Exposure to Chinese Imports and Media Slant: Evidence from 147 U.S. Local Newspapers over 1998-2012

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Abstract

Does the recent surge in Chinese imports affect the media slant against China in the United States? Using a data set of 147 U.S. local newspapers over 1998-2012, this paper shows that newspapers whose circulation counties face greater exposure to Chinese imports report more negative news about China, and are more likely to endorse Democrats. The results hold with two identification strategies and three measures of media slant. The paper further shows that, in U.S. House and Senate elections between 2000 and 2012, media slant is associated with increased voting shares for Democrats, who are traditionally champions for the poor and critical of globalization.

Keywords: Chinese import competition, media slant, U.S. daily newspapers, election

JEL Classification: F10, F14, L82, D72

1 Introduction

Trade liberalization in general and U.S. trade relations with China in particular have become a contentious issue in the United States. Imports from China have been shown

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to cast various adverse effects on American society; for example, a surge in the manufacturing unemployment (e.g., Autor et al., 2013; Acemoglu et al., 2016; Pierce and Schott, 2016a) and deterioration in public health (e.g., Autor et al., 2016; McManus and Schaur, 2016; Pierce and Schott, 2016b). On top of affecting people's material interests, Chinese imports might also change American society's perception of China, possibly reflected in and further amplified by the U.S. media coverage of China. Anecdotal evidence shows that substantial exposure to imports from China is associated with a deteriorating image of China in the U.S. media, with "China-bashing" becoming increasingly popular in U.S. election campaigns.[1] However, there is scarce systematic analysis of whether Chinese imports have caused a media slant against China. Using a data set of 147 U.S. local daily newspapers over 1998-2012, this paper investigates how exposure to Chinese imports influences newspapers' attitudes toward China, and their party endorsements in presidential elections. To capture the significance of the changes in media behavior, the paper further studies whether the media slant against China in turn influences U.S. election results.

A newspaper, subject to space limitation, commonly expresses its attitudes through the selection of topics to be covered (or so-called agenda-setting behavior). By increasing the coverage of an issue, a newspaper can make readers believe in the importance of that issue and the image projected (McCombs and Shaw, 1972). An example is the case of *The New York Times*'s articles on the 2008 Summer Olympic Games held in Beijing. Of the 49 articles published in August 2008 about the Beijing Olympics, 17 articles devoted some space to discussing issues (such as Tibet, human rights and censorship, authoritarianism, and pollution) in China that were likely to project a negative image of China, whereas the rest of the articles focused almost exclusively on athletes, Chinese culture, and tourism.

To measure a newspaper's slant against China, we use the proportion of articles devoted to negative issues about China in the newspaper's total articles on China. Specifically, we develop a list of negative keywords about China after analyzing all the articles on China published in *The New York Times* and *The Washington Post* from 1995 to 2012, and then use the list of keywords to identify articles on negative issues about China in U.S. local newspapers.[2] For robustness tests, we use the Harvard IV-4 psychosocial dictionary to come up with a list of negative keywords for constructing our measure of media slant. We also apply the natural language processing technique to analyze the negative

[1] Examples include CNN's Jack Cafferty stating that products manufactured in China are "junk" (http://edition.cnn.com/2008/WORLD/asiapcf/04/15/cnn.china/ accessed October 19, 2016); The Economist's coverage of bipartisan hostility toward China in the 2012 presidential election (http://www.economist.com/node/21558581 accessed October 19, 2016); and 2016 Republican presidential candidate Marco Rubio proposing to strike hard on China, in an op-ed in *The Wall Street Journal* (http://www.wsj.com/articles/how-my-presidency-would-deal-with-china-1440717685 accessed October 19, 2016).

[2] We use the same automated keyword search method as in Larcinese et al. (2011) and Puglisi and Snyder (2011).

sentiment of the newspaper content, and use it as an alternative measure of media slant. Our regressor of interest is the Chinese import competition at the newspaper level. To this end, we first calculate each county's exposure to Chinese imports, following Autor et al. (2013). Then, for each newspaper, we aggregate the import exposure of its circulating counties by weighting the circulating market shares of those counties.

Our identification explores variations across newspapers over 1998-2012. The cross-newspaper variation helps control for trends over the sample period that were common to all the newspapers, such as the possible improvement of the social, cultural, and political situation in China. The cross-time differencing helps eliminate intrinsic features of newspapers that were stable over the decade, such as the location of the editorial office. To address the potential endogeneity of the growth of Chinese imports in the United States, we adopt two estimation strategies. First, we follow Autor et al. (2013) in using the growth of Chinese imports in eight other developed countries as an instrumental variable for the growth of Chinese imports in the United States. Second, following Pierce and Schott (2016a), we employ a difference-in-differences method to explore the granting of Permanent Normal Trading Relations (PNTR) to China by the United States in 2001, which generated largely exogenous variations in Chinese import competition across industries.

We find that newspapers with circulation in counties that face greater exposure to Chinese imports report more negative news about China. The results hold with three different measures of media slant, as well as two identification strategies (Autor et al. 2013; Pierce and Schott, 2016a). We also find that the increase in negative reports about China comes mostly from non-trade-related news as opposed to trade-related news. We test the results based on a supposedly neutral news topic, the 2008 Summer Olympic Games held in Beijing, and find that newspapers whose circulating counties faced greater exposure to Chinese imports reported on the Beijing Olympics more negatively.

Further, we study the effect of Chinese import competition on newspapers' endorsement of a party in the presidential elections. We find that newspapers whose circulating counties faced greater exposure to Chinese imports were more likely to endorse Democrats, who are traditionally against trade and for economic redistribution.[3]

In the second part of the study, we test the effect of media slant on voting shares for Democrats in the House, Senate, and presidential elections at the county level. To calculate the media slant against China at the county level, we sum the media slant ratios of the local newspapers with circulation in that county, weighting the newspapers' county circulation divided by the county population. We find that media slant against China is

[3]Che et al. (2016) find that Democrats are more likely than Republicans to support legislation against foreign import competition and for economic assistance. Surveys by Gallup from 2000 to 2011 show that a higher percentage of Republicans see trade as an opportunity than that of Democrats (http://www.gallup.com/poll/181886/majority-opportunity-foreign-trade.aspx accessed October 19, 2016).

associated with increased voting shares for Democrats in House and Senate elections.[4]

This study is related to a growing literature examining the sources of media slant; Stromberg (2015) provides a review of the literature. Mullainathan and Shleifer (2005) show theoretically that when there is significant reader heterogeneity, media outlets might slant their reports toward the prior beliefs of some segments of the readership. Gentzkow and Shapiro (2006) show that media slant toward readers' prior beliefs is more likely when there is a lack of competition in the newspaper market. Our work contributes to the literature by providing one of the few empirical studies on the sources of media slant. We show that newspapers in regions facing greater competition from Chinese imports have become more slanted against China. This finding is consistent with the demand-side determinants of media slant highlighted by Mullainathan and Shleifer (2005) and Gentzkow and Shapiro (2006). Presumably, readers in regions that are more affected by Chinese imports become more heterogeneous, on the one hand, and some of the readers have stronger prior (negative) beliefs about China, on the other hand. The paper also complements Gentzkow and Shapiro (2010) and Larcinese et al. (2011), by providing an economic determinant of media slant as opposed to media slant being caused by difference in partisanship or ideology.

This study is also part of an emerging literature highlighting the adverse effects of the latest wave of globalization initiated by China's joining the World Trade Organization, and the country's massive growth in exports to the world since then. Our finding that Chinese imports have caused a media slant against China is consistent with some of the negative impacts of Chinese imports on the American society documented in the literature, such as rising unemployment and mortality (e.g., Autor et. al., 2013; McManus and Schaur, 2016; Pierce and Schott, 2016a). We find that such media slant in turn has had an impact on U.S. elections. The media slant has lent support for Democrats, who traditionally are champions for the poor and critical of globalization, implying a limit of globalization if redistribution mechanisms are not put in place to help the victims of globalization.

The work most closely related to this paper is Ramirez and Rong (2012), who find that the total number of "bad" news reports about China in U.S. newspaper and website contents from the *Factiva* database increases sharply 3-4 months after unexpected increases in the U.S. trade deficit with China. While their study uses the keyword search method exclusively for measuring media slant, we provide alternatives. Different from Ramirez and Rong (2012)'s times series analysis, this study explores variations across individual local newspapers over 1998-2012, which allows better identification of the effect of U.S. regions' exposure to Chinese imports on media slant in their local newspapers.

[4] Abundant research studies the effect of the media on political issues such as public spending (Stromberg, 2004; Snyder and Stormberg, 2010), voter turnout (Gentzkow, 2006), party voting share (Dellavigna and Kaplan, 2007), and witness appearance in Congressional hearings (Snyder and Stormberg, 2010).

The paper is structured as follows. The data, variable construction, and empirical estimation framework are discussed in Section 2. The main empirical results are presented in Section 3, and the interpretation is presented in Section 4. Section 5 discusses trade exposure, media slant, and elections.

2 Data, Key Variables, and Estimation Framework

2.1 Data

We focus on U.S. daily newspapers with both county-level circulation data and electronic archives of newspaper articles available from 1998 to 2012. We choose 1998 as the starting year because it is the earliest year for which county-level circulation data are available. We choose 2012 as the ending year for reasons of data availability.[5]

Newspaper county-level circulation data are obtained from the *Alliance of Audited Media* (formerly Audit Bureau of Circulation) – the largest provider of media circulation data in the United States.[6] Data on newspaper content are from *Newslibrary* and *Factiva* database.[7] We first check each newspaper for its consistency over the sample period; specifically, data on newspapers that have been merged or under joint operating agreement are combined. We then match the newspaper county-level circulation data with the newspaper content data. Following Gentzkow and Shapiro (2010), we exclude four national newspapers from our sample – *The New York Times*, *The Wall Street Journal*, *The Washington Post*, and *USA Today*.[8] – as our focus is to explore the impact of regional variations in Chinese import competition on the media slant of local newspapers. Overall, we collect data on newspaper content for 145 newspapers from *Newslibary* and two newspapers (*The Boston Globe* and *The New York Post*) from *Factiva* database. This leaves us with a sample of 147 daily newspapers, covering 49 states in the U.S. (see a list of the newspapers in Appendix Table A1).[9]

[5] First, because of the copyright issue, some newspaper articles are not archived until a few years after publication. Second, according to the American Press Institute's report, 2012 was a pivotal year for digital subscriptions, with the majority of the 98 newspapers with total circulation of 50,000 or more starting to offer digital subscriptions. As we do not have data on digital subscriptions, we focus on the pre-2012 period.

[6] As the Alliance of Audited Media provides circulation data on select weekdays and weekends, we follow Goh et al. (2011) and aggregate the circulation data for each newspaper to the weekly level.

[7] Neither *Newslibrary* nor *Factiva* database covers the contents of articles published in *The Chicago Tribune* and *The Los Angeles Times*. While newspaper archives of *The Chicago Tribune* and *The Los Angeles Times* are available on their own websites, unfortunately, their website search engines do not support our keyword search method, which will be introduced in the next section. Hence, these two newspapers are not in our sample.

[8] The National newspaper *Christian Science Monitor* is not in the sample due to lack of circulation data.

[9] We verify these newspapers' information, such as publication period and frequency, from the website of the Library of Congress (http://chroniclingamerica.loc.gov/search/titles/) and Ansolabehere et al. (2011).

We obtain international trade data from the United Nations' Comtrade database; data on county-level industry structure (by employment) from County Business Patterns of the U.S. Census Bureau; and census data for various control variables.

2.2 Key Variables

2.2.1 Media Slant

The study is concerned with media slant, which is caused by selective coverage of negative topics and issues that would project a negative image of China. This definition is commonly used in the literature (see, for example, Groseclose and Milyo, 2005; Gentzkow and Shapiro, 2010; Puglisi and Snyder, 2014).

In the main analysis, to measure media slant in coverage of China, we first construct a list of negative keywords, and then use it to identify negative reports about China, following Larcinese et al. (2011) and Puglisi and Snyder (2011).[10] For a detailed discussion on the measurement of negative reporting, see Appendix B1.

