competition drew, on the average, 26.7% fewer paid admissions than did those games which faced no TV competition.

That the differential represents an average implies that for any one game, it may range quite widely around the 26.7 figure. Some games that are exposed to TV competition may equal or even exceed their "expected" attendance; others may draw only 40-50% of "expected." All games are not of equal attractiveness; weather conditions vary; TV saturation is much higher in some areas than it is in others; and the directness of the televised competition may range all the way from the telecasting of a game with high local appeal to a complete blackout.

In the present section of this report we will discuss the effect of some of these other variables, and describe how they operate to intensify or to reduce the generally adverse effects of TV competition.

1. GAME ATTRACTIVENESS

It comes as no surprise that the most important variable affecting football attendance decisions is the relative attractiveness of the game. Indeed, no research study is needed to demonstrate that those games involving traditional rivals or powerful, attractive teams, or which have important bearing on conference championships, will consistently outdraw the less attractive games.

Nevertheless, Table 7, which documents this point, sheds interesting light on the varying effects of television.

First, it should be noted that television does not hurt just the good games or just the poor games. A sizeable TV differential appears for *both* types of contest. In both 1951 and 1952, in every case of comparable game attractiveness, the colleges with no TV competition reported higher average ticket sales than did the colleges in television areas.

TABLE 7

OVER-ALL EFFECT OF GAME ATTRACTIVENESS FOR TV AND NON-TV COLLEGES

1951-1952

	Percent of "Expected" Attendance			
1951	All Colleges	No TV Competition	TV Competition	TV Differential
All games	93.6	103.7	85.1	18.6
More attractive games	116.8	128.9	104.7	24.2
Less attractive games	72.0	78.5	65.4	13.1
Attractiveness differential	44.8	50.4	39.3	
1952				
All games	93.1	110.5	83.8	26.7
More attractive games	122.0	141.7	102.3	39.4
Less attractive games	72.3	79.3	65.3	14.0
Attractiveness differential	49.7	62.4	37.0	

Considering all colleges together, the more attractive games on a team's schedule (again, controlling for weather and size of college) draw, on the average, 45-50% more fans than do the less attractive games. But there is a difference in this respect between TV and non-TV area colleges. Where there is no television competition, the more attractive games out-draw the less attractive by 50-62%; but in television areas the "attractiveness differential" is only 37-39%.

At the same time, it is apparent that the TV differential is larger in the case of the more attractive games. In 1951 it was 24% for the more attractive games, in 1952 it was 39%. For the less attractive games the TV differential was only 13-14%.

This is an interesting and perhaps unexpected finding. In the absence of these facts, one might have assumed that TV competition hurts the less attractive games more than the superior attractions. One could reason that the fan would want to attend a more attractive game regardless of TV, but that when the game was less attractive, he would prefer to watch his television set.

But the opposite has proved to be the case, in both of the last two seasons. More attractive games are always better attended than less attractive ones, regardless of television, but in both years it is the superior attractions which have suffered the greatest loss because of TV.

The decisive clue which explains this finding is suggested by our 1951 interviews with football fans, to be discussed in detail in the next section of this report. From these interviews it was possible to distinguish two main types of fans: the "regular" attenders, relatively few in number, who attend two, three or more games a year; and the "marginal" fans, who constitute almost half the attenders in most football stadiums and who attend only one game a season, or who may turn out only once in two or three years.

The "regular" attenders — students, season ticket holders, loyal local alumni and rooters, etc. —constitute the nucleus of the attendance and these generally turn out even for the less attractive games on a team's schedule. The extra attendance which boosts the ticket sales for the more attractive games is contributed by the "marginal" fans who attend infrequently and who, when they do attend, try to pick one of the better games.

Significantly, it was among just these "marginal" fans that television ownership was found to have its greatest depressing effect on attendance, and it is this fact that causes the more attractive games to suffer relatively greater attendance losses due to television than the less attractive games. The more ardent fans, who attend even the poorer attractions, are less likely to be dissuaded from attendance by TV competition.

It is this fact, too, which explains the greater attractiveness differential in non-TV areas, for it is largely the "marginal" fans who contribute the 50-60% greater attendance at the more attractive games. When television is available as a substitute and fewer of these fans turn out for that reason, the attractiveness differential in TV areas drops to 37-39%.

2. SIZE OF COLLEGE

It was noted in the 1951 report that while large and medium colleges generally held to their 1947-48 "expected" levels of attendance, small-college attendance was off more than 11% from the base period. But in 1952 the relative position of the smaller institutions was improved. The overall half-point drop in college football attendance last year occurred entirely among the larger schools, while small colleges actually registered a slight gain over their 1951 levels.

These results probably reflect the trends in student enrollments, for it is the small colleges whose football attendance is most sensitive to changes in this variable. At these institutions, where attendances average less than 5,000 per game, a very large part of the stadium audience usually consists of students, their families and friends, while the larger colleges draw a relatively greater share of their attendance from the general public.

Thus, it is not surprising that in 1951, when student enrollments at all colleges suffered their sharpest drop of the postwar period, the football crowds at small colleges showed a much heavier loss than elsewhere. In 1952, with enrollments holding relatively steady, the small colleges were able to hold to their 1951 attendance levels and even register a slight improvement.

Table 8 shows the attendance trends for larger vs. smaller schools during the last two seasons, broken down by television competition and game attractiveness. Since only seven large colleges reported no TV competition last year, it was necessary to combine the "large" and "medium" groups for purposes of this analysis.

TABLE 8

ATTENDANCE TRENDS BY SIZE OF COLLEGE, TV COMPETITION AND GAME ATTRACTIVENESS

1951-1952

	Percent of "Expected" Attendance					
	1951			1952		
Large and Medium Colleges	All Games	More Attractive Games	Less Attractive Games	All Games	More Attractive Games	Less Attractive Games
No TV competition	112.3	141.8	82.8	117.5	149.2	85.8
TV competition	88.2	109.0	67.5	82.3	100.9	63.8
TV differential	24.1	32.8	15.3	35.2	48.3	22.0
Small Colleges						
No TV competition	95.1	115.9	74.2	103.4	134.1	72.7
TV competition	81.9	100.5	63.3	85.3	103.8	66.8
TV differential	13.2	15.4	10.9	18.1	30.3	5.9

The striking fact revealed by Table 8 is the remarkable consistency with which the competition of televised football depresses actual stadium attendance. For larger colleges and small colleges, for more attractive games and for less attractive games, in 1951 and again in 1952, those games played without television competition always draw larger crowds than do comparble games where TV is present.

It is clear, therefore, that the national TV differential does not come about through a preponderance of particular types of games at particular types of colleges. Instead, it manifests itself in every type of game situation.

Table 8 also indicates how misleading arguments may be adduced regarding TV effects when care is not taken to control other important factors. Thus, the more attractive games for all sizes of college always equal or surpass the "expected" figure, even when TV competition is present. But Table 8 shows that when such games do not face TV competition, their attendance is very much higher.

Similarly, more attractive games with TV competition outdraw less attractive games where there is no television, and a spurious argument about TV effects could be drawn from this fact. But we see that when size of college and game attractiveness are comparable, the TV differential invariably appears—and usually quite strongly.

It will be noticed that in both years the adverse TV effects are more marked in the case of large and medium colleges than of small. In 1951 the TV differential for the larger schools was 24.1, for the smaller schools only 13.2. In 1952 the comparable figures were 35.2 and 18.1.

Again, this might appear surprising, since one could readily hypothesize that fans would be more likely to pass up a small college game in favor of television than they would a large college game. But the finding is a consistent one in terms of the "marginal" fan analysis discussed earlier in this section.

Small college attendance is drawn largely from students, local alumni, their families, friends and other "regular" fans. It is the larger colleges which count more heavily on the attendance of the general sports public. But it is this general public which contains the "marginal" fans, with no particular ties to the college, who are more likely to reduce their attendance when equally attractive games are available on home TV.

It is this situation which explains why the smaller colleges, while still adversely affected by television competition, have suffered less heavily than the larger schools.

3. TV SATURATION

In our discussion of over-all TV effects since 1949, we spoke of the impact of increasing saturation, of the fact that the TV differential rises as more and more people purchase television sets. It is perhaps obvious that the competition of TV is more intense when many fans are set owners

than when only a few of them are, but our three years of research provide an interesting picture of the relationship between TV saturation and stadium attendance trends.

It should be noted first that the relationship between the two is not a perfect one, in the mathematical sense. That is, TV effects do not begin when the first few sets are sold in the community, nor do they increase progressively as the saturation of the area climbs toward the theoretical maximum of 100% of the families.

Rather, stadium attendance appears to be generally unaffected until saturation reaches a certain point. Then the adverse effects of TV make themselves apparent, and continue to grow stronger, as saturation rises, until another point is reached. After that point, the evidence indicates that further increases in saturation fail to add significantly to the box office loss.

Unfortunately, the "freeze" on new station construction during most of the period of our research makes it difficult to state at precisely what saturation levels these critical points occur. For only during the 1950 season were there a sufficient number of colleges in lightly saturated areas to permit any separate analysis of TV effects under such conditions; and by 1952 even the areas of moderate saturation had just about disappeared. Furthermore, as mentioned earlier, our 1950 data are not comparable with later years, since they are not controlled for game attractiveness, size of college, weather, etc.

It seems clear, however, that television competition exerts no adverse effect on football attendance as long as an area remains lightly saturated, that is, with fewer than 20% of the families owning TV sets.

This was the case nationally, for in 1949, when average saturation was only 16%, no significant TV differential could be observed. It was only in the East, where saturation was then already reaching heavy levels, and in 1950, when the average saturation level more than doubled, that the differential assumed sizeable proportions.

Furthermore, in 1950, the only year in which there were enough lightly saturated areas to permit a separate test, attendance at colleges in such areas surpassed even those which faced no TV competition at all. This superior performance was due largely to the big football crowds in the lightly saturated Dallas and Houston TV areas, but even omitting this group, no adverse TV differential could be observed in the areas of light saturation.

Analysis of TV effects in areas of moderate saturation—where 20-39% of the families own TV sets—is again handicapped by the relative lack of such areas for study, but it is somewhere in this level that adverse TV effects begin to manifest themselves.

In 1950, which was again the only year in which many such areas existed, the colleges in moderately saturated TV areas showed attendance trends which were 9.5 points poorer than those of colleges outside of TV areas. This figure as noted, is unadjusted for differences in game attractiveness, size of college, weather, etc., and it is undoubtedly understated. When these factors are controlled in the national trends, we found a 26.5% differential in 1950, and in that year the average saturation of all TV areas was in the upper level of the moderate range, at 36%.

In 1951 no adverse effects could be observed in the colleges which remained in moderately saturated areas, but such colleges numbered only 27 and, as noted in Table 4, accounted for only 15% of the total TV-area group. Unusual factors at these few colleges may have produced higher attendances in the moderately saturated areas during 1951. In 1952 only five minor TV areas remained in this group and no separate analysis was possible.

Sizeable TV differentials have always been found in the areas of heavy saturation, where more than 40% of the families own television sets. In 1950, as we have noticed, attendance in heavily saturated areas was 12.5 points poorer than it was in all TV areas generally. In 1951, with average saturation well into the heavy group, the national TV differential remained substantial in spite of the limitations imposed by the NCAA Plan, and the heavily saturated areas were considerably worse off than the moderately saturated. In 1952, with over 90% of the TV-area colleges in heavily saturated areas, the national TV differential increased over that of 1951.

In 1951, although only 27 TV-area colleges remained in moderate and light saturation areas, the attendance trends for this group were contrasted with those of the colleges in heavily saturated areas. In 1952, even this comparison was no longer possible, so the heavily saturated areas were divided into two groups: "heavy" (40-59% TV owners) and "very" heavy (60% or more TV owners). Table 9 shows the results of these two comparisons, for games of more and less attractiveness.

TABLE 9

ATTENDANCE IN TV AREAS BY SATURATION LEVEL

1951-1952

1951	Percent of "Expected" Attendance		
Colleges Located in Areas of	Total	More Attractive Games	Less Attractive Games
Moderate saturation (20-39%)	110.1	134.8	85.4
Heavy saturation (40% & more)	80.9	100.1	61.7
Saturation differential	29.2	34.7	23.7

1952	Percent of "Expected" Attendance		
Colleges Located in Areas of	Total	More Attractive Games	Less Attractive Games
Heavy saturation (40-59%)	87.0	108.6	65.4
Very heavy saturation (60% & more)	83.0	98.9	67.2
Saturation differential	4.0	9.7	– 1.8

Two interesting findings emerge from this table. First, we see that in both years the "saturation differential" is greater for more attractive games than it is for less attractive games. Secondly, it can be noted that while the moderately saturated areas in 1951 were much better off than the heavily saturated, the heavily saturated areas in 1952 are only slightly better off than the very heavily saturated. Actually, the over-all differential in 1952 is so small that it could be due merely to chance variations in game attendance.

The first finding again confirms our "marginal fan" analysis. The less attractive games, drawing a greater share of "regular" attenders, are less affected by increasing TV saturation. The more attractive games, which have the greater appeal to the marginal fan, are harder hit as TV set sales multiply in an area.

The second finding implies that when saturation reaches 60% or thereabouts, additional TV set sales in an area fail to add much to the harmful effects on attendance already noted. The result seems to confirm a hypothesis first suggested in NORC Report No. 1, that there may be a decline in the proportion of viewers whose attendance will be adversely affected, as TV penetrates more extensively into the lower economic levels which do not ordinarily attend college football games.

In summary, then, the general finding is that the higher the saturation in an area, the greater the attendance losses. But this general proposition is subject to a number of qualifications.

The early TV buyers, the 20% or less who constituted the TV owners in the lightly saturated areas in 1949 and 1950, were generally older people, wealthier people, and college alumni with high average sports interest and attendance. Yet is is just this group which is least likely to be deterred from attendance by television ownership. As a result, no significant attendance losses could be attributed to TV as long as ownership was largely confined to such a group.

As saturation increased during 1950 and 1951, however, TV ownership broadened out. By the time saturation reached 30-60% of the families in an area, home TV became available to large numbers of "marginal fans", who contribute so heavily to stadium attendance, and especially at the more attractive games. These TV owners, with lower income, less frequent college affiliation and lower average attendance, were much more likely to use televised football as a substitute for actual attendance.

But as TV ownership penetrates into the final one-third of the families in an area, the additional effect on attendance is slight. For these families are, by and large, in the lower income groups, they have no college affiliations, and their interest in college sports is low. Any TV-viewing they do is no substitute for attendance because, lacking the money and the interest, few of them ever attended college football games in the past. It is among this group, if anywhere, that the "stimulative" effects of TV on attendance may ultimately make themselves felt.

Such has been the saturation-TV effect relationship in the past, but it is not certain that the future will follow the same pattern. For as new TV areas are now opened up, it is not likely that the early buyers will be the select group that they were back in 1948 and 1949. The cost of sets has been reduced, TV appetites have been whetted, and it may well be that the early set owners in future TV areas will include large numbers of the "marginal fans" whose attendance is most sharply reduced by television. For this reason, adverse TV effects may hereafter be found even in lightly saturated areas.

Nationally, however, it would appear that TV, as it is today, has already approached its maximum harm to college football attendance. Seventy-nine per cent of the total attendance was already in TV areas in 1952, and 91% of the colleges in those areas were already subject to heavy saturation.

The remaining non-TV areas are minor ones in terms of college football attendance, and the remaining non-TV owners in the present TV areas are largely non-attenders. One would expect, therefore, that given the same sort of limited TV provided by the NCAA in 1951 and 1952, the 26.7% loss attributed to television last season will not be substantially larger by reason of the increased saturation to be expected in 1953.

4. TYPE OF TV COMPETITION

It is possible to distinguish five degrees of football competition on TV ranging from the most direct and intense to the least. These five, in order of their presumed effect, would be: a college televising its own games, a college competing against a televised local game, a college competing against a televised game in a different area but in its own region, a college competing against a televised game from a distant region, and a complete absence of televised football competition.

Only in 1950 was it possible to study the first two situations, for only in 1950 were there a large enough number of local telecasts to permit any generalizations. In that season, many of the larger colleges telecast their full home schedule, but in 1951 and 1952 the NCAA Plans, through their policy of allowing only one or two games to be televised on any one Saturday, sharply reduced the number of local telecasts.

In 1950, however, the expected relationships generally held true. Those colleges which televised their own games reported the lowest attendance trends, a differential (uncorrected for game attractiveness, weather, size, etc.) of 15.1%. Next lowest were the other colleges in those same areas, which faced the television competition of another local game on most Saturdays. Slightly less affected were those colleges whose only TV competition came from non-local games.

It was remarked in our 1950 report that the larger losses of the colleges which televised their own games was a very striking finding because "these colleges represent, to a large extent, a specially selected group whose attendance would seem *least* likely to suffer, all other things equal. They were not selected at random, but are instead those colleges which attract a high degree of public interest, either because of their exceptionally fine performance or because of the traditional character of their games."

Acting on the finding that TV effects apparently diminished as the directness of the competition lessened, the NCAA Plan for 1951 cut down substantially on the number of local telecasts. Further, it deliberately set up a schedule which would test the proposition that the televising of distant games produces lower attendance losses than the televising of nearby games. A similar plan was followed in 1952, so that in general, the fans in TV areas were able to view an approximately equal number of "regional" vs. "non-regional" games on their home sets.

Table 10 compares for both years the attendance trends at games which were exposed to these two types of televised football competition, and as may be seen, the differences are small and inconclusive. Sampling variations of up to 7-8 points could have occurred by chance in five cases out of 100.

TABLE 10

ATTENDANCE IN TV AREAS UNDER TWO TYPES OF TELEVISION COMPETITION

1951-1952

Games subject to:	Percent of Expected Attendance 1951	1952
Regional TV competition	83.5	85.4
Non-regional TV competition	81.4	89.5

One can only speculate on the reasons for this inconclusive finding. It may be that the origin of the televised games—regional or non-regional—actually does not exert any significant effect on attendance. In this view, the local "marginal fan" can be satisfied by any major college game on TV, and will not be more likely to buy a ticket at the local stadium just because the televised game emanates from another part of the country.

An alternative explanation, however, is the general lack of public awareness of the television schedule from week to week. We know from our interview data that fans are more interested in the games played in their own region, but we know also that the great majority of ticket purchases are made considerably in advance and that, in spite of intensive promotional efforts on the 1951 TV schedule, most fans were not aware of the particular games to be shown on television.

What most fans did know was that the games of their own local or favorite teams would not be televised regularly, and that instead there would be one top-ranking game available on home TV each week (except for some blackout Saturdays in 1951). Given this knowledge, fans may have made, or failed to make, their ticket purchases without regard to the specific games being televised.

Thus, the "marginal fan" may have decided that since a good game would be on television every week anyway, he could safely reduce his local attendance. He may have been disappointed on some Saturdays to find two distant teams on his TV screen, rather than two nearby ones in which he had more interest, but he didn't know the exact schedule far enough in advance for the particular telecasts to exert any effect on his stadium attendance.

Finally, the character of the televised games themselves may account for the lack of a significant difference in Table 10, for both in 1951 and 1952 the games available on television usually involved nationally prominent teams which had considerable appeal even outside their own region.

It may still be true, for example, that the televising of a Temple-Villanova game in Philadelphia would hurt Philadelphia attendance more than the televising of a Detroit-Marquette game, and that the reverse would be true in Detroit or Milwaukee. But in general, the televised games during the last two seasons have had a wider appeal than this type of contest. More often than not, they have featured such outstanding teams as Army, Navy, Notre Dame, Michigan State, etc.

It may well be, therefore, that while the New York or Philadelphia fan is primarily interested in local and Eastern football, his interest nevertheless extends to the top-ranking teams in other parts of the country. Similarly, the West Coast fan is most interested in his own regional colleges, but when such prominent non-regional teams as Illinois, Oklahoma or Maryland appear on his TV screen, they may provide a very satisfactory substitute for stadium attendance.

Under such circumstances, the attractiveness of even the distant games which were televised in 1951 and 1952 could easily have outweighed the fan's natural preference for watching a nearby contest, and thus failed to bring about the expected improvement in local attendances when the televised games were non-regional ones.

5. THE EFFECTS OF TV BLACKOUTS

In its attempt to provide a test of television's effects on attendance under varying conditions, the NCAA's 1951 Plan called for "blackouts" in each television area on three of the ten football Saturdays. One of these Saturdays, the first of the season in September, was a complete blackout all over the country, with no games televised anywhere on that date.

In addition, the schedule was so arranged that each area had two local blackout dates, selected at random and spotted throughout the season. Actually, true randomization of the blackouts was not possible for technical reasons concerning the transmission of TV signals over the network, but as far as possible, the blackout dates in each area were determined in a systematic way, without reference to the football schedule on that day.

In 1951, too, as in other years, a number of colleges scheduled games on Friday nights, Sunday afternoons and other times when there was no college football competition on TV. Consequently, a comparison of attendances at games played on blackout and non-Saturday dates, with those facing Saturday afternoon football competition on TV, may furnish some evidence on the effects of a total ban on televised football in TV areas.

Table 11 shows the average attendance in TV areas under the two types of conditions in 1951. No such comparison is possible for the 1952 season, since there were no Saturday afternoon blackouts, and the only games played in TV areas without televised football competition were those few which were played very early or very late in the season, or those of colleges which played a Friday night or Sunday schedule. This latter group is both small in number and probably qualitatively different from the great majority of colleges which adhere to the traditional Saturday schedule.

TABLE 11

ATTENDANCE IN TV AREAS DURING BLACKOUTS vs. TV COMPETITION*

1951

Size of College:	Percent of "Expected" Attendance		
	TV Competition	Blackouts	Blackout Differential
All colleges	85.1	86.8	1.7
Large colleges	91.0	88.5	– 2.5
Medium colleges	88.0	84.2	– 3.8
Small colleges	76.2	87.9	11.7

As may be seen in the table, the results of the 1951 blackout experiment failed to confirm the hypothesis that attendance would be higher under such conditions. Games played in television areas when there was no direct football competition on TV did less than 2% better than those played while another game was being televised. A difference as great as 6.4% could have occurred through chance.

Only among the small colleges did the blackouts really seem to help attendance. Here an 11.7% improvement was shown on those dates, but for the large and medium colleges the differences are insignificant.

These generally negative findings must be carefully evaluated, however, in the light of the limitations of the 1951 experiment; for there were a number of considerations which suggest that the blackout schedule of that year could not provide a fair test of what would happen to attendance in TV areas if no football is available on television.

It has already been noted that complete randomization of the blackouts was not technically feasible, and it should also be emphasized that one-third of the scheduled blackout situations occurred on a single Saturday—and that an unusual Saturday, since it was the first of the season when many teams were playing "warm-up" opponents, the games were less attractive and such summer sports as baseball still competed for fans' interest.

Furthermore, 100% blackouts were impossible to achieve in many of the most important TV areas, because some fans could easily tune in an adjacent channel from a nearby reception area when their own area was blacked out. In order to achieve a 100% blackout in most areas of the East and Midwest, the entire region would have had to be cut off the network, and this would have introduced potential regional biases due to concentrations of bad weather or less attractive home games on blackout dates.

From a number of sources we know that there was a substantial TV overlap. In interviews with cross-sections of football fans in Boston and Pittsburgh, for example, 18% of the Boston TV owners and 15% of those in Pittsburgh said they could pick up programs from adjacent areas. On the national survey, 7% of the TV-owner fans reported actually watching NCAA telecasts over nearby non-local stations when their own area was blacked out.

Both the large proportion of blackout situations occurring on the opening Saturday of the season and the availability of football telecasts from adjacent areas would operate to depress blackout attendances below the level they might otherwise have achieved, and thus to obscure any significant differences from attendance on non-blackout dates. But there was a third, and perhaps much more important reason why blackout attendances were not as high as expected.

The theory behind the blackout test was that all fans had full familiarity with the football schedule on television, and would make their attendance plans accordingly. Only if they were aware of the impending blackouts far enough in advance to plan their ticket purchases could the scheme have any effect on their attendance behavior. Without such knowledge, the unexpected arrival of a blackout date would merely mean disappointment at the absence of televised football; it would seldom mean increased attendance at the local stadiums.

It is clear, however, that very few fans had any detailed knowledge of the TV schedule in advance. As mentioned in the preceding section, the average fan simply knew that his own favorite teams would no longer be televising all their games, but that, on the other hand, there would generally be a college football game available

* Figures differ slightly from those presented in the Appendix to Report No. 3 because only a simplified 2x2 proportional analysis was used in 1951, while a more detailed method was used above.

on television. Many fans were aware, of course, that on certain Saturdays their area would be blacked out, but the number who had such knowledge more than a week in advance of the particular date was extremely small.

We have mentioned that three-fourths of college football ticket purchases are made in advance, and it may be noted also that only one person in 20 attends a game by himself and that travel plans are frequently necessary. Thus, when the fan belatedly learned on Friday night or Saturday that his area was scheduled for a blackout, it was generally too late for him to make the arrangements necessary for attendance. Here then is another reason for the failure of attendance on blackout days to show any significant improvement over the days when TV competition was present.

It is consistent with this reasoning that the only group of colleges which *did* experience a favorable blackout effect under the 1951 Plan were the small colleges. For it is only at the small colleges that day-of-the-game ticket sales account for a large enough part of the attendance for any last-minute blackout effects to manifest themselves.

At the large colleges gate sales account for only one ticket in eight, and at the medium colleges for only one ticket in three. But at the small colleges gate sales account for more than half the total paid attendance. Thus, if it is true that fans in general did not usually realize a blackout was upon them until the final day or two, it would be only the smaller colleges which would experience any great benefit.

Evidence of the general absence of advance awareness of the blackout schedule is found also in the timing of the few serious complaints that the NCAA received about the schedule. In Washington, Detroit and Louisville the press and public protested local blackouts of particular big games of that season, but it is noteworthy that these protests were not heard when the schedule was first arranged and publicized, and when changes would have been easier to arrange. Instead, it was not until the week immediately preceding the game that the complaints began to be voiced, for it was not until then that the average fan was aware that there was to be a blackout. And by that time the great majority of attendance decisions had already been made.

