

Table III.1: Statistical Tests on VHF and UHF Stations' Profitability with the Growth of Cable				
Related Profitability Figure	Station Group	Test on Constancy of	Chi-Square Value	Statistical Result
Figure III.1	Affiliates: Nationwide	Profitability	9.24 (accept)	Profitability is constant
	UHF Independents: Nationwide	Profitability spread compared to affiliates nationwide	168.98 (reject)	Profitability spread has not decreased
Figure III.3	Affiliates: Top 10 Markets	Profitability	7.28 (accept)	Profitability is constant
	UHF Independents: Top 10 Markets	Profitability spread compared to affiliates in top 10 markets	84.40 (reject)	Profitability spread has not decreased
Figure III.4	Affiliates: Nationwide	Profitability	9.24 (accept)	Profitability is constant
	UHF Affiliates: Nationwide	Profitability spread compared to affiliates nationwide	17.81 (accept)	Profitability spread is constant

Source: National Association of Broadcaster, Television Financial Report, 1976-1985 and NAB/BCFM, Television Financial Report, 1986-1992

D. A SIGNIFICANT UHF VS. VHF GAP REMAINS FOR THE SAME PROGRAMS SHOWN AT THE SAME TIME ON THE FOX NETWORK.

In this section, we test empirically whether the UHF handicap, defined in terms of ratings, still persists. One can hypothesize that an individual program's rating is determined by a number of factors: the program itself, its time slot, day of the week, tastes of the viewers, the channel (UHF or VHF) the program is on, as well as other factors. To determine the relationship between ratings and whether a channel is UHF or VHF, one would like to compare a program's ratings on a UHF channel against its ratings on a VHF channel in the same market.

Unfortunately, this experiment is not possible. But a regression that holds the appropriate other factors constant accomplishes the same thing. By matching programs and time slots and the relevant factors other than channel, we can examine the effect of the UHF-VHF difference on a program's ratings.

Our empirical test of the UHF ratings handicap is based on the ratings of the same Fox program in the same time slot across cities for 1993 taken from the Arbitron database. This data allow us to compare the same program on the same day in the same time slot across markets where the program is shown on UHF channels and VHF channels. Differences in other factors, such as income, and city size, are taken into account, so a UHF vs. VHF comparison can be made. Fox affiliates are a mix of UHF and VHF stations so a UHF vs. VHF test can be done.

Among the Fox stations in the top 75 ranked cities²⁶ in 1993, we selected matched programs in the 8:00-8:30 and 8:30-9:00 time periods for the Eastern and Pacific time zones and 7:00-7:30 and 7:30-8:00 time periods in the Central and Mountain time zones for Monday through Friday. On Monday, Wednesday, and Friday all Fox stations air a one hour program during this period. On Tuesday and Thursday, there are two half-hour shows. The programs are listed in Table III.2 below.

The rating in each of these time periods in each of the top 75 ranked cities for the Fox programs is determined by a number of factors. Competing stations in each city will influence Fox's rating with more competing stations tending to lower Fox's rating. The size of the city, as measured by Arbitron television households also might affect ratings, because we see more station specialization by program type in larger markets. Cable penetration is another explanatory factor. Since cable offers more channels, higher cable penetration might lead to a lower Fox rating. However, if Fox is on a UHF channel, higher cable penetration might lead to a higher Fox rating due to better reception. Two final possible explanatory factors are the ethnic composition of each city and regional tastes.

²⁶ Actually, only 74 markets are used in the analysis. Lexington, KY is omitted because it does not have a Fox station.

Table III.2: Prime Time Programs Shown on UHF and VHF Fox Stations		
	First Half Hour	Second Half Hour
Monday	Fox Night at Movies	Fox Night at Movies
Tuesday	Roc	Bakersfield PD
Wednesday	Beverly Hills 90210	Beverly Hills 90210
Thursday	The Simpsons	Sinbad Show
Friday	Adv Brsco Jr.	Adv Brsco Jr.

The Fox program's Arbitron rating for each of the ten half hour periods is explained, using regression analysis, by:

- Fox station on a UHF or VHF channel;
- The number of non-Fox commercial UHF channels;
- The number of non-Fox commercial VHF channels;
- Thousands of television households as measured by Arbitron;
- Cable penetration as measured by Arbitron; and
- Ethnic composition of the population from the 1990 Census as measured by the shares of the city population which is black and Hispanic.

A detailed discussion of the regression methodology and results is presented in **Appendix C**.

The regressions show that broadcasting on a UHF channel decreases the program's ratings for each day and half hour studied (see **Table III.3** below). The range of ratings decreases are from four ratings points in Wednesday's two half hours to one rating point in the second half hour of Monday.

Table III.3: UHF Ratings Disadvantages		
	First Half Hour	Second Half Hour
Monday	1.38	1.09
Tuesday	1.32	1.34
Wednesday	3.89	4.05
Thursday	2.21	1.20
Friday	2.15	1.99
Average Monday Through Friday	2.06	

E. STRONG, WELL ESTABLISHED AFFILIATES IN LOCAL MARKETS ARE ONE IMPORTANT SOURCE OF THE NETWORKS' MARKET POWER

The economic logic underlying the Commission's assertion that major broadcast network dominance has declined because of increased competition from independent stations and cable is seriously flawed. An increase in the aggregate market share of the universe of independent television stations does not mean that the representative independent station is in a stronger competitive position in its broadcast market relative to networks.

Nor does it mean that the representative independent station is in a stronger competitive position vis-a-vis local affiliates. The presumption in the Notice that the increase in the overall number of independent television stations gives any one of those stations an enhanced ability to compete with a network affiliate or a network in a local broadcast market is a simple fallacy of composition. As demonstrated in the preceding sections, the individual independent station's profitability in a representative broadcast market has worsened in the past decade, relative to affiliate profitability as well as absolutely. This makes it harder for that station to compete with the local cable company and with local broadcast affiliates in the market for local advertising and targeted "national" spot dollars.

The Notice maintains that affiliates switching networks is proof of the decline in the market power of the networks over their affiliates, when in fact having a dominant local station in each top market is essential for the network to maintain its pricing structure with national advertisers. PTAR was, and continues to be, one of the few regulations that restricts the economic dominance of local market affiliates vis-a-vis independent stations.

