NBER-Nielsen Media Project Proposal

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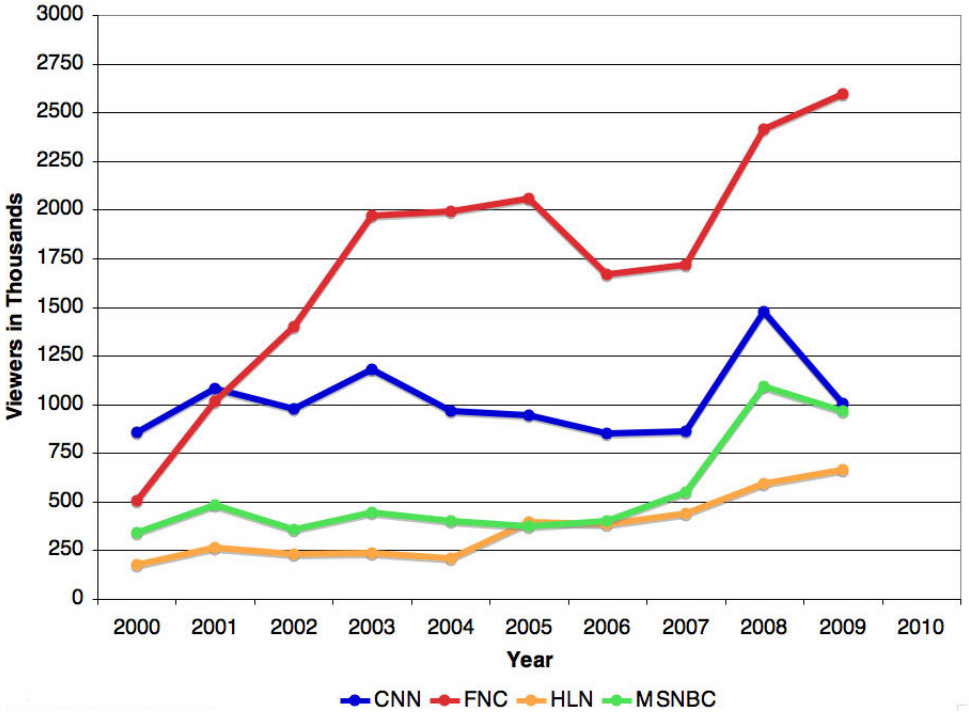
Introduction

Has rising import competition contributed to the polarization of U.S. politics? In a recent working paper, "Importing Political Polarization? The Electoral Consequences of Rising Trade Exposure," we analyze outcomes from U.S. congressional elections since 2000 and detect an ideological realignment that is centered in trade-exposed local labor markets [Autor et al., 2016]. Exploiting the exogenous component of rising trade with China [Autor et al., 2013] and classifying legislator ideologies by congressional voting records, we find strong evidence that congressional districts exposed to larger increases in import penetration disproportionately removed moderate representatives from office in the 2000s. We also find that more trade-exposed locations were more likely to have strengthened their support for the Republican presidential candidate in 2016, relative to presidential voting patterns in either 2000 or 2008. In this proposal, we outline an extension to our analysis that uses Nielsen TV ratings to measure the effect of rising import competition on the polarization of American households, as captured by their news-viewing preferences.

We focus our analysis on the effects of import competition on the rise of Fox News during the 2000s, a topic of considerable research interest among economists and political scientists [DellaVigna and Kaplan, 2007, Martin and Yurukoglu, forthcoming]. From 2000 to 2007, as shown in Figure 1, national weekday primetime viewership of Fox News rose from about 500,000 to 2.6 million, whereas viewership of other cable news channels was flat and nightly network news viewership, not shown, declined. Fox's rapid expansion coincides with the well-documented increase in Chinese import competition and pre-Great Recession decline in the share of U.S. employment in manufacturing that occurred between 2001 and 2007.

To assess the effect of exposure to import competition on consumer demand for news by outlet, we will estimate growth in Fox News viewership relative to non-Fox cable news viewership across U.S. Designated Market Areas (DMAs) as a function of local exposure to increasing trade with China and other economic shocks. Our analysis will examine the period 2000 to 2016, which exhibits increasing polarization in the political views of U.S. voting-age adults [Pew Research Center, 2014] and spans three closely fought presidential elections that follow the departure of a two-term incumbent. By examining how economic shocks affect media consumption when individuals can choose among media outlets of differing slant

