

## TELEVISION: DO WE REALLY KNOW WHO WATCHES IT, AND HOW MUCH?

By J. Ronald Milavsky

Nothing is more fundamentally important to commercial television than audience measurement, usually referred to as "the ratings." They are the medium of exchange determining a great deal about how much advertising time will cost, and the resulting revenues from advertising — about \$9 billion a year for the networks alone -- pay for new programming. Apart from their commercial importance, TV ratings are a measure of the vitality of the medium, telling how much television, and what kinds of television, people are watching.

### Enter People Meters

Since 1987, the A.C. Nielsen Company has used a new method for measuring national TV audiences, called the people meter. The previous method was based on a combination of (a) set meters which measured what channel a household's TV set was tuned to and for how long, and (b) diaries kept by a separate sample of people in households. Data from the two samples were combined, yielding composite household ratings by demographic characteristics. The new people meter method is based on a single sample. Each person who resides in the selected households records his or her viewing by pressing buttons on a remote control device.

### A Terribly Demanding System

People who agree to be part of the sample must make a commitment to do certain things that ordinary viewers don't do. When their TV set is turned on, a red light on a device which rests on top of it goes on. Each person watching then must press a button on a remote control; when each does, a green light goes on. When all have pressed their buttons, a light flashes and continues to flash until an "OK" button is pressed to indicate that the individual buttons are registering correctly. This OK light flashes and demands response again when channels are changed and when the set stays tuned to the same station for a specified length of time. Each individual must check out whenever he or she stops watching — permanently, or even temporarily to answer the phone, use the facilities, or inspect the refrigerator. It's quite a chore. Household members are asked to undertake this commitment for two years.

The set meter used previously is now referred to as a "passive" meter, because once installed it was usually out-of-sight and could be out-of-mind as well. As we have seen, the people meter is anything but passive. It's always in plain sight, has lights, its own remote control, and household members must use it all the time.

There were three major reasons why the "active"

system was adopted. First, and most important, a British company, AGB, made a serious competitive play against Nielsen for the US market, promising to deliver nearly three times the sample with people meters at half the cost. They subsequently folded their tents, but before they left Nielsen met this competitive threat by developing its own people meter system. Second, AGB gave it a try because some sectors of the advertising industry had grown dissatisfied with the old system. Everyone in the survey research industry knows that response rates have been falling. Response rates to diaries were falling as fast and possibly faster, making their results more and more questionable. Finally, many thought that the proliferation of channels through the growth of independent stations and, especially, cable had pushed the task of filling out diaries beyond most people's capabilities. Thus the validity of diary data had become suspect.

### The Great Audience Vanishing Act

To those dissatisfied with the old method, the people meter seemed the only way. The networks went along very reluctantly, though, and never stopped complaining. Now, they have more cause than ever to complain. First quarter 1990 ratings data showed a drastic drop in total television viewing of 4.5 percent from the same quarter in 1989 — a 2.2% drop in prime time and 9.8% in daytime. Such declines are unprecedented. If real, nearly one out of 10 homes went "cold turkey" on television during the daytime in the latest January through March period — a degree of change in daily life activity that's hard to imagine. This drop is across all kinds of television, but the networks are especially unhappy. They sold time with audience guarantees which they cannot now meet, and they will have to give \$350 million worth of inventory back to advertisers. Not surprisingly, they are pressuring Nielsen to improve its people meter system.

### The SRI Study for CONTAM

Much of their pressure builds on the findings of a recent report that investigated Nielsen people meter methodology in more detail than ever before. It was sponsored by the Committee on National Television Audience Measurement (CONTAM), made up of the three networks, and conducted by Statistical Research Inc. (SRI) with whom Nielsen cooperated. The SRI report, issued late last year, consists of seven volumes and a total of about six hundred pages. It's available from SRI for \$50 — and is well worth it for anyone interested in audience measurement methodology.