IV. THE ECONOMIC IMPACT OF REPEALING THE PRIME TIME ACCESS RULE IS ANTI-COMPETITIVE AND NOT IN THE VIEWING PUBLIC'S INTEREST

A. THE IMPACT ON INDEPENDENT TELEVISION STATIONS FROM REPEALING PTAR IS A 58% DROP IN ACCESS PERIOD RATINGS

- 1. The econometric results are based on models which adjust the historical impact of PTAR for all major structural changes in the market since PTAR was implemented**

Because PTAR regulates broadcasting markets, one would expect that it has had a direct impact on these markets as well as the syndicated program market. One would therefore expect that the repeal of PTAR also would have an impact on broadcasting markets. In **Appendix D** we present a detailed analysis of the impact on independent television stations from repealing PTAR. Here, we summarize those results and describe the predictive models used to derive the results.

In our models we have made an effort to correct for all the major structural changes in the broadcast marketplace that have occurred since PTAR was implemented, including changes discussed in the Notice, and additional factors. We have done this for two reasons. First, these structural changes are cited in the Notice as reasons why PTAR may no longer be needed. Second, the structural models must incorporate such changes in order to be predictive models.

The structural changes by local market that we incorporated based on the Notice include growth of cable penetration, increase in the number of broadcast

television stations in a market, and the emergence of Fox as a fourth network. Since the decline in major network audiences is directly reflected in our data base, it also is accounted for as a structural change. The additional structural changes for which we have adjusted are the changes in the size and wealth of each ADI market. We have made this adjustment because one might hypothesize that while PTAR had an impact originally in all top 50 markets, it might not be necessary any longer for markets which have experienced rapid population growth or rapid growth in per capita income.

The years, time periods and cities chosen for our econometric modeling are discussed in detail in **Appendix D**. Here, we make a few summary observations only. To estimate the regulatory impact of a rule such as PTAR, one must first establish the impact of the rule in its purest form by gathering considerable data before the regulatory change took place and immediately after the change took place. The number of such data points must be sufficiently large before as after in order to establish a statistically strong view of the pre-PTAR world that can then be compared with a post-PTAR world. One or two years of pre-PTAR data combined with several years of post-PTAR data would not give sufficient information to establish a statistically significant pre-PTAR/post-PTAR change.

It would be almost impossible to estimate the impact of a regulatory change like PTAR by using only recent data. The regulation has been in effect throughout the past two decades, and one would have no control group. Comparing the top 50 markets to other markets does not solve this problem because the three hour restriction applies to all markets in practice. Further as demonstrated in **Section II.C**, programming decisions for quality prime access first run syndicated programs outside the top 50 markets are highly interdependent upon prior decisions made in the top 50 markets.

The major time series issue in selecting our sample was, therefore, how to structure the collection of post-PTAR data. We chose a series of consecutive years following the implementation of the rule on the hypothesis that there were either short run or medium term impacts, or both, on independent stations. We

then added a set of more recent years designed to capture the effects of the structural changes, such as the growth of cable, noted above.

The major cross-sectional issue we faced was how many markets to sample and what time periods to sample. While PTAR's off-network restriction applies to the top 50 markets, as noted in practice, the three hour restriction does not. Further, while there are now a number of independent stations in markets 31 through 50 and beyond, when PTAR was first implemented there were almost no independent stations below the top 30 markets. For these reasons we chose to focus on the top 30 ADI markets for fourteen years as the best available proxy for estimating the overall impact of PTAR in the top 50 markets, and beyond.

Finally, we chose to sample Arbitron ratings for November of each year, for 7:30 p.m. - 8:00 p.m. in the Eastern and Pacific time zones, and 6:30 p.m. - 7:00 p.m. in the Central and Mountain time zones. We chose the half hour period as representing a pure PTAR impact. As is well known, before PTAR was implemented, the major networks did not typically program the first half hour of the prime time access period. Thus, there would have been statistical "noise" had we included the full hour, rather than the half hour of time that PTAR actually cleared of network broadcasting. Also PTAR waivers and news appearing during the access period in Central and Mountain time zones render the first half-hour problematic. We also sampled two additional periods, representing the two half hours immediately following the access period. November data were chosen as being closest to Section 73.658.k. (4) of the Commission's original Rule defining the top 50 markets as of September 1, each year; as being closest to the phase-in dates and effective dates of changes in the Rule; and because only the major sweeps periods, such as November, afford sufficient city coverage with which to conduct the tests.

2. **There will be an immediate and substantial decline in the ratings/shares of independent stations subject to PTAR on the order of 2.34 rating points during the access period.**

It is our best judgment that the repeal of PTAR will produce an immediate and substantial decline in the access period ratings of independent television stations on the order of 2.34 rating points on average across markets and stations.²⁷ Since the average access period rating for an independent station is 4.01 ratings points across these markets, the repeal of PTAR would cause the access period ratings of an independent station in the top 50 markets to drop by 58 percent on average.

It is recognized within the industry that independent television stations rely on the access period for a disproportionate amount of their total profits over all dayparts. Therefore, we can predict that the impact of repealing PTAR would be reflected immediately in reduced earnings for those companies (from an already shaky base).

The impact on ratings and profitability of independent stations would be worse than the access period losses alone, because there is a statistically significant carry over effect from access period ratings into the following prime time hour. On average, over the one and one half hour time period studied, there would have been a fall in ratings of 2.8 points from a base of 4.15 ratings points with PTAR. This represents a 67 percent difference. These impacts are based on the last available ratings base we have, historical data from 1993. That is, had PTAR been repealed in 1993 before November, the ratings declines would have been as discussed above.

The predicted decline from 1995 through 2004 for a representative independent station in each of the top 30 ADI markets is shown in Table IV.1. On average across all 30 markets, the access period ratings would decline by 2.34 points for 1995. Across all three time periods, the decline would be 3.1 points for a representative independent station.

²⁷ Our model does not incorporate the term structure of syndication contracts for off-network programs. The immediate impact would occur for stations whose contracts are up for renewal.