The list of negative keywords is constructed specifically for China-related news content, as a context-based dictionary is essential for improving the accuracy of identifying negative articles about China. We first search and analyze all the articles with titles containing the words "China or Chinese" in *The New York Times* and *The Washington Post* from 1995 to 2012, and count the frequency of all single words, two-word phrases, and three-word phrases each year. We keep those single words that appeared at least 10 times in a given year of the sample period, and those two-word and three-word phrases that appeared at least five times in a given year of the sample period. For each of these words/phrases, we judge whether it is associated with a negative image of China, and combine all those words with negative images to construct a list of negative keywords. These negative keywords mainly cover five issues: environment, health, and safety (with keywords such as air pollution and recall); law and governance (e.g., bribery, intellectual property); human rights (e.g., censorship, human rights); international relations (e.g., sanction, hacker); and trade and other economics issues (e.g., trade deficit, dumping). The complete list of negative keywords is reported in Appendix Table A2. Similar to Larcinese et al. (2011), we test the keywords in different random samples of articles to minimize false positive results as much as possible.[11] As an illustration, we provide ex-

[10] There are two other ways to measure media slant: i) comparing the contents of media outlets with text by other sources that have clear patterns of preference (e.g., Groseclose and Milyo, 2005; Gentzkow and Shapiro, 2010); and ii) directly using media endorsements in elections and ballot propositions. For this study, we choose the approach of Larcinese et al. (2011) and Puglisi and Snyder (2011), because of the lack of third-party sources as a benchmark preference on China and the lack of explicit newspaper endorsements for or against China.

[11] We ran several sampling strategies to extract newspaper articles randomly based on this list of negative keywords, and read those articles to exclude the possibility of false positives. For example, in one trial, we randomly chose 10 newspapers in a random year. We obtained 152 results of which 88.8 percent of hits were good and the rest were false positives. Of those "good" hits, 4.6 percent are

amples of negative articles in Appendix B2, as well as examples of non-negative articles. We also provide an illustrative example that compares articles on the similar topic but from regions with different exposure to Chinese imports (i.e., low exposure regions vs. high exposure regions) in Appendix B3.

Next, we use the *Newslibrary* database to search newspaper articles, and supplement it with the *Factiva* database for searching articles in two of the newspapers (*The Boston Globe* and *The New York Post*). For each newspaper, we first find all the China-related articles by locating those with headlines that contain "China" or "Chinese," and obtain the total number of reports about China (denoted $China_{m,t}$) by newspaper m in year t . Then, within these China-related articles, we search for those reports containing the words or phrases in the list of negative keywords, and obtain the number of articles with negative reporting about China (denoted $Neg_{m,t}$). We use the proportion of negative reports about China in the total number of China-related articles as a measure of media slant against China:

$$NegRatio_{m,t} = \frac{Neg_{m,t}}{China_{m,t}}. \tag{1}$$

Table 1, panel A, shows the summary statistics for media slant. The average change in media slant from 1998 to 2012 ($\Delta NegRatio_m$) is -0.126, with standard deviation 0.257.

[Insert Table 1 Here]

We further divide our negative keywords into trade-related and non-trade-related, and construct two additional measures for media slant against China; that is, one for trade-related ($NegRatio^{trade}_{m,t} = \frac{Neg^{trade}_{m,t}}{China_{m,t}}$) and the other for non-trade-related ($NegRatio^{nontrade}_{m,t} = \frac{Neg^{nontrade}_{m,t}}{China_{m,t}}$).[12]

The aforementioned measure of media slant has the potential shortcoming of subjectivity in constructing the list of negative keywords. Therefore, in robustness checks, we use two alternative measures. First, we utilize the well-established sentiment dictionary from linguistics (Harvard IV-4 dictionary) to construct the negative keyword list. Second, we use natural language processing techniques from computer science to analyze the exact tone of newspaper content, instead of the negative keywords, to identify negative reports about China. Section 3.4 provides details on these measurements.

about trade; 3.9 percent are about environment, health, and safety; 65.1 percent about human rights; 2.0 percent about law and governance; and 13.0 percent about international relations. False positive hits are mainly about cultural events, tourist advice, reports about natural disasters, or incidents involving ethnic Chinese in foreign countries. All the trials delivered similar patterns.

[12]For articles with both trade- and non-trade-related keywords, we classify them as trade-related articles.

2.2.2 Trade Exposure to China at the Newspaper Level

Because the outcome variables concern the reporting behavior of newspapers, we need to measure the regressor of interest, import exposure to China, at the newspaper level.

We use two measures of the change in each newspaper's exposure to Chinese imports from 1998 to 2012, corresponding to two identification frameworks, which are elaborated in the next subsection. The first measure follows Autor et al. (2013) in two steps. We first construct county-level changes in Chinese import competition using industry-level import data from the United Nations' Comtrade database,[13] and county employment structure data from the U.S. Census Bureau's County Business Patterns database. Next, using the newspaper's market share across its circulating counties as weights (Figure 1 shows the market share distribution of *The Boston Globe* across various counties as an example), we sum the changes in Chinese import competition calculated in the first step to get a newspaper-level measure of Chinese import competition (scaled by 1,000). The measure is given by:

$$\Delta Import_m^C = \sum_c \frac{w_{c,m}^{1998}}{w_m^{1998}} \sum_j \frac{1}{1000} \frac{L_{cj}^{1998}}{L_c^{1998}} \frac{\Delta M_j^C}{L_j^{1998}} \tag{2}$$

where ΔM_j^C is the change in U.S. imports from China between 1998 and 2012 in industry j; L_{cj}^{1998} is employment in industry j in county c in 1998; L_c^{1998} is employment in county c in 1998; L_j^{1998} is employment in industry j in the United States in 1998; $w_{c,m}^{1998}$ is the weekly circulation of newspaper m in county c in 1998; and w_m^{1998} is the total circulation of newspaper m in 1998.[14]

[Insert Figure 1 Here]

The second measure of newspapers' exposure to Chinese imports follows Pierce and Schott (2016a) in using a policy shock (i.e., the U.S. granting of PNTR to China in October 2000). Imports from China had enjoyed normal trade relations (NTR) tariff rates even before the granting of PNTR, but this status had to be reviewed every year. Hence, there was always the possibility that non-NTR rates could be applied to Chinese imports. The non-NTR rates averaged 37 percent, whereas the NTR rates were around 4 percent in 1999. Therefore, the granting of PNTR removed this uncertainty and largely

[13] We extract 6-digit HS (Harmonized System code 1996) level trade data from the Comtrade website. We then convert HS level trade data to the 4-digit SIC industry level using the concordance from Autor et.al (2013). Finally, we adjust all the trade values to 2007 U.S. dollars using the Personal Consumption Expenditure Deflator from the Federal Reserve Bank of St. Louis.

[14] An implicit assumption underlying this measurement is that the newspaper's readership within a county is a representative slice of the county population. Specifically, $\frac{w_{cj,m}^{1998}}{w_{c,m}^{1998}} = \frac{L_{c,j}^{1998}}{L_c^{1998}}$, where $w_{cj,m}^{1998}$ is newspaper m's circulation in industry j in county c in 1998. However, this assumption may not hold in reality, which creates a measurement error. To the extent that such measurement error is orthogonal to Chinese import competition, it attenuates our estimates.

boosted U.S. imports from China (for more discussions on these points, see Pierce and Schott, 2016a).[15] Following Pierce and Schott (2016a), we obtain an alternative measure of the change in newspaper m's readership exposure to Chinese imports (in percentage points):

$$PNTR_m = \sum_c \frac{w_{c,m}^{1998}}{w_m^{1998}} \sum_j \frac{L_{cj}^{1998}}{L_c^{1998}} \frac{100 * NTRGap_j}{L_j^{1998}}, \tag{3}$$

where $NTRGap_j \equiv NonNTRRate_j - NTRRate_j$ in 1999.[16]

Table 1, panel B, shows the summary statistics of the change in Chinese imports from 1998 to 2012. The average change in Chinese imports using Autor et al. (2013) method is 2.297, with standard deviation 1.872, and the average change in Chinese import competition using Pierce and Schott (2016a) method is 0.000137, with standard deviation 6.47×10^{-5}.

2.3 Identification Framework

Figure 2 shows the change in Chinese import competition calculated using Autor et al. (2013) method from 1998 to 2012 across U.S. counties, with darker color indicating greater increase in Chinese import competition. Figure 3 plots the headquarters of 147 newspapers and the change in media slant from 1998 to 2012 ($\Delta NegRatio_m$), with darker color indicating greater increase in media slant. Figures 2 and 3 show a similar geographic distribution, indicating strong correlation between the increase in Chinese import competition and the increase in media slant against China.

[Insert Figure 2 Here]

[Insert Figure 3 Here]

To investigate the effect of exposure to Chinese imports on media slant, we use two prevailing identification strategies in the literature. The first one follows the strategy of Autor et al. (2013), who use variations in local exposure to Chinese imports. The estimation specification is

$$\Delta NegRatio_m = \alpha + \beta_1 \Delta Import_m^C + \mathbf{X_m^{0\prime}}\boldsymbol{\theta} + \Delta\varepsilon_m, \tag{4}$$

[15] The same policy shock may encourage American corporations to offshore operations to China and become more capital-intensive if they remain operating in the United States, both of which may lead to further unemployment in the United States and more media slant against China. Therefore, compared with the first measure, the second measure, which uses the NTR gap, may encompass more comprehensive consequences of Chinese import competition.

[16] We use ad valorem equivalent NTR and non-NTR tariff rates from Feenstra et al. (2002), and convert the 8-digit Harmonized System (HS) code to sic87dd code as in Autor et al. (2013) with concordances from the U.S. Bureau of Economic Analysis and Autor et al. (2013).

where $\Delta NegRatio_m \equiv NegRatio_{m,2012} - NegRatio_{m,1998}$ captures the change in media slant against China by newspaper m from 1998 to 2012; $\Delta Import_m^C$ measures the change in newspaper m's exposure to Chinese imports from 1998 to 2012; and ε_m is the error term.[17]

The first difference operation helps eliminate newspaper fixed effects; in other words, the analysis controls for all time-invariant differences across newspapers. Meanwhile, the identification in equation (4) comes from the cross-newspaper variations in the same sample period, which helps control for time effects that are common to all newspapers, such as the possible improvement of the social, cultural, and political situation in China. The remaining estimation biases of $\Delta Import_m^C$ could be caused by the endogenous change in Chinese imports from 1998 to 2012 (i.e., ΔM_j^C), and the nonrandom distributions of industrial structure and newspaper circulation across counties (i.e., $\frac{L_{cj}^{1998}}{L_c^{1998}}$ and $\frac{w_{c,m}^{1998}}{w_m^{1998}}$), which generate time-varying effects on $NegRatio_{m,t}$.

To address the first potential endogeneity issue, we follow Autor et al. (2013) in using an instrumental variable estimation strategy. They use eight other developed countries' (Australia, Denmark, Finland, Germany, Japan, New Zealand, Spain, and Switzerland) imports from China, denoted ΔM_j^{Other8}, to construct $\Delta Import_m^{Other8}$ as an instrument for $\Delta Import_m^C$. The instrumental variable is constructed as:

$$\Delta Import_m^{Other8} = \sum_c \frac{w_{c,m}^{1998}}{w_m^{1998}} \sum_j \frac{L_{cj}^{1990}}{L_c^{1990}} \frac{\Delta \grave{M}_j^{Other8}}{L_j^{1990}}. \tag{5}$$

Autor et al. (2013) discuss in detail the validity of this instrumental variable, and we follow closely their strategy in conducting several robustness checks on the instrument (see Appendix C for details).

To mitigate the possible relationship between the outcome variable and counties' industrial and newspaper circulation structures, we measure all the weights in the early periods for which we have data (i.e., circulation distribution across counties in 1998, and employment structure distribution in 1990). We also include a vector of determinants of counties' industrial and newspaper circulation structures in the initial periods, aggregated to the newspaper level. Specifically, we have the circulation-weighted shares of the readership attributes: Asian population, population with a bachelor's degree, population with graduate or professional degree, unemployed population, female population, and median income level. Panel C in Table 1 summarizes the readership attributes in 1998. Hopefully, with these deterministic factors controlled for, newspapers are well balanced in the initial characteristics.