In one of these situations, it was possible to demonstrate that where there was widespread publicity and discussion about a blackout date, a dramatic attendance differential could be observed. This was the Maryland-N.C. State game, played in the Washington TV area on November 17, 1951, and originally scheduled to be televised locally.

The Washington area had been scheduled ever since early September, for a blackout on the preceding Saturday, November 10, when other areas were to be shown perhaps the biggest game of the year, Notre Dame vs. Michigan State. But such was the lack of public awareness that it was not until a few days before November 10 that any objections to this blackout were raised by Washington fans. Then, after considerable local publicity, the public was widely informed that the blackout day would be shifted from November 10 to November 17, thus cancelling the Maryland-N.C. State local telecast.

Maryland happened to be one of the colleges cooperating with NORC in the stadium survey studies of that year, so that opportunity was provided for observing the effects of a blackout of an attractive game in one of the less usual cases in which there had been extended local knowledge and discussion of the blackout.

Throughout the season, gate sales at Maryland had averaged less than one-fourth of total paid admissions. But at this game, which had originally been scheduled for telecasting and was now blacked out, the gate sales accounted for almost half of the total. Furthermore, about half of the advance sales ocurred in the week immediately preceding the game, after the blackout was publicly announced. It is clear that about three-fourths of all the tickets to this game were not purchased until after the public was informed of the switch in the blackout plan.

To summarize, then: The facts are that the blackout experiment of the 1951 NCAA Plan was generally ineffective in raising attendance levels in TV areas. Only among the smaller colleges, which account for a minor share of the total paid admissions, was attendance significantly higher on blackout days.

As a test, however, of what happens to football attendance in TV areas when no games are televised, the 1951 experiment was deficient. That one-third of the scheduled blackouts were assigned to a September Saturday, that fans in many blacked-out areas could receive football telecasts from adjacent areas, and that the randomized schedule of blackouts was not generally known by the fans in advance—all these factors operated to depress attendances on blackout dates below what they might otherwise have been.

Such weaknesses are probably inherent in any blackout scheme which depends on intermittent blackouts in single TV areas. The overlap problem can be overcome only by a blackout of adjacent areas simultaneously; the problem of ignorance of the schedule only by a total ban on televised football or by a set policy of "all October games blacked out", "no TV when any local game is

scheduled", or some other easily remembered formula.

A truer test of blackout effects is perhaps provided by those areas which had television in 1950 or 1951, but which permitted no local telecasts of games and which could not receive network programs. Unfortunately, however, almost all such areas were located in the Southwest and Southeast, and to a lesser extent in the Mountain and Pacific districts, and these regional concentrations make evaluation ambiguous and difficult.

One might further speculate that any blackout scheme which permits televised football on all but a few Saturdays will be largely ineffective, because hardly any fans attend games every Saturday, and only a relatively few attend more than once per season. If the "marginal fan", therefore, can satisfy his football interest by watching televised football on five or six Saturdays during the season, he is not likely to buy a ticket to a game on the few Saturdays which are blacked out.

All the evidence indicates that the success of the 1951 NCAA Plan in reducing the adverse TV effects found in 1950 was due almost entirely to the very considerable reduction in the number of different games which were televised, and to the rule which kept any one team from appearing on TV more than once or twice.

IV

FAN CHARACTERISTICS AND BEHAVIOR

The game-by-game data on paid admissions for the years 1947-52, which have provided the basis for the foregoing analysis, tell us in objective terms what has been happening to college football attendance under varying conditions of television competition, and they enable us to estimate the net average adverse effect attributable to TV. But they do not tell us *why* these things have been happening, except as we can make inferences when other variables are controlled.

It will have been noticed, for example, that several times in the course of our analysis, we made reference to interview data in our attempt to explain why the TV effects operated as they did under particular circumstances. Thus, we spoke of the "marginal fan", to explain the greater losses at larger colleges and more attractive games; and in our discussion of blackout effects, we noted that most football tickets are purchased considerably in advance of the playing date.

For it is only through actual interviews with representative samples of football attenders that we can learn something of their desires, interests, attitudes and behavior—and thus understand the dynamics of the situations which have produced the attendance trends we have observed.

WEAKNESSES AND VALUES OF INTERVIEW DATA

It might readily be thought that a sample of personal interviews with football fans could be used not only to obtain evidence on their habits and attitudes, but also to establish the magnitude and variations of TV effects themselves. Indeed, many of the studies first examined by NORC early in 1950 had attempted to ascertain TV effects in this way, and the technique is often used in other areas of television research: to estimate the effectiveness of TV advertising in boosting product sales, for example, or to study television's effects on children's study habits.

Such research is not without value, but for the purpose of establishing how much TV affects football attendance, and to what degree under varying conditions, analysis of the actual attendance data is far superior to any information that can be gained from personal interviews. This is so, for at least two inherent reasons.

First, the attendance data provide evidence on all fans at all games of all colleges in all years; interviews, on the other hand, can be obtained from only a tiny sample of all fans and are thus subject to sampling error and sampling biases. Second, the attendance data represent objective fact; they tell us what actually happened at the stadiums, whereas the reports of fans about their own behavior are subject to interviewer error, faulty question wording, inexact responses and similar sources of error.

But in addition to the availability and superiority of the complete and factual attendance records, there are several reasons which make it very difficult to get an accurate measure of TV effects through the use of personal interviews.

First, perhaps, is the fact that personal interviews with representative samples are very expensive. Football fans are a special minority group in the total population, and they must be sought out in special ways; a valid sampling scheme is cumbersome to execute and costly to apply. Interviewers must be hired, trained and paid; and if the interviews are to be conducted in many localities—as they must be if the results are to be generalized—the financial costs soon get entirely out of hand.

Secondly, it is not enough, in attempting to measure the effects of television, to find out what the fan's attendance behavior has been on any particular day or in any one particular season. Even if one finds, for example, that long-term owners attend more frequently than non-owners, the question of television's *effects* remains unanswered. To establish such effects, one must obtain some measure of the fan's *prior* attendance and thereby determine whether his habits have *changed* since his ownership of television.

This immediately raises the problem of memory. For respondents can usually not recall with any precision or validity just how many and which games they attended or watched on television in past years. The problem could be solved, of course, by a long-term study which would chart the attendance behavior of the same fans from some time prior to their purchase of a TV set until two or three years afterward. But this again is an expensive and lengthy process.

In the absence of reliable information about the fan's pre-television attendance, or of consecutive interviews with the same fans over a period of years, one is left with the necessity of trying to control all the other major variables which affect football attendance. If it is found, for instance, that long-term TV owners attend more than non-owners, and their previous attendance patterns are unknown, one must at least attempt to equate the two groups for such factors as age, education, interest in football, etc. Otherwise, the reported differences in attendance could easily be due to uncontrolled differences in those factors, rather than to the effects of television.

But when one totals an already small total sample of interviews, and tries to study equivalent groups of this type, one soon "runs out of cases." Long-term owners may account for only a small proportion of the fans in a particular area, for instance, and out of a sample of 1,000 the researcher may find only a few hundred in this group. When he again picks out only those long-term owners who are greatly interested in football or who have other particular characteristics, he soon finds himself dealing with only 30 or 40 individuals, and any small differences which do show up could almost certainly be due to chance sampling variations.

Two additional factors increase the difficulty of measuring TV effects through the use of interview data. One is the easy accessibility of television even to non-owners. The fact that a non-owner can generally watch a televised football game on a friend's set or at a neighborhood bar and grill means that if TV affects attendance, it probably has some effect even on the attendance of non-owners. Thus, differences in the attendance patterns of owners vs. non-owners become obscured by this factor.

Finally, the low annual attendance of the average football fan makes it difficult to achieve definitive results. Of all the people who express an interest in college football, only one out of 25 attends a game on any given Saturday. Most fans attend less than one game a year. This means that when the individual fan, rather than the game attendance, is the survey unit, it becomes extremely hard to turn up annual attendance differences which have any statistical significance.

Interviews with fans in stadiums are subject to similar methodological and theoretical weaknesses. The fans interviewed are automatically restricted to those in actual attendance, so that those who have stayed at home never fall into the sample. It is difficult to achieve a representative distribution of questionnaires to a stadium audience, and even more difficult to obtain an unbiased return, since there is a tendency for only the more interested fans to respond. And again, interpretation of the data is difficult because of the small sample, the lack of control over such other factors as interest and income, and the unreliable reports of past attendance.

For all these reasons, it is to the attendance data themselves that we must turn for any complete, objective and systematic analysis of the effects of television. But, as we have noted, the data we can obtain from personal interviews are valuable — and even essential — to a correct *interpretation* of the attendance trends.

Thus, from interview data, we can obtain information on the characteristics of the football audience: the types of people who attend games, in terms of such factors as age, sex, income, alumni status, etc. We can find out something about how they arrive at their decisions to attend or not to attend particular games, and how they implement those decisions in terms of ticket purchase, travel to the game, the people who attend with them, etc. And we can learn something of their interest in football: how it developed, whether it is increasing or decreasing, the number and types of teams whose fortunes they particularly follow, etc.

NORC's 1950 and 1952 research was confined entirely to the collection and analysis of attendance data, but in 1951 additional funds were authorized for a series of interview studies.

The most useful of these studies were lengthy pre-season interviews with representative samples of "football attenders" in the two metropolitan areas of Boston and Pittsburgh, and subsequent telephone callbacks on these fans every week throughout the season to ascertain their week-end attendance and televiewing behavior; and pre- and post-season surveys of a cross-section of the national adult population on their interest in football, attendance behavior in 1951, and knowledge of the NCAA Plan.

Of somewhat less reliability and usefulness were stadium surveys at 37 games played by 16 different colleges under varying degrees of television competition; weekly telephone surveys with a cross-section of football fans in six additional cities besides Boston and Pittsburgh, and mail surveys of a sample of alumni of four universities.

We report briefly in the following pages the major facts which emerged from all these interviews.*

CHARACTERISTICS OF THE FOOTBALL AUDIENCE

Interest in college football is far from universal among the adult population. Slightly more than half of any national cross-section will report no interest at all in the game, and less than one-fifth would qualify as "fans", if a fan is described as someone who claims "great" interest in the sport, as contrasted with only "some" interest.

Attendance is similarly restricted to a minority of the population. Again, more than half of the people have never attended even one game in all their lives. In any one season, only about 14% of the public—one person in seven—attends a game.

It is perhaps fairer, however, in discussing college football interest and attendance, to exclude that half of the population who are women. Women have less sports interest generally than men do, and football in particular is probably more of a "man's sport" than are tennis, golf, baseball or other games which could be played by women.

In our national surveys, 76% of those expressing "great" interest in college football were men, and the stadium questionnaires revealed that

* Tables and supporting data for the figures presented in this section may be found in NORC Report No. 3, "The Effects of Television on College Football Attendance", April 22, 1952, and in the accompanying appendices to that report.

78% of those audiences were men. Again, in both Boston and Pittsburgh, where interviews were restricted to persons who had attended at least one college football game in the last four years, approximately three-quarters of the respondents were men.

Even among men, however, it must be emphasized that college football is a "minority" sport. Only three men out of five take any interest at all in the game, and less than one in three has "great" interest. Almost half of all men have never attended a college football game, and in any particular season, only one man in five buys a ticket to any game.

Interest and attendance normally go together. Thus, on the national surveys, 84% of the greatly interested group had attended a game, but only 18% of the uninterested had ever attended. In Boston and Pittsburgh, where only attenders were interviewed, the greatly interested group averaged 2 to 3 games per year, while the "little or no interest" group averaged only one game or less.

But the relationship is not a perfect one. There are many fans interested in college football who seldom or never go to a game, and there are many disinterested persons who nevertheless attend from time to time. Indeed, on the evidence of the stadium surveys, 43% of the audience at any given game consists of persons who express only "some" or "little or no" interest in college football.

An obvious correlate of interest and attendance is the factor of formal education, for college football is a college sport and one would naturally expect it to have greater appeal to that minority of the population who have attended college. The interview data strongly confirm this point.

Of the people with eight years of schooling or less (which account for about half the U. S. adult population), three-fourths express no interest at all in college football and only about one-fifth have ever attended a game. Even among those who stopped their formal education after high school, have never attended a college game and only a little more express any interest in the sport. Among the college group, on the other hand, a full 90% have attended at least one game and almost four out of five take at least some interest.

In addition to being primarily men, with a college education, football fans are found more frequently in the younger age groups. Only one-sixth of the people who express interest in the game are 55 or older, and two-thirds of them are under 45. The combined stadium surveys indicate that almost 60% of the audience at the average game is under 40 years old, and in Boston and Pittsburgh about two-thirds of the "attenders" were under 40.

One final characteristic of college football fans also shows up clearly, and that is better than average income. Among people in the lowest economic level (bottom one-third of the population), about three-quarters take no interest and have never attended a game. In the upper economic level (top one-sixth of the population), about two-thirds are interested and the same proportion have attended. In our Boston and Pittsburgh studies, only 3-4% of the attenders were found in the low economic level, while 40-50% were in the select upper group.

Other characteristics of the football audience follow a similar pattern: They are more likely to be found in professional, business and white-collar occupations, seldom in service work, manual labor or on farms. Interest and attendance are higher in urban places than in rural areas. And in September 1951, television ownership was characteristic of 47% of those with great interest in college football, but of only 24% of those with little or no interest.

These somewhat dry facts concerning the nature of the college football audience have important implications for the future of the sport in the television era.

It is quite clear, for example, that college football—in contrast to professional baseball, boxing and other sports dependent on the patronage of the general public—is a "minority" sport. It appeals chiefly to, and it draws the major share of its attendance from, the relatively small segment of the population which has attended college, is employed in well-paying jobs and belongs, in short, to the "upper economic level". And the very nature of the sport makes it difficult to extend its audience to the lower income and non-college portion of the public.

It is a fairly expensive sport to attend; tickets must usually be purchased in advance, and the non-college fan finds it much more inconvenient to do so than the alumnus. The best seats at all the big games are reserved for students and alumni, and the games are generally played in college stadiums which may lie outside of town or even in another community, and thus involve travel difficulties and expense. Indeed, a large part of the game's appeal lies in its associations for the college alumnus—but not for "the man in the street": the bands and cheers and college songs, the idea of "home-coming" or "going back" to the old campus, meeting old friends and classmates, etc.

Under these circumstances, therefore, it is very hard for television to make "new fans" of people who never before attended a game. TV may arouse the interest of non-college people, where none was before, but the barriers remain when it comes to translating this interest into attendance. Unless college football plays its games in large centrally located stadiums, opens up its best seats to non-alumni as well as to alumni, and makes special efforts to attract "the man in the street", it is difficult to see how the present characteristics of its audience can be greatly changed.

One other aspect of this part of the interview data has implications on the problem of attend-

ance losses due to television. Interest in college football and attendance at the games declines with age. Fans are made in high school and college, but in most cases attendance declines sharply after graduation.

The young alumni move to other localities; they acquire family responsibilities, lose touch with their old "gang", work hard at their offices. The "regular attenders", a small minority of the total, continue to turn out at the games, but it is easy for the majority of "marginal fans" to find television an easy substitute for attendance. And for the reasons cited above, losses to television among this group of college alumni are not easily recovered from among the general sports public.

TIME OF TICKET PURCHASE

It is clear from the interview data that college football attendance is not a casual or haphazard matter for most fans. A relatively small part of the total audience make their attendance decisions at the last minute or, for want of anything better to do, decide on the spur of the moment to attend a college football game.

The importance of day-of-the-game gate sales naturally varies according to the size of the college, but fully three-fourths of all college football ticket purchases are made in advance—and many of these are made a long time in advance. Such advance purchases are heavily promoted by the colleges to their alumni, and they are necessary if the fan is to be assured of good seat locations, adjacent seats for his party, and assurance against a sellout if the game is an attractive one.

College football attendance is almost always a group experience. Only one fan in twenty goes out to a game by himself. About one-third of them take their wives or girl friends; about a fifth take their children, parents or other members of the family; and the remainder attend with other men friends, usually classmates or fellow alumni. The fact that fans almost always attend games in company with other people also tends to discourage last-minute ticket purchases, for by that time it is usually too late to round up a companion.

College football attendance also often involves travel away from the fan's own city or town, and that, too, requires advance planning. Judging from the stadium surveys, about one-third of the attendance at Maryland games came from outside the local TV area, and over half the fans attending Cornell, Minnesota and Michigan games lived outside the local areas. The figures would probably be even higher for large colleges located in smaller communities in the Midwest, South and Southwest.

Thus, there is a certain rigidity to college football ticket sales in any particular year. Most of the seats that are going to be sold are sold quite a bit in advance of the day of the game. Since planning and effort are required to round up companionship for the game and possibly to make travel arrangements, it is usually hard for the college to capitalize greatly on sudden improvements in team performance, sudden breaks in the weather and similar last-minute factors favoring attendance.

This, too, has implications for television effects. For many fans report that they are not able to plan their attendance in advance. Job or family responsibilities may come up to interfere with their plans, or they may fear bad weather. Television effects can be presumed to operate strongly on such a group, for if they are assured in advance of a good game on TV every Saturday, they need not worry about advance planning. Without television, however, they would have no alternative but stadium attendance if they wanted to see any college football.

THE NATURE OF FOOTBALL INTEREST

The detailed pre-season interviews with Boston and Pittsburgh fans in 1951 throw much light on the nature of people's interest in college football. They explain the reasons for the differences in interest which we noticed in discussing the characteristics of the football audience, and again they furnish collateral evidence on television effects.

The fact that college football appeals primarily to younger men, for example, and that interest tends to decline with age, is elucidated by a series of questions on the origin and development of the fan's interest. Although no direct question was asked on *when* the fan became interested in the sport, the replies to other questions show clearly that interest develops early and is at its peak in the young adult years.

When asked *how* they first got interested in college football, about 40% of the fans say they played the game when they were kids, or "always" were interested in it. Another one-fourth —making a total of about two-thirds of all fans —say they first became interested in high school or college. Others say their interest was first aroused when they were taken to a game, at an early age, by a parent or relative, and still others mention the fact that older brothers or other relatives played the game.

Relatively few state that their interest was first aroused through some adult experience, and only one fan in a hundred attributes the origin of his interest to television. If these fans of Boston and Pittsburgh are representative of those in other parts of the country, it is clear that football fans are made early in life, and that if a person reaches adulthood without developing any interest in the game, he is not likely to become a fan later on in his life.

The reasons given by those fans who report a lower interest than they used to have also explain why the college football audience is comprised mainly of younger people. One-fifth of these less interested fans state flatly that they lost interest as soon as they left college, and more than one-fourth explain that they have become more occupied with family or business responsibilities. Others say frankly that they are getting older and have developed other interests, while another substantial group say their friends are no longer interested or they no longer know any of the players.

All of these reasons reflect the individual fan's own advancing age and increasing absorption in other affairs, in the face of which it is difficult for him to maintain his former practice of attending one or more games a season and of following the sport closely. Only a small minority of the fans attribute their declining interest to such factors as poor teams, unattractive games, transportation difficulty, changes in the game itself, etc.

Again, it seems clear that TV would be an especially strong deterrent to attendance in the case of these younger fans who are faced with many other new deterrents anyway, and to whom the continuation of their former attendance habits has now become much more of an effort.

This hypothesis is strengthened when the 1947-50 attenders are asked why they do not plan to attend any games in 1951. Ten per cent of the group in both cities spontaneously say that they will watch the games on television instead. Among TV owners, the figure is 15%, and one suspects that many of the others who give such reasons as "can't plan ahead", "it costs too much" or "too busy with other things" are also influenced by the fact that a substitute for attendance is available in television.

It was noted that among the reasons given for declining interest in the sport was the fact that "My friends aren't interested any more," and it was also noted that 95% of all attendances are made in company with other people. It is apparently difficult for a fan to keep up his interest in the game if he has no one to discuss it with and no one to keep him company at the games.

In both Boston and Pittsburgh, the majority of fans said that other members of their household were also interested in college football, and three-fourths of them said that "quite a number" of their friends and associates shared their interest. Indeed, more than one-third in both cities said that "practically all" of their friends take an interest in the game. The largest single reason offered by fans for attendance at their last previous game was the initiative of someone else: they were invited to go, or a friend had tickets, or someone suggested making a party of it.

The "social" nature of football interest is again emphasized when one fan in every four who was uncertain whether he would attend any games in 1951 explained his indecision in terms of other people: "If I can get somebody to go with me" or "If I'm invited." That this social appeal also is at least partially satisfied by television is indicated by the fact that only 18% of the Boston TV-viewers and only 8% of those in Pittsburgh said they watched the televised games by themselves. In many cases the viewing groups formed small parties, and such parties, we may presume, were much more easily arranged than actual attendance would have been.

Though the followers of other sports are only sometimes interested in college football, the college football fans are almost always interested in other sports as well. Almost two-thirds of both the Boston and Pittsburgh group had attended at least one major league baseball game during 1951, and only about one fan in five in both cities restricted his previous year's sports attendance to college football.

On the 1951 World's Series Saturday in Pittsburgh, 18% of the fans were working, but of the remaining 82%, only 13% were not watching, listening to or attending some sports event. On no single Saturday during the football season were fewer than 57% of the fans in Pittsburgh, or fewer than 40% of those in Boston, watching, listening to or attending some sports attraction.

That the college football fan is not single-minded in his sports interest also has implications for TV effects, for it means that other local sports and still others televised from distant areas, compete for his interest and attendance. On the World's Series Saturday in Pittsburgh, for example, 51% of the college football fans were viewing this event on television or listening to it on the radio; only 39% were viewing or listening to a college football game.

One other finding about interest in college football deserves mention here, and that is that most fans concentrate their interest—and to an even greater degree, their attendance—on one, two or three teams.

When asked which teams they follow most closely, and encouraged to mention as many as they think of, the average fan named only two or three. And his explanation for his particular interest in those teams stemmed almost entirely from some personal attachment to that college: either it was his own alma mater or that of a friend or relative, or he knew one or more of the players personally, or it was the local team, the "home town" team. Non-personal reasons for following a particular team, such as its fine performance or national reputation, accounted for less than one-third of those mentioned.

The reasons fans gave for attending their most recent game and their reasons for planning to attend particular games in 1951 also testified to their attachment to individual teams. Scarcely anyone talked in terms of "just wanting to see some college football." Almost always there was an expression of a special interest in that particular game or that particular college, for some personal reason.

Almost half of the fans in Boston and more than half of those in Pittsburgh had restricted their entire four-year attendance in 1947-50 to the games of a single college. Approximately four-fifths of the fans in both cities reported two-thirds or more of their attendance concentrated on the games of only one college.

This concentration of interest and attendance on one or two particular colleges, and those usually local, naturally reflects the limited opportunities for football attendance even in large metropolitan areas like Boston and Pittsburgh. The fan can't usually "shop around" for the best game on a particular day, and it is troublesome and costly for him to travel to some other community. As a result, his interest and attendance tend to narrow down to the local games or to those of his alma mater.

This finding helps to explain the large fluctuations in football attendance in certain areas from one year to another. For if the local teams have a poor year or play an unattractive schedule, the fan tends to reduce or to cut out his attendance altogether, rather than to transfer it to some other stadium.

The concentration of interest and attendance helps also to explain the success of the 1951 NCAA Plan in reducing the TV differential which was observed in the preceding year. For in 1950 most of the major colleges in the large television areas were telecasting all of their home games, and the fans in those areas, most of whom were primarily interested in the local teams, knew that all of their games would be available on home TV.

In 1951, however, the number of such telecasts was drastically reduced, and the fan knew that his favorite or home-town team would not be televising any of its games—or at most, only one of them. Thus, even though he could still see a game on TV almost every week, an actual ticket purchase was now required if he was to see his own favorite team in action. It was this feature of the NCAA Plan which helped most to shave the attendance losses in TV areas, in spite of increased TV saturation.

APPENDIX TABLES

I. Description of Respondent Colleges

Game-by-game attendance reports for the years 1947-52 were requested from all football-playing NCAA member colleges which charge admission to their games. The total number of such colleges varies slightly from year to year, according to changes in the NCAA roster or the number of colleges fielding football teams.

1947-50 data were collected simultaneously during the 1950 season, and complete usable information was received from over 80% of the eligible colleges. In 1951, close to 90% responded.

In 1952, fifty-one new members joined the NCAA, and although all but twelve of these responded to our questionnaires, only about one-fifth of them could furnish adequate reports for the 1947-48 base years. The per cent of eligible colleges participating in the survey thus drops to 75% of the total in 1952, but remains at 86% of the 1950-51 membership.

TABLE A

COLLEGES PARTICIPATING IN ATTENDANCE ANALYSIS

All NCAA Football Playing Colleges	1949-50	1951	1952
Total number	266	269	315
Number not reporting	46	30	78
Number reporting	220	239	237
Percent reporting	83%	89%	75%
Colleges With TV Competition			
Total number	162	158	215
Number not reporting	33	16	44
Number reporting	129	142	171
Percent reporting	80%	90%	80%
Colleges With No TV Competition			
Total number	104	111	100
Number not reporting	13	14	34
Number reporting	91	97	66
Percent reporting	87%	87%	66%

TABLE B

COLLEGES SUBMITTING ATTENDANCE REPORTS IN 1952 OLD vs. NEW NCAA MEMBERS

	Total		With TV		Without TV	
	Old Members	New Members in 1952	Old Members	New Members in 1952	Old Members	New Members in 1952
Total number	264	51	191	24	71	27
Number not reporting	37	41	24	20	11	21
Number reporting	227	10	167	4	60	6
Percent reporting	86%	20%	87%	17%	85%	22%

TABLE C *

NCAA FOOTBALL-PLAYING COLLEGES, 1951 AND 1952, BY SIZE OF PRE-TELEVISION ATTENDANCE

Size	Average Attendance per Game, 1947-48	Total		TV Areas		No TV	
		1951	1952	1951	1952	1951	1952
Large	15,000 or more	68	67	47	60	21	7
Medium	5,000—14,999	67	68	37	44	30	24
Small	Under 5,000	134	180	76	111	58	69
Total		269	315	160	215	109	100

* This table includes all NCAA colleges that charge admission to football games. The size of non-reporting colleges was determined either through correspondence with the college or from data on stadium capacity, etc., published in NCAA Football Guide.