Table IV.1**Predicted Access Period Ratings Losses of an Average Independent Station
from Repeal of PTAR**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Market 1	1.36	1.43	1.51	1.59	1.66	1.74	1.82	1.89	1.97	2.05
Market 2	-0.46	-0.40	-0.34	-0.28	-0.22	-0.17	-0.11	-0.05	0.01	0.07
Market 3	-1.43	-1.40	-1.36	-1.33	-1.30	-1.27	-1.24	-1.21	-1.18	-1.15
Market 4	-1.72	-1.69	-1.66	-1.63	-1.59	-1.56	-1.53	-1.49	-1.46	-1.43
Market 5	-1.40	-1.34	-1.29	-1.23	-1.17	-1.12	-1.06	-1.01	-0.95	-0.89
Market 6	-2.02	-1.99	-1.96	-1.94	-1.91	-1.89	-1.86	-1.84	-1.81	-1.78
Market 7	-2.23	-2.22	-2.20	-2.18	-2.16	-2.14	-2.12	-2.10	-2.09	-2.07
Market 8	-2.31	-2.29	-2.27	-2.25	-2.23	-2.20	-2.18	-2.16	-2.14	-2.12
Market 9	-2.31	-2.28	-2.26	-2.24	-2.22	-2.19	-2.17	-2.15	-2.12	-2.10
Market 10	-2.49	-2.47	-2.45	-2.42	-2.40	-2.38	-2.36	-2.34	-2.32	-2.29
Market 11	-2.50	-2.48	-2.46	-2.44	-2.42	-2.40	-2.37	-2.35	-2.33	-2.31
Market 12	-2.54	-2.51	-2.49	-2.47	-2.45	-2.42	-2.40	-2.38	-2.36	-2.33
Market 13	-2.44	-2.41	-2.38	-2.36	-2.33	-2.30	-2.28	-2.25	-2.22	-2.20
Market 14	-2.56	-2.54	-2.52	-2.50	-2.48	-2.46	-2.43	-2.41	-2.39	-2.37
Market 15	-2.69	-2.67	-2.66	-2.64	-2.62	-2.61	-2.59	-2.58	-2.56	-2.55
Market 16	-2.71	-2.70	-2.68	-2.66	-2.65	-2.63	-2.61	-2.60	-2.58	-2.56
Market 17	-2.70	-2.68	-2.67	-2.65	-2.63	-2.61	-2.60	-2.58	-2.56	-2.54
Market 18	-2.72	-2.71	-2.69	-2.68	-2.66	-2.65	-2.63	-2.61	-2.60	-2.58
Market 19	-2.78	-2.77	-2.75	-2.74	-2.72	-2.71	-2.69	-2.68	-2.66	-2.65
Market 20	-2.74	-2.73	-2.71	-2.69	-2.68	-2.66	-2.64	-2.63	-2.61	-2.59
Market 21	-2.84	-2.82	-2.81	-2.80	-2.79	-2.77	-2.76	-2.75	-2.74	-2.73
Market 22	-2.80	-2.79	-2.78	-2.76	-2.75	-2.73	-2.72	-2.71	-2.69	-2.68
Market 23	-2.83	-2.82	-2.81	-2.79	-2.78	-2.77	-2.75	-2.74	-2.73	-2.71
Market 24	-2.90	-2.90	-2.89	-2.88	-2.87	-2.86	-2.85	-2.84	-2.83	-2.82
Market 25	-2.81	-2.79	-2.78	-2.76	-2.75	-2.73	-2.72	-2.70	-2.69	-2.67
Market 26	-2.90	-2.88	-2.87	-2.86	-2.85	-2.84	-2.83	-2.82	-2.81	-2.80
Market 27	-2.92	-2.91	-2.90	-2.89	-2.88	-2.87	-2.86	-2.85	-2.84	-2.83
Market 28	-2.92	-2.91	-2.90	-2.89	-2.88	-2.87	-2.86	-2.85	-2.84	-2.82
Market 29	-2.98	-2.97	-2.96	-2.96	-2.95	-2.94	-2.93	-2.92	-2.92	-2.91
Market 30	-2.98	-2.97	-2.96	-2.95	-2.94	-2.93	-2.92	-2.92	-2.91	-2.90
Average	-2.34	-2.32	-2.30	-2.28	-2.25	-2.23	-2.21	-2.19	-2.16	-2.14

Source: Appendix C, Table C.7.

In the short-run, the "three hour" and "off-network" restrictions reduced the economic disadvantage of independent stations relative to affiliated stations by approximately 5 ratings points and 4 ratings points, respectively.