[17] As shown in Appendix Figure A1, according to the Gallup survey, the proportion of U.S. citizens who have favorable attitude toward China has generally increased since 1998. One possible reason is the steady and improved relationship between China and U.S. during this period. Our identification controls for this macro trend by using the variations across newspapers within the same sample period.

For the second estimation strategy, we follow the difference-in-differences (DD) framework used by Pierce and Schott (2016a). The estimation specification is as follows:

$$\Delta NegRatio_m = \alpha + \beta_2 PNTR_m + \mathbf{X_m^{0'}}\boldsymbol{\theta} + \Delta\upsilon_m. \tag{6}$$

Pierce and Schott (2016a) show that most variations of $NTRGap_j$ across industries are caused by the non-NTR tariff rates that were set 70 years prior to the granting of PNTR, thereby minimizing the concern of endogeneity problem associated with $NTRGap_j$. The first differencing operation, measures in the early periods, and the inclusion of $\mathbf{X_m^0}$ largely control for potential estimation biases caused by the nonrandom distribution of industrial structure and newspaper circulation across counties.

3 Main Results

3.1 Baseline Results

The estimation results using the instrumental variable framework of Autor et al. (2013) are reported in columns 1 and 2 in Table 2, without and with additional controls $\mathbf{X_m^0}$, respectively. We find positive and statistically significant coefficients of the change in Chinese import competition, suggesting that exposure to Chinese imports causes newspapers in the United States to report more negative news about China.

[Insert Table 2 Here]

In column 3, we report the estimation results obtained from the DD framework following Pierce and Schott (2016a). Consistently, we also find a positive and statistically significant coefficient of change in Chinese import competition (measured by the NTR gap), indicating that exposure to Chinese imports leads to more negative newspaper reports about China.[18]

In terms of the economic magnitude of the impact, using the IV result with control variables in column 2, we find that a one standard deviation increase in Chinese import competition at the newspaper level (1.872) leads to an increase in the change in media

[18]It is interesting to investigate whether increasing U.S. exports to China has a positive effect on newspaper reports about China. To this end, we replace the regressor of interest in equation (4) with the changes in newspaper exposure to U.S. exports to China, i.e., $\Delta Export_m^C = \sum_c \frac{w_{c,m}^{1998}}{w_m^{1998}} \sum_j \frac{1}{1000} \frac{L_{cj}^{1998}}{L_c^{1998}} \frac{\Delta E_j^C}{L_j^{1998}}$, where ΔE_j^C is the change in U.S. exports to China between 1998 and 2012 in industry j. For the positive words, we use the list in the Harvard IV-4 psychosocial dictionary; that is, the 500 and 1,000 most often used single words, respectively. See Appendix Table A3 for the list of positive and negative keywords from the Harvard IV-4 dictionary. The estimation results are reported in Appendix Table A17. We find statistically and economically insignificant estimates. These results suggest that the effects of Chinese import competition and Chinese market access are asymmetric, consistent with the finding in the behavior literature that people pay more attention to losses than gains.

slant of 0.079 points - which is 30.7 percent of the standard deviation of the change in media slant.

3.2 Robustness Checks

In this subsection, we conduct a battery of sensitivity checks to address various estimation concerns of our aforementioned estimation results.

Correlated demand shocks across countries. One potential concern with our IV estimation is that if there were unobserved demand shocks correlated across developed countries, our instrument (i.e., Chinese exports to other eight developed countries) would be correlated with U.S. demand structure, which in turn biases our estimates. To address this concern, we adopt an alternative estimation framework used by Autor et al. (2013), which is based on the gravity residues. Specifically, we first estimate a gravity model using bilateral trade data at the industry level from 1998 to 2012 with importer and product fixed effects, and obtain the residues, which mainly capture the growth of Chinese imports in the U.S. due to productivity growth and changes in trade costs in China relative to the U.S. Estimation results using this gravity residue framework are presented in Appendix Table A4. We continue to find a positive and statistically significant effect of exposure to Chinese imports on media slant, suggesting that our IV estimation results are not overly driven by correlated demand shocks across countries.

Differential industry trends. Another potential concern is that the employment structure we used in localizing the Chinese imports competition may be correlated with differential unobserved industry trends. For example, if some counties were specialized in declining manufacturing industries, then our estimates of exposure to Chinese imports could be confounded by these unobserved technology and industry trends that cause the decline of those industries. See McCaig (2011) for detailed discussions on this point. In our baseline estimations, to address this estimation concern, we use the employment structure at the initial period and control for a largest set of county initial conditions (such as share of Asian population).

Further, to alleviate this concern, we apply an alternative strategy used by Autor et al. (2013) and McCaig (2011). Specifically, we first follow Autor et al. (2013) in further including the initial manufacturing employment share in the regression, which helps control for the overall trend of manufacturing in our sample period. The estimation results are reported in Appendix Table A5, columns 1 and 2. We continue to find positive and statistically significant estimates, with the magnitudes being barely changed. We then replace the initial manufacturing employment share with each 2-digit manufacturing initial employment share as in McCaig (2011). This can further help us eliminate the bias from differential 2-digit manufacturing industry trends. Estimation results are reported in

Appendix Table A5, columns 3 and 4. We find similar results, with even more significant estimates.

Placebo test using the pre-1998 sample. For a further robustness check, we follow Autor et al. (2013) in conducting a placebo test. Specifically, we regress the past changes in media slant (i.e., 1992-1997) on the future changes in exposure to Chinese imports (i.e., 1998-2012). In the case without long term trend and expectation effect, we should not find any significant estimates. Indeed, as reported in Appendix Table A6, we do not obtain any economically and statistically significant results, lending support to our identification.

Use PNTR as an instrument for imports. As another robustness check, we use $PNTR_m$ as an instrument for $\Delta Import_m^C$ in equation (4). $PNTR_m$ is motivated by a policy shock in 2000, and its construction is based on the difference between the MFN tariffs and the non-NTR tariff rates that were set 70 years prior to the granting of PNTR. These make $PNTR_m$ arguably exogenous. Estimate results are reported in Appendix Table A7, column 1. We continue to find a positive and statistically significant estimate.

Alternatively, we implement this estimation strategy by first regressing Chinese imports on $PNTR$ at the product level, and then using the predicted imports from the first step to construct the measure of local trade exposure $\Delta\widehat{Import}_m^C$ in the estimation of equation (4). Results are reported in Appendix Table A7, column 2. Again, we find similar results as in the baseline Table 2.

Spatial correlation. Our measure of newspaper-level exposure to Chinese imports is constructed by aggregating the county-level exposure to Chinese imports with the county circulation share as the weight. This aggregation may lead to spatial interdependence as a county may have several circulated newspapers and the import exposure of the same county is used in construction of the import exposure of several newspapers. To examine whether this spatial interdependence biases our estimates, we conduct a robustness check by assigning each county to only its largest newspaper in the construction of newspaper trade exposure measure. Estimation results, reported in Appendix Table A8, are robust to this new measurement, suggesting that the spatial correlation issue is not driving our estimates.

Newspaper ownership. Newspapers are usually owned by conglomerates or individuals who have other businesses. Hence, if their other businesses are affected by Chinese import competition, newspapers may change their reporting to reflect their owners' attitudes. To address this concern, we explore the situation that a conglomerate or an individual may own several newspapers circulated in different areas, and hence, within-ownership, across newspaper variations can help eliminate the ownership effect. For the list of newspaper ownership, see Appendix Table A9. To this end, we add the owner identity dummies

in the estimation. Results are reported in Appendix Table A10. We find similar results with barely changed coefficients.

Placebo tests looking at non-China-specific words and articles. Some keywords in the negative words list in Appendix Table A2 are not China-specific. This provides us with a placebo test by examining whether exposure to Chinese imports affects the degree of non-China-specific negative reporting. To this end, we search the non-China-specific negative wording in non-China related news, construct the negative reporting ratio, and re-estimate our baseline specifications. Estimation results are reported in Appendix Table A11, columns 1 and 2. We find that the estimated coefficients are neither statistically nor economically significant. Alternatively, we investigate whether the ratio of China negative reporting over the total negative reporting using the non-China-specific negative keywords is affected by exposure to Chinese imports. Estimation results are reported in Appendix Table A11, columns 3 and 4. Again, we find neither statistically nor economically significant estimates. These two placebo tests further confirm the validity of our estimation framework.

Time-varying circulation weight and thickness of media markets. In constructing the measure of newspaper exposure to Chinese imports, we fix the circulation weight in the initial period, following Autor et al. (2013). This can help us focus on the time variations from the changes in imports, instead of the changes in the circulation, in particular due to the entry and exit of newspapers in their local markets. As an illustration on this point, consider the measurement using the time-varying circulation data,

$$\Delta Import_m^C = \sum_c \left(\frac{w_{c,m}^{2012}}{w_m^{2012}} m_c^{2012} - \frac{w_{c,m}^{1998}}{w_m^{1998}} m_c^{1998} \right) = \sum_c \left(\Delta \frac{w_{c,m}^t}{w_m^t} \right) m_c^{2012} + \sum_c \frac{w_{c,m}^{1998}}{w_m^{1998}} \Delta m_c^t, \tag{7}$$

where $m_c^t \equiv \sum_j \frac{1}{1000} \frac{L_{cj}^{1998}}{L_c^{1998}} \frac{M_j^{C,t}}{L_j^{1998}}$. Hence, the changes in the newspaper exposure to Chinese imports can be decomposed into two parts: the changes in circulation over time (i.e., $\Delta \frac{w_{c,m}^t}{w_m^t}$) and the changes in imports competition over time (i.e., Δm_c^t). Fixing the circulation weight $\frac{w_{c,m}^t}{w_m^t}$ in the initial period then allows us to concentrate on the changes in imports competition in generating the changes in the newspaper exposure to Chinese imports. Nonetheless, we conduct a robustness check by using the time varying circulation weight to construct our regressor of interest as in equation (7). Estimation results are reported in Appendix Table A12, columns 1. We continue to find negative and statistically significant estimates, but the magnitudes drop a bit. One possible reason is that if counties affected more by Chinese import competition had fall in newspaper circulation due to the exit of newspapers (i.e., $\Delta \frac{w_{c,m}^t}{w_m^t}$ is negatively correlated with Δm_c^t), then the measurement using time-varying circulation as the weight absorbs this negative circulation shocks in their first term in equation (7), and then generates smaller effects.

We further examine whether the variations in the thickness of media market (i.e., number of circulated newspapers) across counties affect our estimation. Estimation results with the control for the thickness of media market are reported in Appendix Table A12, columns 2 and 3. We find similar results as in the baseline, with the magnitude barely changed. These results largely rule out the concern about the thickness of media market.

Sample selection bias. We also examine the potential concern about sample selection bias, that is, the effect of Chinese import exposure on the coverage of China-related reports (i.e., the proportion of China-related reports in total reports). The estimation results are reported in Appendix Table A13. We find insignificant results, suggesting that there is no extensive margin effect of the exposure to Chinese imports, and our aforementioned results are not biased due to the sample selection issue.

To understand further the lack of any extensive margin effect, we plot the trend in the extensive margin of news reports about China in Appendix Figure A2a, and distribution of the coverage of China-related reports across newspaper in 1998 and 2012 in Appendix Figure A2b. Clearly, the distributions are both skewed towards the right, with a high concentration on the low coverage of China-related reports. In Appendix Figure A2c, we further plot the distribution of the changes in the coverage between 1998 and 2012 across newspapers. We find a normal distribution that narrowly centers around 0, indicating that for a majority of newspaper, the changes in the coverage over 1998-2012 are small and close to 0. These results shed light on the findings that there is no extensive margin effect of exposure to Chinese imports.

Agenda-setting behavior. Another potential concern is that the media slant is driven by editorials rather than newspapers' agenda-setting behavior. To address this concern, we focus on a subsample of newspaper articles that excludes opinion pieces. Specifically, we follow Gentzkwo and Shapiro (2010) and exclude articles whose headlines contain the words "editor," "editorial," "opinion," "op-ed," and "letter," As shown in Appendix Table A14, our results are still as strong as the baseline results in Table 2.

Weighted regressions. Thus far, our estimations are based on unweighted regressions; hence, the estimates reflect the average response of the 147 local newspapers. To capture the average effects of newspaper readership, we re-estimate the equation using the circulation as the weight. Estimation results are reported in Appendix Table A15. We continue to find statistically significant estimates, with quite similar magnitudes. These results suggest the similarity between the newspaper average and readership average effects.