TABLE D *

SCHEDULED GAMES AND COMPLETED REPORTS BY SIZE AND TV STATUS

1951-1952

	Total Games Scheduled		Game Reports Completed	
	1951	1952	1951	1952
Large Colleges:				
TV competition	250	323	226	304
No TV competition	115	36	102	32
Total	365	359	328	336
Medium Colleges:				
TV competition	164	194	144	168
No TV competition	143	121	121	100
Total	307	315	265	268
Small Colleges:				
TV competition	295	439	259	277
No TV competition	237	272	197	141
Total	532	711	456	418
Total TV competition	709	956	629	749
Total No TV competition	495	429	420	273
Total all colleges	1204	1385	1049	1022
Total new members 1952	—	216	—	38
Total old members	1204	1169	1049	984
Per cent old members complete	—	—	87%	84%

* Total games scheduled include all regularly scheduled home games of NCAA member colleges. Game reports completed include all edited reports used in the variance analysis.

TABLE E

VARIANCE ANALYSIS OF COLLEGE FOOTBALL ATTENDANCE BY SIZE, BY ATTRACTIVENESS, BY AVAILABILITY OF TV

1951-1952

	Degrees of Freedom	"F" Ratio* 1951	1952
Main Effects			
Game attractiveness	1	179.26	279.23
TV-No TV availability	1	30.84	80.19
Size of college	1	12.37	3.46
Interactions			
Attractiveness vs. TV-No TV	1	186.27	344.33
Attractiveness vs. Size	1	182.14	287.84
Size vs. TV-No TV	1	12.54	3.53
Total	1048	—	—

* An "F" ratio of 6.66 is significant at the 1% level.
A ratio of 3.85 is significant at the 5% level.

TABLE F

VARIANCE ANALYSIS OF COLLEGE FOOTBALL ATTENDANCE BY TV SATURATION, BY "BLACKOUT", BY ATTRACTIVENESS

1951-1952

	Degrees of Freedom	"F" Ratio* 1951	1952
Main Effects			
Game attractiveness	1	88.52	132.97
TV Saturation **	1	39.12	0.32
Blackout vs. TV competition	1	.20	1.47
Interactions			
Attractiveness vs. Saturation	1	95.96	167.49
Attractiveness vs. Blackout-TV	1	180.93	145.59
Blackout-TV vs. Saturation	1	40.56	1.59
Total	628	—	—

* An "F" ratio of 6.68 is significant at the 1% level.
A ratio of 3.85 is significant at the 5% level.

**In 1951 "moderate" saturation (under 40%) was compared with "heavy" saturation (40% and over).
In 1952 "very heavy" saturation (60% and over) was compared with "heavy" saturation (under 60%).

TABLE G

VARIANCE ANALYSIS OF COLLEGE FOOTBALL ATTENDANCE BY REGIONAL-NON REGIONAL, BY ATTRACTIVENESS

1951-1952

	Degrees of Freedom		"F" Ratio*	
	1951	1952	1951	1952
Regional—Non-regional	1	1	0.13	1.03
Game attractiveness	1	1	89.77	103.06
Interaction	1	1	0.21	—
Total	434	547	—	—

* An "F" ratio of 6.70 is significant at the 1% level.
A ratio of 3.86 is significant at the 5% level.

III. Miscellaneous Tables

TABLE H

STUDENT ENROLLMENT AT NCAA COLLEGES

1947-1952

Year	All Colleges (221 colleges)	Decline from 1947-48	TV Areas (159 colleges)	Decline from 1947-48	Non-TV Areas (62 colleges)	Decline from 1947-48
1947-48	1,068,922	—	870,777	—	198,145	—
1949	1,054,754	1.3%	859,963	1.2%	194,791	1.7%
1950	977,543	8.6	798,487	8.3	179,056	9.6
1951	881,735	17.5	725,410	16.7	156,325	21.1
1952	870,161	18.6	713,654	18.0	156,507	21.0

TABLE I

ESTIMATED TOTAL PAID ATTENDANCE AT NCAA COLLEGES *

1952

	Number of Games	Estimated Attendance	Percent of Total Attendance	
Large Colleges:				
TV competition	323	9,250,550	65.2	
No TV competition	36	1,040,094	7.3	
Total	359	10,290,644		72.5
Medium Colleges:				
TV competition	194	1,022,711	7.2	
No TV competition	121	1,329,756	9.4	
Total	315	2,352,467		16.6
Small Colleges:				
TV competition	439	912,841	6.4	
No TV competition	272	639,694	4.5	
Total	711	1,552,535	100.0	10.9
Total TV competition	956	11,186,102	78.8	
Total No TV competition	429	3,009,544	21.2	
Total all colleges	1385	14,195,646	100.0	100.0

* Estimates are for all scheduled games of all 315 NCAA colleges. Games not reported were assigned the average attendance of all the reported games in the particular Size-TV group.

TABLE J

FOOTBALL TICKET SALES
BEFORE AND AFTER ADJUSTMENT FOR BAD WEATHER
1951-1952

	Actual Tickets Sold		Weather Adjustment: Number Added		Weather Adjustment: Percent Increase	
	1951	1952	1951	1952	1951	1952
Large Colleges:						
TV competition	6,314,484	8,666,615	163,550	74,529	2.6	0.9
No TV competition	3,030,251	919,376	38,517	5,213	1.3	0.6
Total	9,344,735	9,585,991	202,067	79,742	2.2	0.8
Medium Colleges:						
TV competition	827,832	908,503	38,822	26,474	4.7	2.9
No TV competition	1,093,860	1,074,591	45,552	22,933	4.2	2.1
Total	1,921,692	1,983,094	84,374	49,407	4.4	2.5
Small Colleges:						
TV competition	397,081	543,681	34,991	12,185	8.8	2.2
No TV competition	366,237	332,080	32,259	6,323	8.8	1.9
Total	763,318	875,761	67,250	18,508		
Total TV competition	7,539,397	10,118,799	239,363	113,188	3.2	1.1
Total No TV competition	4,490,348	2,326,047	116,328	34,469	2.7	1.5
Total all colleges	12,029,745	12,444,846	355,691	147,657	3.0	1.2

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NATIONAL COLLEGIATE ATHLETIC ASSOCIATION
Fairfax Building
Kansas City 5, Missouri

Part 5 of 8

The Effects of Television on College Football Attendance

REPORT No. 5

PREPARED FOR THE

National Collegiate Athletic Association

BY THE

NATIONAL OPINION RESEARCH CENTER
University of Chicago

April 22, 1954

THE EFFECTS OF TELEVISION ON COLLEGE FOOTBALL ATTENDANCE

Report No. 5

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April 22, 1954

CONTENTS

INTRODUCTION

The adverse effects of television on college football attendance have been amply demonstrated in the four previous reports of this series.

While colleges which did not face televised football competition in 1950, 1951 and 1952 registered consistent gains over their pre-television base year attendances, those colleges which were exposed to such TV competition reported substantial declines in their gate attendance.

Furthermore, the gap between these two sets of trends has been steadily widening, as more and more TV stations come into operation and more and more sets are sold. At the end of the 1952 season, football attendance at colleges without TV competition was up 10½ percent over the 1947-48 base years, while at colleges facing such competition attendance was down 16% — a difference of almost 27% in average total attendance.

This experience has occurred, too, under the controlled television plan which has been adopted by the NCAA during the last three seasons. In 1950, the last year of uncontrolled television, the damage to attendance was almost as great with 9 million TV sets in operation as it was under controlled TV conditions with 26 million sets in operation last year.

The 1950 experience indicated clearly that the laissez-faire policy toward TV control which was in effect that year would, under present conditions of widespread ownership and reception, produce attendance losses averaging upward of 40%. What this 40% average loss means, of course, is that a few colleges would maintain or even increase their base attendance, while scores of others would find it necessary to abandon the sport completely.

The 1953 research, as we shall see, confirms the view expressed in our report last year that televised competition, when controlled as it has been during the last three seasons, has now exerted its maximum effect. Almost every college is now exposed to such competition, and almost every fan now has access to a television set. If the present type of TV schedule is maintained, average attendance should hold relatively stable at the present levels, barring sharp changes in the economic situation.

This does not mean, however, that the 27% attendance loss to television will be soon regained, or that fans "will return to their normal habits" now that they've enjoyed TV for a number of years, and start flocking back to the stadiums. That attendance is lost, and it will take many years of population and income growth to regain it.

In the absence of television, college football, which attracted over 15 million paid admissions in 1947 and 1948, could have looked forward to a 10% increase over those figures as a result of population and income gains. Such increases have actually been registered in areas outside the range of TV.

But instead college football has to settle for attendances well below the 1947-48 base years — and even this reduced gate, only by assuming a continuance of some form of controlled TV. Only gradually, as the country continues to grow and prosper, as more and more young people attend college, as promotional efforts are maintained and increased, and as college football continues to interest the sports minded public, will gate attendances climb back to the pre-television levels and then go on to surpass them.

The present report summarizes only briefly the 1953 attendance experience, because the figures tell a familiar story: gains in areas not yet reached by television, losses elsewhere; the heaviest losses in areas newly exposed to TV competition and in areas where set ownership is heaviest; essentially the same pattern all over the country, at all types of games, for all sizes of college. Our Report No. 4 (April 8, 1953) gives a detailed picture of what has happened; here we merely recapitulate and bring the trends up to date.

Our research emphasis during the 1953 season was not to document or prove the adverse effects of television; that has already been done. Rather it was to understand the underlying factors shaping these effects, to learn something of "what makes fans tick."

Excluding college students, we wanted to see what the average fan looks like, and also those who are not so average. We wanted to find out the nature of their interest in college football, the gratifications they get out of it, the reasons for their attendance or non-attendance, the factors influencing their decisions.

Only through an understanding of such factors as these can television effects be properly interpreted and minimized. For college football attendance is not just a tabulation of reports and figures. It represents the individual decisions of millions of fans, week by week throughout the season.

We again wish to express our appreciation to the college athletic directors and business managers who continued to supply us with game-by-game attendance reports; and to the members of the NCAA Television Committee, and the Program Director, Asa S. Bushnell, who as always gave us maximum cooperation but an entirely free hand in the research design and analysis.

Paul B. Sheatsley
Paul N. Borsky
Study Directors

I

1953 ATTENDANCE TRENDS

Continuing the trend reported every year since the growth of television competition, college football ticket sales again declined during the 1953 season.

The total of approximately thirteen and three-quarter million paid admissions represents a million and a half decline from our 1947-48 base year totals, and a loss of almost two million ticket sales since the peak year of 1949.

This decline has paralleled the increasing number of TV sets sold and the extension of television reception into new areas of the country. The figures are shown in Table 1.

TABLE 1

PAID ATTENDANCE AT NCAA COLLEGE FOOTBALL GAMES and NUMBER OF TELEVISION SETS SOLD

Year	Paid Attendance*	No. of TV Sets**
1947-48 average	15,248,000	426,000
1949	15,675,000	3,025,000
1950	15,172,000	9,169,000
1951	14,272,000	14,556,000
1952	14,196,000	19,751,000
1953	13,754,000	26,364,000

*Based an estimated ticket sales for all games played by 315 NCAA colleges. Paid admissions are not corrected for losses due to poor weather or other factors.

**Based on NBC reports of sets sold in television reception areas, as of November 1 each year.

Had it not been for television, one would have expected college football admissions to increase in 1953, for other factors were generally favorable. Student enrollment at football-playing colleges was up 1% over 1952, and personal incomes, after taxes, were 5% greater than in 1952.

But working to offset these favorable factors was the extension of television ownership to more than six and a half million additional U.S. families, and the linking of many new areas to the national network.

It is noteworthy that in a year when the economy was generally prosperous and the sports and recreation business was in many areas setting new attendance records, the three chief exceptions to the general prosperity were major league baseball, professional boxing and college football — the three most popular sports on television, and the three which have most consistently "competed against themselves."

REGIONAL TRENDS

The national pattern of a continued easing off in ticket sales during 1953 was reflected in most of the eight NCAA districts, or geographical regions. In every region except New England, the Southeast and the Southwest, there were modest declines ranging from 2% to 4%.

The heavier losses reported by New England colleges are primarily due to sharp declines in attendance at two major colleges which played less attractive schedules in 1953. In the Southeast attendances were up a fraction of a percentage point.

The larger decline in attendance in the Southwest is clearly attributable to the new impact of television competition, as the NCAA Game of the Week was regularly presented in many Southwestern areas for the first time.

Table 2 presents the trends in each region.

TABLE 2

REGIONAL ATTENDANCE TRENDS 1952-1953

NCAA District	Percent of "Expected" Attendance* 1952	1953	Change
1 — New England	77.8	69.1	Down 8.7
2 — Middle Atlantic	75.9	73.3	Down 2.6
3 — Southeast	95.1	95.9	Up .8
4 — Midwest	96.3	94.7	Down 1.6
5 — West Central	98.9	97.4	Down 1.5
6 — Southwest	121.2	113.5	Down 7.7
7 — Mountain	78.5	74.4	Down 4.1
8 — Pacific	94.0	90.4	Down 3.6

*"Expected" attendance is the average paid attendance reported by each college for the two pre-television years 1947-48. (See Report No. 4, P. 9, for discussion of this concept.)

THE "TV DIFFERENTIAL"

The over-all trends in total ticket sales tell us nothing about television effects, for attendance levels would be expected to rise or fall in response to changes in such factors as student enrollment, economic conditions, public interest, weather and the like.

Thus, the fact that attendance was down would not necessarily indicate that TV effects were responsible; nor would a rise in attendance prove that television did not hurt. The decline might have been due to other factors; the rise might have taken place in spite of harmful TV effects.

True, the steady decline in college football ticket sales in the face of rising personal incomes and (during the last two years) stable student enrollments, when placed beside the steady rise in the number of TV sets and network-affiliated stations, creates a strong presumption that television is exerting some adverse effect.

But the point could never be really settled in the absence of research which would hold constant the other factors which affect attendance, so that the influence of television could be subject to measurement. This, of course, is just what NORC has done in its research during the last four years.

In each of these four seasons, it has been found that those colleges which were exposed to football competition on television have reported attendances well *below* their 1947-48 averages; while those colleges in areas where football was not available on TV have reported attendances well *above* their 1947-48 averages — and this, after all other relevant factors such as team performance, weather, attractiveness of schedule, etc., have been held constant.

The difference in attendance trends among the two groups of colleges has in each year been highly significant in the statistical sense. The lowest "TV differential" occurred in 1951, the first year of the NCAA's controlled TV program, when there were fewer than 15 million sets in operation. In that year the colleges in TV areas were 15% below their pre-television averages, while outside of TV areas attendance was up almost 4%—a differential of 18.6%.

In other years the TV differential has fluctuated between 26% and 28%. The figures are shown in Table 3.

TABLE 3

THE TV DIFFERENTIAL 1950-1953

Year	Percent of "Expected" Attendance* Colleges With TV Competition	Colleges Without TV Competition	TV Differential
1950	88.6	115.1	26.5
1951	85.1	103.7	18.6
1952	83.8	110.5	26.7
1953	81.6	109.3	27.7

*Based on variance analysis data in which non-TV factors are simultaneously controlled.

The 1953 figures can be summarized as follows: Given the current economic conditions, student enrollments, etc., college football attendance would have been 9% above the 1947-48 levels, had it not been for TV competition. But where TV competition was present (which in 1953 was almost everywhere), attendance was almost 19% below the 1947-48 levels. The difference of 27.7% represents the harmful effects of television.

It should be noted that the differentials reported in the last three years have occurred in spite of the NCAA's program of limited TV, a program which restricts the number of telecasts in any area to one per week, which prevents any one team from appearing on television more than once per season, and which apportions the limited number of telecasts available among teams from all parts of the country.

There is no way of calculating precisely what the TV differential would now be under a policy of unlimited televising such as prevailed in 1950, but some hint can be obtained by a study of that year's experience.

Nationally only 9 million TV sets were in operation that year, in contrast to the 26 million which had been sold by 1953. But among colleges in areas where TV ownership was already "heavy" in 1950, the TV differential was 40%.

With most of the country now at the "heavy" TV ownership level which was then characteristic of those areas, it is reasonable to assume that if the unlimited TV policy of 1950 were in effect today, the national differential would be at the 40% level instead of the 27.7% which we actually find.

Even such a calculation does not take into account the increased number of television stations, so that a fan who in 1950 had a choice of only one or two games on his local stations might now have a choice of four or five in many areas.

It is clear that the NCAA policy of limiting the amount of televised football has saved many colleges from losses which would force them to abandon the sport entirely.

THE 1953 EXPERIENCE

Because of the rapid expansion of television to new areas in 1953, it was not certain that sufficient games would be played away from TV competition to provide any sort of comparison with the trends in television areas.

However, more than 100 games were played by 24 colleges in areas where TV reception was not possible or where only local non-football telecasts were available. This was still a sufficient number to provide comparisons which would have statistical significance, although it is now fairly certain that 1953 is the last year in which such comparisons can be made.

As shown in Table 3, the TV differential increased one percentage point in 1953. Attendance in TV areas dipped an additional 2% to a level which was almost 19% below pre-television levels, while colleges not facing Game of the Week competition reported ticket sales 1% below 1952, but still 9% above their 1947-48 averages.

The minor dip in non-TV area attendance is probably due to a 3% decline in student enrollment among the 24 reporting colleges. In contrast, colleges which faced TV competition experienced a 1% gain in enrollments, which makes their larger attendance loss all the more noteworthy.

Another factor which probably contributed to the slight decline in non-TV areas was the competitive effect of local television programs and of post-game films of college football games. Of the 24 colleges in the non-TV category, only nine reported attendance losses, and eight of these were in areas where local TV, but not Game of the Week telecasts, were available. Among the colleges which were not exposed to TV competition of any sort, only one reported an attendance decline.

The moderate loss of 2% in TV areas can be clearly traced to the extension of network TV to new areas which were exposed to Game of the Week competition for the first time. Thirty-nine such colleges reported a collective loss of *almost* 20% in their 1953 ticket sales.

In contrast, the 163 colleges which had been exposed to televised football competition in 1952 and earlier reported a drop of only 1% from their levels of last year. It bears repeating, however, that these levels were still far below the attendances these colleges were drawing in 1947-48, before television had become an appreciable factor.

The rate of loss has gradually slowed, as each year a smaller proportion of football fans become newly exposed to TV. With television accessible to almost every fan now, no new losses to the medium may be expected as long as present programming is maintained and economic conditions remain prosperous. Attendance levels are likely to stabilize at the present low figures, and then gradually rise.

Such a forecast would be upset, however, if the amount of televised football competition were increased (or decreased), or if color TV is to provide a new incentive for fans to stay home, or if other changes are to take place in the type of TV competition which has prevailed in 1952 and 1953.

LARGE AND SMALL COLLEGES

The 2% loss of attendance in television areas during 1953 was evenly apportioned among large and small colleges. Their experience was the same.

But trends among large and small colleges outside of TV areas, and the calculation of TV differentials for varying sizes of colleges, can no longer be reliably computed. Only 11 small colleges and 13 large or medium colleges remain without television competition, and the number of games they

play is too small to be certain that individual differences in team performance, regional factors and other chance variables will be averaged out.

The 1951-1952 experience may be briefly recapitulated, however, since there is no reason to assume any major change in the differentials last year.

In both of the earlier years, it was established that both large and small colleges were adversely affected by television competition, and that these effects were evident for both more attractive games and less attractive games on their schedule.

Specifically, large and medium colleges in TV areas reported attendance losses of about 15% from their 1947-48 levels, while outside of TV areas, these larger colleges were registering gains of about 15% over their pre-television attendances. The TV differential averaged around 30%.

Among small schools (average game attendance under 5,000), those in TV areas were about 15% below "expected" while outside of TV areas, attendances were just about what they had been in pre-television years. The differential here was about 15%.

The larger differential found among the bigger colleges can be explained by the differing types of audience the two kinds of schools attract to their games. The large colleges count more heavily on the general sports public which is more inclined to "shop around" for its entertainment and to accept television as a substitute for attendance. The smaller colleges, on the other hand, draw a proportionately larger share of attendance from students, local alumni and other regular fans who are less affected by TV competition.

It must not be overlooked, however, that while the smaller colleges have been less hard hit by TV than the medium and large ones, they have nevertheless, even under a limited TV program, suffered a 15% decline from their former averages.

GAME ATTRACTIVENESS

Three findings of the 1951-1952 research were again found to hold true in the 1953 attendance analysis.

The first is that the most important single variable affecting attendance is the attractiveness of the particular game, in relation to other games on the home team's schedule. For all colleges combined, the more attractive games outdraw the less attractive ones by almost 50%. And a more attractive game, even if exposed to television competition, will draw a larger attendance than a less attractive game which has no TV competition.

But secondly, when game attractiveness is held constant, a significant TV differential is apparent for *both* types of games. In each of the last three seasons, colleges with no TV competition reported larger attendance trends for their more attractive games, and also for their less attractive games, than did those colleges which faced TV.

The consistency of this finding makes it clear that television does not hurt attendance only at good games or only at poor games. It has an adverse effect on the gate in both cases, just as we have seen that it does not hurt only large colleges or only small colleges, but all sizes of college.

The third important finding in this area is that while TV competition affects attendance adversely at both types of games, it has its largest effect on the *more* attractive games. While the TV differential for less attractive games has averaged 15-20%, for more attractive games the differential has fluctuated in the neighborhood of 30%.

It was hypothesized last year that the reason for this finding lies in the different types of fans which normally attend more and less attractive games. The less attractive contests are patronized by students, season ticket holders, loyal alumni and others who are less susceptible to TV effects; the more attractive games, on the other hand, rely heavily on "marginal fans" who attend only occasionally and are much more likely to be deterred by the availability of television as a substitute.

Tests of this hypothesis were conducted during our interviews with fans in the course of the 1953 season, and are reported in a subsequent section.

TYPE OF TELEVISION COMPETITION

It is possible to distinguish five degrees of television competition, ranging from the most intense to the least. These would include: a college facing the competition of its own games on television; a college facing the televised games of another local school; a televised game in a different city but in the same geographical region; a televised game from a distant region; and a complete absence of football on TV.

Only in 1950 was it possible to test the first two situations, for only in that year of unrestricted televising were there a large enough number of local telecasts to permit any generalizations. And during that season, the hypothesized effects were confirmed by the attendance reports.

Those colleges which televised their own home schedules reported the lowest attendance trends, and next lowest were the colleges in those same areas which faced the TV competition of another local game on most Saturdays. Slightly less affected, but still significantly so, were the colleges whose only TV competition came from non-local games.

In 1951 and 1952 the attendance data were analyzed in an effort to test the effect of the *origin* of the Game of the Week telecasts. It was hypothesized that the TV Game of the Week competition would be felt more keenly when the televised game was played in the same geographical region than when it emanated from a more distant region and presented less familiar teams. In both years, however, the differences were small and inconclusive.

In 1953 a significant difference does appear among the more attractive games. Such games when facing the competition of a *distant* game on television averaged attendances 8% greater than when the Game of the Week was played in their own region. For less attractive games the difference did not hold.

The explanation probably parallels that which was offered in the last section. Fans who attend less attractive games are more ardent fans, and less likely to make distinctions among the televised games. But the "marginal fan" who contributes to the greater attendance of the more attractive games will perhaps attend locally if the Game of the Week is presenting two distant teams which don't interest him much, but watch television if the game on TV involves two nearby colleges within his area of interest.

But any conclusions on the basis of these data, concerning the differential effect of regional vs. non-regional games on television, must be very sharply qualified by the fact that fans were poorly informed of the TV schedule and generally made their ticket purchases with little regard for the particular game available on television that week. We return to this point in our discussion of the interview material.

TV SATURATION

The effects of varying degrees of TV "saturation" (percent of families owning television sets in an area) were discussed and summarized in detail in last year's Report No. 4 (pp. 25-28).

In essence the findings have been that TV exerts little effect on game attendance until saturation reaches a figure of 20% or so. Then attendances drop fairly steadily until saturation attains a level of 60% or thereabouts. After 60% of the families in the area have TV sets, almost every college football fan has easy access to television, and the additional harm to ticket sales by reason of increasing set sales is minimal.

Analysis in terms of varying levels of saturation was somewhat difficult in 1953, because almost all of the older TV areas had long since become very heavily saturated, with only minor differences between them. And even in the new TV areas which opened up in 1953, the sale of television sets proceeded at such a rapid pace that many of them leaped into the heavily saturated category within a year.

The one analysis possible, however, confirmed former findings. The new TV areas which were still in the lightly saturated category (under 20% TV owners) reported attendance trends averaging 95% of the pre-television base years, while in areas of very heavy saturation (over 65% TV owners), attendance was only 77% of expected.

II

FAN CHARACTERISTICS AND BEHAVIOR

The factual analyses of actual paid admissions, reported in the previous section, tell us the net *average* effects of TV competition and the way it varies according to size of college, attractiveness of the game, "saturation" of the area, and so on.

But they do not tell us anything directly about the all-important fan, whose decisions to attend a game, to watch television, to listen to the radio or to do something else determine the actual size of the crowd at any particular game.

True, by controlling as best we can the numerous known variables which affect attendance, we can make many inferences from these data concerning the *average* fan's behavior under particular conditions. But we cannot describe the contrasting activities of various *types* of fans when they are all combined in one average, nor can we understand the dynamics of the decisions they make.