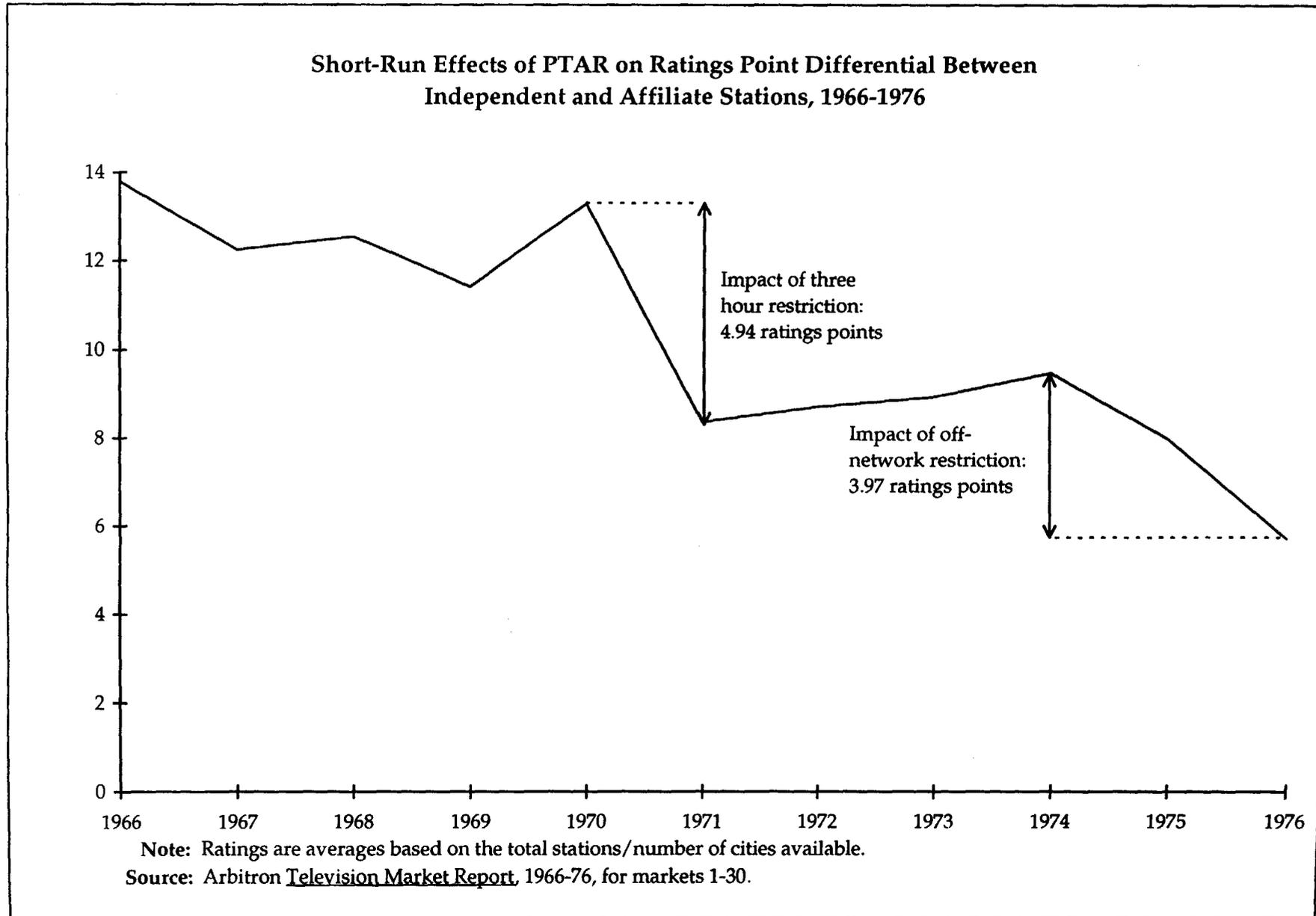


Figure IV.1

Figure IV.1 is a simple comparison of means which shows the short run historical impact of PTAR on reducing the ratings disadvantage an independent station faced relative to a major network affiliate for all three time periods (there were fewer independent stations in this period and the higher ratings points in the figure reflect the fact).

In light of the complicated history of PTAR between 1970 and 1975, our interpretation of the pattern of ratings is as follows: PTAR had an immediate and substantial impact the very first year it was implemented, even though it was just the three hour restriction that took effect in the Fall of 1971. The status of the off-network provisions of the rule was uncertain until 1975, even though its first effective date was the Fall of 1972. Because of this regulatory history, one would look for an initial impact on ratings from the off-network provision first in the Fall of 1975, and only secondly for years prior to that. And in fact that is what we find. The off-network provision appears to have had an initial impact on independent television ratings only after its uncertain future was finally settled with "PTAR III."

Also, it is possible that it took time for independent stations and the off-network syndication industry to adjust to the off-network provision. This would be a better alternative explanation of the timing of the initial impact of that restriction than regulatory uncertainty. The important point, however, is that the initial historical impact of PTAR on independent television stations was immediate and substantial, not gradual or modest.

Further, the measured impact of the two restrictions reveals the off-network provision to have been nearly as important as the three hour restriction, based on our interpretation above. Our analysis of this comparison of historical means does allow the following conclusion. From the vantage point of independent stations, the off-network provision is obviously an integral and important part of the Rule. If the comparison of means has held true through time, roughly 45 percent of the ratings declines on independent stations noted above would result from the repeal of just the off-network provision.

There are reasons to believe that the repeal of the off-network provision would account for a much higher ratings decline than is predicted by the model. It is only gradually over time that producers of first run syndicated programming have learned how to program the access period on affiliates. As they have done this with shows such as "Wheel of Fortune", "Jeopardy!" and "Entertainment Tonight", the positive ratings impact on independents from just the three-hour restriction is likely to have declined compared to the earlier post - PTAR period when the affiliates themselves were learning how to program this period. On these grounds the importance of the off-network provision to independent television stations has become relatively more important since PTAR was first implemented. Repeal of the off-network provision alone could have magnitudes approaching those of Figure IV.1.

3. **The net impact of PTAR on independent stations during the access period has declined from 2.8 to 2.4 ratings points since it was first implemented due to structural changes in the marketplace.**

Both for the reasons noted immediately above, and because of intervening structural changes since PTAR was first implemented, we would expect that while the impact of PTAR on the ratings of independent stations is still notably positive, it has declined somewhat over time. In fact Table IV.2 shows this. On average across markets for the access period alone, the impact of PTAR on a representative independent station has declined from 2.8 points in 1971 to 2.4 points as of 1993, or by 14.3 percent.

Of particular importance, the remaining incremental impact of PTAR shown in Table IV.2 fully corrects for all the structural changes the Commission has highlighted as reasons why the Rule may no longer be needed. Our analytical results differ completely from the view expressed in the Notice that these structural changes have made PTAR obsolete. Clearly, from the vantage point of the competitive structure of local broadcast markets, the Rule remains critically important. To the degree the independent television stations constitute outlets which contribute to greater source and content diversity, the Rule remains important despite the structural changes in that market.

