probability of an early failure is measured as the percent of new series which will run for less than one year and the probability of an extended run is measured as the percent of new series which will air for at least five years.

The results of our analysis are summarized in Table I. There is a statistically significant regime change for all but one of the performance measures (the percent of new series which will run for at least two years).[16] Of the statistically meaningful regime changes, none of the measures used by Dr. Crandall (measures (1) through (3) in Table I) has a "best" first year of a new regime within the reasonable range. For measure (1) (the variance of the remaining length of run for all series), the first year of a new regime occurs in 1972, in contrast to the reasonable range of 1976 or 1977. The first year of the new regimes for measures (2) and (3) occur in 1966, six years before FISR went into effect.

Of the remaining measures, only measures (5) and (7) (the average length of run for new series and the coefficient of variation of the remaining length

[16] The column labeled "chi-square" is a calculated test statistic which is compared to the chi-square distribution to infer the probability of observing the "best" first year of a regime change by chance. Here we use the conventional criterion of accepting (failing to reject) the hypothesis of no regime change when any observed "best" year could have statistically occurred by chance in more than 5 percent of the cases even if no regime change occurred. Using that criterion, we must reject that "by chance" hypothesis for all switch points except for the percent of new series which will run for at least two years. In that case, the regime change could have occurred by chance in slightly more than 5 percent of the cases.

The reader should note that the statistical procedure described in the previous footnote bears a strong resemblance to "data-mining." The switching regression technique searches through the data set to find the best switch point. One way of partially offsetting the "data mining" character of the search procedure is to choose a more restrictive "by chance" criterion. Thus, one could accept the hypothesis of no regime change when the selected "best" first year of the new regime could have occurred by chance in more than 1 (rather than 5) percent of the cases. The choice here of a 5 percent rather than a 1 percent criterion makes it more likely that the hypothesis of a regime change will be accepted. Thus, the 5 percent criterion is more likely to find support for Dr. Crandall's efficiency-impairment hypothesis.

of run for all series) have a regime change at about the time predicted by the efficiency hypothesis.

For the average length of run for a new series, the new regime begins in 1975, which is in the reasonable range for new series. However, as noted above, it is not at all apparent why the average length of run for new series should be affected by the FISR even if the efficiency-impairment hypothesis is correct. In any event, neither the pre-1975 relationship nor the 1975-and-after relationship can be used to confidently predict the average run length. Neither relationship explains a meaningful (statistically significant) proportion of the variability in this "risk" measure.

Finally, the first year (1977) of the new regime for the coefficient of the variation of remaining run length for all series is clearly within the "reasonable" range for risk measures based on all series (1976 or 1977). Further, the pre-1977 relationship consistently predicts a higher coefficient of variation for 1977 and thereafter than actually occurred. The behavior of this measure, then, is consistent with Dr. Crandall's claims that after FISR went into effect, less risky programs were aired by the networks, but it is the only measure to display this consistency.[17]

In sum, the statistical analysis of the data used in Dr. Crandall's

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[17] We also checked whether our conclusion that Dr. Crandall's claims were not supported by his data was sensitive to the choice of the "best" year of the new regime for those performance measures whose "first best" year of a regime change occurred outside the reasonable range. That is, for those performance measures, was there another year for the regime change in the reasonable range? In particular, we examined the potential for a regime switch in those cases in which the second, third, fourth, or fifth "best" year to mark the beginning of a second regime was within the "reasonable range". There was only one such case: the percent of new series that would air for at least five years, with the 1975 as the fourth best year to mark the beginning of a new regime. However, for this measure, we could not statistically reject the hypothesis of <u>no</u> regime switch at the 5 percent level of significance.

submission does not support his conclusions that FISR has resulted in the airing of less risky prime time programs. Of the ten performance measures analyzed here, only one is consistent with Dr. Crandall's hypothesis of the risk-reducing effects of FISR. None of the measures relied upon by Dr. Crandall as support for the efficiency impairment hypothesis permit statistical acceptance of that hypothesis. None of the additional measures relied upon in the Economists, Inc., Appendix permit statistical acceptance of the efficiency impairment claims. One consistent result hardly constitutes persuasive support for that hypothesis, even if there were no other events of significance that occurred during that period. Enough random program performance measures would likely produce a consistent result for one measure by chance alone; the other nine measures are inconsistent with Crandall's efficiency claims.