For example, we know from the attendance data that the average fan goes to fewer games when football is available on TV than when it is not, and we know from the 1950 data that he is less likely to attend if a local game is available on TV every week than if his local team can be seen only by buying a ticket at the stadium.

But this is the "average fan." Quite probably there are some who have stopped attending games altogether as a result of television, while others may have been stimulated by the medium actually to increase their attendance. To what extent do different types of fans react differently, and what are the factors that determine their varying behavior? Only through intensive interviews with a representative cross-section of all types of fans can such questions be answered.

When such personal interviews were attempted in the past, the results were generally inconclusive because of one or more of the following weaknesses: interviews obtained only among attenders at stadiums with no interviewing of stay-at-home fans; interviews restricted to a single local community or a small number of areas; not enough fans studied to establish any significant differences in their behavior; or failure to control for differences in age, sex, interest in football or other relevant factors when comparing different group attendance patterns.

In an all-out attempt to overcome these deficiencies, the greater share of the 1953 NCAA research budget was devoted to the design and execution of a nation-wide study of football fans employing the most rigorous survey procedures. Over 6,000 adults, in almost 3,000 representative homes throughout the United States, were questioned about their interest in college football, and from those expressing some interest approximately 900 were scientifically chosen for a series of interviews.

Each of these fans was interviewed during the first weeks of the season in September to determine the origin and nature of his college football interest, his 1952 attendance behavior and television activities (as well as he could recall them), his plans for attending and televiewing during the current season, and other related questions.

Subsequently, in mid-season in late October, and at the end of the season after Thanksgiving, the same fans were reinterviewed to find out their actual behavior during each weekend of the season, the extent to which they carried out their pre-season intentions, and the reasons for any changes in their previously reported plans.

Intensive analysis of these interview materials indicates that previous technical weaknesses have been overcome. The fans we interviewed were selected in such a way as to be representative of *all* fans, everywhere in the United States. They include the mildly interested as well as the intensely interested, and their attitudes and behavior provide a true cross-section of "the football market."* And for most analyses, there are sufficient numbers of fans to lend statistical significance to any differences we find in the group comparisons.

The present section of this report describes the characteristics and behavior of fans in general and of different types of fans. Section III analyzes the effects of television on their reactions and decisions. Section IV documents the preceding sections by showing the actual 1953 activities of varying types of fans during the course of the season.

CHARACTERISTICS OF THE FOOTBALL AUDIENCE

The 1953 interview data confirm previous reports that football fans are a relatively select minority of the population. When *all* adults were asked the "screening" question, "Do you take any interest in college football games, or don't you follow them at all?", *fewer than one person in three admitted to any interest.*

But if the answers are anlyzed in terms of such factors as educational background, age, sex, occupation and family income, certain patterns emerge. In general, college football fans are more likely to be found among men, in the younger age

groups (under 40), who have college training, and are in professional or managerial jobs which put them in the higher income brackets.

Table 4 compares the characteristics of college football fans with the characteristics of the total adult population.**

*One exception should be noted. College students were not included in our sample unless they were over 21 and living at home when the interviewer called. The college football attendance problem is not one of selling tickets to students, and the sample was accordingly based on the adult U.S. population outside of institutions.

**We use the word "fans" throughout to refer to those who say they take some interest in college football, as opposed to those who say they "don't follow it at all."

TABLE 4
POPULATION CHARACTERISTICS

	Total U.S. Adults*	College Football Fans
Age:		
21-25	9%	11%
26-29	12	15
30-39	23	33
40-49	20	20
50-59	16	12
60 and over	20	9
	100%	100%
Sex:		
Men	49%	61%
Women	51	39
	100%	100%
Education:		
Completed college	8%	22%
Some college	7	19
Completed high school	28	32
Some high school	19	15
Grade school only	38	12
	100%	100%
Occupation:		
Professional, semi-professional	6%	17%
Farm, business owners, managers	15	16
Clerical, sales	9	12
Craftsmen, foremen	11	10
Operatives	10	11
Service workers	4	2
Laborers	4	2
Housewives	41	30
	100%	100%
Annual Family Income:		
Under $2,000	23%	8%
$2,000 to $4,999	50	45
$5,000 to $7,999	19	33
$8,000 to $11,999	6	9
$12,000 and over	2	5
	100%	100%
Size Of Place:		
Large metropolitan areas	30%	26%
Small metropolitan areas	20	20
Towns under 50,000	15	20
Rural areas	35	34
	100%	100%
Region:		
East	26%	17%
Midwest	28	32
South	32	35
Far West	14	16
	100%	100%

*Population data based on NORC sample survey, September 1953. Figures may vary slightly from available Census statistics.

While less than half the adult population is under 40, almost 60% of college football fans are in this younger age group. Only about one fan in five is over the age of 50.

Football is primarily a man's sport, but a great many wives, sisters and girl friends of fans have also become interested. Although only 24% of all women are interested in college football, two-thirds of those whose husbands are fans report some interest.

While only about 15% of the adult population have attended college, over 40% of the football fans are college educated. In contrast, while almost 40% of the national population never went beyond grade school, only 12% of college football fans are in this category.

Probably in consequence of their better education, college football fans are heavily concentrated among professional, managerial and sales personnel. Hardly any are found among laborers, service workers and other less skilled occupations.

And while almost three out of four adults in our national cross-section had a family income of less than $5,000 a year, only about half the college football fans reported this low an income. In contrast, while only 2% of the population reported income of $12,000 or more per year, 5% of the fans are in this wealthy group.

Proportionately more college football fans are found in the smaller towns and proportionately fewer in the large metropolitan centers. This probably reflects the higher proportion of uneducated, foreign speaking and low income groups in the big cities, and the fact that the local college plays a more central role in the life of the smaller towns.

Finally, in proportion to population, fewer football fans are found in the East, and more in the Midwest, South and Far West. This may be due to the different population characteristics of the various regions, or to a larger number of competing activities in the New England and Middle Atlantic states, or to the relatively poorer performance of Eastern college teams in recent years.

INTEREST IN COLLEGE FOOTBALL

While only one adult in three follows college football at all, interest runs fairly high among those who do. Of those who qualify as fans, 40% say they take "a great deal of interest" in the sport, and 44% more say they take "quite a bit of interest." Only one in six reports "only a little interest."

As one would expect, the greater his interest in college football games, the more often the fan attends. Table 5 shows that among the heavy attenders (three games or more per season), 64% have a very great interest, while among the non-attenders less than a third are greatly interested.

It should be noted, however, that the relationship is not a perfect one. Five percent of the heavy attenders have "only a little" interest in the sport, and almost a third of the non-attenders describe their interest as "very great."

TABLE 5
NUMBER OF COLLEGE FOOTBALL GAMES ATTENDED by DEGREE OF INTEREST IN THE SPORT

Degree of Interest	Games Attended per Season: None	One	Two	Three or More
Very great	31%	48%	54%	64%
Quite a bit	49	39	35	31
Only a little	20	13	11	5
	100%	100%	100%	100%

Practically all of the college football fans first became interested in the sport *before* they were 21 years old. Only 15% said their interest was first stimulated after they became adults. Actually, well over half said their interest in college football was first aroused while they were in high school or elementary school, and most of the remainder became fans in their late teens.

When asked, "What was it that first got you interested?", four fans in ten indicated that friends or family were primarily responsible, while two out of ten ascribed their interest to their own early playing of the game in high school or on the sandlots. Table 6 summarizes the various reasons given.

TABLE 6
HOW INTEREST IN COLLEGE FOOTBALL WAS FIRST STIMULATED

	Percent of All Fans
Played football myself in high school, sandlot, etc., started following the sport that way	21%
Friends, relatives played on high school or college teams, got interested through them	14
Friends, relatives followed the sport, were always talking about it, got interested through them	14
Friends, relatives took me to a game, happened to go to a game, got interested that way	12
First interested at college, followed team there, went to games	9
First interested in high school, went to games, followed team there, got interested in college games	7
Local team first aroused interest, started following them	9
First interested through hearing games over radio	2
First interested through watching games on television	1
First interested through reading about games in papers	1
Don't know, vague answers, just always have been interested	10
	100%

It is significant that only 1% mention television as the factor responsible for their interest in college football. Radio broadcasts and newspaper reports also are scarcely ever mentioned as reasons for the fan's *first* becoming interested. While televised games, just like radio and the sports pages, undoubtedly provide satisfaction to fans who are *already* interested, they clearly have not made many *new* fans for the game.

Eight out of ten fans have at least one favorite team whose fortunes they follow closely "year in and year out." Only two in ten report that their loyalties fluctuate from year to year, with no special or regular interest in any team. Half of all fans restrict their "year in, year out" interest to *one or two teams.* Only one in ten have more than three teams that they follow closely year after year.

The teams they follow regularly, season after season, are in almost all cases *local or nearby teams,* and *large-college teams.* Only 7% mentioned small-college teams as the focus of their interest, and less than one in five mentioned a team situated in a different NCAA region.

Forty percent of the fans had attended college, and half of these named their alma mater as a team they followed regularly every year. The fact that half did *not* list their alma mater is the result of several factors: some of the colleges they attended do not have football teams, half of our college group did not finish college and some probably had only a minimum exposure to the campus; and it is likely that interest in the old school lags if the fan has moved to another part of the country.

Among those fans who regularly follow several teams closely, the order of their preferences usually reveals a clear pattern. The first team mentioned is more often a large college, the alma mater, and/or a local or nearby institution. As additional teams are mentioned, however, interest fans out, so that subsequent mentions are more frequently of smaller schools, in other areas, of which the fan himself is not an alumnus.

That *personal attachments* and *local proximity* play a very large part in determining football loyalties is confirmed by the reasons that fans give for following the teams they mention. More than half specifically say "It's the local team . . . the home team . . . it's close by here . . . I used to live there," and almost a third refer to some personal tie to the college: "I used to go there . . . I have friends who went there . . . It's my brother's college, etc." Other related reasons were acquaintance with one of the players, the fact that friends followed that team or that it is a close rival of their own favorite college.

Only one fan in five explained his attachment to the team in terms of its performance, its high ranking, the quality of its play. This reason is given most often for the third or fourth team they follow. After mentioning their local college or the alma mater, their interest then extends to the top-ranking elevens. But as we have seen, few fans carry their consistent, "year in, year out" interest beyond one or two teams.

The above findings relate to teams that the fans follow closely year after year. Fans were also asked, just before the 1953 season, "Are there any other college teams that you expect to follow closely *this* season?" It seemed reasonable to assume that many fans have one or two favorites they follow year after year, and then choose additional teams on which to focus their attention during a particular season.

Interestingly, 62% said their interest was restricted to the teams they just mentioned, and only 38% listed additional colleges whose teams they expected to follow in 1953. Their pattern of reasons again emphasizes the way loyalties start with the local team or the alma mater, and only later extend to outside elevens.

Whereas only one fan in five mentioned good team performance as the reason for following his "year in, year out" favorites, one in three gave this as a reason for the other teams they had elected to follow during 1953. And whereas more than half said their regular favorites were local teams, only 29% gave this explanation for their choice of additional favorites in 1953.

While college football fans are primarily interested in college competition, the interest of many of them extends also to high school and professional games. Table 7 shows this relationship.

TABLE 7

INTEREST OF COLLEGE FANS IN THREE TYPES OF FOOTBALL COMPETITION

Degree of Interest	College	High School	Pro
Very great	40%	29%	25%
Quite a bit	44	25	19
Only a little	16	38	26
None	—	8	30
	100%	100%	100%

More than half of the college fans take considerable interest in high school football. In many areas high schools offer the only local football competition, and it frequently happens, too, that the college fan has a son, brother or other friend or relative attending high school or playing on one of the teams.

Actually, our sample of college fans *attended* slightly more high school games in 1953 than they did college games. Approximately one out of three attended at least one high school game, while only one out of five bought a ticket to a college contest.

As noted, however, high school games are the only competition available in many areas, and the two types of attendance are hardly comparable in any case. Admission to high school games is often free, or the charge is nominal, and the majority of these games are not played on Saturday afternoons.

It is perhaps significant that only a minority of the college fans take any considerable interest in the professional teams. A total of 56% report little or no interest in these games. In part, this is probably due to the fact that the major professional league is restricted to a relatively few cities; in part, it is due to the fact that the total football interest of many fans is restricted entirely to their local or alma mater high school and college.

These figures provide some evidence that professional football has not yet approached high school football as a competitor to the college game. It should be noted, however, that our question was asked in pre-season 1953, and that the ensuing season was the first one in which pro football games were widely available on the national TV networks. Conceivably, the televising of pro games, live, to many areas that had not previously seen these teams in action will bring about an increased interest in the professional sport on the part of college fans.

But this increased interest, if it occurs, is not likely to turn many college fans into attenders of the pro games. Rather the appeal of these games is likely to be greatest among the larger sports public which never attended college and which have no personal ties to the collegiate sport. Actual attendance at the pro games, too, is largely restricted to the few metropolitan areas in which the major league teams play.

It is quite possible, however, that the continued telecasting of professional games will add still another deterrent to college football attendance, as far as the marginal fan is concerned. Such fans, often without any direct college ties themselves and interested in top performance rather than personal attachments, may find their football interest quite well satisfied by the televised pro games plus the college Game of the Week; and may thus reduce still further their occasional attendance.

THE ATTENDANCE PATTERNS OF FOOTBALL FANS

Eight out of every ten football fans have attended a college football game at some time in the past, though it is clear that for the great majority of our sample, actual game attendance is a rather special occasion.

TABLE 8
YEAR OF LAST ATTENDANCE

Year	Percent of All Fans	Cumulative Percent
1952	27%	27%
1951	17	44
1950	8	52
1949	5	57
1947-1948	9	66
1946 or earlier	14	80
Can't remember	1	81
Never attended	19	100

Table 8 shows the year mentioned by fans at the start of the 1953 season as the date of their last attendance at a college game. In addition to the 20% who can't remember or who say they never attended, note that almost 30% more have not attended since 1949; that only 27% attended in 1952, and that fewer than half attended in either of the two preceding years.

When those who had bought tickets during either of the last two seasons were asked to list the games they had attended, the infrequent nature of their attendance was again made manifest. Sixty-two percent of this group had gone to only one game, 21% had attended two games, and only 17% (one in six) had attended three or more.

Further confirmation of the narrow and concentrated interest of the overwhelming majority of college football fans is found in an analysis of the games they attended during these two seasons. *Nine out of ten* confined their attendance to the games of *one team*.

Even among those who attended three or more games a season, the "heavy" attenders, three out of four concentrated their attendance entirely on one college. Only 1.7% of the attenders (less than 1% of all fans) split their ticket purchases among more than two colleges. It is apparent that the box office support of most fans, as well as their interest, is centered on only one favorite team.

Fewer than one attender in five bought a ticket to a game that did not involve one of the teams he "followed regularly, year in and year out." Over 80% of the attenders confined *all* of their attendance to the games of such teams. In about one out of four cases, the attender was an alumnus of one of the two colleges involved.

Six percent of the attendances involved travel to another NCAA region, but about 60% were confined to the area within a 100-mile radius of the fan's home town. About a third of the attendances involved travel outside of this home area but still within the general region.

The more ardent fans who attended three or more games in 1952 were, if possible, even more select in their loyalties. One-third of the 3-game attenders and 40% of the 4-game attenders were alumni of the colleges involved, and nine out of every ten of these heavy attenders restricted their attendance entirely to their favorite teams. Over 75% of the games they attended were played locally, and none of them traveled outside his NCAA region to attend a game.

Reasons for attending the games parallel the reasons offered for general interest in those teams. Alumni ties or a desire to watch the local team account for about a third of the mentions. About a fourth speak of a special interest in that particular game—its tradition, or the attractiveness of the opponent. About one in five explains his attendance by "social" reasons: he was invited by friends or attended with a party. And about a fifth of the attendances were more or less accidental: the fan happened to get the day off from work, or he was looking for something to do and decided to attend on the spur of the moment.

When asked whether they would *like* to attend more college football games than they do, seven out of eight fans gave an affirmative reply. Their reasons for failing to attend more often reveal some of the deterrents to college football attendance.

More than a third explain that they have to work on Saturdays and can't get away from their jobs, while the remaining reasons are concentrated in two main categories. About one in five say that attendance costs too much and they can't spare the money, while the other reasons mention various aspects of inconvenience: it would mean postponing or delegating household responsibilities, a long or difficult trip to the stadium, or the possibility of bad weather.

Only 4% of the fans specifically mentioned in reply to this particular question that they preferred to watch television instead, though it should be noted that the availability of top-notch games on TV reinforces the other reasons given. This point is discussed further in the following section on television effects.

The one fan in eight who says he is already attending as much as he wants to is more likely to name television as the reason. More than 15% of this group say, "Why attend more when I can see them on TV?" Most of the other reasons refer in one way or another to a loss of interest in the game: the fan is older, his college ties are less close, he has become more interested in other activities, etc.

PLANS FOR 1953 ATTENDANCE

As we shall see, the pre-season intentions of fans are not always a reliable guide to their actual attendance. While almost half of all fans told us in September that they planned to attend one or more games in 1953, only two out of ten had actually carried out their intentions by the time the season ended.

Nevertheless, these pre-season intentions confirm some of the findings already reported about the nature of football interest, and they also explain something about the way attendance decisions are made.

For one thing, attendance decisions are made *early*. A check of the fans' actual attendance at the close of the season reveals that in two-thirds of the cases there had been a pre-season intention to attend that particular game. Only one-third of the attendances were not planned until after the season opened, and many of these must have been planned some weeks in advance. Last minute decisions to attend are quite rare.

Further, the pre-season plans for attendance are quite *specific*. Even before the season opened, the fans are surprisingly definite about the particular games they expect to attend. Among those expressing a pre-season plan to attend, for example, only 30% are unable to name any special game they expect to see. All the others mention particular games, some as many as three or four.

Indeed, almost half of these fans had already made their ticket arrangements in advance of the season. It is hard to think of any other branch of sports or entertainment in which such a large proportion of tickets are sold before the show even opens, before there is any real line on the quality of entertainment the fan is likely to see.

Analysis of the types of games the fans had already selected for attendance, in advance of the season, reveals again the narrowness of their interest. Over 80% of them planned to attend the games of only one college, and the most frequent reasons were again that this was the local team or the fan's alma mater.

IMPLICATION CONCERNING TV EFFECTS

It is sometimes predicted that if there were unlimited televising of college football games, TV would make new fans and, at least ultimately, increase attendances. In the light of the foregoing facts about the nature of the college football market, it would seem that such a view is based on easy optimism rather than hard study of the actual facts.

We have seen, for instance, that interest in college football is limited to only one person in three, and to a very special one person in three —the younger, the better educated, the wealthier. It is not inevitable, of course, that the market should always be confined to this minority, but one should recognize the many obstacles to its expansion.

By nature, the game is a college sport, and the non-college fan (85% of the population) automatically lacks most of the main incentives for interest. The best seats are reserved for alumni and students, and a large part of the game's appeal lies in the songs and cheers, the campus associations and the pleasures of meeting old friends and classmates, which the non-college attender cannot fully appreciate.

The data we have on the origin of football interest substantiate the view that it's hard to make new fans among the adult public. Fewer than one fan in five developed his interest in college football after the age of 21. Interest is created in boyhood or in high school or college days, and it declines sharply after the fan leaves college and acquires job and family responsibilities.

In our studies of fans in the two metropolitan areas of Boston and Pittsburgh in 1951, only one in a hundred credited television for his interest in college football. Two years later, in the current research, we again find only one in a hundred explaining that his interest was aroused through TV. Telecasts of Saturday afternoon football games have been widely available for five years now, and there is still no evidence that it is making new fans in any significant numbers.

Rather, it seems clear that television, along with radio and the sports pages of newspapers, serves almost entirely those fans who are already interested in the sport. The interest itself is developed from playing the game in boyhood, from knowing somebody who does, or from exposure to the school team in high school or college.

It should be recognized, too, that the interest of the average fan, while often intense, is very narrow. There are a few who follow all the teams and have dozens of favorites, but the majority restrict their major interest to one or two—usually the local college and/or their alma mater. Their attendance is likewise confined almost exclusively to the games of one team.

This is another factor which seriously limits the potentialities of television as a box office stimulant. Lacking the incentive of alumni status, the new fan, if he is made by television at all, is most likely to be made by showing him top performance and spectacular play. But the regular availability of such games on TV is not likely to encourage him to buy a ticket to his local college game; while even if he becomes interested in the distant teams he sees on television, he has no opportunity to patronize their stadiums.

Finally, it should be recalled that actual attendance at a game is a relatively infrequent occurrence for most fans, and one that is planned some time in advance. For the majority, game attendance is a special occasion which takes place only once every year or two.

While again there is no insuperable reason why this average frequency could not be increased, the fact should be faced that, in comparison with baseball, the movies or other spectator sports and amusements, the obstacles are great.

The game is fairly expensive to attend; travel to the stadium is often necessary, and advance ticket purchase is advisable to be sure of a good seat. Unlike many other sports attenders, college football fans seldom attend games alone, and this means that the company of a friend or group of friends must also be arranged in advance. The possibility of bad weather is a further deterrent to advance planning; the game is played outdoors and there are no "rain checks."

The heavy attenders in our sample (three games or more per year) are more often persons who live in small towns with a college stadium conveniently accessible. The average big city dweller, suburbanite or rural resident, unless he has exceptional means and exceptional interest in the sport, generally finds it difficult to plan more than one such attendance per year, if that.

Most fans are not wealthy and not fanatical in their devotion to football. They have job or family responsibilities which make attendance inconvenient, and they have other leisure time interests which compete with football for their time and dollars. The deterrents to attendance are already great, and they become even more so when televised games provide a convenient substitute for actual attendance.

In the next section we shall analyze the attendance patterns of various types of fans, and see how the TV effect so apparent in our study of the college attendance trends has actually come about.

III
TV EFFECTS ON FAN BEHAVIOR

The college attendance trends, as reported in Section I, have generally shown steady declines since 1947-48 in those areas where televised games were available, and rising attendances during the same period in areas where TV was not present. If our sample of fans is representative, the same patterns should be evident in their reports to us of their own attendance behavior.

We do not, of course, have complete histories of each fan's attendance from 1947 on, as we do in our data on paid admissions received from the colleges, so it is not possible to chart precise trends. But our interview data do provide some points of comparison between fans in television areas and those who are outside the range of TV.

These comparisons are necessarily restricted to 1951 and 1952, since by 1953 not enough of our fans remained in non-TV areas to make possible any effective comparison. Eighty percent of all fans were "on the network" last year, and many of the others had access to post-game films shown on local non-network TV stations.

Table 9 shows the contrasting reports of the two groups in pre-season 1953 concerning the date of their last previous attendance at a college football game. In both areas, the proportion who never attended is the same. But in television areas, 39% of the fans had not attended since 1950; in no-TV areas, only 27% had not attended since then. More than half of the no-TV fans had bought a ticket in one of the last two seasons; but where television was present, only 41% had attended in those years.

TABLE 9
YEAR OF LAST ATTENDANCE
Fans in Television vs. No-TV Areas

Last Game Attended	No-TV Areas	TV Areas
1952	30%	26%
1951	22	15
1950 or earlier	27	39
Never, can't remember	21	20
	100%	100%

The fact that the fans' own attendance reports reflect a falling off in television areas, as compared with no-TV areas, further documents the obvious. The findings are right in line with the college attendance trends reported in Section I. Additional confirmation of those findings is revealed when we look at the number of games per season attended by fans in the two types of areas.

Table 10 shows the proportion of fans in each area who attended no games in either 1951 or 1952, and also the proportion who attended one game vs. two or more games in either of those seasons. As we see, the attendance loss has affected chiefly the "marginal fans," who attend only one game every year or so.

In areas without TV, one-third of the fans were in this single-game attendance category, but where television was present, it is apparent that a substantial portion of them had drifted into the "no attendance" group. In contrast, the loss among the heavy attenders, who bought tickets to two or more games per season, is much more moderate.

TABLE 10
GAMES ATTENDED PER SEASON, 1951-1952
Fans in Television vs. No-TV Areas

No. of Games Attended	No-TV Areas	TV Areas
No attendance	48%	59%
One game	33	24
Two or more games	19	17
	100%	100%

The foregoing tables assume, of course, that the two groups of fans, in TV areas and no-TV areas, are strictly comparable with one another in terms of the other variables which are known to affect football attendance. Thus, if the fans in no-TV areas are much more interested in college football, or have significantly higher incomes, these characteristics, rather than the absence of television, might account for their higher attendance.

Ideally, one would assure the comparability of the two groups in the same way we did for the colleges in our analysis of the trends in their paid admissions. That is, we would ascertain the attendance patterns of the fans in both types of areas before television, in 1947-48, and then contrast their attendance behavior since that time. To do this, however, would have required annual interviews with the fans during each of the last seven seasons. Memories are too unreliable to ask people to recall several years later the number and names of football games they attended so long ago.

But there are a number of indirect methods of assuring the comparability of our two sets of fans. It has already been shown in Table 9, for example, that the proportion of non-attenders in both types of areas is almost exactly the same—proof that neither group contains a markedly higher proportion of less interested fans who never attend.

It is also possible to examine the two groups in terms of their major factual characteristics: age, sex, income, education and occupation. As far as age, sex and income are concerned, no significant differences are found, and the two groups may be accepted as truly comparable.

In respect to education and occupation, however, the fans in no-TV areas, though no wealthier and no younger than their counterparts, were slightly but significantly better educated and more likely to be employed in professional or managerial jobs. These facts could conceivably explain some part of their greater attendance at games. On closer analysis, however, it was found that the educational differences between the two groups occur almost entirely among the non-attenders, and that the characteristics of the attenders are almost identical.

The final test was a comparison of the two sets of fans with reference to their interest in college football, and again no significant difference was found. The no-TV group included slightly more who claimed a "great deal" of interest, but it also included slightly more of those claiming "only a little" interest. All differences were minor.

