I. INTRODUCTION

It has been evident for some time that long held assumptions about TV's reach capabilities need to be rethought in light of today's audience definitions, rating fragmentation and the constant increases in commercial loads that are causing people to avoid ad messages by skipping commercials and spending more time with ad-free TV. This report analyzes the situation, including comparisons with old TV reach tables, and presents our independent estimates of what TV reach tables should look like today.

Using a variety of sources, including our own estimates, the bulk of this report presents 4-week adult reach tables by GRP level, starting with 1 GRP and rising one point at a time to 500 GRPs, after which we extend the tables to 1000 GRPs in 100 GRP intervals. Tables are provided covering early AM, daytime, early fringe, primetime and late evening, for 18 basic demos (adults/men/women aged 18+, 18-34, 18-49, 25-54, 55+ and H.H. income $150,000+).

We have also included a formula for combining reach estimates across dayparts, which will be of interest to users of this report.

II. DEFINING THE PROBLEM

Traditionally, media planners rely on generalized TV reach tables to guide them in making recommendations to their clients on how best to use the medium. These tables are usually synthesized from tabulations of actual schedules using a source like Nielsen's national meter panel. Such reach tables are updated periodically but it is not unusual for a lapse of 10 years or longer between updates. This has now become a problem, as the heightened rating fragmentation of the last 5-8 years, along with the success of stand-alone subscription services like Netflix, has altered the reach capabilities of traditional TV platforms, namely the broadcast TV networks, national program syndicators and basic cable channels. Where ad-free TV, mainly PBS and pay cable—used to account for about 8-9% of all TV viewing time, current estimates indicate that with the addition of subscription-video-on-demand (SVOD) services like Netflix, Amazon Prime and Hulu Plus, which combined reach more than 45% of U.S. TV homes, ad-free platforms now account for approximately 16% of all viewing and this percentage is rising.

Another problem is DVR ad avoidance. Approximately half of all TV homes have DVRs and these households do about 20-30% of their viewing on a delayed basis, and skip 50% or more of the commercials in such programs. Much of this avoidance is concentrated in primetime, especially for broadcast network shows.

When advertisers and their agencies pressured TV ad sellers to move their buying currency from all content averages to commercial minute ratings, this, too, altered the validity of existing TV reach tables, which had been based on all-content ratings. Increasingly, evidence suggests that a particular segment of the population now makes it a general practice to use their DVRs to avoid commercials, especially for primetime fare. How many are chronic avoiders is not known, but if 10-15% of the population falls into this category (as we suspect), this creates a variable reach ceiling for TV that in the past did not exist. This means that outmoded reach tables overstate the case.

The combined effects of all of these factors have been evident in current reach tabulations we have been seeing. A recent Nielsen analysis reported that only 87% of its adult panel members watched any TV shows aired by the broadcast TV networks, local stations, syndicators or cable channels in a typical week, while TV's weekly reach was only 76% among adults aged 18-34. By comparison, in TV's heyday—before cable, DVR and SVOD services came into being— the corresponding 18-49 or 25-54 figures would have been in the mid- to high-90s and at least 10 points higher for 18-34s.

To demonstrate the changes in the broadcast TV networks' primetime reach, we have gone back in our files to resurrect primetime network reach tables from the 1975-80 and 1995-2000 periods and compared them with our latest estimates. As can be seen in Table A, a 20-GRP buy in 1975-80 generated an 18% 4-week reach, whereas the current projection for the same number of GRPs is only a 13% reach. In 1975-80, a huge 1,000 GRP buy could be expected to reach 94% of all adults, but today's figure is only 69% (see Table A).

TABLE A

ADULT 18+ 4-WEEK REACH ESTIMATES FOR BROADCAST NETWORK PRIMETIME BUYS

	4-WK. REACH		
GRPs	**1975-80**	**1995-2000**	**2015-16**
20	18	16	13
40	36	31	20
60	44	40	26
80	52	46	32
100	60	52	38
120	65	55	42
140	70	58	46
160	74	61	50
180	78	64	52
200	80	67	54
300	88	76	62
400	92	79	66
500	94	81	69

Source: Media Dynamics, Inc.