Table IV.2

Incremental Effect of PTAR by Year Allowing for Structural Changes

	1971	1972	1973	1974	1975	1976	1979	1987	1993
Market 1	0.47	0.24	0.22	0.30	0.24	0.26	0.12	-0.87	-1.24
Market 2	1.91	1.80	1.77	1.74	1.71	1.57	1.29	0.78	0.69
Market 3	2.19	2.11	2.03	2.03	2.07	2.08	1.89	1.65	1.52
Market 4	2.50	2.45	2.41	2.42	2.41	2.39	2.27	1.94	1.80
Market 5	2.75	2.68	2.67	2.67	2.66	2.33	2.15	1.78	1.61
Market 6	2.76	2.49	2.47	2.43	2.40	2.65	2.55	2.16	2.10
Market 7	2.54	2.70	2.66	2.69	2.69	2.65	2.57	2.48	2.14
Market 8	2.83	2.82	2.80	2.74	2.73	2.68	2.63	2.48	2.38
Market 9	2.88	2.80	2.76	2.81	na	2.80	2.73	2.35	2.43
Market 10	na	na	na	2.95	2.94	2.91	2.80	2.68	2.53
Market 11	3.01	2.96	2.94	2.93	2.94	2.93	2.87	2.67	2.56
Market 12	3.13	3.01	2.99	3.00	3.01	2.94	2.80	2.69	2.59
Market 13	3.12	3.03	3.00	3.00	2.99	2.96	2.89	2.69	2.44
Market 14	3.04	3.07	3.04	3.01	2.99	3.00	2.93	2.80	2.56
Market 15	na	3.07	3.03	3.01	3.03	2.99	2.96	2.67	2.80
Market 16	3.06	3.08	3.07	3.05	3.06	3.03	2.97	2.82	2.77
Market 17	3.17	3.09	3.05	3.09	3.10	3.07	2.89	2.82	2.76
Market 18	3.10	3.07	3.07	3.04	3.03	3.00	3.02	2.82	2.77
Market 19	3.12	3.09	3.08	3.07	3.07	3.07	3.02	2.84	2.82
Market 20	na	3.14	3.12	3.09	3.09	3.07	na	2.92	2.75
Market 21	3.12	3.11	3.00	3.10	3.09	3.08	3.00	2.93	2.88
Market 22	3.10	3.14	3.12	3.14	3.11	3.09	3.05	2.89	2.83
Market 23	3.16	3.15	3.14	3.12	3.12	3.08	3.06	2.84	2.93
Market 24	3.17	3.15	3.12	3.11	3.12	3.10	3.06	2.99	2.91
Market 25	3.15	3.13	3.14	3.12	3.12	3.10	3.08	2.96	2.80
Market 26	na	3.15	3.13	3.13	3.15	3.11	3.06	3.00	2.90
Market 27	3.17	3.16	na	3.11	3.15	3.13	3.08	3.03	2.92
Market 28	na	na	3.15	3.15	3.11	3.13	3.10	3.01	2.96
Market 29	3.17	3.15	3.12	na	na	3.13	3.12	3.04	2.98
Market 30	3.17	na	na	na	na	na	3.15	3.02	2.99
Average	2.83	2.81	2.78	2.79	2.78	2.77	2.69	2.50	2.40

Source: Appendix C, Table C.6.

There is an econometric result evident in Table IV.2 that we believe bears critically on at least one modification to PTAR that has been proposed, namely restricting its operation to fewer than the top 50 markets as at present. Looking down the 1993 column, for example, one finds that the impact of PTAR on access period ratings increases as one goes from ADI market 1 to ADI market 30.

For example, those who have proposed restricting the rule to fewer than 50 markets have done so on the grounds that the syndication program market today requires no more for their economic success. In the program market, this position is not correct given the sequencing issues discussed below in Section IV.B.1. In the broadcasting market, restricting the application of PTAR to fewer markets would in fact be irrational since it would hurt those independent stations that benefit the most from PTAR and likely depend upon it most heavily. Alternatively, restricting the application of PTAR only to the small markets would effectively undermine the first run syndication market.

As discussed in Appendix D, there is one important sense in which the impact of PTAR has not gone down, but in fact has gone up marginally. If one holds all other factors in our model constant, the net impact of PTAR today on an average independent station's ratings has gone up by 0.004 ratings points, compared to its net impact when first implemented in 1971 (see Table D.4 in Appendix D). Thus, while structural changes have reduced, though by no means eliminated, the importance of PTAR to independent stations, the Rule itself has remained as important as ever to their ratings success during the access period and follow - on periods in prime time.

4. **The model implies a loss of local content programming and market exit by some independent television stations following the repeal of PTAR.**

Our major finding on the growth in the number of independent television stations is that PTAR has had a positive and measurable long run impact on the number of stations in the local broadcast markets. As noted in Appendix D, it is not possible without more data to specify when the "long run" effect kicked in.

Two different functional forms used to estimate the model show the long run impact to be between 5 and 15 years.²⁸

Since this growth in the number of independent stations occurred over generally the same time period that cable penetration increased, it is fair to ask how much PTAR contributed to growth in the number of independent stations, and how much cable contributed.

The impact of growth of cable penetration in each ADI market on broadcasting stations is complex. In our data base design, we chose the years 1979 and 1987 to capture the period of rapid cable growth in the 1980s. One can debate which year in the early 1980s saw the take-off of cable, but the take-off was definitely after 1979. Similarly, one can debate whether the period of rapid growth in cable penetration was fully over by 1987, but much or most of it had occurred by that date.

By design, we did not intend to measure only the short run "antenna effect" that cable growth had on independent television stations. The long run impact of competition from cable channels on independent station ratings and the growth of independent stations is what we did seek to measure. A priori, we would expect the long run impact of cable penetration to be negative and to have offset or more than offset the presumed positive impact that cable likely initially had on independent stations due to the antenna effect of providing better quality UHF reception.

Our econometric results from **Appendix D** do show that the growth of cable penetration had a negative impact on independent television station ratings. While we have a considerable amount of cross-sectional data for the

²⁸ The models can be represented as :

$$N = c + a_1t + a_2t^2$$

and the impact of PTAR on the number of stations can be calculated as:

$$dN/dt = a_1 + 2a_2t$$

The point at which the positive second order effects equal the negative first order effects is determined by setting $dN/dt = 0$. Using the coefficients from **Table C.3** in **Appendix C**:

$t = -a_1/2a_2 = -0.065/2(0.064) = 5.1$ years for PTAR to have a positive impact on the number of independent stations using logit form.

$t = -a_1/2a_2 = -0.100/2(0.00319) = 15.7$ years for PTAR to have a positive impact on the number of stations using linear form.

1980s in that we measured 30 markets, we do not have a great deal of time series data to see how cable penetration developed over time year to year. Thus, we must be cautious in interpreting these results. Nonetheless, the regression coefficients for all time periods studied tell us that while PTAR had a positive first order impact on a station's ratings of 1.52 points on average each and every year following implementation, cable had a negative long run impact of 1.93 points on average (See Appendix Table D.4).

Far from cable being a structural change since PTAR was enacted that renders the Rule unnecessary or obsolete, our econometric results suggest that PTAR may have been critical to independent station survival, acting as a partial offset to the increasing competition from cable channels which siphoned audiences away from independent broadcasting stations as they grew in number and popularity. Increasing cable penetration more than offset the positive impact that PTAR had on independent station ratings on average over the period studied.

These econometric results based on time series analysis reinforce our findings in Section III that cable growth has not on balance reduced the economic disadvantage faced by independent television stations in their local markets.