In summary, we can accept the fact that the fans in areas where TV was present in 1952 had no markedly different characteristics from the fans in areas where television was not available. Yet in TV areas, fewer fans attended at all in 1951 and 1952, and even those who did attend went to fewer games.

Table 11, which presents the attendance behavior only of the greatly interested fans in the two types of areas, shows dramatically how the availability of televised games helps *satisfy* this interest, and consequently reduces attendance.

TABLE 11

GAMES ATTENDED PER SEASON, 1951-1952
GREATLY INTERESTED FANS ONLY
TV Areas vs. No-TV Areas

No. of Games Attended	No-TV Areas	TV Areas
No attendance	30%	50%
One game	40	28
Two or more games	30	22
	100%	100%

These are the fans who say they take "a great deal of interest" in college football. Yet when televised games are available to them, only half of them patronize the stadiums, in contrast to 70% when TV is absent. Note, too, that while the heavy attenders in TV areas attend fewer games, the decline in attendance among the one-game attenders is even greater. Even among this greatly interested group, it is the fan who used to get out to only one game a year that has become television's biggest casualty.

In weighing the many factors other than television which might account for the higher fan attendances in areas without TV, we have seen that the two groups of fans are equivalent in terms of such personal characteristics as age, sex, income, interest, etc. But with regard to the availability of college football games and ease of reaching them —two factors which would tend to encourage attendance—the television areas have a definite advantage which probably understates the magnitude of television effect shown in Tables 9, 10 and 11.

Areas without television in 1951 and 1952 were the smaller urban and rural centers which have few large colleges within commuting range, and this circumstance is reflected both in the kinds of teams that fans in no-TV areas regularly follow

and in the reasons they give for failing to attend more often.

Thus, while only 11% of the TV group mentioned small or medium colleges as their favorite, 28% of the fans in non-television areas reported that they regularly follow such smaller teams. Fans in no-TV areas were less likely, too, to mention local colleges, reflecting the fact that often there is no local team available for them to identify with.

When asked whether they would like to attend more games if they could, 90% of the no-TV fans answered "Yes", compared with 86% of the fans in television areas. But over 40% of the no-TV group explained their lack of greater attendance in terms of the distance it was necessary to travel or of transportation difficulties. Only 18% of the TV group gave this as a reason.

As noted, the fans in television areas are more likely to follow the large colleges and the local colleges. But they also seem less intense in their support of particular teams, and more likely to shift their interest from one college to another, depending upon performance.

Thus, while 84% of the fans in no-TV areas mentioned specific teams they follow "year in and year out," only 77% of the TV-area fans had any special favorites. And while only 12% of the no-TV fans explained their preference in terms of the team's superior performance, high performance and top ratings were the reasons for the choice of TV-area fans in 30% of the cases.

"MARGINAL FANS" AND "ARDENT FANS"

It was earlier found that TV competition hurts big college games more than small college ones, and attractive games more than less attractive ones. In explaining this finding, we hypothesized that the larger colleges and the more attractive games were patronized more heavily by the "marginal fan," while the small college, less attractive games were attended largely by regular or "ardent fans."

We further hypothesized that the marginal fan, who attends only one game every year or so, seeks an attractive game for his occasional attendance, and is more susceptible to TV competition than is the ardent fan who regularly attends even the less attractive games. The following section attempts to define these two different types of fans more fully, and to examine in greater detail their reactions to TV competition.

The marginal fan is here defined as a person with some interest in college football who attends no more than one game per season and who may not attend at all. The ardent fan is one who attends two or more games per season.

The marginal fan, as we shall see, has a less intense interest in the sport, is less likely to have any particular college attachments, has somewhat less income, and watches television more frequently as a means of satisfying his sports interest. When he does attend a game, he tries to pick one of the big games of a larger college.

The ardent fan, on the other hand, is more intensely interested in college football. He is more often in the upper income brackets, and more likely to be an alumnus or related to a student or alumnus of the college he loyally supports. While the attractiveness of each game is still a factor in determining his attendance decisions, it is less important to him than the mere desire to see his favorite team in action. In consequence, he is more likely to support even the less attractive games of his favorite college.

The relationship of interest to regularity of attendance was shown earlier in Table 5. It will be recalled that while about two-thirds of the heavy attenders had a "very great" interest in college football, fewer than half of the one-game attenders and fewer than a third of the non-attenders had this high interest. Table 12 shows the relationship of income and education to frequency of attendance, using 1953 attendance data.

TABLE 12
1953 GAME ATTENDANCE BY INCOME, EDUCATION

	Games Attended In 1953			
	Marginal Fans		Ardent Fans	
	None	One	Two	3-Plus
Income				
Under $5,000	60%	37%	24%	24%
$5,000 — $7,999	30	47	56	19
$8,000 or more	10	16	20	57
	100%	100%	100%	100%
Education				
College	36%	50%	73%	79%
High school	50	47	24	21
Grammar school	14	3	3	—
	100%	100%	100%	100%

Three-fourths of the ardent fans have attended college, but fewer than half of the marginal fans have any college attachments. The marginal fans also are markedly less wealthy, with the difference particularly pronounced in the extreme groups. Only 10% of the non-attending fans have incomes as high as $8,000 per year, but a sizable majority of the most frequent attenders are in that income group.

Analysis in terms of occupation reveals the same pattern. The ardent fans are more often in professional or managerial jobs; the marginal fans are more frequently employed at skilled or semi-skilled labor.

Geographically, the ardent fans are more heavily concentrated in medium sized urban communities where there are usually fewer competing sports attractions. One fan in every six living in such communities attended two or more games in 1953, in contrast to one in twelve or fifteen of the fans in big cities and rural areas.

About an equal number of marginal and ardent fans first became interested in college football by playing the game in high school or on sandlots, or by being taken to games by friends or relatives. Ardent fans, however, more frequently explained that their interest was aroused while attending college. Marginal fans were more likely to say they became interested through hearing others talk about the games.

The seven fans in our sample (slightly less than 1%) who credited their interest in the sport to television were in every case marginal fans. Five of them were non-attenders; two had attended one game. None of the heavy attenders mentioned TV as responsible for their interest.

Marginal fans have fewer specific team loyalties. Thirty percent of the "stay-at-home" fans and 9% of the one-game attenders said there is no particular team that they follow regularly every season. In contrast, only 3% of the ardent fans had no favorites.

The reasons the two types of fans give for following their favorite teams emphasize their differing approach to the sport. Thirty-seven percent of the ardent fans explained that they were alumni of the particular college; among marginal fans, only 15% gave this reason.

More important, only 5% of the ardent fans explained their choice in terms of the performance of the team. But among the marginal fans, this was usually the chief reason mentioned. Forty-three percent of the non-attending fans said they follow the teams they favor because "it's the best team, a top team, they always put on a good show," etc., and 23% of the one-game attenders answered in these terms.

The types of games they attend also reflect the different interests of the two types of fans. Analysis of the 1953 attendances of our sample shows that almost half the games attended by the ardent fans were medium or small college contests, while only 19% of the marginal fans attended the games of smaller colleges.

Forty percent of the games attended by the ardent fans involved their alma mater; only 19% of the marginal fans had any alumni attachment to either of the contesting colleges. Finally, 21% of the ardent fans attended less attractive games, in contrast to only 12% of the marginal fans.

TV HABITS OF MARGINAL AND ARDENT FANS

While the telecasting of college football games offers a substitute for attendance to both marginal and ardent fans, we have hypothesized that it is the marginal fan who is *most* affected.

His interest in the sport is less intense, he has less money, less often has any attachment to a particular college, and he is more attracted by large-college, top performance football. In such circumstances, the availability of television can satisfy his interest, with little loss of the gratifications he gets out of attendance.

The ardent fan, on the other hand, takes a greater interest in the sport, has more money to spend on it, and is usually attached to a particular college because of alumni status or other close connection. Television to him, at least as the NCAA has restricted it, is a much less satisfactory substitute than it is to the marginal fan. He misses the campus atmosphere of actual attendance (which does not mean much to the marginal fan), and he is less interested in the Game of the Week on TV than he is in watching his own alma mater or local team play.

That even the ardent fan in TV areas has reduced his attendance is quite clear, but we have noticed that the attendance loss is greater among the marginal fans who used to attend one game every year or so, and who now do not attend at all. This was shown not only in Tables 9, 10 and 11, but also in the fact that the large-college, attractive games which depend more heavily on marginal fan attendance have been hit harder than small-college, less attractive games.

A brief summary of the televiewing habits of the two types of fans adds further evidence in support of the above theory. It is clear that the Game of the Week telecasts have had a greater impact on the marginal than on the ardent fan.

Thus, while only two-thirds of the marginal fans own television sets, as compared with more than four-fifths of the ardent group, and though the ardent fans have a greater interest in college football, both the owner and non-owner fans in the marginal group manage to watch the Game of the Week telecasts more frequently than the ardent fans.

Table 13 shows the frequency of viewing for the two types of fans in 1952. The 1953 experience is reserved for the final section of this report, covering fan behavior during the most recent season.

TABLE 13

GAME OF THE WEEK TELEVIEWING, 1952

Marginal vs. Ardent Fans

Frequency of Viewing	Marginal	Ardent
Almost every week	21%	17%
About half of them	23	22
Three or four	10	12
One or two	18	15
None of them	28	34
	100%	100%

We have remarked in earlier reports that TV ownership is not necessary to the viewing of sports events on television, since in areas where reception is possible most sports fans have easy access to TV sets in the homes of friends or in bars or other public places. This finding is confirmed by the fact that 71% of our non-owner fans say they watch sports events on television at least "occasionally."

Again, among these football fans who do not own television sets, it is the marginal fan who exceeds the ardent one in the frequency of his televiewing. The ardent fan who does not own a TV set seems to continue his normal pattern of heavy attendance. The marginal fan within this non-owning group appears rather to decrease his occasional attendance and instead to seek out a television set on which he can view his favorite sports events. Table 14 shows the reported frequency of non-owner viewing.

TABLE 14

NON-OWNER SPORTS VIEWING ON TV

Marginal vs. Ardent Fans

Frequency	Marginal	Ardent
Quite often	21%	10%
Occasionally	52	41
Hardly ever	24	28
Never	3	21
	100%	100%

The greater appeal of television to the marginal fans can also be observed in the replies of our sample to the question: "What do you particularly like about watching college football games on television, as compared with actually attending at the stadium?" This was asked of all fans who said they had viewed one or more NCAA telecasts in 1952, and the replies are tabulated in Table 15.

The marginal fans mention more advantages of television than the ardent fans do, and they are also less likely to reject TV entirely and say it has no advantages at all over actual attendance. One ardent fan out of every three dislikes watching the games on television, but among the marginal fans, fewer than one in four insist that it can't take the place of actual attendance.

The reasons given by the two groups of fans also illuminate the differences in their approach to the sport. The marginal fans, who are less able to afford the best seats and who have less knowledge of the intricacies of the game, are much more likely to explain that on television "You can see it better, you have a close-up view of the action, they explain what's going on."

Marginal fans, too, are much more likely to stress the convenience and comfort of televiewing, as compared to attendance at the stadium. More often than the ardent fans they speak of avoiding the crowds, the traffic, the parking difficulties, and they emphasize the comfort of relaxing at home without the effort of getting dressed to go out.

TABLE 15

ADVANTAGES OF TELEVISED FOOTBALL AS COMPARED TO GAME ATTENDANCE

	All Fans	Marginal Fans	Ardent Fans
You get a better view, can see the plays better, understand it better	46%	48%	38%
More comfortable at home, can relax	16	17	12
Avoid crowds, travel, parking, traffic	9	11	3
Avoid cold or wet weather	9	9	10
It's cheaper, it's free	8	10	5
Takes less time, can do other things too	7	8	4
Can see non-local games	3	2	9
Miscellaneous	2	2	1
No advantage, don't like TV at all	26	23	33
Some fans gave more than one reason	126%	130%	115%

The only advantage of television which the ardent fans mention more often than the marginal is the opportunity it offers of watching games which they would otherwise be unable to see. The marginal fan, with his more generalized interest in the sport, is more likely to regard one game as good as another. The ardent fan, on the other hand, is more likely to appreciate the opportunity he gets through TV to watch particular teams or particular games that he could not attend locally.

All types of fans appear to watch and to enjoy post-game films of college football on television. Two fans out of every three had seen such films in the past, according to their 1953 pre-season reports, and of those who had watched them, about the same proportion said they enjoyed them "a great deal."

In this case, however, it is the ardent fans who watch and appreciate the post-game films more than the marginal fans do. The ardent fans, with their greater interest in the sport, more frequently explain that the films give them a chance to see "the key plays," "the highlights" of important games they would otherwise miss. Marginal fans are more likely to say that the game is over, they know the score and there is no suspense. Table 16 shows the proportions watching and enjoying post-game films.

Ardent fans also express somewhat more interest than the marginal ones in the possibility of theatre television, though among both groups of fans it is clear that theatre TV has a limited appeal. In part, this may be due to the relative unfamiliarity of the medium. Interviewers frequently reported that fans (especially in rural and smaller urban centers) found it hard to imagine live telecasts of college football games on their local movie screen.

When asked, "As far as you know, will any of the college football games this season be televised in movie theatres on Saturday afternoons around here?", only 4% of all fans said there would be such theatre telecasts in their area—and some of those may have been misinformed.

TABLE 16

EXTENT OF WATCHING POST-GAME FILMS ON TV AND DEGREE OF ENJOYMENT

	All Fans	Marginal Fans	Ardent Fans
Have watched films	66%	65%	75%
Have never watched them	34	35	25
	100%	100%	100%
Those watching			
Enjoy them a great deal	63%	60%	82%
Enjoy them a little	30	33	13
Don't enjoy them at all	7	7	5
	100%	100%	100%

Our major question relating to theatre television was put in the following terms: "Suppose some college football game *that you were interested in* was being televised in a local movie theatre here, with an admission price of a dollar a ticket—and some other college football game was on the regular television at home. Would you be likely to buy a ticket at the theatre to watch the game being televised there?"

Only 28% of the fans indicated that they would be likely to attend a theatre telecast under such conditions, though among the ardent fans the proportion rose to 36%. The most important reasons given were that it wasn't worth the trouble of leaving home and traveling to the theatre, it wasn't worth an admission price of a dollar, or one game on TV is just about as good as another.

Obviously, for many fans, and particularly for the ardent ones, the chance to see their favorite team on theatre TV, when it is not available elsewhere, is worth the trouble and expense. But for the great majority, *any* game which is available on home television at no cost is favored over even a more attractive game which can only be seen at the price of getting dressed, leaving the house, traveling to the theatre and paying an admission charge.

KNOWLEDGE OF THE NCAA PROGRAM AND PLANS TO WATCH

In discussing the pre-season attendance plans of our sample of fans, we remarked on the surprisingly firm and specific intentions they had. Two-thirds of the actual game attendances which took place were already planned in advance of the season; of those who expected to see at least one game during the year, more than two-thirds named particular games that they expected to see; and almost half of those who planned attendance had already made arrangements for their tickets.

In striking contrast to their attendance plans, the knowledge and intentions of fans regarding the schedule of televised games were very hazy. The great majority told us just before the 1953 season opened that they expected to watch the televised games on at least half the Saturdays, but only one fan in three had any idea at all of the particular games that would be televised, and only a minority expressed any awareness of the NCAA restrictions on the number and type of telecasts that the colleges permit.

When asked, "As far as you know, are there any restrictions on the televising of college football games, or is any college free to televise if it wants to?", only four out of ten fans said they were aware of any restrictions. About one in four thought any college was free to televise if it wants to and a third said they didn't know if there were restrictions or not.

Further, only half of the "aware" group had any kind of correct knowledge of the nature of the restrictions. When asked to state what sorts of restrictions existed, only about 20% of all fans correctly mentioned the NCAA program, the "only one game per Saturday" rule, or the fact that no college could appear more than once.

The remainder of those who said there were "restrictions" either did not know what they were or gave some incorrect answer. The most frequent misconceptions were that the televising team needs permission from its league or conference, that only sellout games are televised, and that games are never televised locally.

The minority of ardent fans were, of course, considerably more aware of the NCAA program than were the marginal group. Sixty percent of the ardent fans knew that the number of telecasts was limited, and about half of all the ardent fans were correctly informed of the nature of the restrictions. In contrast, only about a third of the marginal group knew of any restrictions, and only about one-sixth had correct knowledge.

Regardless of their knowledge or ignorance of the NCAA restrictions, the great majority of fans in television areas were confident that at least one game would be brought to them every Saturday afternoon. While 30% said they weren't sure there would be a game on TV every Saturday, only 9% had the mistaken view that "there will be some Saturdays when there aren't any college games on television." Again, it was the ardent fans who were better informed.

But when fans in television areas were asked, "Do you happen to know any of the games that are going to be televised this season?", the amount of ignorance was huge. Only one-third of all fans in TV areas claimed any knowledge at all of any of the games that had been announced for televising. Two-thirds said flatly that they did not know a single game on the schedule.

Furthermore, the knowledge of the one-third who did claim awareness was as often as not either very hazy or completely inaccurate. More than half of this group proved unable to name correctly the opposing teams in a single game. The only game to be mentioned correctly by as many as 5% of the fans was Army-Navy. Second was California-Ohio State, which happened to be televised during the week that most of our interviewing took place. Third was the Rose Bowl, which was not even on the NCAA schedule.

It is abundantly clear that while most fans fully expected a game to be available to them on television every Saturday afternoon, only about one fan in eight could name *any* of the particular games that were to be televised, and even fewer had a more detailed knowledge of the schedule. This fact is important in evaluating the impact of TV on attendance under the NCAA plan, and we shall allude to it again at the end of this section.

Lack of information about the schedule, however, did not deter the fans from intending to

watch the televised games very often. In spite of their ignorance regarding which particular games would be found on the screen, more than four out of five fans in television areas said they expected to watch at least one game during 1953, and three out of five planned to view their TV sets on at least half the Saturdays. The pre-season TV intentions are shown in Table 17.

TABLE 17

PRE-SEASON TELEVIEWING INTENTIONS, 1953
Fans in TV Areas Only

Expect to watch	All Fans	Marginal Fans	Ardent Fans
Almost every Saturday	32%	33%	26%
About half the Saturdays	29	29	29
Just once or twice	17	16	19
Not sure how often	4	5	2
Total planning to watch	82%	83%	76%
Don't plan to watch at all	13	13	9
May watch some, may not	5	4	15
	100%	100%	100%

It will be noted that marginal fans are much more positive about their intentions. More of them plan to watch the games and they plan to watch more frequently; yet more of this group say they don't expect to watch any at all. The ardent fans are more likely to express uncertainty.

The fact that marginal fans, more than ardent, say they do not intend to watch the televised games is not unexpected, given their lower interest in the sport and their more frequent lack of television ownership. But the fact that more of the marginal fans *do* plan to watch television, and that a third of them, in contrast to only a fourth of the ardent fans, expect to watch the games "almost every Saturday," is impressive evidence of TV's appeal to this marginal group.

That 15% of the ardent fans, in contrast to only 4% of the marginal group, say they don't know whether or not they'll watch television is doubtless explained by the more specific interests of this group and by their ignorance of the TV schedule.

If a team in which the ardent fan is particularly interested is available on television, he will probably watch it. But his interests are usually specific, and if some other game is on TV, he is more likely to attend his local stadium or follow one of his favorites on the radio. To the marginal fan, with his more generalized interest in the sport, one game is much like another, and as long as he's assured of a satisfactory game on TV every week, he will tend to make plans to watch it.

IMPLICATIONS FOR TV EFFECT

The conceptions that fans have concerning the televised football schedule is a very important determinant of the magnitude of TV effects on game attendance. In 1953 most fans were aware that a game would be televised every Saturday, and this was a substantial deterrent to attendance.

We have shown how the deterrent effects operate. The fan knows that he no longer has to go to the stadium to see a football game, but can enjoy a good seat right at home. Game attendance requires advance planning and involves the expense and discomfort of travel to the stadium, as well as a risk of bad weather. Particularly if the fan has no special interest in a particular college and if he enjoys only an average income, TV will almost completely satisfy his football interest.

On the other hand, if fans knew there would not be *any* televised football, these deterrent effects would not operate. A game could then be seen only through actual purchase of a ticket and attendance at the stadium. Even though this meant some inconvenience and expense in planning ahead, in getting good seats, in traveling to the stadium, it would be the *only* way the fan could see a game and thus satisfy his interest.

But while fans in 1953 knew that there would be a game available on TV every week, they did *not* know which games those would be. This ignorance is an almost inevitable result of the present complicated "ground rules" for the NCAA plan; the same lack of information was found in our previous interview research in 1951.

The reason is that the Game of the Week must give representation to all regions of the country and to as many different colleges as possible, with no team appearing more than once. As a result, the fan is given a bewildering variety of games, involving some colleges he has hardly even heard of and seeming to follow no set pattern.

One week it might be a "top game"; the next week it may feature two teams from some remote part of the country which have only mediocre records. Unless the fan makes a special effort to post himself on the schedule (which obviously few do), he just has to take the games as they come, and the *particular* game available on TV on a particular Saturday is not likely to affect his attendance decisions.

This is the most likely explanation of our failure to find any consistent attendance differences when the TV game originates in the same region as the local college, as compared with when the TV game comes from a more distant part of the country. Decisions to attend or not to attend are made on the assumption that "a game" will be available on television that Saturday, but without any specific knowledge of whether it will be a nearby game or a distant game, a "big game" or one of only routine interest.

Fans' *preferences* as to a television schedule may be judged from the answers they gave to our pre-season question: "Are there any college games being played this season that you would especially like to see on television, if you could?" More than 70% of the fans in TV areas had definite selections, and the nature of their choices is illuminating.

Ninety-three percent of the games mentioned involved large colleges; only 7% were medium or small-college games. More than three-fourths of the games involved colleges that the fans follow regularly "year in and year out."

More important, three out of every four games selected were games played within the fan's own geographical region, which he could presumably have attended. Only one-fourth of the choices were for distant games. Actually about a third of the games mentioned were played right in the fan's own area, within easy commuting range.

The interview findings have emphasized that fan *interest* is overwhelmingly centered on local and nearby colleges, and that their *preferences for televised games*, as just noted, are similarly centered on teams within their own geographical region.

Under the present NCAA rules, the fan knows that on any given Saturday he has considerably less than an even chance of being shown a game involving nearby teams whose fortunes he follows at all. He knows, too, that there's a very good chance the Game of the Week will show two teams that he has virtually no interest in. Yet even under these conditions we have observed a heavy television effect.

There can be little doubt that if the NCAA program were to show only regional games to the fans in all parts of the country, and if the fans knew they could count on such a schedule, the adverse TV effects that we have shown in this report would be very much greater.

The implications of any return to an unlimited television policy, in which most major colleges throughout the country would televise their full home schedules nationally or regionally, and in which fans in most areas would have a choice of two, three or even four or more big games on TV every Saturday, are many times more serious to contemplate.

THE "NOVELTY EFFECT"

It was hypothesized by some in 1949 that television's effects on attendance were due to the novelty of the medium, and that when sports fans had owned their TV sets for two years or so, this novelty would wear off and they would resume their old attendance habits. This theory was first propounded by Jerry Jordan, and subsequently taken up by the Radio-Television Manufacturers Association.

It bears repeating that the original research which gave rise to this theory was based on a single graduate student study, conducted on a small sample of fans in a single area, in the year 1949, with no controls over the comparability of the groups whose behavior was contrasted. No research involving controlled comparisons has ever duplicated that finding for college football or any other sports activity, and it has been refuted not only by the large-scale NORC studies over a four-year period, but also by the college attendance trends in more recent years when the novelty of television may be presumed to have worn off.

Jordan's original report said that "by 1950, long-term (television) owners will outnumber the new owners. This should mean balancing out part of the hurt from new owners, and eventually the elimination of much of the worry over TV." When attendance in TV areas, far from picking up in 1950, fell even more drastically, it was then stated that most owners had not yet had their sets for more than a year and that when that stage was reached (in 1951), "my studies indicate that attendance picks up again."

It failed to "pick up" in 1951, and again in 1952, and again in 1953, in spite of the fact that by this time most TV-owners had had their sets a good deal longer than one year. Yet in 1954, it has again been stated by Jordan in a pamphlet circulated by the Radio-Television Manufacturers Association that the novelty of TV has finally worn off, and a rise in attendance may be expected next year as fans "return to their normal habits."

NORC's Report No. 4 last year effectively refuted the "novelty theory" of TV effects, first in terms of the research design which suggested it, and second in terms of actual attendance experience since the theory was first propounded. We raise the matter again here because it now becomes possible for the first time to refute the theory on the basis of interview data comprising the reports of football fans concerning their own attendance behavior.

About half of all fans in television areas in 1953 told us that last season was the *fourth* year in which they could watch televised football games on their own TV sets. About one fan in five had owned his set for three seasons, 14% for two seasons, and 13% said this was the first year they could watch the Game of the Week telecasts at home. By comparing the actual attendance behavior of these varying groups of TV owners in 1953, a conclusive test of the "novelty theory" is possible.

According to the "novelty" hypothesis, the attendance of the first-year TV owners should have declined sharply in 1953 as they devoted their attention to their new television sets and stayed home to watch the sports telecasts. But the two, three and especially the four-year owners should have "returned to their normal habits" and attended football games as they did back in 1947, 1948 and 1949.

As Table 18 reveals, the actual findings are completely contrary to the "novelty theory."

TABLE 18

1953 COLLEGE FOOTBALL ATTENDANCE BY LENGTH OF TV OWNERSHIP

Number of Games Attended in 1953	No. Years TV Ownership: One Year	2-3 Years	4-Plus Years
None	69%	73%	84%
One	10	17	8
Two	13	4	3
Three or more	8	6	5
	100%	100%	100%

The new television owners were *most* likely to attend a game in 1953; those who owned their sets for the longest period of time were *least* likely to attend any game. Not only are the long-term owners less likely to attend, but those who do attend patronize fewer games. Among the new owners, 21% attended two or more games in 1953; among the long-term owners, only 8% attended as many as two games.