III. MEDIA DYNAMICS, INC. REACH TABLES—OUR UNIQUE PERSPECTIVE

As noted in the introduction, we have drawn upon our decades of experience in the media audience business and conducted a review of recent data to create reach tables that accurately represent the five major TV dayparts: early AM (M-F 6-9am), daytime (M-F 9am-5pm), early fringe (M-F 5-8pm), primetime (Mon.-Sun. 8-1pm) and late fringe (M-F 11pm-2am), plus an early and late fringe combination.

In addition to the issues raised earlier (rating fragmentation, DVR zapping, SVOD services, etc.), we have examined a large number of ad schedules to get a better idea of how brands actually disperse their TV buys. This is important because media planners often assume a wide dispersal—many programs, many channels—when using reach tables; however, in actual practice this is not the case when corporate upfront buys are actually allocated to the brands. This is especially noticeable in cable and daytime or fringe evening shows when the same brand's commercials frequently appear in every episode one day after another, without regard for the consequences of overexposure and loss of reach. Taking this into account, our tables use somewhat lower reach levels in an attempt to reflect the fact that "dispersed" TV ad scheduling as it is currently executed may not be as diverse as is assumed.

Table B presents a summary of the adult (18+) reach tables for the five dayparts plus an early and late fringe combination. As can be seen, the familiar patterns still prevail, with primetime delivering the highest reach levels—providing broadcast and cable are utilized—followed by early evening, daytime and late fringe. As before, a 50/50 combination of early and late fringe provides significant reach levels (see Table B).

We have included standard adult/men/women age breaks (18+, 18-34, 18-49, 25-54, 55+) and upscale adults (H.H. income $150,000+) estimates for all tables.

TABLE B

ADULT 18+ 4-WEEK REACH ESTIMATES FOR SIX TV DAYPARTS

	4-WK. REACH					
GRPs	EARLY AM[3]	DAY-TIME[1]	EARLY FRINGE[2]	PRIME[3]	LATE FRINGE[1]	E.&L. FRINGE
25	4.7	11.2	11.7	17.6	9.9	15.3
50	7.4	19.3	19.2	28.1	15.7	25.2
75	9.4	24.3	24.7	38.5	20.1	32.4
100	10.6	28.4	29.7	45.5	22.6	38.9
125	11.8	31.6	33.1	51.2	25.2	43.4
150	13.0	33.7	35.6	57.5	27.7	46.6
175	14.2	37.3	38.1	62.3	30.7	49.9
200	15.2	39.4	40.5	65.3	32.4	53.1
225	15.8	41.3	43.0	68.2	33.6	56.3
250	16.4	42.8	44.8	70.9	34.9	58.7
275	17.0	44.1	46.0	72.5	36.1	60.3
300	17.6	45.4	46.8	73.9	37.4	61.3
325	18.2	46.7	48.1	75.6	38.7	63.0
350	18.8	47.6	49.3	77.0	40.0	64.6
375	19.2	48.6	50.6	78.6	40.8	66.3
400	19.6	49.4	51.9	79.7	41.6	68.0
425	20.0	50.1	53.2	80.6	42.5	69.7
450	20.4	50.9	54.1	81.7	43.4	70.9
475	20.8	51.4	54.8	82.7	44.2	71.8
500	21.1	51.7	55.6	83.3	44.9	72.8
1000	22.2	52.3	58.0	87.2	47.2	75.6

[1]Broadcast nets./cable/syndication, ⅓ GRPs each.
[2]Cable/syndication, 50% GRPs each.
[3]Broadcast nets./cable, 50% GRPs each.

Source: Media Dynamics, Inc.

Finally, we come to the question of combining dayparts. In the absence of tables that provide reach attainment estimates across dayparts (there are too many possible combinations to make such tables practical), media planners often resort to the random duplication principle to come up with a figure. For example, if a planner is contemplating a plan that generates a 50% reach in primetime and a 30% reach in daytime, it is important to show the client what the total 4-week reach of the proposed TV schedule would be. Clearly, it can't be lower than 50%, since this is what primetime alone delivers. Nor can it be greater than the sum of the two reach figures (80%), as this would indicate no duplication between the two audiences. So the answer lies somewhere between 50% and 80%.