III. Reassessing Dr. Crandall's Interpretation of Supplier Concentration

A. Dr. Crandall's Analysis

Again reiterating the analysis of the Network Inquiry,[18] Dr. Crandall concludes that by barring the network acquisition of the off-network syndication rights to its programming, the FISR could be predicted to have increased the level of concentration in network program supply. Concentration would have increased, according to the efficiency-impairment hypothesis, because small independent program producers would be unable to bear this risk and studios would tend to assume (presumably less efficiently) the

[18] Network Inquiry Special Staff, op.cit., p.621.

hypothesized risk-bearing role of the networks.[19] In addition to being a symptom of the efficiency-reducing effects of the FISR, the FISR-induced rise in supplier concentration could also herald an increase in supplier market power and a reduction in diversity.

In examining the behavior of the number of program suppliers and the four, eight, and twenty firm concentration ratios, Dr. Crandall concludes that despite substantial year-to-year variation in these measures,

> "...the trend is unmistakable...Network program supply was considerably more concentrated in the 1980's than in the 1970 [sic] when the Rules were issued. Once again, the [FISR has] the effect of reducing the number of small suppliers and thus frustrating the attempt to stimulate new sources of programming."[20]

B. Statistical Analysis of Dr. Crandall's Data

As was the case with his examination of program performance, Dr. Crandall did not confirm his "trend analysis" of the concentration data by conventional statistical techniques to assess the existence and significance of a regime change; thus what may be an "unmistakable trend" to Dr. Crandall's eyes may simply be a mirage when placed under a statistical microscope. In this section, we subject Dr. Crandall's data to the same kind of statistical

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[19] Id. It is interesting to note that the Network Inquiry, which unequivocally recommended repeal of the FISR, was far more cautious than Dr. Crandall in attributing significance to the concentration data. Thus, in comparing supplier concentration in the 1969/70 season with that in the 1977/78 season, the Inquiry noted that "one factor explaining the rise may have been the FCC's imposition of the financial interest and syndication rules...[T]hese rules may had the effect of increasing concentration in the industry. If this were the sole factor affecting concentration, its significance is small." (Notes omitted.) Id. at 556.

[20] Crandall Submission, p.33.

analysis used in section II.[21] Assuming that there is a single switch in regimes, we statistically ask what the best year for the beginning of a second regime would be and whether the beginning of that regime is "reasonably close" to the implementation of the FISR.

Because all programs form the basis of the supplier count and concentration calculations, once again a reasonable date on which the presumed effects of FISR should first be apparent is 1976 or 1977. If the regime switch does occur in 1976 or 1977, we then ask if the behavior of concentration in the post-FISR regime is consistent with that predicted by the efficiency-impairment hypothesis: Is the degree of concentration predicted by the pre-FISR relationship lower than that observed post-FISR?[22]

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[21] Many of the interpretive difficulties discussed in reviewing Dr. Crandall's assessment of changes in program risk apply with equal force here: given the time periods being compared and assuming Dr. Crandall's conclusion of a post-FISR concentration increase is correct, other events unrelated to the FISR could have caused concentration to rise. Most notably, the FCC in adopting the Prime Time Access Rule (effective in 1971) limited the number of prime time hours the networks could program. The Access Rule, by reducing the number of prime time programs, would tend to increase concentration even with no change in the number of suppliers and the rule probably reduced the number of suppliers. For example, suppose that before and after the adoption of the Access Rule there were five suppliers, each producing two programs, and that the effect of the rule was to reduce by one the programs provided by one supplier. The four firm concentration ratio (the share of output accounted for by the four largest suppliers) would then rise from 80 percent pre-rule to about 89 percent post-rule.