Our time series results lead to the conclusion that the growth in the number of independent stations in the 1980s was a predictable long run impact from the improved ratings performances PTAR created in the 1970s. Entry is a long run phenomenon, occurring only after it is perceived that long run rates of return have increased. In the early part of the 1980s, while cable was essentially an antenna service (rather than a source of additional programming), cable as well stimulated entry along with PTAR.

While it is not possible to use our model directly to estimate the timing and extent of market exit by independent television stations if PTAR were

repealed, no doubt there would be stations driven from the market.²⁹ These might be more prevalent in the lower half of the top 50 markets than the largest markets.

What we can say with some certainty is that immediate ratings declines, by impacting profitability, would reduce local content programming on independent stations during other dayparts that PTAR has made possible. For example, Figure IV.2 shows the growth over time of news programming budgets in the top markets with PTAR in effect. Without PTAR it is doubtful that trend could continue.

B. THE IMPACT ON THE SYNDICATED PROGRAM MARKET FROM REPEALING PTAR IS A LOSS OF VIEWER WELFARE

We now examine the implications for producers of first run television programs and independent television stations of eliminating the off-network provision of the Prime Time Access Rule. To do this, it is necessary first to understand how nationally syndicated first-run programs are sold across markets. Second, it is important to understand the differences between first run and off-network syndicated television programs that make simple comparisons of ratings for the two types of programs inappropriate for evaluating the impact of PTAR on the syndication market and viewer welfare.

The analysis in Sections IV.B.1 through IV.B.5 below shows that: (1) Program choices made in markets outside the top 50 are not independent of those made in the top 50; (2) Simple ratings comparisons during prime access understate the competitive strength and profitability of off-network programs relative to first-run programs; (3) Of greater significance for public policy, station choices between first run and off-network programs are systematically biased against viewer interests and the off-network provision is a corrective for this bias; and (4) The off-network provision has the further benefit of strengthening independent television stations and making over-the-air

²⁹ To do this would require translating our ratings declines during prime access and the carry over periods into lost profits, and then estimating that loss on total station profitability.

PTAR may have stimulated local news expenditures in top markets.

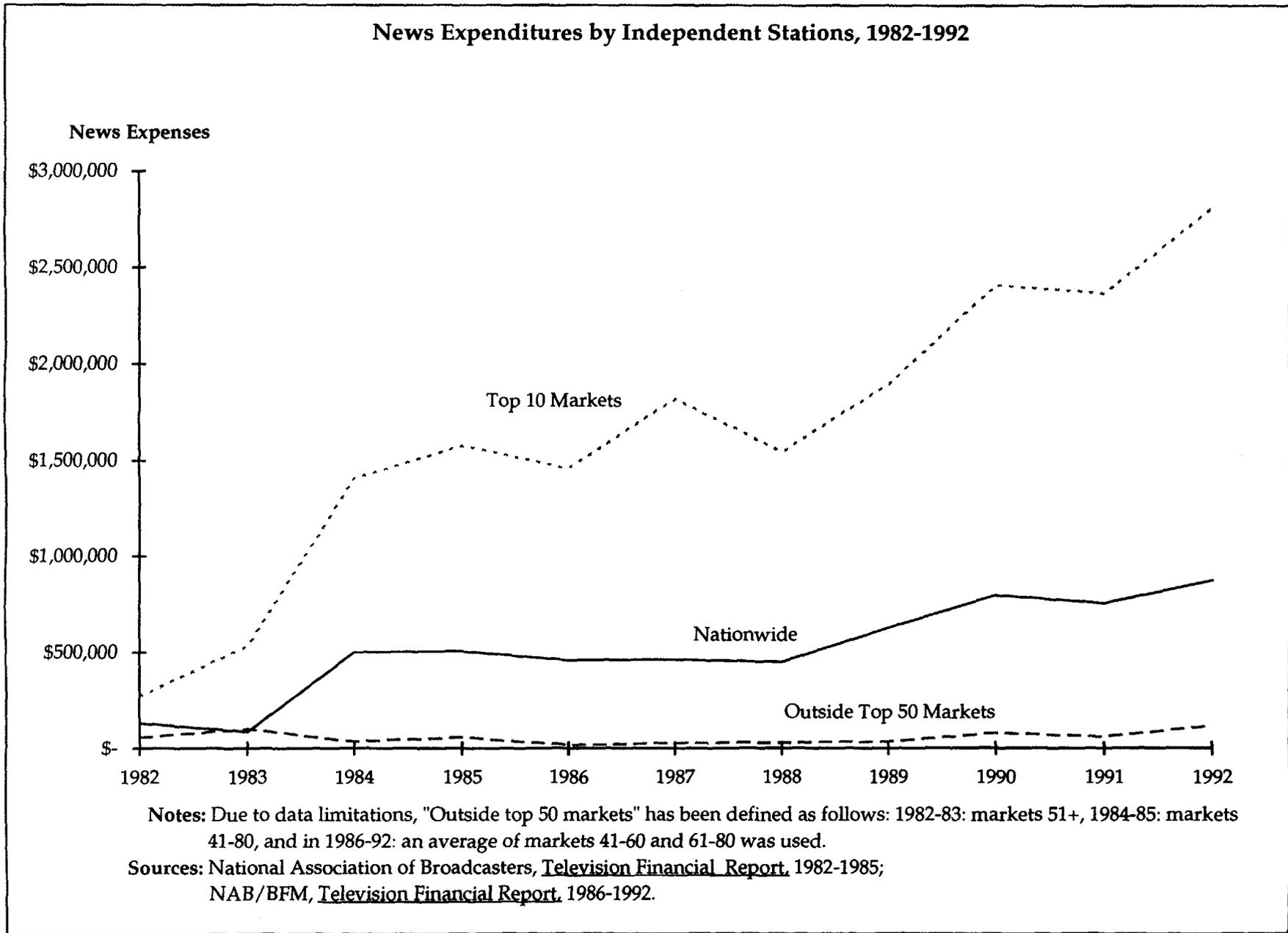


Figure IV.2

broadcasting more competitive. Because new networks are built as coalitions of formerly independent stations, the off-network provision also substantially improves the prospects for new networks.

1. The sequence of first-run programming choices in the top 50 markets belies the claim that PTAR does not influence choices below the top 50

Advocates of the repeal of PTAR argue that programming diversity (defined as the showing of first run programming) is already present in the 51 plus markets not affected by PTAR. Based on this fact, these advocates assert that PTAR is unnecessary to foster diversity. They assume that if PTAR is repealed, the top 50 markets will mimic the current patterns of programming choices outside the top 50 markets.