### Problems of Sampling and Field Administration

Nielsen uses a multi-stage area probability sample down to the household level. The randomly selected household units are called Basic units, and are considered more valuable than substitute units, called Alternates. More effort goes into recruiting Basics. SRI notes that the consequence is

that Basics as a group are more reluctant participants than are Alternates. As a result, however, the viewing levels of Alternates are higher, probably because they are more involved with television. This is a case where commonsense is not as good as methodological insight. Basics are more valuable, but that should not be allowed to mean that efforts to recruit Alternates can be lessened. (Nielsen has not been known to have academically trained methods specialists on staff. They do have statisticians on staff.)

During a sample week, the response rate for Basic Households providing useable data was a very low 35 percent — probably insufficient for reliable estimates of overall viewing. SRI shows that response rates dropped sharply when people meter methodology was introduced. More problems are encountered in installing metering equipment in households with increasingly complex video equipment that keeps changing. Panel turnover is substantial. Dropout due to faulty or intermittent performance or refusal to continue is considerably higher than scheduled turnover of households who have served their terms. Among those who remain in the sample, there is evidence that the longer the tenure, the less viewing is registered. People get tired of all that button pushing.

### **Problems of Panel Contacts**

The volume of contacts between Nielsen staff and household members is high and this, SRI points out, is cause for concern. The more contacts, the greater the chance the people who measure will affect those they are measuring. Contacts occur in recruitment, in the installation and maintenance of metering equipment, and through the incentive system of cash and premium gifts that are provided to encourage participation. The more complex the video equipment, the more contacts. Households with children have more contacts because of special incentives for children.

Investigation of training procedures revealed inconsistencies in the definition of viewing that guide participants' data entry. Participants are sometimes told they must push buttons upon entering the room to watch television and upon leaving it. At other times they are told to push buttons when they start or stop watching. They were also told that participation is a chance to influence what is on television, to vote for their favorite programs. The latter may convert what is supposed to be a simple behavioral measure into a preference measure. Nielsen reports it has stopped the latter practice, following the SRI report. It had only sought to motivate participation. What it wound up doing is anyone's guess.

Other problems surround task definition. There is only one Nielsen remote control and, although each household member is supposed to push his or her own button, members also are encouraged to push buttons for others who neglect the task. Some members have to judge when others are watching. But an operational definition of watching that covers such

things as sporadic viewing or viewing as a secondary or tertiary activity isn't provided, so one has to wonder what is being recorded for the members who don't push their own buttons. Children are a special problem, especially those too young to take responsibility for the task — and this has severe implications for the future of children's programming. In a commercial system ratings are as important a guide for creators of children's programs as they are for creators of adult programs.

### **Exit Interviews**

One of the SRI volumes is based on interviews with 112 households — all that could be contacted from a list provided by Nielsen of 125 households who had once been part of the people meter panel but were no longer in it. Half of the 125 were "scheduled turnover" households — having served the full two years. The other half were "non-scheduled turnovers," having moved, or been forced out because of poor performance or lack of cooperation, or having withdrawn on their own. The proportions do not reflect the statistical reality of turnover, since non-scheduled outnumbers scheduled by three to one. In short, those interviewed here are skewed toward those who stayed with the system and thus are probably more positive toward it than the others.

SRI found many people who said they participated because they wanted to influence television programming. This reinforces concerns that the ratings reflect abstract preferences as well as (or instead of) behavior. Another large group participated because they felt "honored" to be included. Almost no one said he or she participated out of a sense of duty, or even out of desire for the money or gift compensation. Many adults reported low levels of compliance in pushing buttons due to fatigue or simple neglect much of the time. They reported even lower levels of compliance by the children. Twenty-eight households had children -- all of whom were interviewed. A sizeable minority said they had not understood what they were supposed to do. Most children said someone else in the household pushed buttons for them. Many reported playing with the meter or the remote which entered incorrect data, which the parents said they had to correct.