The random duplication concept assumes that 50% of the daytime audience is also reached in primetime or, conversely, that 30% of the primetime reach is also exposed to the ads in the daytime. The result in either case is the same, creating a duplicated reach estimate of 15 (.50 x 30). Given that assumption, one merely calculates the gross reach (50 x 30 = 80) and subtracts the duplicated portion (15), resulting in a combined prime plus day reach of 65.

Presenting this as a formula, we take the sum of the two reaches (a + b) minus their product (a x b) to calculate the reach: (a + b) - (a x b) = reach.

In the event that a third daypart is used, say late fringe with a 20% reach, the process is the same, only this time we start with the calculated reach of the first pair (65) and add to it the third component to obtain our gross reach (65 + 20 = 85). Again, the duplication is calculated by multiplication (65 x .20 = 13) and this is subtracted from the gross (85 – 13 = 72) to get the reach for all three dayparts. If a fourth daypart is added, once again the process repeats, with the three-daypart reach (72) being combined with that of the fourth.

The problem with this becomes evident if the formula is applied to the 1,000 GRP reach estimates for all four of the dayparts, as shown in Table B. This yields a 98.7% 4-week adult reach estimate for 4,000 GRPs, yet according to Nielsen, about 3% of U.S. TV homes are broadband-only and without a TV receiver, while research indicates that another somewhat larger group (perhaps 3-5%) almost never watches traditional TV anymore.

Clearly some sort of downward adjustment to the random duplication formula calculations is indicated, so we have developed what we believe to be realistic downward adjustment factors for pairs, trios, quartets and quintets of TV dayparts. These are summarized in Table C. For example, if one is combining daytime and early fringe and the calculated reach is 18.1%, the adjustment factor as shown in the table for reach levels ranging from 10-19 is 3%. Applying this factor, our reach would decline to 17.6%. In like manner, if we had a combined four-daypart reach calculation yielding 97.8%, the reduction factor is 1.1%, which reduces the estimate to 96.7.

TABLE C

FOUR-WEEK TV REACH ADJUSTMENT FACTORS

	REDUCTION FACTORS BY CALCULATED REACH LEVEL									
	<	**10-**	**20-**	**30-**	**40-**	**50-**	**60-**	**70-**	**80-**	**90**
	10	**19**	**29**	**39**	**49**	**59**	**69**	**79**	**89**	**+**
TV Daypart Pairs										
EAM + Day	3.5	3.3	3.0	2.6	2.5	2.4	2.3	2.2	2.0	1.9
EAM + EF	2.6	2.5	2.5	2.4	2.3	2.2	2.1	2.0	1.9	1.8
EAM + P	1.9	1.8	1.8	1.7	1.7	1.6	1.5	1.4	1.4	1.3
EAM + LF	2.1	2.0	2.0	1.9	1.8	1.7	1.7	1.7	1.6	1.6
Day + EF	3.4	3.0	2.7	2.3	2.0	1.8	1.6	1.5	1.4	1.3
Day + P	1.8	1.6	1.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Day + LF	2.5	2.2	1.9	1.7	1.5	1.5	1.5	1.5	1.5	1.5
EF + P	1.6	1.4	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1
EF + LF	1.9	1.7	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.3
LF + P	2.8	2.5	2.2	1.9	1.9	1.9	1.9	1.8	1.8	1.8
TV Daypart Combos										
All Trios	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3
All Quartets	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1
All Quintets	1.0	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5

Note: EAM-early AM, EF—early fringe; P—primetime; LF—late fringe.

Source: *Media Dynamics, Inc.*

REACH TABLES INCLUDED IN THIS REPORT

Demographic Breaks For Each Table: 18+, 18-34, 18-49, 25-54, 55+ and Household Income $150K+