3.3 Event Study of the 2008 Beijing Olympics Games

Our measure of media slant in the baseline results covers various types of issues during the sample period. As a result, the measure could be influenced by possible changes in the newspapers' focus on these issues over time. Therefore, in this section, we measure media slant focusing on newspaper coverage of one single event, the 2008 Summer Olympic Games held in Beijing. We repeat the same analyses as in the baseline results. The Olympics is a supposedly politically neutral event, so the coverage should involve a minimal degree of media slant and make it more difficult to identify the impact of Chinese import competition. Surprisingly, there was some "China-bashing" in newspaper reporting throughout the year of the Beijing Olympic Games, linking the Beijing Olympics to "Genocide Olympics,"[19] "Smog Olympics,"[20] "Human Rights Olympics,"[21] and etc. It would be interesting to identify which local newspapers reported more negative news about the Beijing Olympic Games.

To construct the measure of media slant against China, we restrict the analysis to the sample of articles that were published in 2008 and contained the keyword "Olympics." We classify the articles as negative or not, depending on whether some of the negative keywords were included in the articles.[22] The refined media slant measure ($NegRatio_m^{Olympics08}$) is:

$$NegRatio_m^{Olympics08} = \frac{Neg_m^{Olympics08}}{China_m^{Olympics08}} \tag{8}$$

where $China_m^{Olympics08}$ is the number of reports on the Beijing Olympics in newspaper m in 2008; $Neg_m^{Olympics08}$ is the number of reports on the Beijing Olympics that contained negative keywords in newspaper m in year 2008; and $NegRatio_m^{Olympics08}$ is the proportion of negative reports on the Beijing Olympics in total reports on the Beijing Olympics in newspaper m in 2008.[23] As shown in panel A in Table 1, on average, 15.3 percent of the newspaper coverage of the Beijing Olympics is associated with negative issues about China, which is lower than the mean media slant (39.6 percent) in 1998 and 2012 used in our baseline analysis.

As in our main analysis, we use Autor et al.'s (2013) IV method and Pierce and Schott's (2016a) DD method. The estimation results are reported in Table 3. We find that, consistent with our baseline findings, the coefficient of the change in Chinese import competition is positive under both specifications, albeit it is statistically insignificant in

[19] China's Genocide Olympics, *the New York Times*, January 24, 2008.

[20] Beijing's Olympic War on Smog, *Times*, 15 April, 2008.

[21] Violence in Nepal as Tibetans Protest Olympics, *the Independent*, March 31, 2008.

[22] We exclude some keywords, such as "abuse," "violation," and "illegal" from the original keyword list in this test, as they are likely to generate false positive hits about sports scandals.

[23] There were no reports about the 2008 Beijing Olympics in 1998. Hence, our outcome in this exercise, $\Delta NegRatio_m^{Olympics08} \equiv NegRatio_{m,2008}^{Olympics08} - NegRatio_{m,1998}^{Olympics08}$, collapses to $NegRatio_{m,2008}^{Olympics08}$.

the DD estimation.[24] These results further confirm that the increase in Chinese imports causes newspapers in the United States to be more negative toward China.

[Insert Table 3 Here]

3.4 Alternative Measurement of Media Slant

The aforementioned measure of media slant may have potential measurement error caused by the subjectivity in constructing the list of negative keywords. For robustness tests, we use a well-known dictionary to construct a list of negative keywords for measuring the degree of media slant. We also use sentiment analysis of the newspaper content to measure the degree of media slant.

3.4.1 Matching Sentiment Dictionary

We rank the frequency of single words compiled from all the China-related articles in the *New York Times* and the *Washington Post* over 1995-2012, as previously discussed. We then select the 500 most often used single words and match them with the words from the Harvard IV-4 psychosocial dictionary (the list of matched single words is provided in Appendix Table A3).[25] Next, based on the Harvard IV-4 psychosocial dictionary, we classify the matched words into two categories: positive, negative.[26] We search the articles in U.S. local newspapers from 1998 to 2012, using the list of the negative words obtained through this process, and calculate the media slant ratio as the share of hits of China-related articles containing the negative words in the total number of China-related articles $\frac{Negative_m^{top500}}{China_m}$, where $Negative_m^{top500}$ and $China_m$ are the number of reports containing the negative words and the total number of reports about China, respectively. As shown in Table 1, panel A, the average change in $\frac{Negative_m^{top500}}{China_m}$ in all 147 newspapers from 1998 to 2012 is -0.064, with standard deviation 0.212.

With the ratio of media slant constructed above, we run the same estimations as in the baseline analysis, and summarize the regression results in Table 4. Columns 1 and 2 present with the IV and DD estimation results, respectively. Consistent with the baseline analysis, we find that with both the IV and DD estimations, the change in import exposure to China has a positive and statistically significant impact on the change in newspapers' media slant against China.

[Insert Table 4 Here]

[24] The estimated magnitudes are smaller than those in the baseline. One possible explanation is that there is less room for negative reporting on the Olympics Games than on the general issues.

[25] Harvard IV-4 psychosocial dictionary is a common sentiment dictionary used to study the sentiment of newspaper articles (e.g., Tetlock (2007)).

[26] The word "human" is excluded from the positive list, as it is associated with several reports about human rights issues, which are mostly negative in China-related news.

An additional advantage of using the Harvard IV-4 psychosocial dictionary is that we have both the list of negative keywords and the list of positive keywords. By taking into account the usage of positive as well as negative words, we can come up with a more refined measure of media slant. Specifically, we first calculate the difference between the number of reports containing negative words and the number of reports containing positive words, and then divide it by the sum of the two, namely, $\frac{Negative_m^{top500} - Postive_m^{top500}}{Negative_m^{top500} + Postive_m^{top500}}$, where $Negative_m^{top500}$ and $Positive_m^{top500}$ are the number of reports containing negative words and the number of reports containing positive words, respectively. We also experiment with using 1,000 most often used words instead of 500 most often used words in constructing the measure of media slant. As shown in Appendix Table A16, these additional robustness checks yield qualitatively the same results as those in Table 4.

3.4.2 Sentiment Analysis

In addition to using the keyword search method, which counts the usage frequency of a certain group of (negative) keywords in articles, we directly measure the tone of newspaper articles with sentiment analysis.[27] *Newslibrary* allows us to view the first 500 characters (around 90 words) of each article. Those words usually form the leading paragraph where writers commonly express their opinions. We apply the sentiment analysis method to do a textual-analysis on those first 500 characters (leading paragraph, thereafter) of each newspaper article about China.[28]

Specifically, we use the Python Natural Language Toolkit package to tokenize the first 500 characters of each newspaper article into a list of single words. Next, for each word in the document, we search for the word in a sentiment dictionary called SentiWordNet 3.0 and find its negativity score.[29] We measure the negativity of each article by calculating the total negative score of words in the leading paragraph divided by the total number of words in that paragraph, and use the average negativity score of all China-related documents in one newspaper as the measure of media slant of that newspaper. As shown in panel A in Table 1, for all 147 newspapers, the average change in negativity score from 1998 to 2012 is -0.0757.

Table 5 reports the regression results for the media slant measure constructed by sentiment analysis. We find a positive and statistically significant impact of Chinese import competition on media slant with both the Autor et al. (2013) (column 1) and

[27] Natural language processing techniques have been vastly developed in the field of computer science and adopted by researchers in other fields. For example, Thomas et al. (2006) analyze the congressional floor debate transcripts to determine the attitudes of speeches. Tumasjan et al. (2010) analyze the twitter sentiment to predict election results.

[28] The procedure we implement is a rather simple version compared with the recent developments in this field. Issues such as score weighting and negation are not addressed. However, our random sample check shows that the technique delivers quite reliable results.

[29] SentiWordNet is one of the major lexical resources for sentiment analysis. Currently there are about 1,100 published papers using SentiWordNet 3.0, according to Google Scholar.

Pierce and Schott (2016a) (column 2) method .

[Insert Table 5 Here]

4 Interpretation

We have shown that exposure to Chinese imports increased negative reporting on China by U.S. local newspapers. In this section, we discuss interpretations of this result. Specifically, we first examine whether the result reflects an overall increase in the negative reporting, then document the source of these negative reports about China, and finally investigate the importance of the local labor market in explaining our findings.

4.1 General Trend versus China-Specific

One possible explanation for our findings is that newspapers whose readership more exposed to the increased Chinese imports between 1998 and 2012 were becoming more negative in their reporting in general. Do our estimates reflect the increased Chinese import competition on media slant or capture the overall trend in newspaper reporting? To distinguish these two possible explanations, we conduct two exercises. In the first exercise, we directly study whether the overall reporting became more negative along with the increased exposure to Chinese import. Specifically, we use the general negative words from the Harvard IV-4 psychosocial dictionary to search all the newspaper articles and construct a degree of negative reporting in general. Estimation results are reported in Table 6, columns 1 and 2. We find statistically and economically insignificant estimates.

[Insert Table 6 Here]

In our second exercise, we conduct the same analysis by examining whether the reporting on Mexico (one of U.S.'s major trading partners) became more negative when the newspaper readership faced increased exposure to Chinese imports. The estimation results are reported in Table 6, columns 3 and 4. Clearly, coefficients from both IV and DD estimations are negative, and economically and statistically insignificant.

Combined, these two exercises demonstrate that our findings do not represent overall changes in newspaper reporting. Instead, they reflect that increased Chinese import competition makes newspapers increasingly negative against China in their reporting.

4.2 Trade-Related versus Non-Trade-Related Reporting

To understand the source of media slant against China, we divide all the negative reports about China into two parts (trade-related and non-trade-related), and construct two

subcomponents of media slant measure accordingly. One subcomponent is the percentage of negative trade-related reports in all China-related reports ($NegRatio^{trade}_{m,t} = \frac{Neg^{trade}_{m,t}}{China_{m,t}}$) and the other is the percentage of the negative non-traded-related reports in all China-related reports ($NegRatio^{nontrade}_{m,t} = \frac{Neg^{nontrade}_{m,t}}{China_{m,t}}$). Next we use the methods in Autor et al. (2013) and Pierce and Schott (2016a) to investigate the impact of Chinese import competition on each of the two subcomponents of media slant.

As shown in Table 7, we find that the change in the exposure of newspaper readership to Chinese imports has a positive impact on both the change in the percentage of negative trade-related reporting on China (columns 1 and 2) and the change of the percentage of negative non-trade-related reporting on China (columns 3 and 4). However, the effect of trade-related news is smaller than that of non-trade-related news. These results suggest that most of the increased negative reports about China are on non-trade-related news, such as human rights, the political regime, and so forth. These results are consistent with those from Larcinese et al. (2011), who find partisan bias in newspaper coverage to be less biased for trade issues than other economic issues.

[Insert Table 7 Here]

One possible explanation for the results is that, compared with trade-related reports, it is less direct and easier for newspapers to express negative attitudes against China on some ideological topics, such as human rights and the political regime. Another explanation for the results is that newspaper coverage of trade issues is driven by special interest groups. It has been found that groups such as labor unions and environmentalists were underrepresented in newspaper coverage during the passage of North American Free Trade Agreement (Summa and Greanville, 1993), and instead coverage at the time largely relied on the interviews with business representatives, who were by and large pro-trade (Baker, 1994).

4.3 Role of Local Labor Market

An important channel through which exposure to Chinese imports affects media slant is local labor market. Recent studies have found that Chinese imports cast significantly negative effects on local labor market such as manufacturing unemployment (e.g., Autor, Dorn, and Hanson, 2013; Acemoglu et al., 2016; Pierce and Schott, 2016a), wage reductions (e.g., Autor et al., 2014), job injury and mortality (e.g., McManus and Schaur, 2016; Pierce and Schott, 2016b), etc. To the extent that displaced manufacturing workers constituted a significant portion of the local readership, media, catering to the local discomfort, may have become anti-Chinese.