To assure ourselves that the group differences revealed by Table 18 are not due to higher income or greater football interest on the part of the new television owners, the three groups were compared in terms of these characteristics. As expected, while the differences are not large, they show that if anything, it is the older owners who are better off financially and who have a higher interest in the sport. This is in keeping with the known facts that sports fans and upper income groups were the first to obtain television sets.

The findings are also in line with the known facts about TV ownership and college football attendance in recent years. In 1951, when almost 40% of the television sets were less than a year old, the TV differential was only 18.6%. In 1952 when only one-fourth of the sets were in the hands of new owners, the TV differential had jumped to 26.7%; and, instead of declining, it kept on increasing in 1953.

It is plausible and no doubt true that a new TV owner will spend a good many hours watching his set, acquainting himself with all the programs it has to offer, and then, when the novelty has worn off, become more selective in his viewing. But it is difficult to see why a football fan who has reduced his attendance because of television should later resume his old habits.

He will less often watch programs of marginal interest to him. He will spend less time viewing sports events that he would not attend in any case. But if he has the opportunity, on his set at home without any charge, to watch a college football game that interests him and which he could not otherwise see without buying a ticket, there would certainly appear to be less incentive for him to go out to the stadium—no matter how long he has owned his set.

Rather, it appears that *watching the telecasts of games breaks the habit of attendance and becomes a new habit itself.* Those who attend a football game one season are more likely to attend the next season as well. If they fail to attend one season, they are less likely to attend the next season either. The new TV owner may continue his old attendance patterns for awhile and use television only on the other Saturday afternoons, but gradually TV becomes a substitute for frequent attendance, and then a substitute for all attendance.

IV
THE RECORD IN 1953

The information in the two preceding sections of this report has been based largely on the *pre-season* interviews that were conducted with the cross-section of fans in late September 1953. A month later the same fans were telephoned or re-visited, to ascertain their attendance and tele-viewing behavior during the first half of the season; and in the last week of November a final interview was held to get a record of their behavior in the second half of the season.

It is indicative of the interest of these football fans in the content of the interview that only 3% of those who cooperated in the first interview were unwilling to answer our questions on both of the two later calls that were made upon them. An additional 5% of the cases were "lost" because the fan had moved to some area we were unable to reach, or was out of town or ill for a long period. More than nine out of every ten fans, however, gave us a complete account of their 1953 sports activities.

Time and funds have not permitted the detailed analysis of these data which would ideally be desirable. We have, however, carried out the major tabulations which give us a broad picture of the activity of college football fans during the course of the season.

The first point worthy of notice is one that has been alluded to several times earlier in this report. That is: Only a small minority of fans actually attend a game during any season. For most of them, attendance is a special occasion which takes place only every year or two—or three.

Attendance patterns seem fairly regular, too. If the fan is accustomed to seeing a game or two every year, he tends to keep up the habit. But if he becomes accustomed to non-attending, it is very difficult to get him out to the stadium. Thus, of the fans who attended in 1953, seven out of eight had also attended in 1951 or 1952. And of those fans who failed to attend in 1953, two out of three were non-attenders in each of the preceding seasons.

In 1953, a total of 20% of all fans managed to attend one or more games. Most of these (12%) attended only one game, while 4% attended two games, and the remaining 4% attended three or more. Eighty percent of all fans failed to attend at all during 1953.

On any given Saturday, the proportion of fans actually attending a college game averaged 3%.* But well over half of the remainder were satisfying their football interest either by watching the Game of the Week on television or by listening to one or more college games on the radio.

Table 19 shows a composite picture of what fans in television areas were doing on Saturday afternoons during the season, and how these activities differed for heavy attenders, light attenders and non-attenders.

*Unless specially noted otherwise, all succeeding percentages and tables in this section dealing with 1953 behavior refer to fans *in TV areas only*, where 80% of the fans and 90% of the game opportunities were located.

TABLE 19
1953 SATURDAY AFTERNOON ACTIVITIES OF FANS IN TV AREAS
Average of 11 Saturdays During Football Season

	All Fans	Attended: No Games	Attended: One Game	Attended: Two Games	Attended: 3-Plus Games
Attended a college game	3%	—%	8%	15%	32%
Watched Game of Week on TV	23	23	25	24	24
Listened to college game on radio	34	35	36	21	26
Did something else	40	42	31	40	18
	100%	100%	100%	100%	100%

Forty percent of all fans were doing "something else" on Saturday afternoons, but 18% or almost half of these were employed on their jobs. Thus, only 23%—fewer than one fan in four—who had the opportunity to listen to, watch or attend a college football game failed to do so on the average Saturday afternoon.

The very heavy attenders, in the last column of the table, show an extreme devotion to college football. On any given Saturday, one-third of

them could be found in the stadiums, and three-fourths of the others would either be watching the televised game or following a college game on the radio. Only 18% of the group would usually be doing anything else except following college football.

Even among the non-attenders, however, more than half were satisfying their football interest by means of television or radio.

ANALYSIS OF ATTENDANCE

The fact that only three fans in a hundred attended a game on any given Saturday afternoon must be evaluated in the light of the opportunities available for attendance. In non-television areas, for example, in 80% of the cases, there was no local game for the fan to attend. Either he lived in an area some distance from any football-playing college, or the local team was playing away.

Even in television areas, no game was available for the fan to attend on 29% of the Saturday afternoons. Put another way, on three of the eleven weekends the average fan had no opportunity to attend.

We have seen furthermore that most fans have only one or two favorite teams, and that they concentrate their interest, and even more their attendance, on those colleges. In the majority of cases in which a game was available to the fan locally, it involved teams in which he took no special interest.

Consequently, unless the fan was prepared to travel 150-200 miles or more to see his favorite team, or unless he just wanted to attend a game and didn't care which teams were playing, there were only three or four Saturdays during the 11-week season in which he had a real opportunity and incentive to buy a ticket.

Table 20 shows the percentage of Saturdays on which local games were available to the different types of fans, and the proportion of fans which took advantage of the home games of their favorite teams.

TABLE 20

PERCENT OF SATURDAYS ON WHICH LOCAL GAME AVAILABLE

	All Fans	Attended			
		No Games	One Game	Two Games	3-Plus Games
No local game available	29%	28%	26%	38%	33%
Local game available	(71)	(72)	(74)	(62)	(67)
No special interest in teams	41	43	32	36	30
Fan interested in teams	30	29	42	26	37
	100%	100%	100%	100%	100%
Percent of Saturdays* on which fan attended a game	3%	—%	8%	15%	32%
Percent of favorable opportunities resulting in attendance	10%	—%	19%	58%	86%

*Attendances on non-Saturday dates are included in the overall classification of fans which is based on the season's record but are not included in the Saturday percentages.

Marginal fans—the no- and one-game attenders—had somewhat more opportunities to attend local games. For them local games were available almost three-fourths of the Saturdays; for the ardent fans, local games were played on only about two-thirds of the possible dates. We have seen that marginal fans are more likely to reside in the larger cities, while ardent fans are more frequently found in smaller communities which have only one local college.

It is apparent that the very heavy attenders, in the last column of the table, took advantage of almost every opportunity they had to attend the local games that interested them. On only 37% of the Saturdays were such games available, but they attended on 32% of the weekends—or 86% of the favorable opportunities. The two-game attenders had such opportunities on only 26% of the Saturdays, but they attended on 15% of them.

In contrast, among the no-game attenders, local games involving teams that they especially followed were available on 29% of the Saturdays; but they failed to attend any of them. The one-game attenders had a chance to see their favorite team play locally on 42% of the Saturdays and attended only 8% of the time.

Expressed in another way, it may be said that all fans in general took advantage of only 10% of their opportunities to attend a game in which their favorite team was playing locally. The very heavy attenders took advantage of almost 90% of such chances; the two-game attenders went on

almost 60% of these occasions, and the one-game attenders bought a ticket only 20% of the times when conditions were so favorable. The non-attenders, of course, passed up all these opportunities.

Since the ardent fans usually went out to the stadium every Saturday when their favorite team was playing at home, it may be seen that they took advantage of television and radio only when such opportunities for attendance were not available to them. Marginal fans, on the other hand, used TV and radio as a substitute for attendance. Even when their favorite teams were playing locally, the majority of them preferred to watch television or listen to a game on the radio.

The types of games attended in 1953, and the variation in attendance patterns between occasional and heavy attenders, parallel the findings reported in Section III for earlier years and are summarized only briefly here.

Two-thirds of all attendances reported by our sample of fans were large-college games. The figure, incidentally, attests to the accuracy of this cross-section of fans, since college attendance reports indicate that large-college games account for just over two-thirds of the total attendance.

Among the marginal fans, however—those who attended only one game—81% selected large-college games. In contrast, almost half of the games patronized by the ardent fans, the heavy attenders, were medium or small-college games. Likewise, four out of ten attendances by ardent fans involved a game played by their alma mater, compared to only 19% of the attendances of marginal fans.

As in previous years, almost 90% of the attendances involved teams in which the respondent took a special interest. And ardent fans again were found more likely to patronize the less attractive games. Only 12% of the marginal fans attended less attractive games, while 21% of the games attended by the ardent fans were of this type.

Confirming the attendance analysis, the origin of the televised Game of the Week—regional vs. distant—did not affect fans' attendances significantly. As demonstrated in the preceding section, the television schedule is largely unknown when the great majority of attendance decisions are made.

Slightly less travel was reported by our fans in 1953 than in previous years. Only 1% of all attendances involved travel outside the fan's own NCAA region. Local games drew 62% of all the attendances, with regional but non-local games accounting for the remainder.

PRE-SEASON PLANS VS. ACTUAL BEHAVIOR

Table 21 compares the pre-season intentions of our sample of fans, including those in non-television areas, with their actual attendance behavior in 1953.

TABLE 21

PRE-SEASON PLANS TO ATTEND

vs.

ACTUAL ATTENDANCE

	Percent of All Fans	
	Plan	Actual
No games	39%	80%
One game	18	12
Two games	7	4
Three or more games	6	4
Don't know which games	14	—
Don't know if will attend	16	—
	100%	100%

Not surprisingly, most fans considerably overestimated the number of games they would actually attend. Yet while a total of 31% named specific games they expected to attend, before the season started, a total of 20% actually did buy a ticket. And while 80% of them failed to attend, half that number had no intention of attending, and another 30% were either doubtful before the season started, or said they would probably attend "a game" but without specifying any in particular.

These over-all figures obscure considerable individual variation, however. Some of the fans who expected to attend did not buy tickets for the games they planned, but for other games instead. And some of those who did not expect to attend nevertheless took advantage of an opportunity after the season opened.

When the individual attendances of our total sample are studied, it appears that about two-thirds of the actual tickets bought had been planned before the season started, while one-third of the attendances were unplanned at that time. Ardent fans were more consistent in carrying out their pre-season intentions. Three-fourths of them attended the games they said they would, in contrast to only 58% of the marginal fans.

The reasons given for not attending as planned are similar to the deterrents mentioned by fans during the pre-season interview. In order of frequency they were: couldn't get off work, illness, home or family responsibilities, couldn't get good seats, and couldn't find anyone to go along. Ardent fans were more likely to explain their failure to attend in terms of illness in the family, but otherwise their reasons paralleled those of the marginal group.

The most frequent reason given for attending when there had been no pre-season plan to go was that an invitation had come up unexpectedly: "A friend had a couple of tickets," "Our weekend hosts had arranged it," "The fellow I'm engaged to invited me." In other cases the fan happened to be in another city on business or visiting, or he unexpectedly found he would have the day off and therefore decided to go to a game.

RADIO LISTENING

It is apparent from Table 19 that on an average Saturday, one fan in every three in television areas was listening to a college game on the radio, rather than watching television, attending or doing something else. There are a number of technical reasons why this figure may be slightly exaggerated, but it is nonetheless indicative of the importance of radio listening to college football fans.

Actually, the figure considerably understates the full proportion of fans who use radio to follow the games, because it includes only the non-attenders and the non-TV-viewers. Over one-third of the fans who were watching television *also* listened to games on the radio, and many of the attenders tuned in to radio broadcasts on their way to and from—and even during—the game they attended. Furthermore, time differences between one part of the country and another often made it possible for fans to get games over the radio after the televised game or the game they had attended was over.

At any rate, there can be no doubt that radio serves a real function for the college football fan. Its usefulness lies first in its *convenience;* it can be heard while the fan is doing other things, driving his car, or away from his television set. Second, it offers the *top games* of the day. Third, it offers a *variety* of games; if one is dull, the fan can tune in to another. And lastly, it often offers the only opportunity to follow the fortunes of the *local* team when it is playing away.

In contrast, television, as it has been restricted under the NCAA plan, is much less flexible and does not have these advantages. Only one game is available on TV; it was selected in advance of the season and may or may not turn out to be one of the big games of the day; and the chances of the fan's own local team appearing on the screen are very, very slight.

Thus, both marginal and ardent fans make good use of the radio during the football season. The ardent fan uses it to follow his local or favorite team when there is no opportunity to attend and when the televised game fails to interest him. The marginal fan uses it to satisfy his interest in the big games of the day, which are not usually available on television.

It is significant that eight out of ten radio listeners (and among ardent fans, nine out of ten) tuned in *only* those games involving a team they were specially interested in. It appears that while watching the Game of the Week satisfies a certain general football interest, the average fan still wants to know how his favorite teams are doing and turns to the radio to find out.

The variation in the use of *both* TV and radio by marginal vs. ardent fans is also revealing. Of the non-attenders who watched television, only 40% listened to the radio as well. In the majority of cases the Game of the Week fully satisfied their college football interest. Among the ardent fans, however, 55% combined radio with their TV-viewing.

The importance of radio, however, in no way minimizes the adverse effects of television on game attendance. Listening to a game is not the same as watching the actual plays as they develop. Radio was present in both television and non-television areas in our base years 1947-48, and earlier. Its effects on attendance, whatever they may be, were present in the "expected attendance" figures for both types of college. Its effects are still present in the attendance figures of the no-TV colleges. But it is only since television that TV-area attendances have declined so notably, in the face of upward trends in the non-TV areas.

It is to the 23% of fans who watch television every Saturday—and who watch it even when the teams are of little interest to them and even when the game itself has no national importance—that we must look for the cause of attendance declines in TV areas, when attendance rises would otherwise have been expected.

The findings reported in the preceding sections make it clear that if the televising of games were to be banned completely, the result would be not just a switch to radio listening but a sharp increase in attendance. And if television were to be unrestricted, the result would not be just a switch from radio-listening to TV, but an even sharper loss in game attendance.

1953 TELEVIEWING

On the average Saturday afternoon, 23% of our sample of fans were watching the NCAA televised game. Nielsen coverage ratings have indicated approximately 34% of the nation's TV sets tuned in to the Game of the Week on the average Saturday.

Two factors explain most of this difference. First, our sample of fans includes non-owners as well as owners of TV sets, so that it would take two owners watching on half the Saturdays to offset one of our non-owning fans who did not have regular access to a set. And second, the Nielsen data include all sets which were tuned in at any time to the Game of the Week, even if nobody was paying attention or if the set was switched to another channel after five or ten minutes. Our data include only those fans who reported they really "watched" the game.

Since the 23% figure is an average for all Saturdays, the percentage obviously fluctuates from week to week. Our data, while generally paralleling the Nielsen figures for each week, are probably less reliable for game-by-game comparisons of the size of audience. This is because the Nielsen data are recorded simultaneously, while ours were obtained by asking the fan to recall his past behavior.

We can report, however, on the cumulative audience of the NCAA telecasts, and the proportion of fans who were regular, as opposed to just occasional viewers. Table 22 presents these figures, together with the fans' pre-season intentions to watch the games on TV.

TABLE 22

PRE-SEASON PLANS TO TELEVIEW vs. ACTUAL VIEWING

	Percent of All Fans	
	Plan	Actual
No games	17%	34%
One to three games	16	33
Four to six games	29	10
Seven games or more	28	23
Don't know how often	4	—
Don't know if will watch	6	—
	100%	100%

Two-thirds of all fans watched one or more of the NCAA telecasts in 1953 and almost one-fourth of the fans were fairly "regular" televiewers who watched seven or more games. Actually, these figures would be somewhat under-stated, since our interviewing did not cover the December 5 weekend.

There are no consistent or significant differences between marginal and ardent fans in the frequency of their viewing. Fewer of the non-attenders viewed at all, but those who did were more likely to watch regularly. The one-game attenders included more viewers but less frequent ones. The ardent fans conformed more closely to the national average.

It is notable that intentions to watch the games on television were much more likely to be carried out than intentions to attend the games at the stadium. While 45% of the fans said in September that they expected to attend a game, only 20% actually did. In regard to televiewing, however, 77% expressed a pre-season intention and 66% actually watched one or more games.

As with stadium attendance, the ardent fans were more consistent in carrying out their pre-season intentions. Among the non-attenders, 77% expected to watch the games but only 63% actually did. Among the heavy attenders, on the other hand, more finally televiewed than expected to at the start of the season. Whereas only 66% had planned to view any games on TV, 72% actually tuned in on one or more of the Saturdays.

Our data on the "panorama" telecast indicate that it was not so generally disliked as the immediate post card response seemed to show. As is so often the case with volunteer informants, it is the critics who were most vocal in complaining to the sponsor and the NCAA.

Nevertheless it is clear that most football fans prefer to see a complete game. Unlike radio, TV is a substitute for *attendance*, rather than a means of keeping posted on the progress of the game, and most fans apparently like to sit back and watch a full game on their television sets.

Our question, asked only of those who said they watched the "panorama," found 66%, or two-thirds of the fans, saying they would "rather watch one game all the way through." Fifteen percent said they actually preferred "to see parts of several games on television as you did last week"; 10% qualified their answer ("It depends on the games"), and 9% said they had no preference.

One fan in every three therefore either has no preference in the matter, or would rather watch a panorama program, if those games are well chosen or if the alternative is a single game of poor quality. Significantly, it is the non-attenders who are more likely to prefer the panorama, the occasional attenders who would rather watch one game all the way through, and the ardent fans who most frequently qualify their opinion.

REGIONAL PATTERNS IN TELEVIEWING

Analysis of televiewing patterns by region turns up some interesting findings and confirms previous hypotheses. For one thing, fewer Eastern fans watched the Game of the Week than was the case elsewhere, a circumstance paralleling the lower football interest and the lower attendances already noted in this part of the country.

While 73% of the Midwestern and Far Western fans viewed at least one game, the proportion of viewers in the East was only 55%. The South, too, was somewhat below the national average. Only 62% of Southern fans watched one or more of the televised games, probably because of the lower set saturation in that area.

Secondly, there is a surprising consistency about the total size of the TV audience from game to game. If 23% watched the average game, one might have thought that the less attractive telecasts would be watched by only 5% or 10% of the fans, and the most attractive ones by 70% or 80%. This is not at all the case. No game was lower than 17% and no game was higher than 35%.

Even within the same region, the proportion of televiewers did not vary strikingly from one game to another. Here again one might have thought that only 10% of Southern fans would watch a Far West game, but that 80% would watch Alabama-Tennessee on television. Again, this is not the case. The range is surprisingly narrow.

In the East the largest audience was 28%, the lowest 14%. In the Midwest the range was 20-30%, in the South only 16-24%. Only in the Far West was there a larger spread. There the range was 14-46%.

Partly the stability of the TV audience is a result of the fact that few fans were aware of the television schedule in advance. They did not generally make special plans to watch when the game was an attractive one or a regional one, nor did they make special plans to attend or to do other things when the game was of lesser interest.

Rather, as discussed earlier in this report, they made their other plans knowing that there would be a Game of the Week on television but without regard to the particular game being telecast on that day. As a result there was a certain basic audience for each game, which did not increase a great deal when the game was a good one, nor decrease a great deal when it was mediocre.

A further factor in the relatively stable size of the television audience, regardless of game, is the fact that to many of the marginal football fans one game is as good as another. As long as there is some game on television, many of these fans don't care whether it's Dartmouth, Michigan, Texas or UCLA. They will watch in any case.

And finally, the attachment of many fans, and especially the ardent fans, to only one or two colleges probably contributes to the stability of the TV audiences regardless of the game. Such fans, if they can follow their favored team on the radio, are likely to turn to that medium no matter how attractive the televised game may be. And if they are unable to attend or listen to a game involving their favorite team, they are likely to watch television no matter what game is shown because of their intense interest in the sport.

But this is not to say that every telecast attracted the same number of viewers, in every region. There does seem some tendency for regional games to be watched more than non-regional. Thus, the Michigan State-Michigan game had a large audience in the Midwest but was much weaker elsewhere; Texas-Oklahoma was the most popular game in the South, while the largest audience on the Pacific Coast was tuned in to USC-UCLA.

On the other hand, it is apparent that the over-all attractiveness of the game also makes a difference, often outweighing the effect of the regional vs. non-regional factor. Thus, Dartmouth-Holy Cross had a small audience in the East, just as it did everywhere, while the game that had the biggest audience in the East was the crucial West Coast contest between USC and UCLA.

In combination, however, these two factors—regional vs. non-regional and overall attractiveness of the game—appear to account for almost all of the variation in the size of the television audiences. Thus, when the game is not very attractive and also involves two distant teams, the audience tends to be lowest. When the game is very attractive and is also played nearby, the TV audience is largest.

The smallest TV audience in the East, for example, watched Nebraska-Oregon, two distant teams of no great national prominence. This same game was the weakest in the South, while Dartmouth-Holy Cross, another game involving teams with mediocre records, had the smallest audience

of any game shown in the Midwest and Far West.

In contrast, the USC-UCLA game, a regional game which pitted two powerful teams against each other in a showdown battle, attracted no less than 46% of all West Coast fans to their television sets.

The actual televiewing behavior confirms what the fans themselves told us at the start of the season when we asked them what games they would like to watch on TV if they could. They want local or regional games, and they want "big" teams.

We have demonstrated that television recruits its audience not among non-fans or people who are unfamiliar with college football, but from the fans—both marginal and ardent—who attend or who used to attend games. If television audiences increase, stadium attendance will fall, or will at least fail to register its expected increases.

If fans knew in advance that they would be sure of a regional game on their TV set every Saturday afternoon, all the evidence of this research indicates clearly that attendances would decline. If they were sure that all of these regional games would be "big games," the decline would be even greater.

OTHER SPORTS ATTENDANCE AND TELEVIEWING

No other sports or amusement offers much competition for the college football fan's attendance dollar during the Fall months. High school football is the biggest competitor, but these games are seldom directly competitive with the college since they are usually played on non-Saturday afternoon dates. Attendance at professional football games is negligible among the national cross-section of fans. Table 23 shows the distribution of attendance among college, high school and pro.

TABLE 23

TOTAL FOOTBALL ATTENDANCE, 1953

	Percent of All College Fans Attending		
	College	High School	Pro
One game	12%	8%	2%
Two games	4	10	1
Three or more games	4	12	*
Total attending once or more	20%	30%	3%
Attended no games	80	70	97
	100%	100%	100%

Those who attended no college games were less likely to have attended high school or professional games as well. At the other extreme, the heavy attenders of college games were also less likely to attend high school or pro football. The other two sports draw their college fans chiefly from the moderate attenders of college games.

Other sports events are also attended very seldom by the college football fan while the pigskin season is on. Only 15% of our total sample reported any other sports attendance during that time. The other 85% either confined their attendance to college football, or failed to buy an admission to any sports event. Of the other sports attended, baseball, basketball and wrestling were the most popular, with 4-5% reporting attendance at each. Hockey and prize fights accounted for most of the remainder.

Again, it was the one-game attenders who most often bought admissions to other sports events. The really ardent fans appear to have centered their attendance on college football, the non-attenders usually failed to attend anything else either. But 27% of the marginal fans who went to one college football game also attended some other sports event.

Other amusements which require the price of admission were similarly unfrequented by the college football fans. No complete record was obtained of tickets bought for movies, opera, concerts, the circus, etc., but on two selected weekends the fans were asked to tell us what they did on Friday night, Saturday night and Sunday.

Again 85% reported no attendance of any kind. Ten percent reported sports attendances. Non-Saturday college football games accounted for 1% of these; high school and professional games for 7% and the remainder was divided among basketball, wrestling, etc. Only 5% of the fans said they bought tickets to non-sports amusements during the weekend.

Weekend radio listening to sports events, aside from the Saturday afternoon college games, was similarly small. Only 15% reported any such radio

listening at all, and almost all of this total was concentrated on football. Ten percent said they listened to high school or professional games on the radio, and 3% listened to college football games which were played on Friday night or Sunday. Only 2% listened to other sports events.

Television, however, proved to be a much more successful competitor for the sports fan's attention during the remainder of the weekend. No fewer than 43% of the fans in TV areas said they watched some sports event, live, on Friday night, Saturday night or Sunday. Of these other televised sports events, the professional football games were most popular, with 26% of the fans reporting such televiewing. Twenty percent watched boxing, wrestling or other sports on the average weekend.

The size of the pro football TV audience may appear surprising, in view of the finding that only 23% watched the NCAA college telecasts on the average Saturday afternoon, and in view of the lower interest of college fans in the professional sport. It should be remembered, however, that no college games are available at the time of the pro telecasts, and that these games are usually shown on Sunday afternoons when the fans are more likely to be at home and not engaged in other activities.

It is of interest that while 26% of the fans in TV areas watched the pro football telecasts on an average weekend, only 38% watched them at all during the season. In contrast, while only 23% watched the Game of the Week on the average Saturday afternoon, a total of 66% viewed at least one game.

The pro football TV audience among college fans is concentrated in the minority who take an interest in the professional games, and this minority tends to watch regularly. The college telecasts, on the other hand, which compete with radio broadcasts of the games, stadium attendance, and other Saturday afternoon activities, are watched by fewer fans on any given Saturday, but by large numbers over the course of the season.