[22] The supplier counts and the concentration measures used by Dr. Crandall were based on data that assigned each program to the production company responsible for delivering the program to the network, no matter how many production companies were in fact involved in the production of the program (See Appendix E, pp. 1-2). This "assignment" measure of concentration has the perverse property that it may rise even if the number of producing parties increases and even if relevant concentration decreases. To see this, consider a small "independent" production company who pre-FISR sold a financial interest in a program to the network. Because the network will typically not appear on the production credits or (for obvious reasons) contractually assume the responsibility for program delivery to itself (although it may implicitly do so), the program will be assigned to the "independent" production company. After implementation of the FISR, the

The results of the "switching" analysis are in Table II.[23] All the

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production company may sell the same financial interest to a studio, conveying the same responsibilities and the same rights to the studio as that financial interest which pre-FISR was sold to the networks. As a result of the acquisition of the financial interest, the production company may contractually assume the responsibility of program delivery. Using this assignment methodology, the program will now be assigned to the larger production company even though the studio has no more of an interest in the program than the network did pre-FISR. Thus, if there were ten programs produced by small production companies for which the three networks purchased a financial interest pre-rule, these programs would be assigned to the small production companies. If post-rule, these same rights in the same ten programs were sold to five studios (two each), the programs would be assigned to the studios. The measured number of "independent" suppliers would seemingly drop and the assignment method of calculating the concentration ratios for program production would increase. But all that has changed is the identity of the purchaser of the financial interest. If studio acquisition of syndication rights resulted in the program being assigned to the studio, then prior to the imposition of the rule, network acquisition of those rights should have resulted in the program being assigned to the network. Since we know that prior to FISR the networks acquired a financial interest in upwards of 60 percent of the shows and acquired the distribution rights in about 30 percent of the shows, a consistent program assignment to a single producer would result in a pre-rule three-firm concentration ratio of between 60 and 90 percent and the number of "producers" would not be much more than three (i.e., the three networks). Thus, the FISR may have reduced concentration (correctly computed) in network program supply.

Note also that a rise in the number of production entities--more new program suppliers--can <u>increase</u> concentration calculated by the assignment method if the new suppliers initially affiliate with major studios for purposes of gaining experience. In particular, concentration calculated this way will rise if the influx is associated with smaller shares for mid-sized suppliers. If this is what is occurring, then any current increase in concentration as calculated by Dr. Crandall may portend decreases in concentration later as new suppliers gain experience. That this might be occurring is suggested by the difference between the producer counts when all companies are counted and the counts when the program is assigned to only one company. For example, for the 1987/88 season, the assignment method results in 32 prime time suppliers (See Crandall Submission, Appendix E, the table entitled "Concentration of Prime Time Entertainment Series"). By contrast, the total number of companies involved in supplying those programs was 100 (See Coalition to Preserve the Financial Interest and Syndication Rule, <u>op.cit.</u>, Appendix M).

[23] In estimating each pair of regressions for the concentration ratios, use of the concentration ratio as the dependent variable may result in predicted ratios exceeding one hundred percent. Thus, we estimated the regressions using "logit" analysis, which transforms the concentration ratio in such a way that predictions exceeding one hundred percent are precluded.

regime changes are statistically significant. Those for the number of suppliers and the twenty firm concentration ratio fail to satisfy our "reasonably close" criteria. More startlingly, for the supplier counts, the "pre-FISR" regime failed to predict higher numbers of program suppliers in the "post-FISR" regime; on the contrary, the pre-FISR relationship consistently underpredicted the actual number of suppliers in the post-FISR period. Similarly, the actual twenty-firm concentration ratio was lower in the "post-FISR" regime than would have been predicted by the pre-FISR experience. These results, of course, are precisely the opposite of Dr. Crandall's predictions.

The beginning of the new regimes for the four and eight firm concentration ratios lie within our reasonable range. However, the predictions of the "pre-FISR" regime for "post-FISR" concentration are inconsistent with the realized "post-FISR" concentration. In both cases, the "pre-FISR" relationship predicts higher "post-FISR" concentration than that which actually occurred.[24] If one were to follow Dr. Crandall's methodology, one would infer from these results that repeal of the FISR would lead to a reduction in the number of suppliers and an increase in concentration.