The above argument is based on a complete lack of understanding of the method in which first-run syndicated programs initially enter the prime-time national advertising market. Specifically, the Disney argument is based on two unproven assumptions:

- Current programming choices of affiliates in markets below the top 50 (not subject to PTAR) are unaffected by the programming choices in the top 50 markets (subject to PTAR).
- Current programming choices in the second fifty markets can be used to predict future choices that will be made in the top fifty markets if PTAR is repealed.

The conclusion derived from these two static assumptions is that the current programming choices of the smaller markets can be used as a direct guide to future programming choices made by the affiliates in the top 50 markets if PTAR is repealed.

A dynamic sequencing model demonstrates how stations in the smaller markets make their prime time access programming choices. Affiliates in the top

50 markets first make their programming decisions with the constraint that they cannot choose off-network programming. The majority of these affiliates select quality first run-syndicated programming. Those programs that are chosen by a significant number of affiliates in the top 50 markets have a reasonable chance of entering the national video advertising market.

As we will discuss *infra*, first run programs may be less attractive than off-network programming because they may be more risky. First run programs have the potential for higher ratings than off-network programs but they also have the potential for significantly lower ratings. Thus, without knowing the decisions of the affiliates in the top 50 markets, affiliates in the smaller markets would be less likely to choose first-run syndicated programming since they have the option of off-network programming. (See Section IV.B)

The affiliates in the smaller markets do not make their decisions in an informational vacuum. They have information on what affiliates in top 50 markets have chosen. The decision to air a first run syndicated program in the top 50 markets makes the choice of this program by an affiliate in a smaller market less risky since the top 50 market sales establish nationwide viability. Accordingly, affiliates in the markets below the top 50 will be more likely to choose first run syndicated programs. Therefore, it is wrong to assume that the pattern of carriage of programs on stations outside the top 50 markets can be used to predict post-PTAR clearances in all markets.

Given the sequencing of choices by affiliates in markets above and below the top 50, programming choices made by affiliates in the two market groups are not at all independent. The repeal of PTAR will have an effect on which types of programs are aired across all markets. This would be particularly true with respect to new programs without proven records of success. With the option of selecting off-network programs, affiliates in the larger markets are likely to change their programming choices. Thus, because of the reliance of the affiliates in the smaller markets on the decisions of the affiliates in the larger markets, the mix of programming would likely change in the smaller markets, once changed in the larger markets.

The interdependence of programming decisions across markets can be tested empirically by examining the sequence of the dates stations in markets above and below the top 50 signed up for first run syndicated programs. If the decisions of the larger and smaller affiliates are interdependent, then the sign-up dates of the larger-market affiliates would be clustered early on and most smaller-market affiliates would sign up only after a substantial number of larger affiliates were aboard. If, on the other hand, their decisions are independent, then sign-up of a station from a top 50 market or smaller market would be equally likely on any day.

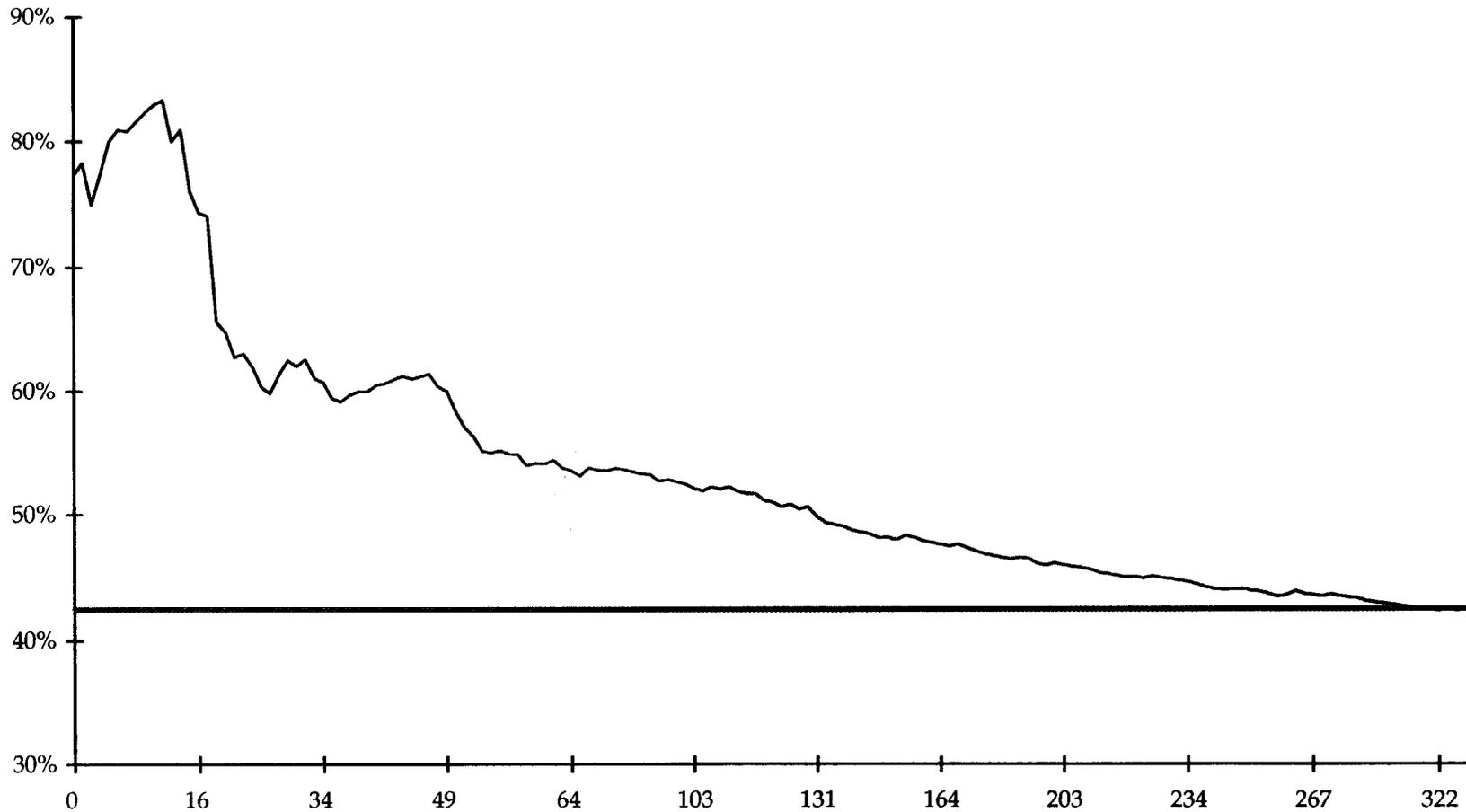
Table IV.3 and Figure IV.3 show the average pattern of initial sign-ons within one year for five first run programs recently syndicated by King World ("American Journal", "Inside Edition", "Instant Recall", "The Les Brown Show",