To investigate how much exposure to Chinese imports affects media slant directly and indirectly through local labor markets, we use a decomposition method following

Heckman, Pinto and Savelyev (2013) and Gelbach (2016). Specifically, our estimates in Table 2 capture the overall effects (including both direct and indirect effects through local labor market) of exposure to Chinese imports on media slant (i.e., β^{full}). Once we include the share of local manufacturing employment in the regressions, the coefficient of exposure to Chinese imports represents its direct effect on media slant, i.e., β^{direct}. Hence, the relative contribution of local labor market to the effect of exposure to Chinese imports on media slant is calculated as $\frac{\beta^{full}-\beta^{direct}}{\beta^{full}}$.

With IV specification, we find that the change in the share of manufacturing employment explains 61.90% ($\frac{0.042-0.016}{0.042}$) of the effect of exposure to Chinese imports on media slant. With DD specification, We find that the change in the share of manufacturing employment explains 45.13% ($\frac{971.187-532.878}{971.187}$) of the effect of exposure to Chinese imports on media slant. These results confirm the important role of local labor market in transmitting the shocks of Chinese import competition to the society.

5 Trade Exposure, Media Slant, and Elections

Our above analyses show that newspapers whose circulating counties face greater exposure to Chinese imports have greater media slant against China. Indeed, "China bashing" has become popular in today's U.S. elections. Candidates from the Republican and Democratic parties try to capitalize on the public's negative views on China to court more votes. In this section, we further examine the interactions among exposure to Chinese imports, media slant, and elections in the U.S. Specifically, we first study whether exposure to Chinese imports affects newspaper endorsement in the presidential elections. We then look at whether media slant against China affects voting outcomes in various U.S. elections.[30] Lastly, we document how much trade exposure affects U.S. elections through media slant.

5.1 Newspaper Endorsements in Presidential Elections

Newspaper endorsements are often studied in the media economics literature, because an endorsement is a statement of a newspaper's position on some important issues, and generally reflects the newspaper's ideological/partisan positions. To investigate whether exposure to Chinese imports affects newspapers' political position, we look at newspaper endorsements for U.S. presidential elections.

We collect data on newspaper endorsements in 2000 and 2012 presidential elections from different sources, including Ansolabehere et al. (2011), Democracy in Action,[31]

[30] Previous studies have documented a significant impact of media on voting outcomes. For example, Enikolopov et al. (2011) find that the independent TV network has a positive effect on the voting share of major opposition parties in Russia.

[31] https://www2.gwu.edu/~action.

and the American Presidency Project.[32] We also search endorsements in newspaper archives by ourselves. We find 115 newspapers in our sample with explicit expressions of endorsements (for Republicans, Democrats, or no endorsement) in both 2000 and 2012. We construct a variable, called change in newspaper endorsement in presidential elections between 2000 and 2012, which takes a value of 2 if the newspaper directly switched from Republicans to Democrats, a value of 1 if there was a pro-Democrat change (such as switching from Republicans to no-endorsement, or from no-endorsement to Democrats), a value of 0 if there was no change in endorsement, a value of -1 if there was a pro-Republican change (such as switching from no-endorsement to Republicans, or from Democrats to no-endorsement), and finally, a value of -2 if the newspaper directly switched from Democrats to Republicans.

As in our main analysis, we use Autor et al.'s (2013) IV method and Pierce and Schott's (2016a) DD method with the same set of independent variables and control variables of newspaper readership attributes. We further include newspapers' initial party endorsements in 2000 and circulation-weighted voting share for Democrats in 2000 presidential election to control for newspaper and its readerships' initial partisan preference.[33] The results are shown in columns 1 and 3 in Table 8. Given the ordinal nature of the dependent variable, we also use ordered probit regressions with the IV and DD methods in columns 2 and 4, respectively. The coefficients for the Chinese import competition variables are all positive, albeit less precise estimates are obtained using Autor et al.'s IV method. The results provide some evidence that Chinese import competition increases the likelihood of a newspaper becoming more pro-Democrats, who are generally more anti-trade than Republicans.

[Insert Table 8 Here]

5.2 Impact of Media Slant against China on Voting

We further examine the effect of the change in media slant against China on the change in voting shares for Democrats in the House, Senate, and presidential elections between 2000 and 2012. Because of the substantial changes in the boundaries of Congressional districts between 2000 and 2012 (as a result of redistricting after the 2000 and 2010 Censuses), we study the voting outcomes at the county level, the boundary of which does not change over time. This approach allows us to track changes in constant geographic areas over time.

Our estimation model is stated as

$$\Delta VoteShare_c = \gamma \Delta media_c + \mathbf{X_c^{0'}} \boldsymbol{\eta} + \varepsilon_c, \tag{9}$$

[32] http://www.presidency.ucsb.edu/data.php.

[33] Voting share data are from Dave Leip's Atlas of U.S. Elections.

where $\Delta VoteShare_c$ is the change in voting share for candidates of the Democratic Party in county c between 2000 and 2012;[34] and ε_c is the error term. Standard errors are clustered at the state level.

$\Delta media_c$ measures the change in media slant against China in county c between 2000 and 2012, which is defined as

$$\Delta media_c = \sum \left(\frac{circulation_{cm}^{2000}}{population_c^{2000}} * \Delta NegativeRatio_m \right) \tag{10}$$

where $circulation_{cm}^{2000}$ is the weekly circulation of newspaper m in county c in 2000; $popluation_c^{2000}$ is the population of county c in 2000; and $\Delta NegativeRatio_m$ is the change in media slant of newspaper m from 2000 to 2012 constructed in the same way as in the baseline analysis of section 3.1. It is a summation of the media slant ratios of all the newspapers that have circulation in county c, with the ratio between circulation and county population being the weight.

Our identification of β in equation (9) comes from the mismatch between the determination of newspaper slant (which aggregates the situations in all of its circulation markets) and the determination of county level media slant (which aggregates the behavior of all newspapers circulated in the county). As an illustration of this identification strategy, consider the following example in which Newspaper A is circulated in four counties (i.e., counties 1-4) with a large concentration in county 1, and county 2 has four newspapers circulated (i.e., Newspapers A-D) with the largest newspaper being Newspaper A. Hence, the overall media slant in county 2 is determined by the slant of Newspaper A, which is mainly determined by the situations (such as Chinese import competition) in county 1. In other words, the degree of media slant in county 2 is exogenous to the conditions in the county, generating the randomness for our identification.

However, one concern about our identification is that the determinations of newspaper slant and that of county level media slant are aligned. In our previous example, further assume that Newspaper A is the largest newspaper in county 1. Then for county 1, its overall media slant degree is largely determined by the content of Newspaper A, which is mainly determined by the situations in that county. This creates a possible correlation between our regressor of interest and error term, which would biase the estimates. To address this concern, we exclude the newspaper-county cell where circulation of newspaper m in county c is more than 20 percent of newspaper m's total circulation.[35] Our final regression sample covers 1,961 counties across the United States. Table 9 presents the summary statistics for variables at the county level.

[34] We obtain county-level data on voting shares for Democrats in these elections from *Dave Leip's Atlas of U.S. Elections*.

[35] We also test the results with different thresholds (5 to 90 percent), and find the results to be qualitatively the same.

[Insert Table 9 Here]

Table 10 presents the regression results of equation (9). We find a positive and statistically significant relationship between media slant against China and voting share for Democrats in House and Senate elections, albeit a positive and statistically insignificant relationship in presidential election. In terms of the magnitude of the impact, we find that a one-standard-deviation increase in the change in media slant (0.123) is associated with an increase of 1.3 percent (6.2 percent of the standard deviation) in the change in voting shares for Democrats in House elections, 1.2 percent (9.7 percent of the standard deviation) increase in the change of voting shares for Democrats in Senate elections. These results demonstrate the impact of media slant triggered by the increasing Chinese imports.

[Insert Table 10 Here]

Elections in 2016. During the 2016 presidential election, the Republican nominee, Donald Trump, took a strong position in protecting the U.S. economy from foreign competition, especially from low-wage countries like China and Mexico, departing from the traditional Republican position on trade issues. Recent studies by Autor et al. (2016) and Che et al. (2017) both find that areas that are more affected by Chinese imports competition gained a larger Republican vote share. To square these results with our media endorsement findings in Table 8 based on the elections data of 2000-2012, we further extend the data to 2016. Specifically, similar to Che et al. (2017), we divide the sample into two periods of changes (before and after 2012), and decompose the total change into: the changes in 2000-2012 and the changes in 2012-2016. We estimate the equation (9) by including an interaction between $Period12-16$ (an indicator for the period of 2012-2016) and $\Delta media_c$ to examine whether the elections in 2016 are different from previous elections. Estimates are reported in Appendix Table A18. For the single term $\Delta media_c$ (which represents the media effect on voting in the elections between 2000 and 2012), we find similar results as those in Table 10.

However, the interaction terms $Period12-16\times\ \Delta media_c$ are all negative albeit statistical significant only for House voting. These results suggest that media slant against China increased vote share of Republicans in the 2016 elections, consistent with the message conveyed by Autor et al. (2016) and Che et al. (2017). Given that Republicans were traditionally more supportive of free trade but were more trade protective than Democrats in the 2016 elections, these results are in line with the whole message of our analysis, that is, media slant against China (whose imports competition adversely affected local economy) increased the share of votes going to the party that held an anti-trade position.

5.3 Role of Media Slant in Channeling the Effect of Trade Exposure on Voting

Recent studies have shown that Chinese import competition significantly affects voting outcomes in the U.S. (i.e., Autor et al., 2016; Che et al., 2017) as well as other developed countries (e.g., Dippel et al., 2017). To understand how much exposure to Chinese imports affects voting outcomes through the behavior of media, we apply the decomposition framework following Heckman, Pinto and Savelyev (2013) and Gelbach (2016), and used in Section 4.3.

The decomposition proceeds in three steps. In the first step, we estimate the effect of exposure to Chinese imports on voting outcomes based on the specifications used in the literature (i.e., the IV framework by Autor et al., 2016; and the DD framework by Che et al., 2017). From these regressions, we obtain the full trade exposure effects γ^{full}. Second, we add the media slant variable in the regressions in the first step. The coefficients of exposure to Chinese imports give the direct effects of trade exposure on voting outcomes γ^{direct}; that is, the effects net of trade exposure-induced changes in the voting outcomes via media slant. In the last step, we calculate the relative contribution of media slant by calculating $\frac{\gamma^{full}-\gamma^{direct}}{\gamma^{full}}$.

With IV specification, we find that the change in media slant explains about 7.11% ($\frac{0.00225-0.00209}{0.00225}$) of the effects of exposure to Chinese imports on the House election, about 14.84% ($\frac{0.00714-0.00608}{0.00714}$) of the effects on the Senate election, and about 11.75% ($\frac{0.00383-0.00338}{0.00383}$) of the effects on the presidential election. With DD specification, we find that the change in media slant explains about 2.97% ($\frac{52.95-51.38}{52.95}$) of the effects of exposure to Chinese imports on the House election, about 17.25% ($\frac{52.93-43.80}{52.93}$) of the effects on the Senate election, and about 4.37% ($\frac{10.03-9.59}{10.03}$) of the effects on the presidential election. These results suggest that the behavior of media plays an role channeling the impact of Chinese import competition to U.S. election outcomes.

6 Conclusion

Globalization, the latest wave of which was unleashed by China's joining the World Trade Organization in 2001, has received a rude awakening in the latest votes in the United Kingdom in its break from the European Union, and the almost unanimous critique of international trade by candidates in the 2016 U.S. presidential elections. There is increasing evidence suggesting that imports from China, despite all the benefits associated with them, cast various adverse effects on U.S. society; for example, a surge in the manufacturing unemployment (e.g., Autor et al., 2013; Acemoglu et al.,2016; Pierce and Schott, 2016a) and deterioration in public health (e.g., Autor et al., 2016; McManus and Schaur, 2016; Pierce and Schott, 2016b). Anecdotal evidence suggests that there has

been a rise of "China bashing," or media slant against China.

This paper uses a data set of 147 U.S. local newspapers over 1998-2012 to examine whether exposure to Chinese imports influences newspapers' attitudes toward China, and if the media slant against China in turn influences American election results. Using the instrumental variable approach of Autor et al. (2013) and the difference-in-differences approach of Pierce and Schott (2016) (which utilizes the granting of PNTR upon China's entry to the World Trade Organization in 2001), we find that newspapers whose circulating counties face greater exposure to Chinese imports report more negative news about China, and are more likely to endorse Democrats in presidential elections.