IV. Conclusion.

In sum, then, conventional statistical analysis establishes that the data provided in Dr. Crandall's submission fail to support his claims that the FISR had significant efficiency-impairment effects. None of the measures of

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[24] As with the measures of program risk, we also examined the second through the fifth "best" years for the supplier count and concentration ratios to ascertain whether any of those fell within the reasonable range. Only for the supplier counts was this the case: The fourth best year for a new "post-FISR" regime is 1976. However, we then cannot reject the hypothesis of no statistically significant regime change when using 1976 as the first year of the new regime.

program risk relied upon in Dr. Crandall's submission behave in a way that is consistent with a reduction in the riskiness of programs aired by the networks following the imposition of the rule. This suggests that either Dr. Crandall's measures of risk are flawed or that the efficiency impairment hypothesis cannot be accepted. Similarly, the behavior of the number of program suppliers and of concentration in network program supply is inconsistent with the hypothesis that repeal of FISR would lead to a greater number of suppliers and lower concentration. In short, there is no statistical evidence in Dr. Crandall's submission that the FISR has generated any inefficiencies in program production.

TABLE I

ASSESSING CHANGES IN PROGRAM RISKINESS

	MEASURES OF PROGRAM RISK	1ST YEAR OF NEW REGIME	REASONABLE RANGE	CHI SQUARE *
	DR. CRANDALL'S MEASURES			
(1)	Variance of Remaining Length of Run, All Series	1972	1976/77	22.85
(2)	Variance of Ratings, All Series	1966	1976/77	16.33
(3)	Coefficient of Variation of Ratings, All Series	1966	1976/77	10.48
	MEASURES IN THE APPENDIX ACCOMPANYING DR. CRANDALL'S SUBMISSION			
(4)	Variance of Length of Run, New Series	1966	1974/75	9.13
(5)	Average Length of Run, New Series	1975	1974/75	9.45
(6)	Percent of New Series Which Will Run For At Least Two Years	1975	1974/75	7.64
	ADDITIONAL MEASURES			
(7)	Coefficient of Variation of Remaining Length of Run, All Series	1977	1976/77	18.76
(8)	Coefficient of Variation of Length of Run, New Series	1966	1974/75	30.54
(9)	Percent of New Series Which Will Run For Less Than One Year	1981	1974/75	15.93
(10)	Percent of New Series Which Will Run For At Least Five Years	1966	1974/75	12.04

Data for (1), (2), (8), (9), and (10) are from Dr. Crandall's Submission, Appendix D Table 1.
Data for (3), (4), and (5) are from Dr. Crandall's Submission, Appendix D Table 2.
Data for (6) and (7) are from Dr. Crandall's Submission, Appendix D Table 3.

* The critical value for the Chi-square statistic at a 5 percent level of significance is 7.82.

TABLE II

ASSESSING CHANGES IN PROGRAM SUPPLIER CONCENTRATION

	MEASURES OF PROGRAM SUPPLY CONCENTRATION	1ST YEAR OF NEW REGIME	REASONABLE RANGE	CHI SQUARE *
(1)	Number of Suppliers	1975	1976/77	19.04
(2)	Four Firm Concentration Ratio	1977	1976/77	7.95
(3)	Eight Firm Concentration Ratio	1976	1976/77	9.87
(4)	Twenty Firm Concentration Ratio	1975	1976/77	11.29

Data are from Dr. Crandall's Submission, Appendix E, "Concentration of Prime-Time Entertainment Series: Total Hours"

* The critical value for the Chi-square statistic at a 5 percent level of significance is 7.82.

C

DECLARATION

We, the undersigned United States citizens and members of the Caucus of Producers, Writers and Directors (Caucus), declare, on behalf of our fellow members of the Caucus, as follows:

1. We are, for the most part, small and medium-sized independent and entrepreneurial television program producers, writers and directors responsible for the creation and production of a significant portion of the prime-time television programming aired by the national television networks, Capital Cities/ABC, Inc. (ABC), CBS, Inc. (CBS) and National Broadcasting Company, Inc. (NBC). Our membership is multi-faceted and diverse, comprised of fiercely independent, creative women and men. In our view, the consent decrees have been effective in preventing the networks from engaging in anticompetitive practices.

2. While we recognize that the video marketplace has changed significantly since the consent decrees were entered, the networks, absent the consent decrees' restrictions on network conduct, today have the ability and the incentive to engage in the anticompetitive conduct that was the basis for the adoption of the decrees. In our experience, the networks not only provide the single most effective means to showcase to a nationwide television audience the type of high quality and necessarily costly prime-time programs produced by our members, the networks also continue to be the overwhelmingly predominant purchasers of licenses to exhibit our programming.