In addition to the many live sports telecasts which the fans watched on the average weekend, the post-game films of college games were also popular. Forty percent of all fans in television areas reported viewing such programs.

CONCLUSION

This is the fifth annual report which NORC has made regarding the effect of television on college football attendance. In our view, the problem has been most thoroughly researched and the findings are conclusive.

TV effects have been studied regularly over a period of time, during which the number of television sets in the hands of the public has grown from three million to more than 26 million. There has been ample opportunity to confirm former findings, to devise more efficient research procedures, and to note the emergence of any new trends.

The problem has been studied basically and most efficiently in terms of the actual game-by-game attendance reports submitted by NCAA member colleges for the past eight seasons. But it has also been studied by means of many other research techniques: analysis of TV set sales, population and income data; stadium surveys, alumni questionnaires, intensive surveys of particular communities—and in this most recent season through a series of detailed interviews with a national cross-section of college football fans.

Our five research reports which present the findings from all these studies tell a remarkably clear and consistent story, considering the complexity of the problem and the many variables involved in game attendance. The magnitude and patterns of college football attendance are known; the characteristics of football fans, the nature of their interest in the sport and the factors influencing their attendance decisions have all been thoroughly explored.

In our view, no additional research in this area is required. Most of the problems which can be anticipated in the next few seasons can be answered on the basis of information already obtained and published. Periodic checks of the college attendance trends would be worthwhile, and additional interviewing of fans might be desirable in special situations or if new elements enter the picture.

But by and large, the effects of television on college football attendance are now known accurately and in detail.

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Part 6 of 8

NATIONAL OPINION RESEARCH CENTER

UNIVERSITY OF CHICAGO

New York Office

MEMORANDUM

To NCAA Television Committee *Date* 12-30-54

From NORC

Subject The Effects of Television on College Football Attendance, Report No. 6

Introduction

The five previous reports in this series have documented the effects of television on college football attendance since the 1949 season: heavy attendance losses in 1950 under a policy of unlimited television, in spite of a relatively small number of TV sets; a slackening of the expected rate of loss in subsequent years, as a result of the NCAA program of limited TV; and a general stabilizing of attendance trends at lower levels as TV ownership approaches universality.

The effects of television have been described thoroughly and in detail, and for an extended discussion the reader is referred to NORC Report No. 5, published last year. Research during the 1954 season was aimed chiefly at continuing the evaluation of attendance trends which have been charted during past years. The findings bring up to date our understanding of what has happened to football ticket sales during the television era.

Overall Attendance Trend in 1954

Reversing the downward trend of the past four years, college football ticket sales increased about a third of a million during the 1954 season to register a 2.5% gain over 1953. This rise in attendance advanced total paid admissions in 1954 to an estimated 14,091,000 which was almost equal to the 1952 level but still 1,157,000 below the pre-television years of 1947-1948. Table 1 reflects these overall attendance trends.

TABLE 1

PAID ATTENDANCE AT REGULAR NCAA COLLEGE FOOTBALL GAMES
and
NUMBER OF TELEVISION SETS SOLD

Year	Paid Attendance	Number of TV Sets *
1947-48 average	15,248,000	426,000
1949	15,675,000	3,025,000
1950	15,172,000	9,169,000
1951	14,272,000	14,556,000
1952	14,196,000	19,751,000
1953	13,754,000	26,364,000
1954	14,091,000	32,262,000

* Based on NBC and ABC reports of sets sold in television reception areas, as of November 1 each year.

The overall moderate increase in ticket sales undoubtedly reflects the slight advance in personal incomes and the continued growth in student enrollments. Estimated personal income, available for spending after taxes have been deducted, is reported to have increased about 1 percent during the past year.* Likewise, student enrollment at the NCAA football playing colleges rose about 6 percent since the fall of 1953. These two factors have been found in the past to represent important determinants of college football attendance, and are believed to be primarily responsible for the modest gains in 1954 ticket sales.

It should be noted that this small rise in attendance during the past year occurred despite a further increase of almost 6 million new TV sets during 1954. As predicted in our previous reports, the maximum harm of limited TV competition was probably reached in 1953, when practically every football fan already had ready access to a TV set. Since then, it is believed that the new TV set purchasers consist primarily of persons in the lower economic groups, who never had a great interest in college football and who were not attenders anyway. Consequently, as was expected, these additional purchases of TV sets have had little adverse effect on actual attendance levels.

* Based upon Dept. of Commerce reports through Oct. 1954.

It should be emphasized that the stabilization of attendance levels, and the slight upturn in 1954, have occurred under a limited television program, and that college football attendance -- in spite of vast population and income gains -- still remains well below the pre-television peaks. Given the same general kind of limited TV programs in future years, the outlook is for continued stable attendance trends, rising upward if the economy continues to flourish. Were the present limited television program to be replaced by wide-open televising of major games, or by any other program which would substantially increase the number of top games available locally on TV screens, all evidence indicates a further adverse effect on attendance levels generally.

The TV Differential

In each of the previous NORC reports, a major portion of the analysis has concerned itself with the "TV differential" -- the difference in attendance trends attributable to the isolated effects of television. Colleges in TV areas were separate from those outside of TV areas, and often all other major attendance variables had been equalized for all colleges, the remaining differences in attendance trends were attributed to television competition. The implicit assumption of this procedure is that there are enough different colleges in each major analytical category so that individual variations are averaged out.

In 1953, there were only 23 colleges outside of TV areas, and we indicated last year that the validity of the TV differential would soon become questionable. This year only 12 colleges, one major and eleven minor schools, remained outside of network television areas. Consequently, the calculation of valid TV differentials is no longer possible.

It might be noted, however, that these 12 no-TV colleges experienced an 18 percent increase in their attendance during this past year, a much more substantial rise than the average gain in TV areas. But since there are so few colleges in this no-TV

group, we cannot be sure that their larger gain is due solely to the absence of television.

To maintain a perspective of the overall TV effects, we present a brief summary of the past trend in the TV differential. There can be no reasonable doubt that telecast football games which provide fans with "free 50-yard seats" seriously affect ticket sales. In each of the four seasons from 1950 through 1953, colleges which were exposed to football competition on television reported attendances well below their pre-TV 1947-48 averages; while those colleges outside of television areas reported actual ticket sales well above their comparable 1947-48 average and this difference was observed after all other relevant attendance factors, such as team performance, weather, attractiveness of schedule, traditional fan support, etc., had been statistically controlled.

In 1950 with over 9 million TV set owners, the loss in attendance attributable to television was almost 27 percent. In 1951, the first year of the NCAA's limited TV program, the TV differential dropped to 18.6 percent inspite of a better than 50% increase in TV ownership. But with set ownership jumping to almost 20 million in 1952, the TV differential rose again to 27 percent and remained at about that level in 1953. Table 2 summarizes this overall TV differential in these years.

TABLE 2

THE TV DIFFERENTIAL 1950-1953

Year	Percent of "Expected" Attendance * Colleges With TV Competition	Colleges Without TV Competition	TV Differential
1950	88.6	115.1	26.5
1951	85.1	103.7	18.6
1952	83.8	110.5	26.7
1953	81.6	109.3	27.7

* "Expected" attendance is the average paid attendance reported by each college for the two pre-television years 1947-48.

As we have indicated before, while there is no way of calculating precisely what the TV differential would now be under a policy of unlimited televising such as prevailed in 1950, some hint can be obtained by a closer look at that year's experience. Nationally, only 9 million TV sets were in use that year, in contrast with over 32 million in 1954.* In 1950, most colleges in TV areas faced a situation in which only one family in three owned a television set; today TV sets are found in an average of two out of three homes. In 1950, only a few of the television areas could be considered "heavily saturated", while today almost all TV areas report set ownership among more than half the families.

If we look, however, at the 1950 experience of colleges in areas where TV ownership was already "heavy", we find that their TV differential was at the level of 40% — instead of the 28% we found nationally in 1953, when all areas were heavily saturated, but the televising of games was strictly limited. It is reasonable to assume that if the same televising conditions prevailed as in 1950, the current "heavy saturation" of TV ownership would produce at least this same 40% attendance differential attributable to TV. But even this calculation does not take into account the increased number of television stations, so that a fan who in 1950 had a

* About 2 million are estimated to be second sets in TV homes, so that about 30,400,000 families have one or more TV sets in 1954.

choice of only one or two games on his local stations might now have a choice of four or five in many areas.

Non-TV Variables in 1954

As in previous years, the attractiveness of the game exerted a major influence on the size of the attendance. During the past year, both "more attractive" and "less attractive" contests experienced a slight gain in attendance so that the attractiveness differential remains at about 46%.

As can also be seen in Table 3, both large and small colleges experienced the same trends in their ticket sales. The differences are so slight as to be entirely attributable to chance fluctuations among colleges.

TABLE 3

ATTENDANCE TRENDS BY SIZE OF COLLEGE *
AND GAME ATTRACTIVENESS
1953-1954

	Percent of "Expected" Attendance			
Large and Medium Colleges	Total All Games	More Attractive Games	Less Attractive Games	Attract-iveness Differential
1953	80.7	103.2	58.1	45.1
1954	82.9	105.9	59.9	46.0
Small Colleges				
1953	82.5	107.1	58.0	49.1
1954	84.4	107.5	61.3	46.2

* Only colleges in TV areas are included in both years.

Type of TV Competition

In our early research in 1950, it was found that the more direct the television competition, the greater the loss in ticket sales. Local colleges televising their own home games were hurt the most, while a televised game involving two teams from distant NCAA districts usually hurt the least. Since 1950, the restricted NCAA programs have not provided enough competitive TV situations on the local level to re-test the effect of local telecasts on attendance.

But in 1953 a significant adverse effect on attendance at more attractive games was found when the televised game included one or more teams from the same NCAA district, as against both teams from distant NCAA districts. This year the same general tendency is noted. At more attractive games attendance is almost 10% lower when both televised teams are from that same NCAA district than when they are not. Among less attractive games, the differences are in the same direction, but so small that they could be due to chance variations. Table 4 compares the following four types of TV competition:

1. None - Games played on Friday night or other non-Saturday afternoon dates.
2. Non-regional - Both televised teams are from a different NCAA district from the home team whose attendance is being analyzed.
3. Half-regional - One of the televised teams is from the same NCAA district as the home team whose attendance is being analyzed; the other televised team is from a distant region.
4. Regional - Both televised teams are from the same NCAA district as the home team whose attendance is being analyzed.

TABLE 4

1954 ATTENDANCE BY
TYPE OF TV COMPETITION

	Percent of "Expected" Attendance		
	All Games	More Attractive Games	Less Attractive Games
None	85.2	104.0	66.4
Non-regional	82.7	107.8	57.6
Half-regional	88.5	114.8	62.2
Average of above types	85.5	108.8	62.1
Regional	79.0	99.2	58.8
* Differential	6.5	9.6	3.3

* A difference of 6.0 percent is statistically significant (p=.05).

As Table 4 indicates, both the overall regional differential and the "more attractive" differential are significant differences, while the "less attractive" difference is not. The explanation of these findings probably parallels that which was offered in our 1953 report. Fans who attend "less attractive" games are more ardent ones and are less likely to make distinctions among the televised games. But the "marginal fan" who contributes to the greater attendance of the "more attractive" game is more likely to attend an interesting game locally if the Game of the Week is presenting distant teams which don't interest him much.

One important qualification must be attached to this finding. Only 60 more attractive games faced regional TV competition in 1954. The lower attendance at these games as compared with more attractive games, which faced half-regional, non-regional or no TV competition, is marked enough to have statistical significance -- but these games were heavily concentrated in NCAA Districts 1 and 2 which have the lowest overall attendances. The games which faced half-regional TV opposition, which show a somewhat higher attendance even than those which were opposed to non-regional or no TV, were clustered in Districts 4, 5 and 6, which have the highest attendance trends. It is conceivable, therefore, that this chance clustering of TV situations in the various NCAA districts contributed to the finding reported. While adherence

to sound research practice demands that this possibility be pointed out, and suggests that a definitive answer as to the relative TV effects of nearby vs. distant games must still be postponed, there is considerable evidence to support the belief that the observed attendance differences are a valid measure of TV effect. This supporting evidence is of three different kinds.

First, both common sense and past research findings point in that direction. It is reasonable to assume that if -- as has been demonstrated -- televised football competition hurts gate sales, the hurt will be greater, the closer the competition. The 1950 research showed that colleges gacing local TV competition were hit hardest, those facing distant competition were hit least. The 1953 research revealed a tendency for games facing regional telecasts to sell fewer tickets than games facing distant telecasts, and this same finding was repeated this year.

Second, the replies of fans themselves, in personal interviews regarding their behavior and preferences, indicate that a local or nearby game on television is a substantially greater deterrent to actual attendance than is a televised game involving distant teams. Fan interest, for example, and especially the interest of marginal fans, is centered on only a few teams, and these are almost always local or nearby teams. Eighty percent of the fans who follow the fortunes of any team regularly were interested only in teams within their own NCAA district; among marginal fans the proportion was even higher. The reasons given by fans for their interest in particular teams are overwhelmingly in terms of local attachments rather than top performance. Attendance, as well as interest, is also centered in the local and nearby stadiums. Only 6% of the fans who attended games in 1951 or 1952 traveled outside their own NCAA district; three out of five attended only locally, and the remainder traveled only within the region. And finally, when asked "Are there any college games being played this season that you would especially like to see on television, if you could?" the fans left no doubt of their preference for local and

and regional contests. Seventy-five percent of the games mentioned were games played in their own NCAA district, which the fan could easily have bought a ticket for.

Third, the differences shown, though small and not definitive, have revealed themselves for two consecutive seasons, even in spite of the demonstrable ignorance of most fans regarding the identity of the teams to be televised each week. The average fan, for the last four years, has known only that some games will be televised, most will not, and many of those which are will involve teams in which he has little interest. As a test of regional vs. non-regional telecasts, this situation makes it very difficult to produce positive findings. The fact that significant differences do appear in spite of this ignorance seems to us a compelling fact. It is plausible to suppose if that same fan knew, before the season began, that his home TV screen would bring him, every Saturday, a top regional game, that his actual stadium attendance would decline sharply -- bringing with it substantial attendance losses to colleges ill prepared to face such competition.

Non-Saturday Afternoon Games

We reported in our 1953 report an increasingly large number of games now played on Friday nights and other non-Saturday afternoon periods when there is no direct TV competition. As we have found in the past, the"more attractive"games played on such non-Saturday dates do not appear to improve their attendances very much but the "less attractive" games do increase their sales substantially. There are several possible reasons this effect occurs. It could be that the colleges which have decided to play on these non-Saturday dates are in TV areas with the heaviest TV effects and, therefore, are not strictly comparable with colleges still playing on Saturday afternoons. Or it could be that the ardent fans will most readily support a local game if they don't have to give up a TV game in the process. Whatever the reason, this differential effect has been the same in the past three seasons.

NCAA District Differences

All but two NCAA districts registered moderate gains during the past season. The Mountain and New England districts experienced the greatest gains, while the Southwest EAST and Pacific colleges reported small losses.

Both the major and minor colleges in the Mountain and New England areas reported higher ticket sales. In general, a substantial rise in student enrollment, together with more attractive contests and better win-loss records, accounted for the upward attendance trends in these areas. It is significant that one large college in the Mountain District which experienced network TV competition for the first year, in 1954, showed a substantial drop of 12 percent.

Likewise, the further expansion of network TV partially explains the 6 percentage point drop in attendance at Southeast colleges. One of the majors facing TV competition for the first year lost over 40% of its 1953 attendance, despite a 7% rise in student enrollment and a comparable win-loss record. A few other major colleges reported poorer teams and less attractive schedules which affected their attendances. In the Pacific district, minor colleges reported a stable trend, but a few large major colleges with poor win-loss records or less attractive opponents were responsible for the small overall drop in attendance.

Table 5 summarizes the trends in attendance by NCAA district.

TABLE 5

ATTENDANCE TRENDS BY NCAA DISTRICT
1953-1954

NCAA District	Percent of "Expected" Attendance 1953*	1954	Change
1. New England	69.1	79.6	up 10.5
2. Middle Atlantic	72.6	74.6	up 2.0
3. Southeast	92.6	86.7	down 5.9
4. Midwest	94.4	97.9	up 3.5
5. West Central	97.4	99.1	up 1.7
6. Southwest	113.2	114.1	up 0.9
7. Mountain	74.4	88.3	up 13.9
8. Pacific	90.4	86.2	down 4.2

* Some of the 1953 figures differ from previously published estimates because they include data from several colleges which were not included in last year's report.

Part 7 of 8

IV

NATIONAL OPINION RESEARCH CENTER'S REPORT NO. 7 ON EFFECTS OF TELEVISION UPON COLLEGE FOOTBALL ATTENDANCE

Introduction

The six previous reports in this series have documented the effects of television on college football attendance since the 1949 season:

1950 - Heavy attendance losses under a policy of unlimited television, in spite of a relatively small number of TV sets

1951 - A slackening of the expected rate of loss, as a result of the NCAA program of limited TV

1952-53 - A general stabilizing of attendance trends at lower levels, as TV ownership approached universality and the limited TV program remained in effect

1954 - Resumption of moderate gains in attendance, as student enrollments and national income continued to grow, and the television situation remained the same

These TV effects have been described thoroughly and in detail, and for an extended discussion the reader is referred to NORC Report No. 5, published in 1954. Research during the 1955 season was aimed chiefly at continuing the evaluation of over-all attendance trends which have been charted during the past years and at assessing the effects of changes in the types of TV competition available this year.

It should be noted that responsibility for this research is now shared with the National Collegiate Athletic Bureau. In previous years the NORC staff gathered and analyzed all of the attendance data and assumed sole responsibility for its reports to the NCAA. This year, as most NCAA members already know, the NCAB assumed the major responsibility for the collection of game reports, while NORC continues its sole responsibility for the analysis and conclusions presented here.

Over-all Attendance Trend in 1955

Continuing the modest gains begun a year ago, college football ticket sales during the 1955 season totaled almost a half million more than 1954, to register a gain of 3.3%. This rise in attendance advanced total paid admissions during the past season to an estimated 14,556,000, which was just above the 1951 level but still almost 700,000 below the pre-television years of 1947-48.

This gradual narrowing of the gap between pre-television and current attendance levels is undoubtedly a reflection of the continued growth in both student enrollment and national income. If these general trends of enrollment and income continue upward and the type of TV competition remains substantially the same, total college football ticket sales may soon fully regain their previous peak levels and go on to new records as the economy continues to flourish. Table 1 describes the over-all attendance trends during the television years.

TABLE 1

PAID ATTENDANCE AT REGULAR NCAA COLLEGE FOOTBALL GAMES

Year	Paid Attendance	Change from Previous Year
1947-48 Average	15,248,000	--
1949	15,675,000	up 2.8%
1950	15,172,000	down 3.2
1951	14,272,000	down 5.9
1952	14,196,000	down 0.5
1953	13,754,000	down 3.1
1954	14,091,000	up 2.4
1955	14,556,000	up 3.3

During the past year student enrollment at NCAA football-playing colleges increased almost 8% over 1954 levels. Nation-wide personal income available for spending after taxes gained 5-6% during 1955. Both of these general economic factors have proved to be important determinants of college football attendance in the past and are believed to be primarily responsible for the 3.3% gain in ticket sales during the past year.

It should be noted that the modest rise in attendance during the past year occurred despite a further increase of 4 million new TV sets during 1955. As predicted in our previous reports, the maximum harm of limited TV competition was probably reached in 1953, when practically every football fan already had easy access to a TV set. Since then, it is believed that the new TV set purchasers consist primarily of persons in the lower economic groups, who never had a great interest in college football and were not attenders anyway, and persons who are merely replacing older and smaller-screen sets. Consequently, as was expected, these additional purchases of TV sets have had little adverse effect on actual attendance levels.

It should also be emphasized that the upturn in ticket sales in 1955 occurred under a limited television program, and that college football attendance -- in spite of vast population and income gains -- still remains below the pre-television peaks. Were the present limited television program to be replaced by wide-open televising of major games, or by any other program which would substantially increase the number of top games available locally on TV screens, all evidence indicates a renewed adverse effect on attendance levels generally.

The TV Differential

In previous NORC reports, a major portion of the analysis has concerned itself with the "TV differential" -- the difference in attendance trends attributable to the isolated effects of television. Colleges in TV areas were separated from those

outside of TV areas, and after all other major attendance variables had been equalized for all colleges, the remaining differences in attendance trends were attributed to television competition. The implicit assumption of this procedure is that there are enough different colleges in each major analytical category so that individual variations are averaged out.

In 1953, there were only 23 colleges outside of TV areas, and we indicated that the validity of the TV differential would soon become questionable. During 1954 there were only 12 colleges, one major and eleven minor schools outside of network television areas. During the past season the number of colleges without any network TV competition was further reduced to a mere six. Consequently, the calculation of valid TV differentials is no longer possible.

To maintain a perspective of the over-all TV effects, however, we present a brief summary of the past trend in the TV differential. There can be no reasonable doubt that telecast football games which provide fans with "free 50-yard seats" seriously affect ticket sales. In each of the four seasons from 1950 through 1953, colleges which were exposed to football competition on television reported attendances well below their pre-TV 1947-48 averages, while those colleges outside of television areas reported actual ticket sales well above their comparable 1947-48 average. This difference was observed consistently after all other relevant attendance factors, such as team performance, weather, attractiveness of schedule, traditional fan support, etc., had been statistically controlled.

In 1950 with over 9 million TV set owners, the loss in attendance attributable to television was almost 27 percent. In 1951, the first year of the NCAA's limited TV program, the TV differential dropped to 18.6 percent in spite of a better than 50% increase in TV ownership. But with set ownership jumping to almost 20 million in 1952, the TV differential rose again to 27 percent and remained at about that

level in 1953. Table 2 summarizes this over-all TV differential in these years.

TABLE 2

THE TV DIFFERENTIAL 1950-1953

Year	Percent of "Expected" Attendance *		TV Differential
	Colleges With TV Competition	Colleges Without TV Competition	
1950	88.6	115.1	26.5
1951	85.1	103.7	18.6
1952	83.8	110.5	26.7
1953	81.6	109.3	27.7

* "Expected" attendance is the average paid attendance reported by each college for the two pre-television years 1947-48.

As we have indicated before, while there is no way of calculating precisely what the TV differential would now be under a policy of unlimited televising such as prevailed in 1950, some hint can be obtained by a closer look at that year's experience. Nationally, only 9 million TV sets were in use that year, in contrast with over 36 million in 1955. In 1950, most colleges in TV areas faced a situation in which only one family in three owned a television set; today TV sets are found in an average of three out of four homes. In 1950, only a few of the television areas could be considered "heavily saturated", while today almost all TV areas report set ownership among more than half the families.

If we look, however, at the 1950 experience of colleges in areas where TV ownership was already "heavy", we find that their TV differential was at the level of 40% -- instead of the 28% we found nationally in 1953, when all areas were heavily saturated, but the televising of games was strictly limited. It is reasonable to assume that if the same televising conditions prevailed as in 1950, the current "heavy saturation" of TV ownership would approximate this same 40% attendance differential attributable to TV. But even this calculation does not take into account the increased number of television stations, so that a fan who in 1950 had a choice

of only one or two games on his local stations might now have a choice of four or five in many areas.

Non-TV Variables in 1955

As in previous years, the attractiveness of the game exerted a major influence on the size of the attendance. During the past year, "more attractive" contests experienced a slightly larger gain in attendance than "less attractive" games so that the attractiveness differential now is about 49%.

As can also be seen in Table 3, both large and small colleges experienced substantially the same trends in their ticket sales. The differences are so slight as to be entirely attributable to chance fluctuations among colleges.

TABLE 3

ATTENDANCE TRENDS BY SIZE OF COLLEGE *
AND GAME ATTRACTIVENESS
1953-1954

	Percent of "Expected" Attendance			
Large and Medium Colleges	Total All Games	More Attractive Games	Less Attractive Games	Attractiveness Differential
1953	80.7	103.2	58.1	45.1
1954	82.9	105.9	59.9	46.0
1955	84.3	109.0	59.6	49.4
Small Colleges				
1953	82.5	107.1	58.0	49.1
1954	84.4	107.5	61.3	46.2
1955	88.4	112.8	64.1	48.7

* Only colleges in TV areas are included in 1953 and 1954. Since there are only 6 non-TV colleges in 1955, data for all NCAA colleges are now combined.

Type of TV Competition

In our early research in 1950, it was found that the more direct the television competition, the greater the loss in ticket sales. Colleges facing local teams on TV were hurt the most, while televised games involving teams from distant NCAA districts generally hurt the least.

During the first four years of NCAA's restricted TV program (1951-54), there were so few games which faced the televised competition of local teams or even teams from the same NCAA district that it was extremely difficult to retest these early findings. Nevertheless, in 1953 a significantly greater adverse effect on attendance at more attractive games was found when the televised game included one or more teams from the same NCAA district, and the same general tendency was noted in 1954, when attendance at more attractive games was almost 10% lower when both televised teams were from that same NCAA district than when they were not. During the 1955 season, certain changes in NCAA regulations greatly increased the number of regional TV programs and created new opportunities for testing the relative impact of televised competition from nearby vs. distant teams.

According to the 1955 NCAA plan, telecasts of football games were confined to the same NCAA District in which they originated on five Saturday afternoons of the football season. As Table 3 shows, this new rule almost trebled the number of regional telecasts. It also had the contrary and unexpected effect of increasing the number of "black-out" situations and thus reducing the number of games facing any TV competition. The Southeast, West Central and Mountain areas (Districts 3, 5 and 7) failed to televise any games in most of their areas on these regional dates. And the Far West and Southwest (Districts 8 and 6) "blacked-out" most of the local areas in which their televised games were played. Table 3 summarizes the changes in TV competition from 1954 to 1955.