Figure 1: Total Weekday Primetime Viewers by Cable News Channel



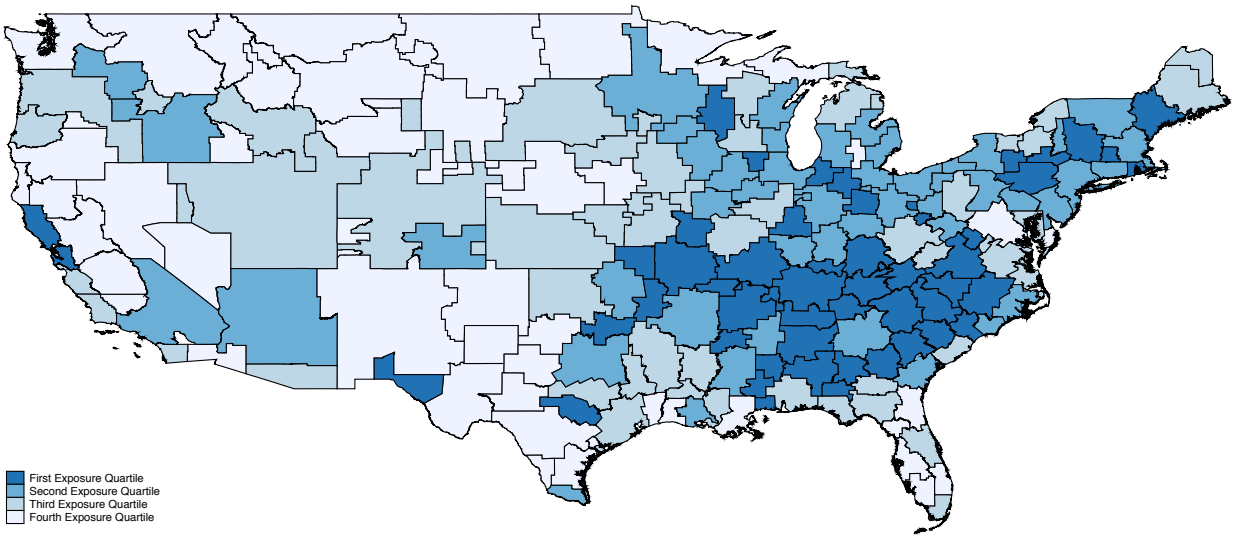
[Gentzkow and Shapiro, 2010], our research will contribute both to the political-economy literature and to the economics of media. Our work will help fill a notable gap in knowledge on the causes of political polarization in the U.S. [Layman et al., 2006], and in particular on the largely overlooked role of economic shocks [Voorheis et al., 2015]. The questions we address also relate to analyses of how economic crises contribute to political polarization and radicalization [De Bromhead et al., 2013, Funke et al., 2016, Ponticelli and Voth, 2017].

Empirical Approach

Our analysis will apply a similar measure of local import exposure to that in Autor et al. [2013]. We calculate the trade shock experienced by a local media market as the average change in Chinese import penetration in the industries of the constituent counties of a DMA, weighted by each industry's share in each county's initial employment and then by the number of television-equipped households in each county. Econometrically, we identify the supply-driven component of Chinese imports by instrumenting for growth in Chinese imports to the U.S. using the contemporaneous composition and growth of Chinese imports in eight other developed countries. As seen in Figure 2, we find substantial DMA-level variation in exogenous exposure to Chinese import competition. The interquartile range of the change in Chinese import penetration over 2002 to 2010 — which is the focus of the analysis in Autor et al. [2016] — is 0.70 to 1.57 percentage points. In our primary specification, we will estimate an equation of the form:

$$\Delta Y_{it} = \beta_0 + \beta_1 \Delta IP_{it} + \beta_2 X_{it} + e_{it} \tag{1}$$

Figure 2: Exposure to Chinese Import Competition by Local Media Market



in which the dependent variable ΔY_{it} is the change in viewership for Fox News relative to alternative cable news outlets over either the entire 2000 to 2016 period or over subperiods within this time frame. The main variable of interest is the change in import exposure ΔIP_{it} in media market i, where X_{it} is a set of control variables that includes start-of-period demographic, economic, and political characteristics that correspond to media market i.

Data Request

Following discussions with Andrew Sweeting and Samrat Sharma, our request is for the Nielsen basic TV ratings dataset as described in the NBER call for proposals. We are interested in annual average TV ratings in the 5pm to 11pm timeslot by DMA for Fox News, CNN, Headline News, and MSNBC in the years 1998, 2000, 2002, 2004, 2006, 2008, 2010, 2012, 2014 and 2016, which correspond to the congressional elections we analyze. The outcome of interest is the Coverage Area Average Audience Percent (CVG AA%), which we request for the following demographic groups: all households, households headed by whites aged 25 to 44, households headed by whites aged 45 to 64, households headed by nonwhites aged 25 to 44, and households headed by nonwhites aged 45 to 64. Any frequency of observation is acceptable for our purpose so long as we can construct cross-time percentage changes in annual viewership outcomes by DMA and demographic group.

In addition, our empirical approach requires that we obtain (a) county-to-DMA crosswalks for all years in our sample, or alternatively, a license for official Nielsen maps that we can use to construct such crosswalks, and (b) Nielsen's TV household estimates by county and year for all U.S. counties and years in our sample. The crosswalk, TV household weights, and shapefile used in Figure 2 are all drawn from Sood [2016]. We have already obtained all other data necessary for the analysis outlined here. We are happy to discuss changes in our data request from Nielsen to the extent it imposes too heavy a burden on analyst hours.

Financial Support

Through the MIT Initiative on Technology and the Future of Labor and the Center on Global Transformation at UC San Diego, we can provide $20,000 in research support to assist in the extraction of data from Nielsen.

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