The results hold with three different measures of media slant as well as two identification strategies (Autor et al. 2013; Pierce and Schott, 2016a). Among others, we test our results based on a neutral news topic – the 2008 Summer Olympic Games held in Beijing, and find that newspapers whose readership faces more Chinese import competition report on the Beijing Olympics more negatively. Finally, we study the effects of media slant against China on election outcomes between 2000 and 2012 at the county level, and find that in the House and Senate elections, media slant is associated with increased voting shares for Democrats. As Democrats traditionally are champions for the poor and critical of globalization, our results imply a limit of globalization if redistribution mechanisms are not put in place to address the victims of globalization.

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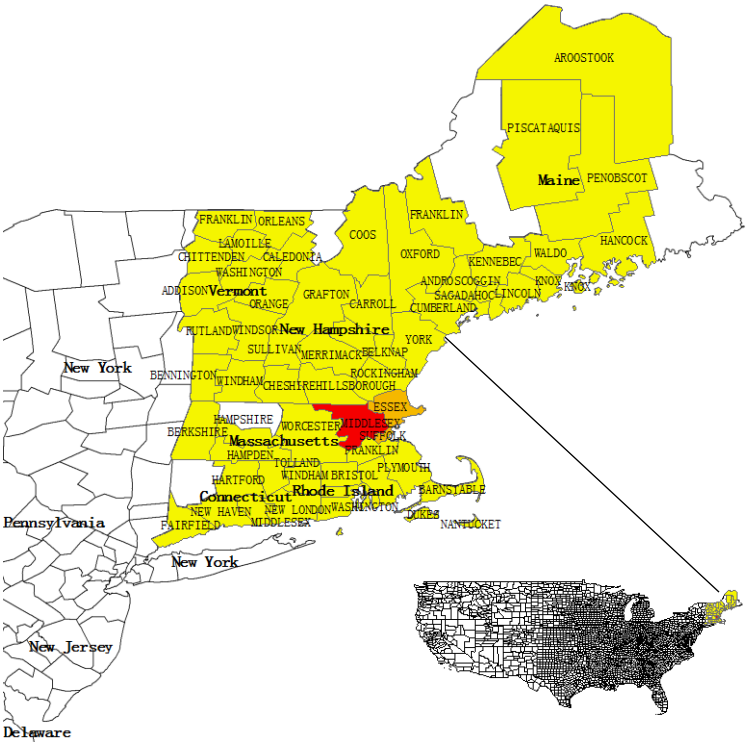

FIGURE 1. CIRCULATION MAP OF THE BOSTON GLOBE IN 2012

Note: Figure 1 shows the market share distribution of *The Boston Globe* across various counties in 2012 as an example of a local newspaper's circulation market. The darker the area is, the higher market share the newspaper enjoys in the county. Counties under 25 copies are not identified.

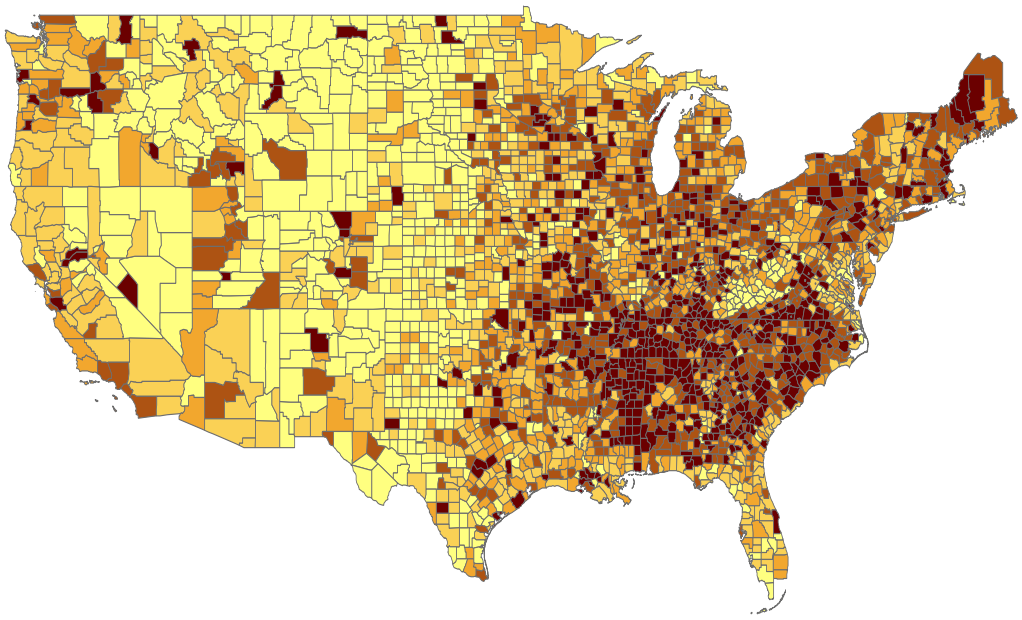

FIGURE 2. U.S. EXPOSURE TO CHINESE IMPORTS ACROSS COUNTIES FROM 1998 TO 2012

Note: Figure 2 plots the U.S. county-level exposure to Chinese imports from 1998 to 2012 calculated according to Autor et al. (2013). Darker color indicates greater increase in Chinese import competition from 1998 to 2012.

FIGURE 3. LOCATION OF NEWSPAPER HEADQUARTER AND CHANGE IN NEGATIVE RATIO FROM 1998 TO 2012

Note: Figure 3 plots the headquarters of the 147 newspapers in the sample and their changes in media slant from 1998 to 2012. Each balloon represents the headquarters of one of the 147 newspapers. Darker color indicates greater increase in media slant against China from 1998 to 2012.

TABLE 1—– SUMMARY STATISTICS FOR VARIABLES AT THE NEWSPAPER LEVEL

	(1) N	(2) Mean	(3) S.D.	(4) Min	(5) Max
Panel A: Change in Newspaper Media Slant (1998-2012)					
ΔNegative Ratio	147	-0.126	0.257	-0.667	0.588
ΔNegative Ratio-Trade	147	0.020	0.088	-0.333	0.415
ΔNegative Ratio-Non-Trade	147	-0.136	0.253	-0.8	0.57
Negative Ratio-Olympics	147	0.153	0.0762	0	0.4
Δ(NgtvTop500/China)	147	-0.0635	0.212	-0.706	0.5
ΔNegativity Score SentiAnalysis	147	-0.0757	0.423	-1.872	2.969
Panel B: Change in Import Exposure at the Newspaper Level					
Newspaper Exposure to Chinese Imports (U.S) 1998-2012 (in 1,000 pts)	147	2.297	1.872	0.151	12.606
Newspaper Exposure to Chinese Imports (Other Eight Economies) 1998-2012 (in 1,000 pts)	147	2.955	1.684	0.494	12.378
Newspaper PNTR Exposure (% pts)	147	0.000137	6.47e-05	1.78e-05	0.000333
Panel C: Newspaper-Level Controls (in 1998)					
Population Share of Ethnic Asian (%)	147	1.884	2.344	0.131	15.884
Population Share of Bachelor's Degree (%)	147	13.026	3.262	4.236	23.419
Population Share of Graduate or Professional Degree (%)	147	7.019	2.223	2.194	13.972
Population Share of Unemployment (%)	147	5.971	1.623	1.758	10.613
Population Share of Female (%)	147	50.866	3.376	17.415	52.990
Median Income (in U.S. dollars)	147	39,486	7,463	13,404	6,224

TABLE 2—– BASELINE RESULTS

	ΔNegative Ratio		
	(1)	(2)	(3)
Newspaper Exposure to Chinese Imports 1998-2012 (in 1,000 pts)	0.037**	0.042***	
	(0.018)	(0.015)	
Newspaper PNTR Exposure (% pts)			971.187***
			(365.535)
Control Variables	No	Yes	Yes
Method	IV	IV	DD
Observations	147	147	147
Weak identification	56.28	80.37	

Note: Robust standard errors are in parentheses. The table reports the results of the impact of Chinese import competition on media slant against China. The dependent variable is the change in percentage of newspaper's negative reports in total China-related reports from 1998 and 2012. Columns (1) and (2) report the estimation results using the instrumental variable framework of Autor et al. (2013) without and with control variables, respectively. Column (3) reports the estimation results obtained from the DD framework as in Pierce and Schott (2016). Control variables for newspaper and its readership attributes are the circulation-weighted shares of the following attributes at the county-level as a proxy for newspaper's readership attributes: Asian population, population with a bachelor's degree, population with graduate or professional degree, unemployed population, female population, and median income level. Weak identification tests represent the Wald version of the Kleibergen-Paap (2006) rk statistics. Estimates for the constant term and control variables are suppressed for space.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

TABLE 3—– 2008 BEIJING OLYMPICS NEWS REPORTS

	ΔNegative Ratio (2008 Beijing Olympics)	
	(1)	(2)
Newspaper Exposure to Chinese Imports 1998-2008 (in 1,000 pts)	0.013*	
	(0.007)	
Newspaper PNTR Exposure (% pts)		90.236
		(112.072)
Control Variables	Yes	Yes
Method	IV	DD
Observations	147	147
Weak identification	112.3	

Note: Robust standard errors are in parentheses. The dependent variable in this table is the percentage of newspaper's negative reports in total 2008 Beijing Olympics reports in 2008. Column (1) reports the estimation results using the instrumental variable framework of Autor et al. (2013) with control variables. Column (2) reports the estimation results obtained from the DD framework as in Pierce and Schott (2016). Estimates for the constant term and control variables are suppressed.

*Significant at the 10 percent level.

TABLE 4—– RESULTS WITH NEGATIVE KEYWORD LIST BY HARVARD IV-4

	Δ(NgtvTop500/China)	
	(1)	(2)
Newspaper Exposure to Chinese Imports 1998-2012 (in 1,000 pts)	0.045***	
	(0.015)	
Newspaper PNTR Exposure (% pts)		994.741***
		(316.452)
Control Variables	Yes	Yes
Method	IV	DD
Observations	147	147
Weak identification	80.37	

Note: Robust standard errors are in parentheses. The dependent variable is the change of percentage of newspaper's negative reports in total China-related reports from 1998 to 2012. Negative articles are identified with a negative keyword list constructed according to the top 500 most-often-used single words from all the China-related articles in *The New York Times* and *The Washington Post* (1995-2012) classified by the Harvard IV-4 sentiment dictionary. Column (1) reports the estimation results using the instrumental variable framework of Autor et al. (2013) with control variables. Column (2) reports the estimation results obtained from the DD framework as in Pierce and Schott (2016). Estimates for constant term and control variables are suppressed.

***Significant at the 1 percent level.

TABLE 5—– NEGATIVITY SCORE FROM SENTIMENT ANALYSIS

	ΔNegativity Score SentiAnalysis	
	(1)	(2)
Newspaper Exposure to Chinese Imports 1998-2012 (in 1,000 pts)	0.0490*	
	(0.030)	
Newspaper PNTR Exposure (% pts)		900.065*
		(526.452)
Control Variables	Yes	Yes
Method	IV	DD
Observations	147	147
Weak identification	80.37	

Note: Robust standard errors are in parentheses. The dependent variable is the change in newspaper's negativity score derived from sentiment analysis between 1998 and 2012. Column (1) reports the estimation results using the instrumental variable framework of Autor et al. (2013) with control variables. Column (2) reports the estimation results obtained from the DD framework as in Pierce and Schott (2016). Estimates for the constant term and control variables are suppressed.

*Significant at the 10 percent level.

TABLE 6—GENERAL TREND OR CHINA-SPECIFIC TREND

	Δ(Negative/All articles)		Δ(Mexico Negative/Mexico News)	
	(1)	(2)	(3)	(4)
Newspaper Exposure to Chinese Imports 1998-2012 (in 1,000 pts)	0.002		-0.025	
	(0.006)		(0.025)	
Newspaper PNTR Exposure (% pts)		49.634		-208.592
		(131.144)		(599.830)
Control Variables	Yes	Yes	Yes	Yes
Method	IV	DD	IV	DD
Observations	147	147	128	128
Weak identification	80.37		108.9	

Note: Robust standard errors are in parentheses. The dependent variables in columns (1)-(2) are the change in percentage of negative reporting in total reports from 1998 to 2012. The dependent variable in columns (3)-(4) are the change of percentage of negative reporting about Mexico in total Mexican reports from 1998 to 2012. The keyword list used here consists of negative words according to Harvard IV-4 (see Table A3). Columns (1) and (3) report the estimation results using the instrumental variable framework of Autor et al. (2013) with control variables. Columns (2) and (4) report the estimation results obtained from the DD framework as in Pierce and Schott (2016). Estimates for the constant term and control variables are suppressed for space.