TABLE 3

PERCENTAGE DISTRIBUTION OF NCAA FOOTBALL GAMES
BY TYPES OF TV COMPETITION
1954 - 1955

Kind of TV Competition	1954	1955	Percentage Change
No TV	28%	39%	up 11%
Local	9	9	-
Regional	9	26	up 17
Non regional	54	26	down 28
Total	100%	100%	-

The overall findings for 1955 clearly confirm the 1950 experience that games facing no televised competition at all consistently have the highest ticket sales. As indicated in Table 4, the average paid attendance at all no-TV games in 1955 was 96.3% of the "expected" pre-television levels -- more than 13 points above that of games facing TV competition. This substantial difference could have occurred by chance in only one out of a thousand cases. The difference holds, too, for both "more attractive" and "less attractive" games, and for large and small colleges.

TABLE 4

THE EFFECTS OF DIFFERENT TYPES OF TV COMPETITION
ON COLLEGE FOOTBALL TICKET SALES
1955

Type of TV Competition	Percent of "Expected" Attendance*		
	All Games	More Attractive Games	Less Attractive Games
No TV competition	96.3%	119.0%	73.5%
TV competition	83.1	108.2	57.9
Non-Regional	84.1	113.6	54.7
Regional	81.6	107.3	56.0
Local	83.4	103.7	63.2

* A difference of 6.1 percent is statistically significant (p=.05).

Differences among the various types of televised competition are less clear-cut when all games are considered together (first column, Table 4). The differences are small and do not approach statistical significance. When "more attractive" games are examined separately, however (second column, Table 4), the pattern shows more clearly. The televised competition of other local teams produces the lowest attendances; and the televising of non-regional teams does the least harm to attendance. These findings confirm for the third straight year the fact that ticket sales at "more attractive" games decline more when the televised competition is of a regional nature than when it provides a game involving two distant teams.

But again, for the third straight year, no significant differences according to type of TV competition are found for "less attractive" games. Only the "less attractive" games which face no televised competition at all are clearly better off. The differences in the effects of local, regional and non-regional competition are small and inconsistent. It should perhaps be noted that the unexpectedly high figure of 63.2% for "less attractive" games facing the TV competition of local games is based on only 12 game experiences, half of them from small colleges. With such a small number of cases, it is often impossible for the unique variables of each game to be equalized, and valid comparisons cannot be drawn.

Adjustments for Unusual Cases

The foregoing reference points up the important fact that these figures are based on averages of varying attendances, and that the averages may mislead if a few unusual cases cluster in any particular category of games, or if the average of any particular category is based on only a small number of games. In 1955, because of the importance of illuminating the differential effects on game attendance of the various types of TV competition, these analyses were made, in spite of the fact that in some groups the number of games becomes rather small. A closer analysis of

the various figures, including an examination of the particular games which provide the averages, permits a greater understanding of TV effects and provides some basis for adjusting the figures to eliminate the weight of unusual situations.

The Table 4 figure for "more attractive" games subject to local TV competition was 103.7, for example. This is based on a total of 77 games, of which 45 were large-college and 32 were small-college, 32 were games which were themselves televised and 45 were non-televised games which faced the competitive telecasts of other local games. The attendance levels for these various types of games within the same general category varied widely.

The 25 large-college "more attractive" games which were themselves televised drew 114.9% of their "expected" attendance, considerably better than the average of "more attractive" games facing local TV competition. But these 25 games were usually the very best games, selected by the TV networks precisely because of their unusual interest to the fan. In contrast, the other 20 large-college "more attractive" games which were exposed to local TV competition drew only 74.3% of their "expected" attendance.

The seven small-college "more attractive" games which were televised in direct competition to themselves drew only 70.7% of their "expected" attendance -- an interesting result, although the number of games is too few to justify any firm conclusions. The 25 other small-college "more attractive" games, which were not televised themselves but which were played against the telecasts of other local colleges, drew unexpectedly high attendances, averaging 121.7% of "expected". Five of these other 25 games, however, were special events or involved unusual promotion efforts, and these five averaged more than 233% of "expected". If these five unusual games are omitted from the group, the average of all small-college "more attractive" games facing local TV competition is reduced almost 23 points, and the average of <u>all</u>

"more attractive" games facing local telecasts, both small-college and large-college, drops from 103.7% to 92.4%.

The Table 4 figure for "more attractive" games facing regional TV competition was 107.3%. Included in this group were three large-college sellout games which averaged 281% of "expected", and six homecoming or crucial conference championship small-college games which averaged 287%. If these nine unusual games are excluded as special cases, the average attendance at all "more attractive" games facing regional telecasts drops from 107.3% to 98.6%. Similarly, within the non-regional and no-television competition groups, there are a very few games with extremely high attendance figures, because of unique situations, which distort to some extent the typical experience of the average game.

If these occasional special game situations are omitted from the calculations, the results give a clearer picture of the relative impact of the various types of television competition. Such results are presented in Table 5, which repeats the figures for "more attractive" games as given in Table 4, and then gives the same figures after eliminating those few games which were clearly atypical. The pattern is the same, but the differences are more clear-cut and all of them now reach the level of statistical significance.

TABLE 5

THE EFFECTS OF DIFFERENT TYPES OF TV COMPETITION ON MORE ATTRACTIVE GAMES BEFORE AND AFTER CORRECTION FOR CHANCE CLUSTERING OF GAMES
1955

Type of TV Competition	Percent of "Expected" Attendance*	
	Before Adjustment	After Adjustment
No TV	119.0	113.0
Interregional	113.6	107.0
Regional	107.3	98.6
Local	103.7	92.4

* A difference of 6.0 percent is significant at the p=.05 level.

It should be noted again that the foregoing discussion has been concerned with games characterized as "more attractive" rather than "less attractive". As shown in Table 4, and as found earlier in the 1953 and 1954 research, the "less attractive" games appear to be less affected by the type of television competition. Attendances at "less attractive" games are very significantly higher when there is no TV competition at all, but when there is TV competition, it seems to matter little whether the competing telecast is local, regional or non-regional in nature.

The probable explanation of the effect of type of TV competition on "more attractive" games but not on "less attractive" games probably lies in the differing types of audience which patronize the two kinds of games. Fans who attend "less attractive" games are more ardent in their interest and support, and are less likely to make distinctions among the televised games. But the "marginal fans" who contribute to the larger attendance of "more attractive" games are more responsive to the varying kinds of games available on free television. If the televised teams are from the same region, and consequently of some interest to the fan, he is less likely to attend at the stadium than he is if TV brings him two teams from some distant region in which he takes little interest.

NCAA District Differences

Four of the eight NCAA districts experienced gains in attendance during the past year while the other four reported losses. The New England and Middle Atlantic areas (Districts 1 and 2) reported the biggest losses while the Southeast and South West (Districts 3 and 6) reported the greatest gains.

TABLE 7

ATTENDANCE TRENDS BY NCAA DISTRICT

1954 - 1955

NCAA District	Percent of "Expected" Attendance*			
	1954	1955	Change	
1 - New England	79.6	65.8	down	13.8
2 - Middle Atlantic	74.6	61.4	down	13.2
3 - Southeast	86.7	102.0	up	15.3
4 - Midwest	97.9	102.4	up	4.5
5 - West Central	99.1	98.0	down	1.1
6 - Southwest	114.1	126.6	up	12.5
7 - Mountain	88.3	88.4	up	0.1
8 - Pacific	86.2	82.1	down	4.1

*Game attendance figures not adjusted for weather, game attractiveness or type of TV competition.

Since the data presented in this section are based on actual ticket sales, prior to adjustment for losses due to bad weather, it must be recognized that part of the substantial losses in the East are merely reflections of the weather factor. At a minimum about half of the drop in New England attendance and about a fifth of the Middle Atlantic losses are due to reduced ticket sales at the gate on bad weather dates. Over half of all major college games in New England were played in bad weather, while minor New England colleges reported one third of their games on bad weather dates. Middle Atlantic colleges were also affected by bad weather but less than their New England neighbors. Major colleges in the Middle Atlantic district indicated that about a third of their games were affected by bad weather, while minor colleges listed only 20% of their games in this situation.

The remainder of the attendance losses in the East were due principally to the shift in type of television competition. As Table 8 shows, regional TV competition in 1955 increased most sharply in the New England, Middle Atlantic and Pacific districts, where attendance losses (see Table 7) were also greatest. In New England there were almost nine times as many games exposed to regional TV competition in 1955 as in 1954, while in the Middle Atlantic states the increase was fourfold.

On the Pacific Coast the number of games played against regional telecasts was almost three times greater in 1955.

TABLE 8

Percent of Games Facing Different Types of TV Competition

1954 - 1955

NCAA District	No TV		Local		Regional		Inter-regional	
	1954	1955	1954	1955	1954	1955	1954	1955
1 - New England	3%	6%	20%	11%	5%	44%	72%	39%
2 - Middle Atlantic	12	10	15	14	9	36	64	40
3 - Southeast	31	58	8	2	3	3	58	37
4 - Midwest	27	26	12	13	23	54	38	7
5 - West Central	32	53	--	8	6	5	62	34
6 - Southwest	58	73	1	4	2	9	38	14
7 - Mountain	44	74	--	2	4	--	52	24
8 - Pacific	46	54	5	10	7	20	42	16
Total US	28%	39%	9%	9%	9%	26%	54%	26%

In contrast, the Southeast, which experienced the greatest attendance gains, also reported the biggest decline in television competition. The number of "blackout" games almost doubled in the Southeast, totalling almost 60% of all games in 1955. The Southwest also increased its No-TV games to almost 75% of the total schedule; only 13% of its games faced local or regional TV competition.

The experience of the different NCAA regions, varying widely in the amount and type of television competition they permitted, reinforces the over-all findings presented earlier. Games played without any TV competition are hurt the least, while games facing regional telecasts are hurt more than those played against non-regional telecasts. The 1955 attendance reports indicate that had it not been for the increase in regional telecasts, over-all gains in ticket sales would have been greater; and had it not been for the increase in "blackout" situations, the over-all attendance gains would have been lower.

Part 8 of 8

#8

THE EFFECTS OF TELEVISION ON COLLEGE FOOTBALL ATTENDANCE

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COLLEGE FOOTBALL ATTENDANCE

Introduction

The seven previous reports in this series have provided a continuing appraisal of the effects of television on college football attendance since the 1949 season. In summary, they have shown:

1950 - Heavy attendance losses under a policy of unlimited television, in spite of a relatively small number of TV sets

1951 - A slackening of the expected rate of loss, as a result of the NCAA program of limited TV

1952-53 - A general stabilizing of attendance trends at lower levels, as TV ownership approached universality and the limited TV program remained in effect

1954 - Resumption of moderate gains in attendance, as student enrollments and national income continued to grow, and the television situation remained the same

1955 - Continued growth of attendance, reflecting enrollment and income gains as offsets to more regional TV competition.

These TV effects have been described thoroughly and in detail, and for an extended discussion the reader is referred to NORC Report No. 5, published in 1954. Research during the 1956 season was aimed chiefly at continuing the evaluation of over-all attendance trends which have been charted during the past years.

It should be noted that responsibility for the research is now shared with the National Collegiate Athletic Bureau. Prior to 1955, the NORC staff gathered and analyzed all of the attendance data and assumed sole responsibility for its reports to the NCAA. During the past two years, as most NCAA members already know, the NCAB assumed the major responsibility for the collection of game reports, while NORC continues its sole responsibility for the analysis and conclusions presented here.

This year, as in past years, NCAA members did an outstanding job of supplying us with their detailed attendance reports. Only four of the colleges failed to cooperate this year, while the rest returned almost 97 percent of all game reports.

Overall Attendance Trends in 1956

Paid attendance at college football games scored an additional gain of almost 5 percent during the past season on its steady climb back to the pre-television levels of 1947-48. Over a half million additional tickets were sold during 1956 to push paid admissions over the 15 million mark for the first time since 1950. Total attendance is now within 2 percent of the 1947-48 average.

This recouping of attendance losses bears out the predictions made in Reports No. 6 and No. 7. As the basic underlying factors of student enrollment and national income maintain their record breaking rate of growth and the type of limited TV competition remains the same, it is to be expected that football ticket sales will also soon establish new records.

This does not mean that the harmful effects of even limited TV competition have been finally eliminated. It does suggest that they are being neutralized by the upward pressures of a prosperous and growing economy. During the past year, student enrollment at NCAA football playing colleges advanced an additional 6 percent to surpass the 1947-48 level. The student body at large colleges is now only 1 percent below pre-television enrollment, while small colleges are already more than 7 percent above pre-television years. Furthermore, disposable personal income, which is closely related to all consumer spending, expanded about 5 percent during the past year and is now almost 60 percent greater than the 1947-48 base years. Consequently, if there were no harmful effects of TV competition, total ticket sales could be expected to be well above the pre-television years. Actually, as we see, they are only just approaching those levels.

It should also be remembered that this delayed revival of paid admissions is occurring under limited TV competition. Were the present NCAA program to be replaced by wide open televising of top local games, all evidence indicates a renewed and substantial adverse effect on attendance. Table 1 summarizes the student enrollment and disposable income trends.

TABLE 1

STUDENT ENROLLMENT AND DISPOSABLE INCOME
1947 - 1956

	Student Enrollment 1/		Disposable Income 2/	
	Index '47-'48=100	% Change from Previous Year	Index '47-'48=100	% Change from Previous Year
1947-48	100.0	--	100.0	--
1949	98.7	down 1.3%	105.5	up 5.5%
1950	91.4	down 7.4	115.6	up 9.6
1951	82.5	down 9.7	126.8	up 9.7
1952	79.3	down 3.9	133.1	up 5.0
1953	80.9	up 2.0	140.3	up 5.4
1954	86.4	up 6.8	142.7	up 1.7
1955	94.8	up 9.7	151.7	up 6.3
1956	100.6	up 6.1	159.3	up 5.0

1/ Based on reports from NCAA football playing colleges.

2/ Based on U.S. Department of Commerce report published in July 1956 Survey of Current Business. The 1956 index is based on reports for the first nine months.

The TV Differential

In previous NORC reports, a major portion of the analysis was concerned with the "TV differential" -- the difference in attendance trends attributable to the isolated effects of television. Colleges in TV areas were separated from those outside of TV areas, and after all other major attendance variables had been equalized for all colleges, the remaining differences in attendance trends were attributed to television competition. The implicit assumption of this procedure was that there were enough different colleges in each major analytical category so that individual variations were averaged out.

In 1953, there were only 23 colleges outside of TV areas, and we indicated that the statistical validity of measuring a TV differential would soon become questionable. During 1954 there were only 12 colleges, 1955 only 6 colleges, and in 1956 a mere three colleges without any network TV competition. Consequently, the calculation of valid TV differentials is no longer possible.

To maintain a perspective of the over-all TV effects, however, we repeat a brief summary of past trends in the TV differential. There can be no reasonable doubt that telecast football games which provide fans with "free 50-yard seats" seriously affect ticket sales. In each of the four seasons from 1950 through 1953, colleges which were exposed to football competition on television reported attendances well below their pre-TV 1947-48 averages, while those colleges outside of television areas reported actual ticket sales well above their comparable 1947-48 average. This difference was observed consistently after all other relevant attendance factors, such as team performance, weather, attractiveness of schedule, traditional fan support, etc., had been statistically controlled.

In 1950 with over 9 million TV set owners, the loss in attendance attributable to television was almost 27 percent. In 1951, the first year of the NCAA's limited TV program, the TV differential dropped to 18.6 percent in spite of a better than 50% increase in TV ownership. But with set ownership jumping to almost 20 million in 1952, the TV differential rose again to 27 percent and remained at about that level in 1953. Table 2 summarizes this over-all TV differential in those years.

TABLE 2

THE TV DIFFERENTIAL 1950-1953

Year	Percent of "Expected" Attendance *		TV Differential
	Colleges With TV Competition	Colleges Without TV Competition	
1950	88.6	115.1	26.5
1951	85.1	103.7	18.6
1952	83.8	110.5	26.7
1953	81.6	109.3	27.7

* "Expected" attendance is the average paid attendance reported by each college for the two pre-television years 1947-48.

As we have indicated before, while there is no way of calculating precisely what the TV effect would now be under a policy of unlimited televising such as prevailed in 1950, some hint can be obtained by a closer look at that year's experience. Nationally, only 9 million TV sets were in use that year, in contrast with over 36 million in 1956. In 1950, most colleges in TV areas faced a situation in which only one family in three owned a television set; today TV sets are found in an average of three out of four homes. In 1950, only a few of the television areas could be considered "heavily saturated", while today practically all TV areas report set ownership among more than half the families.

If we look, however, at the 1950 experience of colleges in areas where TV ownership was already "heavy", we find that their TV differential was at the level of 40%, instead of the 28% we found nationally in 1953 -- when all areas were heavily saturated, but the televising of games was strictly limited. It is reasonable to assume that if the same televising conditions prevailed as in 1950, the current "heavy saturation" of TV ownership would produce this same 40% attendance differential attributable to TV. But even this calculation does not take into account the increased number of television stations, so that a fan who in 1950 had a choice of only one or two games on his local stations now have a choice of four or five in many areas.

The Effect of Game Attractiveness

Traditional college rivalries, conference standings and the expected spread in game scores still exert a major influence on the size of football attendance. The average "more attractive" game continued to draw about 49 percent more fans than the average "less attractive" game. While the attractiveness differential fluctuated somewhat for both large and small colleges, the changes were small and offset one another. Table 3 summarizes these trends.

TABLE 3

ATTENDANCE TRENDS BY SIZE OF COLLEGE *
AND GAME ATTRACTIVENESS
1953-1954

Large and Medium Colleges	Percent of "Expected" Attendance: More Attractive Games	Percent of "Expected" Attendance: Less Attractive Games	Attractiveness Differential
1953	103.2	58.1	45.1
1954	105.9	59.9	46.0
1955	109.9	59.6	49.4
1956	112.2	68.5	43.7 **
Small Colleges			
1953	107.1	58.0	49.1
1954	107.5	61.3	46.2
1955	112.8	64.1	48.7
1956	118.8	64.7	54.1 **
All Colleges			
1953	105.2	58.0	47.2
1954	106.7	60.6	46.1
1955	110.9	61.8	49.1
1956	115.5	66.6	48.9

* Only colleges subject to network TV competition are included in these analyses.

** A change of as much as 5.8 percent could be due to chance in 5 cases out of 100.

Type of TV Competition

In our early research in 1950, when unlimited TV competition prevailed, it was found that the more direct the television competition, the greater the loss in ticket sales. Colleges facing local teams on TV were hurt the most, while televised games involving teams from distant NCAA districts hurt the least.

During the past six years of NCAA's limited TV programs, there have been so few games facing local TV competition, that it has been impossible to retest the impact of this type of contest.

Another difficulty in assessing the effects of local TV is the fact that TV sponsors select the best and most attractive games for telecasting. Consequently, it is not surprising that stadium attendance at these televised games is also among the highest.

Under the NCAA television plans of the past two years, however, comparisons have been possible of the differential effects of regional and non-regional TV games, as well as the absence of TV competition. Over a fourth of all games are now played on Friday nights and other non-Saturday afternoon dates when there is no televised football competition. In addition, on the five Saturdays devoted to regional TV programs, no TV is shown in most areas of the Southeast, West Central and parts of the Southwest NCAA regions. These regional blackouts increase the number of games facing no TV competition to about 36% of all games. Likewise, the increase in the number of regional TV games from only 9% in 1954 to 30% in 1956, affords new opportunities for evaluating the effects of televising regional vs. non-regional games. Table 4 summarizes the trends in the numbers of games facing different types of TV competition during the past three seasons. A comparison of the past two years reveals very little change in the pattern of games.

TABLE 4

PERCENTAGE DISTRIBUTION OF NCAA FOOTBALL GAMES
BY TYPES OF TV COMPETITION
1954 - 1956

Kinds of Competition	1954	1955	1956
No TV	28%	39%	36%
Local	9	9	7
Regional	9	26	30
Non-regional	54	26	27
	100%	100%	100%

The overall 1956 findings on the effects of different types of TV programs reconfirm the pattern observed a year ago:

1. Games facing no TV competition have 8% better attendance than all games facing televised football competition.

2. Games facing no TV competition have almost 8% higher attendance than games facing non-regional TV competition.

3. Games facing non-regional TV competition are 8% better off than games competing with regional TV.

4. Regional TV hurts the most, with average attendance off 16 percent from the average game facing no TV.

5. Attendance at games facing local TV is high, but the number of games are few and the games included are generally a select group of the most attractive games.

6. The above patterns hold true for both large and small colleges.

7. The above patterns are also true for both more and less attractive small college games, but are not true for the less attractive large college games. 1/

Table 5 indicates the effects of different types of TV competition by size of college while Table 6 shows these effects by both size and game attractiveness.

TABLE 5

THE EFFECTS OF DIFFERENT TYPES OF TV COMPETITION ON COLLEGE FOOTBALL TICKET SALES FOR LARGE AND SMALL COLLEGES 1956

Type of TV Competition	Percent of "Expected Attendance" * All Games	Large Colleges**	Small Colleges**
No TV competition	97.4	95.9	98.9
TV competition	89.4	89.5	89.3
Local	95.9	101.1	90.7
Non-regional	89.5	85.3	93.8
Regional	81.4	79.2	83.6

* A difference of 5.8 percent is statistically significant (p=.05).

** A large college is one with an average 1947-48 game attendance of 5,000 or more, while a small college has an average of less than 5,000.

1/ There are only 37 less attractive small-college games facing non-regional TV competition, and four of them reflect the unusual growth of two colleges. If these four games are excluded, the average for the remaining 33 games is substantially reduced and the reamining differential between regional and non-regional games could be due to chance fluctuations.

TABLE 6

THE EFFECTS OF TV COMPETITION
BY SIZE OF COLLEGE AND GAME ATTRACTIVENESS
1956

Type of TV Competition	Percent of "Expected Attendance"			
	More Attractive Games		Less Attractive Games	
	Large College	Small College	Large College	Small College
No TV	120.2	124.6	71.6	73.2
TV	109.6	116.8	67.4	61.9
Local	119.7	129.7	82.4	51.6
Non-regional	110.0	112.9	60.5	74.6
Regional	98.9	107.8	59.4	59.4

A final observation on the differential effects of TV competition on large and small colleges may be of interest. Table 6 indicates that when games of like attractiveness and comparable TV competition are compared for large and small colleges, small colleges are found to do as well or better than large colleges. But when attendances of all games are averaged together, without controlling for game attractiveness or type of TV competition, small colleges have lower ticket sales. The overall average large college game attendance is found to almost equal the 1947-48 base, while the small college average game is 15% below 1947-48. This comparison is shown in Table 8.

In explanation of the above situation, it was found that the small colleges in 1956 faced more regional TV competition and had fewer no-TV games. Since games with no-TV competition have the highest average attendance and games facing regional TV have the lowest attendance, the combination of these factors probably results in the relatively poor attendance records at small colleges. Table 7 shows the 1956 distribution of games by size of college.

TABLE 7

PERCENTAGE DISTRIBUTION OF GAMES
BY TYPE OF TV COMPETITION AND SIZE OF COLLEGE
1956

Type of TV Competition	Large Colleges	Small Colleges
No TV	38%	33%
Local	7	8
Non-regional	29	24
Regional	26	36
Total	100%	100%

NCAA District Differences

All regions except the Southwest and Mountain districts shared in the overall attendance gains during the past season. Four of the districts experienced greater than average increases while the Southeast and Midwest had less than average advances in ticket sales.

It may be that reduced farm income contributed to the relatively lower attendance trends in the Southern and Western districts.

Another important factor contributing to the drop in the Mountain and Southwestern states was the expansion of regional telecasts and consequent sharp reduction of no-TV situations. In the Mountain states, the percent of all games facing no-TV dropped from 74% to 56%, while in the Southwest the percent of no-TV games fell from 73% to 66%. Since attendance at games facing no TV competition has been found to exceed ticket sales at other games by almost 10%, a reduction of these contests would explain much of the drop in attendance in these regions.

In New England, much improved weather conditions explain half of the gains during the past season. In the Middle Atlantic district improved weather conditions partly explain the substantial rise, but the inclusion of the unique Army-Navy sellout this year also accounts for a great deal of the overall gain. (Last

year the game report for the Army-Navy game arrived too late to be included in the analysis.)

The above average advance in the West Central and Pacific Coast states can be pinpointed to an increase in more attractive games and better team performance of a number of major colleges. In addition, student enrollment in the Pacific Coast colleges rose over 8% which is above the national average.

It should be emphasized again that these regional averages lump together all games and do not control for differences in weather, game attractiveness or type of TV competition. Table 8 reflects these overall NCAA district trends.

TABLE 8

ATTENDANCE TRENDS BY NCAA DISTRICT
1955 - 1956

NCAA District	Percent of "Expected" Attendance* 1955	1956	Change	
1. New England	65.8	77.7	Up	11.9
2. Middle Atlantic	61.4	69.3	Up	7.9
3. Southeast	102.0	102.8	Up	.8
4. Midwest	102.4	106.3	Up	3.9
5. West Central	98.0	108.9	Up	10.9
6. Southwest	126.6	123.5	Down	3.1
7. Mountain	88.4	78.1	Down	10.3
8. Pacific	82.1	89.5	Up	7.4
Total all major colleges	95.7	99.5	Up	3.8
Total all minor colleges	77.7	85.1	Up	7.4
Total all colleges	93.2	97.5	Up	4.3

* Game attendance figures are not adjusted for weather, game attractiveness or type of TV competition.

This report concludes ten years of football attendance analysis. By next year, if student enrollment and national income continue to grow, overall attendance should exceed the 15,250,000 recorded in 1947-48. It will then be advisable to shift the base years from 1947-48 to a more recent period. During the past ten years, some colleges have demphasized their football programs, while others have built new

stadia and increased their emphasis on football competition. These long term changes tend to distort comparisons of attendance in recent years with average attendance during a distant base period. It is fortunate, therefore, that changes from the pre-television base years will be of reduced interest and that a more recent base period can be established for future analyses.