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Market-based measures of viewpoint diversity ☆

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A B S T R A C T

Existing market-based measures of viewpoint diversity in the media have been criticized for lacking a theoretical foundation. This paper proposes a theoretical framework to develop market-based measures of viewpoint diversity. It then uses this framework to develop four viewpoint diversity measures using a panel dataset of local television ratings. Finally, an econometric model relates these viewpoint diversity measures to media ownership variables. It does not appear that market-based measures of viewpoint diversity are strongly related to media ownership structures.

1. Introduction

In many countries, communications regulators seek to ensure that a diverse array of viewpoints are expressed in the mass media. In the United States, the Federal Communications Commission (FCC) "has regulated media ownership as a means of enhancing viewpoint diversity based on the premise that diffuse ownership among media outlets promotes the presentation of a larger number of viewpoints in broadcast content than would be available in the case of a more concentrated ownership structure." (FCC, 2012) In the United Kingdom, Ofcom seeks to ensure that "a wide range of TV and radio services of high quality and wide appeal are available." The Canadian Television-radio Telecommunications Commission expressly prioritizes the "creation and broadcast of diverse Canadian programming."

Although regulators agree on the need to promote viewpoint diversity in the media, there is no consensus as to how it should be measured. For example, the US Supreme Court upheld the FCC's right to regulate viewpoint diversity in 1975, but it simultaneously noted that "diversity and its effects are elusive concepts, not easily defined let alone measured without making quality judgments that are objectionable on both policy and First Amendment grounds." (436 U.S. 775). As McCann (2010) put it, "In other words, the court didn't require the FCC to specifically define viewpoint diversity, [it] instead relied on the FCC's rational judgment based on experiences."

The economic literature has proposed numerous content-based measures of viewpoint diversity in various media. In the radio industry, Berry and Waldfogel (2001), Sweeting (2010) and Jeziorski (2012) used the number of formats available in a media market to measure product variety and viewpoint diversity. In the print news industry,

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George (2007, 2008) used data on reporters' and editors' job titles to measure the diversity of content provided. Ho and Quinn (2009) used newspapers' editorials on divided Supreme Court decisions to measure the papers' viewpoints. Gentzkow and Shapiro (2010) counted local newspapers' usage of partisan phrases identified within the US Congressional Record. In local television news, George and Oberholzer-Gee (2011) measured diversity in terms of issues, political coverage and local stories, in terms of both variety and differentiation, by counting keywords within local news transcripts. Across several media, Groseclose and Milyo (2005) measured viewpoint diversity by comparing national news outlets' citations of think tanks and policy groups to politicians' citations of the same think tanks and policy groups.

While content-based measures of viewpoint diversity have allowed researchers to study viewpoint diversity, they present a number of challenges for policymakers. Content-based measures may be subjective, and therefore difficult to defend in court; non-comprehensive, measuring only a fraction of the viewpoints expressed in a medium; reliant on single-purpose databases and therefore costly to construct; incomparable across media; and potentially open to manipulation by the media outlets they might be used to regulate. In fact, we do not know of any systematic attempts to use content-based measures of viewpoint diversity to regulate media industries.

An alternate approach to content-based measures of viewpoint diversity is to develop a market-based measure. If some media consumers respond to changes in viewpoint diversity by changing media consumption, then changes in market shares might serve as lagging indicators of changes in the variety of viewpoints offered. Such market-based measures might seem to offer objective, low-cost means to measure viewpoint diversity across a variety of media industries.

Just (2009) reviews several governments' attempts to construct market-based measures of viewpoint diversity. For example, in 2003, the FCC invented a new measure it called a "diversity index," which sought to measure viewpoint diversity in a manner inspired by the Herfindahl–Hirschmann index (HHI) that antitrust authorities use to gauge market competitiveness. The diversity index used consumers' average time spent with each medium to weight its importance. It then assigned equal "market shares" to each outlet within each medium. For example, New York was served by 23 television stations, so each television station was assigned a "market share" of 1/23. It then combined those "market shares" for commonly owned outlets. Finally, based on these weights and "market shares," the diversity index was calculated using a sum-of-squares approach similar to the HHI.

This diversity index was objective and straightforward to calculate, but its use to justify media ownership deregulation was challenged immediately and quickly overturned. In *Prometheus Radio Project vs. FCC*, the 3rd Circuit Court was emphatic on its view of the diversity index. It ruled that "the Commission did not justify its choice and weight of specific media outlets." Further, "the Commission did not justify its assumption of equal market shares." And, "the Commission did not rationally derive its Cross-Media Limits from the diversity index results," (373 F.3rd 372).

The current article seeks to develop a theoretical framework for devising market-based measures of viewpoint diversity. This problem is made difficult by the dependence of market shares on both consumer preferences and media content, whereas viewpoint diversity is normally defined in terms of media content alone. The key to the proposed approach is to use *local* consumption of *national* news media, whose content is uniform across local markets, to learn about local market preferences. Once those local preferences have been identified, they may be distinguished from local media content.

After developing this theoretical framework, it is applied to the local television news industry in the US and four measures of viewpoint diversity are considered. A series of descriptive regressions relate the viewpoint diversity measures to local media cross-ownership, co-ownership and ownership diversity, using several techniques to control for time-invariant market characteristics. There is little robust evidence linking changes in media ownership to changes in candidate viewpoint diversity indices.

The article proceeds in the following way. Section 1.1 uses thought experiments to illustrate the approach of separating local preferences from local media content. Section 2 proposes the theoretical framework for deriving market-based measures of viewpoint diversity. Section 3 describes four such measures, a dataset and an econometric approach to relate the measures to local media market ownership variables, controlling for persistent unobserved market characteristics. Section 4 contains the estimation results and Section 5 discusses their implications for viewpoint diversity policy makers.

1.1. Separating consumer preferences from media content

Suppose two competing news outlets, A and B, within a local market each offer a local news program, and suppose that each station has a 50% share of the local news audience. (We will refer to these outlets as television stations, but the theoretical framework may be applied more widely.) The following two extreme possibilities are observationally equivalent:

(1) The market's television audience consists of two equally sized segments with opposite viewpoint preferences. The observed 50/50 audience split suggests that each local news program is tailored to one segment's preferred viewpoint. This would indicate high viewpoint diversity among the programs provided by the media market.
(2) All viewers in the market have the same preferred viewpoint. The two stations both offer this viewpoint. The programs are identical and split the market evenly, with half the audience watching station A and half watching station B. This would indicate no viewpoint diversity among the programs provided by the media market.

The observational equivalence of these extreme possibilities illustrates the primary difficulty in measuring