In general, the exit interviews tend to confirm that there are problems with the intrusiveness of the system, with lack of compliance and fatigue for adults and especially children, and problems resulting from the desire to influence programming on television which would seem to mean that viewing is underreported for most programs and overreported for those considered socially desirable. These problems might well be more severe than indicated in this small sample of households, not representative of problem households in the system.

### **Conclusion**

The focus of the SRI report for CONTAM was entirely on how to make Nielsen's people meter system work

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By William S. Rubens

better. Nielsen already has made changes based on the report's findings. One hopes that the effects of the changes will be monitored closely to make sure that they truly are system improvements, and not just concessions to those who are shouting the loudest right now. However, the key question remains open — if Nielsen did everything that SRI suggested, would the resulting ratings be good enough to provide the metric on which to base the exchange of television time for billions of dollars?

It's highly unlikely they would. There is ample evidence in the report that the task required of participants is just too demanding. They don't stick with it. They probably can't be induced to, within the structure set by the technology and economics of the present system. The SRI report leads inexorably to the conclusion that what is needed is not patching the present system, but developing a new one.

### Addendum

As this article goes to press, there has been a news report that AGB, which started the move to people meters, has been invited by the networks back to develop a system that will compete with Nielsen's (New York Times, June 16). Allegations that there was an active invitation were quickly denied by network spokesman (NYT, June 19), but there is no doubt that active searches for other ratings systems are underway. AGB, now with the deep pockets of a new owner, Robert Maxwell, is bound to be a major player. Competition can lead to improvements. However, there is also the danger of "fixing" the problems in ways that are not really research improvements. For example, among the virtues of AGB's system cited by unnamed network spokesmen is that AGB "monitors" the performance of its sample more closely by keeping even closer contact with sample members than Nielsen does, and that it does this either to bring its button pushing levels up to snuff or eject the household from the sample. Furthermore, it weights the sample to make up for low levels of button pushing by certain demographic groups. As a result, AGB's system is "more stable." Stability can certainly be attractive to sellers of time, but these ways of achieving it make the possibility of "fixing" the numbers greater than the possibility of fixing the system. The advertisers who pay for the time at a value which is set by the system are staying out of the controversy so far, leaving it to the networks and the advertising agencies to fight out. Advertisers ought to remember that both parties are arguing only about how much of their money they will share.

When I think about television, I think about a viewer watching a program on a television set. The viewer can be at home or away from home, watching alone or with friends and family. Overall program content for this viewer hasn't changed fundamentally, but the structure for delivering programs has been transformed. As a result, the range of choices given viewers has expanded enormously.

### Networks in Eclipse

Even into the eighties the commercial TV networks were the dominant program distributors. In the early seventies, for instance, upwards of 90% of prime-time viewing was of network programs. But in recent years the networks have seen their share erode rapidly, to about 60% in the current season. The audience has gone to independent stations, to a fourth network, to cable (pay and basic) and to other technologies like VCRs. VCR penetration has climbed to 66% of all TV households. Direct broadcasting from satellites to homes (DBS) is in the planning stages by two different consortia but today is not a factor in the US.

Between 1983 and 1989, the number of independent stations doubled, from 197 to 398. Cable systems carry UHF independents — which improves their coverage of local markets. And the programs telecast over independents have become more popular. Fox emerged in 1986 and now, four years later, has 129 affiliate stations in 45 states and offers nine hours of prime-time programming each week. Many "independents" are part of the Fox network. The emergence of Fox has been particularly troublesome to the networks, having syphoned off young viewers, for whom advertisers pay a premium.

### The Impact of Cable

Today in the US, in contrast to Europe, it's cable which has transformed the television scene. There are about 20 cable networks measured by Nielsen. Since 1984, overall cable penetration has increased 20% (from 50% to 60%) of all households, and cable networks are reaching a higher proportion of cable homes than ever before. With the exception of HBO (a pay cable network which does not compete for advertising dollars), WTBS (a "super station"), ESPN (a sports network which does well in the fall during football season) and USA (which carries mostly network reruns and made-for-cable movies and wrestling), the cable networks still get very small ratings. But the ratings are certain to increase, because

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