3. In their filings regarding the consent decrees, the networks and the Justice Department state that we have many alternative buyers of licenses to exhibit our prime-time programs in addition to the networks. That is simply not

true. The recently-formed Fox network is a limited alternative since it programs only two-thirds of the traditional prime-time entertainment programming schedule of ABC, CBS or NBC. As a result, the emergence of Fox has had, at best, a minimal impact on the prime-time television marketplace. Moreover, there is no prospect that another new network such as Fox will emerge in the foreseeable future.

4. When we produce high quality prime-time programs for the networks, we generally incur substantial production deficits, as the cost of producing such programs usually far exceeds the revenues we receive from a network for the license to exhibit a program on the network. While production deficits vary between programs, even within classes of programming, a network's license fee typically will cover only 65-70 percent of our production costs; as a result, we routinely have to absorb a deficit representing 30-35 percent of our direct cost of producing a prime-time television program. Our production deficits can range from one-quarter of a million dollars to one-half million dollars per episode, depending on the nature and length of the program. We generally can recover our production deficits only through the sale of non-network domestic and foreign syndication rights or through successful syndication. Moreover, our programs can gain the essential viewer support necessary for successful syndication only by airing on the networks' prime-time schedule, which uniquely reaches 98 percent of all American television households.

5. Cable networks do not, as a practical matter, provide Caucus members who produce high quality series programming with the realistic range of alternatives that the networks and the Justice Department suggest. Cable networks generally do not pay license fees for high quality series which are comparable to fees paid by the networks. Moreover,

in contrast to the television networks, cable networks do not provide us with the nationwide audience that is a prerequisite to successful syndication and the opportunity to recover our deficits. Thus, it simply is not financially feasible for us to produce high quality series programming for cable networks.

6. Moreover, the type of programming purchased and aired throughout the non-network, first-run syndication marketplace is generally programming of a lower budget and quality than the type of programming produced by our members. Thus, the non-network, first-run syndication marketplace is not a viable alternative marketplace for our programs.

7. We understand that in our industry the Justice Department defines a "relevant market" for antitrust purposes by asking the following question: if there was only one television network, and that network lowered the price it offered us for high quality prime-time programming by five percent, would we continue selling such programs to the network? Our answer is that we would have no choice but to accept the lower price, because selling our programs to the network would continue to be our most profitable alternative. Moreover, as a practical matter, there is no real competition amongst the three networks for the purchase of our programs.

8. The economic theory offered by the networks and the Justice Department ignores the reality that we face in our day-to-day business dealings with the networks: today the networks hold the same market power and have the same incentive to misuse that power that they had when the Justice Department entered the consent decrees -- consent decrees that provide simple and, in some instances, permanent safeguards against such network abuse. Without these fundamental safeguards, the networks will have every incentive and capability to misuse their market power to extract ownership

rights to the programs we, the smaller independents, produce as a condition of our access to the networks' national audience. For those of us who might choose to refuse to accede to these demands, we believe that the networks will, based on their past performance, generally refuse to buy our programs, thereby excluding us from access to the prime time television marketplace.

9. The submissions of the networks and the Justice Department in this proceeding suggest that we will benefit from the vacation of Sections IV and VI(A) of the consent decrees. We disagree. Very simply put, if the consent decrees are modified in the way the networks have requested, we believe that the networks will have the unfettered ability to dominate the U.S. television marketplace in the manner in which they did prior to the Federal Communication Commission's adoption of the original Financial Interest and Syndication Rule and the subsequent entering of the consent decrees. From our experiences in dealing with the networks (for many of us, both before and after the consent decrees were entered), we know all too well that without these basic safeguards, the networks will once again be able to condition our access to their prime-time audience on our willingness to surrender our ownership rights in our creative product. To those who choose to surrender all or a portion of these rights, they will in effect become de facto network employees who forfeit both their creative independence and the potential financial rewards of successfully syndicating a high quality prime-time television program. To those who refuse to give up their ownership rights as the condition of access to the networks' prime-time schedule, they necessarily will lose access to the predominant purchasers of high quality, prime-time television programming, ABC, CBS and NBC. The consequence of the latter choice is obvious: unemployment.

So we declare, under penalty of perjury, that the foregoing is true and correct.

CAUCUS STEERING COMMITTEE

Co - Chairman

Co - Chairman

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