Table IV.3: Initial Sign-On Sequence for First Run Programs		
Time After First Sign-On	Share Sign-Ons Comprised of Top 50 Market Stations	Number of Top 50 Stations Signed on
One Week	81%	34
Two Weeks	81%	51
Three Weeks	65%	68
One Month	62%	80
Two Months	54%	135
Three Months	53%	146
Four Months	51%	153
One Year	42%	183

Note: The number of top 50 stations "signed on" equals the number of top 50 stations which signed up for any of the five first run programs. Any particular station may be counted more than once.

Sign-ons for first-run productions by stations outside the top fifty markets are strongly influenced by prior selections made by stations within the top fifty.

**Share of Total Sign-Ons Comprised of "Top 50" Stations,
by Number of Days Since First Offering**



Source: Data for initial sales of five programs supplied by King World Productions.

Figure IV.3

and "Rolonda").³⁰ The stations which signed on for each of these shows have been organized by the number of days from the first opportunity to sign-on to that station's actual sign-on day. The overwhelming majority of stations which sign-on soon after a program is offered are stations from the top 50 markets.

Top 50 market stations comprise 42 percent of the total number of stations which signed on within one year. But, within the first and second weeks of a first run program's offering, top 50 market stations are over 80 percent of the total sign-ups. The total number of sign-ons for the five shows by the top 50 stations during these weeks was 34 and 51, respectively. Even after a month from the program's offering, stations from the larger markets compose over 60 percent of the total sign-ups. Not until after four months have passed do stations from markets below the top 50 become a majority of the signed up stations.

The dynamic time sequencing of program choices across markets completely invalidates the view that the current success of quality first run programs outside the top 50 markets ensures their success in all markets without PTAR. As with network programming itself, if first-run syndicated programming cannot be cleared in the top 50 markets, it will not be available outside the top 50.

2. Competition among off-network and quality first run syndicated programs is biased against first run without a corrective rule like PTAR

To understand the implications of the more direct competition between first run and off-network syndicated programs that would take place if the off-network provision of the Prime Time Access Rule was eliminated, it is necessary to first understand the nature of the incentives and constraints influencing the suppliers of prime time programs for the networks and the suppliers of first run programs for syndication. While the nature of the financial decisions each type of supplier must make are sufficiently similar as to be variations on a common

³⁰Some of these are prime access programs, others are early fringe. However, the pattern of selling across individual markets is identical when trying to enter the national advertising market.

theme, the differences that do exist significantly affect the nature of the competition among them in the syndication marketplace.

Survival in the long run requires that both types of producers make substantial upfront investments in the development of new programs, the ultimate success of which is highly uncertain for any particular program. Upfront costs include the costs of researching and developing new concepts, including concepts that never make it to the pilot stage. It appears that for both types of programs failure rates for new programs that get airtime is in the neighborhood of 70 to 75 percent.³¹ Ultimately revenues realized by suppliers must be sufficient to cover the upfront costs of both successful and unsuccessful programs plus the production costs of episodes created. For suppliers of prime time network series, revenues from both the network run and the syndication market contribute to cost recovery. Network license fees average about 85 percent of production costs for situation comedies and a little under eighty percent of production costs for dramas.³² For first run suppliers, all costs must be recovered in the syndication market through some combination of station license fees and syndicator sold barter time.

Because a network series typically stays on the network for four years before being offered for syndication, upfront costs and production costs are largely sunk by the time it enters syndication. By contrast, because they are being produced solely for syndication, the costs of first run programs are incurred at the time of syndication or in preparation for it. This difference between first run and off-network programs in the closeness of the timing of the costs of development activities and production and contracting for syndication is critical to understanding the nature of the competition between these two types of programs in syndication. First run producers bargain with stations with the understanding that they have to realize enough revenue from their contracts to

³¹ Owen and Wildman (1993) found that approximately 75 percent of new programs introduced by the three major networks from 1972 to 1981 were canceled before their second season. A study of failure rates for first run programs reported in Section II.B.3 below found that 71 percent of new first run programs cleared by stations from the 1988-89 through the 1993-94 seasons never saw a second season.

³² Owen and Wildman (1992), p. 48.

cover development and production costs. But, because any contribution to original sunk costs that may date back years is better than none, off-network suppliers compete with first run suppliers at this stage as if distribution costs were all that mattered.³³ The result is that the offers first run producers make to stations include allowances for costs that are largely irrelevant to the offers of off-network syndicators.

To offer stations terms as attractive as those offered by off-network syndicators and stay in business, first run suppliers therefore must be able to offer stations larger audiences. In other words, stations may prefer an off-network program that has somewhat lower ratings to a first run program if the latter is more expensive and riskier. The result is that stations' choices among off-network and first run programs are systematically skewed against first run programs that viewers may prefer over off-network fare. Stations base their choices on profitability to themselves, not ratings per se.

A more formal statement makes the logic of this argument clearer as well as providing additional insights into the economics of broadcast syndication.

Define:

- P_n = the cost of episodes produced for a successful network series.
- P_s = the cost of episodes produced for a successful first run syndicated program.
- F_n = the upfront costs of developing a new network series.
- F_s = the upfront costs of developing a new first run syndicated program.

³³ This is not to say that anticipated syndication earnings are not reflected in decisions regarding the production of prime time network programs. They are and this is reflected in the more formal analysis that follows. Rather, once an off-network program is available for syndication, its owners will not withhold it from stations just because it does not earn as much in excess of its distribution costs as was hoped when it was produced for a network. Similarly, if producers of prime time network programs do not ultimately cover their deficits from profits on other programs, they will ultimately exit the program production market either voluntarily or involuntarily. But, as explained above, because these costs are sunk, the existence of prior deficits does not affect off-network pricing.