TABLE 7—– TRADE VERSUS NON-TRADE RELATED NEWS

	ΔTrade Related Negative Ratio		ΔNon-Trade Related Negative Ratio	
	(1)	(2)	(3)	(4)
Newspaper Exposure to Chinese Imports 1998-2012 (in 1,000 pts)	0.009*		0.040**	
	(0.005)		(0.011)	
Newspaper PNTR Exposure (% pts)		41.710		949.421***
		(141.474)		(289.590)
Control Variables	Yes	Yes	Yes	Yes
Method	IV	DD	IV	DD
Observations	147	147	147	147
Weak identification	80.37		80.37	

Note: Robust standard errors are in parentheses. The dependent variable in columns (1)-(2) is the change in percentage of negative reporting about trade-related news in total China-related reports from 1998 to 2012. The dependent variable in columns (3)-(4) is the change of percentage of negative reporting about non-trade-related news in total China-related reports from 1998 to 2012. Columns (1) and (3) report the estimation results using the instrumental variable framework of Autor et al. (2013) with control variables. Columns (2) and (4) report the estimation results obtained from the DD framework as in Pierce and Schott (2016). Estimates for the constant term and control variables are suppressed.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 10 percent level.

TABLE 8—– CHANGE IN NEWSPAPER ENDORSEMENTS IN THE PRESIDENTIAL ELECTIONS (2000-2012)

	Endorsement Change (2000-2012)			
	(1)	(2)	(3)	(4)
Newspaper Exposure to Chinese Imports 2000-2012 (in 1000 pts)	0.0497	0.0648		
	(0.0482)	(0.0751)		
Newspaper PNTR Exposure (% pts)			2,452*	4,318*
			(1,311)	(2,341)
Control Variables	Yes	Yes	Yes	Yes
Method	IV	Ordered Probit with IV	DD	Ordered Probit with DD
Observations	115	115	115	115

Note: Robust standard errors are in parentheses. The dependent variable is the change in the newspaper's endorsement in presidential elections between 2000 and 2012, which takes the value 2 if the newspaper directly switched from Republicans to Democrats, the value 1 if there was a pro-Democrat change (such as switching from Republicans to no-endorsement, or from no-endorsement to Democrats), the value zero if there was no change in endorsement, the value -1 if there was a pro-Republican change (such as switching from no-endorsement to Republicans, or from Democrats to no-endorsement), finally the value -2 if the newspaper directly switched from Democrats to Republicans. Column (1) reports the estimation results using the instrumental variable framework of Autor et al. (2013), and column (3) reports the estimation results obtained from the DD framework as in Pierce and Schott (2016). For comparison, Column (2) and 4 present the results of ordered probit model estimation corresponding to columns (1) and (3). Control variables are the same as in the baseline results, plus newspapers' initial party endorsements in 2000 and circulation-weighted voting share for Democrats in the 2000 presidential election. Estimates for the constant term and control variables are suppressed.

*Significant at the 10 percent level.

TABLE 9—– SUMMARY STATISTICS AT THE COUNTY LEVEL

	N	mean	S.D.	min	max
	(1)	(2)	(3)	(4)	(5)
ΔHouse Democrat Share (2000-2012)	1,943	-0.385	0.213	-0.869	0.711
ΔSenate Democrat Share (2000-2012)	1,205	0.015	0.123	-0.325	0.699
ΔPresidential Democrat Share (2000-2012)	1,961	-0.013	0.081	-0.424	0.242
ΔCounty Media Bias (2000-2012)	1,961	-0.064	0.123	-1.008	0.385
Population Share of Ethnic Asian (%) in 2000	1,961	0.887	1.716	0.000	30.900
Population Share of Bachelor's Degree (%) in 2000	1,961	10.881	4.761	2.600	32.800
Population Share of Graduate or Professional Degree (%) in 2000	1,961	5.742	3.440	0.900	36.000
Population Share of Unemployment (%) in 2000	1,961	5.882	2.564	1.400	41.700
Population Share of Female (%) in 2000	1,961	50.570	1.839	34.500	57.400
Median Income in 2000 (in U.S. dollars)	1,961	36,265	9,066	15,805	81,050

Note: Voting share data are from Dave Leip's Atlas of U.S. Elections. Voting share data for House and Senate elections are missing in some counties.

TABLE 10—– THE IMPACT OF MEDIA SLANT AGAINST CHINA ON DEMOCRATS VOTING SHARE (2000-2012)

	ΔHouse Democrats Share	ΔSenate Democrats Share	ΔPresidential Democrats Share
	(1)	(2)	(3)
ΔCounty Media Slant	0.107***	0.0969***	0.0133
	(0.0264)	(0.0199)	(0.0113)
Control Variables	Yes	Yes	Yes
Observations	1,943	1,205	1,961
R-squared	0.531	0.269	0.263

Note: Robust standard errors are in parentheses. The dependent variables in columns (1)-(3) are the changes of Democrats voting share at the county level in House, Senate, and presidential elections respectively. Control variables at the county level include Asian population, population with a bachelor's degree, population with graduate or professional degree, unemployed population, female population, and median income level and number of newspapers and initial Democrats voting share in 2000. Estimates for the constant term and control variables are suppressed.

***Significant at the 1 percent level.

Appendix A:

Figure A1 Gallup survey of U.S. citizen about their attitude toward China

Source: Gallup
http://www.gallup.com/poll/1627/china.aspx

The Gallup poll surveyed U.S citizens over the years asking question: *Next, I'd like your overall opinion of some foreign countries. What is your overall opinion of China? Is it very favorable, mostly favorable, mostly unfavorable or very unfavorable?* As the figure shows that the proportion of interviewers favoring China has generally increased since 1998 and it reached highest since 1989[1]. The survey also shows that Americans views China, though not as ally (11%), more as a friend (44%) than as a foe (14%).[2] According to Pew Research Global Attitude survey in 2015, the top issues on which Americans are most concerned about China are: the largest amount of American debt held by China; the loss of U.S. jobs to China; cyber attacks from China; China's policies on human rights; the U.S. trade deficit with China; China's impact on global environment; China's growing military power; and tension between China and Taiwan.[3]

[1] http://thehill.com/policy/international/china/320790-poll-us-favors-china-at-highest-mark-since-1989
[2] http://www.gallup.com/poll/162935/u.s.-more-see-china-friend-foe.aspx
[3] http://www.pewresearch.org/fact-tank/2016/03/30/6-facts-about-how-americans-and-chinese-see-each-other/

Figure A2a Trend of Extensive Margin of China News Report

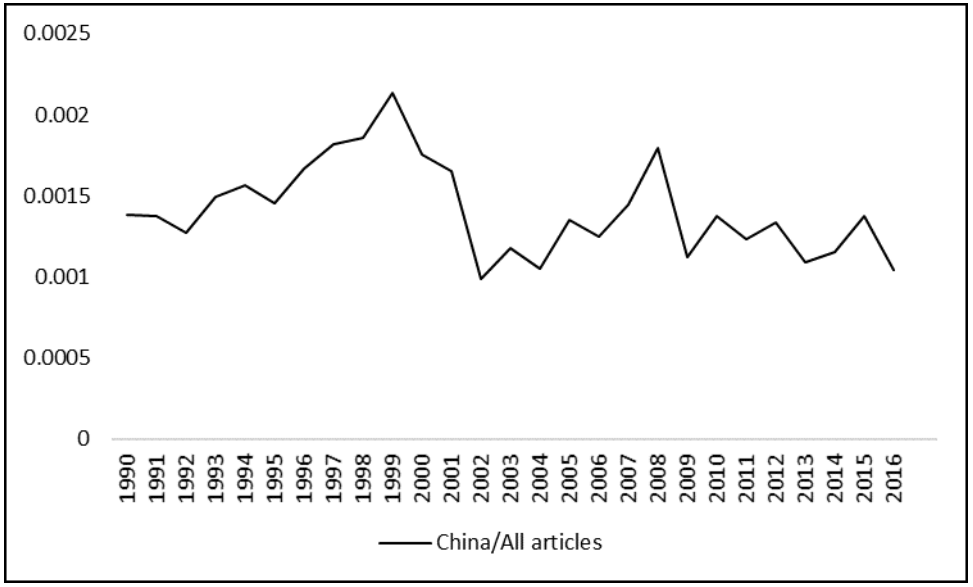

Figure A2b Distribution of Number of China-related Articles In 1998 and 2012

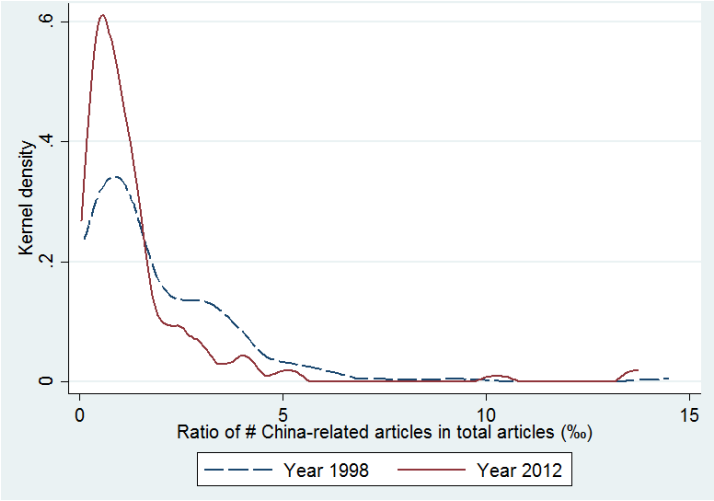

Figure A2c Distribution of change in ratio of number of China-related articles in total articles between 1998 and 2012

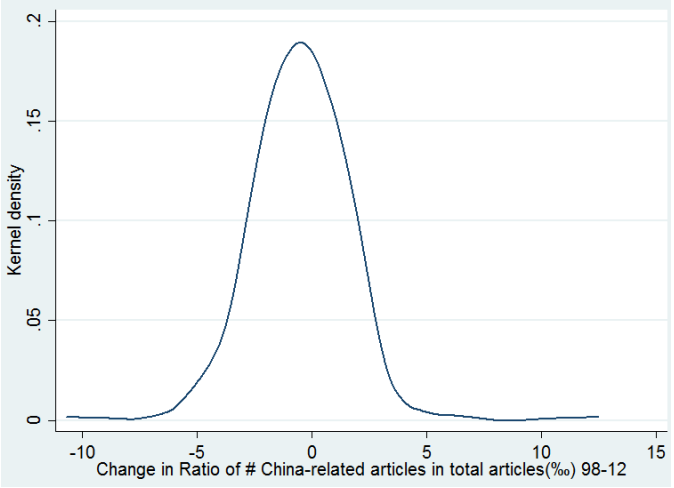

TABLE A1—– NEWSPAPER LIST

Newspaper Name	State	Newspaper Name	State
The Birmingham News	AL	Daily Herald	IL
The Huntsville Times	AL	Herald & Review	IL
Mobile Register	AL	Lake County News-Sun	IL
Arkansas Democrat-Gazette	AR	The News-Gazette	IL
Arizona Daily Star	AZ	The Pantagraph	IL
Daily News	CA	Journal Star	IL
The Fresno Bee	CA	Southern Illinoisan	IL
The Modesto Bee	CA	The State Journal-Register	IL
The Orange County Register	CA	The Beacon News	IL
The Press Democrat	CA	Evansville Courier & Press	IN
The Press-Enterprise	CA	The Journal Gazette	IN
Record Searchlight	CA	The News-Sentinel	IN
The Sacramento Bee	CA	South Bend Tribune	IN
San Jose Mercury News	CA	Post-Tribune	IN
Ventura County Star	CA	The Wichita Eagle	KS
The San Diego Union-Tribune	CA	Lexington Herald-Leader	KY
The Reporter	CA	The Advocate	LA
Press-Telegram	CA	The Times-Picayune	LA
The Denver Post	CO	The Berkshire Eagle	MA
The Hartford Courant	CT	The Boston Globe	MA
New Haven Register	CT	Boston Herald	MA
The Washington Times	DC	Cape Cod Times	MA
Daytona Beach News-Journal	FL	Union-News	MA
The Florida Times-Union	FL	Telegram & Gazette	MA
The Gainesville Sun	FL	The Morning Herald	MD
The Miami Herald	FL	The Sun	MD
Naples Daily News	FL	Bangor Daily News	ME
The Palm Beach Post	FL	Portland Press Herald	ME
Sarasota Herald-Tribune	FL	The Flint Journal	MI
St. Petersburg Times	FL	St. Paul Pioneer Press	MN
The Tampa Tribune	FL	Star Tribune	MN
Bradenton Herald	FL	Duluth News-Tribune	MN
Constitution	GA	St. Louis Post-Dispatch	MO
The Augusta Chronicle	GA	The Kansas City Star	MO
Columbus Ledger-Enquirer	GA	Sun Herald	MS
The Macon Telegraph	GA	The Charlotte Observer	NC
Sioux City Journal	IA	The Fayetteville Observer	NC
Telegraph Herald	IA	The News & Observer	NC
The Gazette	IA	Salisbury Post	NC
Chicago Sun-Times	IL	Winston-Salem Journal	NC

(Newspaper List Continued)

Newspaper Name	State	Newspaper Name	State
News & Record	NC	York Daily Record	PA
The Bismarck Tribune	ND	The Times Leader	PA
Lincoln Journal Star	NE	Centre Daily Times	PA
Omaha World-Herald	NE	The Philadelphia Daily News	PA
The Union Leader	NH	The Providence Journal	RI
The Press of Atlantic City	NJ	Herald-Journal	SC
The Star-Ledger	NJ	The Post and Courier	SC
Albuquerque Journal	NM	The State	SC
The Santa Fe New Mexican	NM	Chattanooga Times/Chattanooga Free Press	TN
Las Vegas Review-Journal	NV	The Commercial Appeal	TN
The Buffalo News	NY	The Knoxville News-Sentinel	TN
The Daily Gazette	NY	Austin American-Statesman	TX
New York Daily News	NY	Corpus Christi Caller-Times	TX
The Post-Standard	NY	The Dallas Morning News	TX
Staten Island Advance	NY	Fort Worth Star-Telegram	TX
Times Union	NY	Houston Chronicle	TX
Watertown Daily Times	NY	San Antonio Express-News	TX
Newsday	NY	The Salt Lake Tribune	UT
New York Post	NY	Daily News-Record	VA
Akron Beacon Journal	OH	Richmond Times-Dispatch	VA
The Blade	OH	The Roanoke Times	VA
The Columbus Dispatch	OH	The Virginian-Pilot	VA
Dayton Daily News	OH	The Columbian	WA
The Plain Dealer	OH	The Seattle Times	WA
The Daily Oklahoman	OK	The Spokesman-Review	WA
Tulsa World	OK	Yakima Herald-Republic	WA
The Oregonian	OR	Seattle Post-Intelligencer	WA
Delaware County Daily Times	PA	The News Tribune	WA
Erie Daily Times	PA	La Crosse Tribune	WI
The Express-Times	PA	Milwaukee Journal Sentinel	WI
The Morning Call	PA	Wisconsin State Journal/The Capital Times	WI
The Patriot-News	PA	Charleston Daily Mail	WV
The Philadelphia Inquirer	PA	Charleston Gazette	WV
Pittsburgh Post-Gazette	PA		

Table A2—– Negative Keyword List

Trade & Economics Related
trade war^
fix* exchange rate^
china currency policy
manipulate currency^
currency manupulat*^
trade deficit^
*dumping^
tariff^
bad loan^
Crackdown^
Environment, Health & Safety
global warming
greenhouse gas emission*
diethylene glycol
contaminat* wheat gluten
brick kiln
tainted pet food
melamine
highspeed train crash
bird flu
coal mine
recall^
Smog^
toxic^
air pollut*^
Law & Governance
brib*^
illegal^
*violat**^
Piracy^
intellectual property right*^
corrupt*^
International Relations
disput*^
sanction^
Wen Ho Lee
los alamo
genocide^
gregg bergersen
military hacker
espionage^
Human Rights
liu xiaobo
abuse^
suppress*^
freedom of (expression or speech)^
demonstrator*^
riot*^
surveillance^
activist*^
Harry Wu
panchen lama
falun gong
spiritual movement
political asylum^
chen guangcheng
Hu Jia
rebiya kadeer
censor*^
ai weiwei
Ilham Tohti
wang jinbo
asylum seeker*^
death toll^
dalai lama
Uighur
Expel^
human right*^
gao zhisheng
gao zhisheng
wei jingsheng
tibet*
wang dan
dissident*^

Note: 1. Asterisk (*) is the wildcard character in search, which can represent multiple letters. For example, violat* indicates that words such as “violation”, “violations”, “violate” and “violates” will all be searched. 2. Words in

italics are not used in the Beijing Olympics analysis as they could be related to sports scandals. 3.Words denoted with ^ are classified as non-china-specific words used later in placebo tests.

TABLE A3—– MATCHED KEYWORDS IN HARVARD IV-4

Word	Rank	Count	Sentiment
law	110	9,535	Positive
home	129	8,785	Positive
war	199	6,718	Negative
important	213	6,519	Positive
defense	240	6,205	Positive
legal	301	5,140	Positive
agreement	307	5,052	Positive
problem	311	5,021	Negative
death	324	4,860	Negative
health	329	4,828	Positive
prime	350	4,564	Positive
crisis	364	4,495	Negative
corruption	370	4,467	Negative
council	396	4,248	Positive
freedom	467	3,772	Positive
serious	481	3,696	Positive
best	497	3,620	Positive
able	506	3,554	Positive
threat	538	3,406	Negative
popular	550	3,333	Positive
commission	558	3,307	Positive
difficult	567	3,280	Negative
illegal	665	2,935	Negative
intelligence	682	2,861	Positive
inflation	697	2,821	Negative
sought	713	2,766	Positive
significant	717	2,752	Positive
revolution	727	2,738	Negative
education	736	2,704	Positive
stability	754	2,631	Positive
special	781	2,562	Positive
independence	789	2,547	Positive
create	811	2,486	Positive
bad	824	2,440	Negative
traditional	844	2,389	Positive
protect	850	2,376	Positive
violence	858	2,347	Negative
prominent	880	2,307	Positive
community	883	2,295	Positive
avoid	884	2,293	Negative
sensitive	906	2,234	Positive
competition	911	2,209	Negative
opposition	913	2,205	Negative
pollution	930	2,168	Negative
ability	937	2,157	Positive
success	955	2,136	Positive
premier	972	2,095	Positive
willing	975	2,092	Positive

Note: This table shows the top 1,000 most frequently used words in China-related articles in *The New York Times* and *The Washington Post* (1995-2012), which can be matched and classified by Harvard IV-4 sentiment dictionary, and their word frequency and rankings in *The New York Times* and *The Washington Post* (1995-2012).

TABLE A4—–GRAVITY RESIDUES

	ΔNegative Ratio 1998-2012
	(1)
Newspaper Exposure to Chinese Imports 1998-2012 (Gravity Residue)	0.015*
	(0.008)
Observations	147
Control Variables	Yes
Method	OLS

Note: Robust standard errors are in parentheses. The table reports the results of the impact of Chinese import competition on media slant against China. The dependent variable is the change in percentage of newspapers' negative reports in total China-related reports from 1998 to 2012. Import exposure is calculated using gravity residues from gravity model estimation with trade data from 1998 to 2012.

TABLE A5−−DIFFERENTIAL INDUSTRY TRENDS

	ΔNegative Ratio			
	(1)	(2)	(3)	(4)
Newspaper Exposure to Chinese Imports 1998-2012 (in 1000 pts)	0.036**		0.064**	
	(0.017)		(0.027)	
Newspaper PNTR Exposure (% pts)		1,017.229*		1,414.148***
		(596.335)		(523.591)
Control Variables	Yes	Yes	Yes	Yes
Method	IV	DD	IV	DD
Observations	147	147	147	147
Weak identification	61.35		34.34	

Note: Robust standard errors are in parentheses. The table reports the results of the impact of Chinese import competition on media slant against China. The dependent variable is the change in the percentage of newspapers' negative reports in total China-related reports from 1998 and 2012. Columns (1) and (2) report the estimation results when we add initial manufacturing employment share as an additional control. Columns (3) and (4) report the estimation results when we add manufacturing initial employment shares of each 2-digit industry. Weak identification tests represent the Wald version of the Kleibergen-Paap (2006) rk statistics. Estimates for the constant term and control variables are suppressed for space.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

*Significant at the 5 percent level.

TABLE A6—– PLACEBO TEST: PRE 2000

	ΔNegative Ratio 1992-1997 (negative keyword list)		ΔNegative Ratio 1992-1997 (Harvard IV-4 classification)	
	(1)	(2)	(3)	(4)
Newspaper Exposure to Chinese Imports 1998-2012 (in 1000 pts)	-0.001		0.007	
	(0.009)		(0.012)	
Newspaper PNTR Exposure (% pts)		-284.720		332.435
		(399.038)		(342.998)
Control Variables	Yes	Yes	Yes	Yes
Method	IV	DD	IV	DD
Observations	90	90	90	90
Weak identification	77.68		77.68	

Note: Robust standard errors are in parentheses. The dependent variable is the change of percentage of newspapers' negative reports in total China-related reports from 1992 and 1997. The analysis dropped 57 newspapers from the sample because their articles are not available in the dataset or they have no China-related articles in 1992 or 1997. Columns (1) and (2) report the results using the negative keyword list as in baseline result. Column (3) and (4) report the results using the Harvard IV-4 sentiment dictionary.

TABLE A7——PNTR AS INSTRUMENT

	ΔNegative Ratio 1998-2012	
	(1)	(2)
Newspaper Exposure to Chinese Imports 1998-2012	0.079**	
	(0.032)	
Newspaper Exposure to Chinese Imports 1998-2012 (Imports predicted by PNTR)		0.063**
		(0.025)
Observations	147	147
Control Variables	Yes	Yes
Method	IV	OLS
Weak identification	24.38	

Robust standard errors are in parentheses. The table reports the results of the impact of Chinese import competition on media slant against China. The dependent variable is the change in percentage of newspapers' negative reports in total China-related reports from 1998 and 2012. Column 1 reports the results when we use industry exposure to PNTR as instrument variable. Column 2 reports the results when we calculate import exposure similar to Autor et al. (2013) but using Chinese imports predicted by PNTR.

**Significant at the 5 percent level.

TABLE A8——SPATIAL CORRELATION

	ΔNegative Ratio	
	(1)	(2)
Newspaper Exposure to Chinese Imports 1998-2012 (in 1000 pts)	0.042***	
	(0.016)	
Newspaper PNTR Exposure (% pts)		862.898**
		(388.354)
Control Variables	Yes	Yes
Method	IV	DD
Observations	140	140
Weak identification	77.83	

Note: Robust standard errors are in parentheses. The table reports the results of the impact of Chinese import competition on media slant against China. The dependent variable is the change in percentage of newspapers' negative reports in total China-related reports from 1998 and 2012. In the test, we assign each county to the newspaper with largest circulation in the construction of newspaper exposure to Chinese imports. Columns (1) reports the estimation results using the instrumental variable framework of Autor et al. (2013). Column (2) reports the estimation results obtained from the DD framework as in Pierce and Schott (2016). Weak identification tests represent the Wald version of the Kleibergen-Paap (2006) rk statistics. Estimates for the constant term and control variables are suppressed for space. Observation attrition is due to some newspapers not having highest circulation in any of their circulating counties.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

TABLE A9—— OWNERSHIP LIST

Name	Ownership	Name	Ownership
The Press of Atlantic City	Abarta	Boston Herald	Herald Media Inc
Union-News	Advance Publications	The Advocate	Here Media
Newsday	Cablevision	The Daily Gazette	Hume family
The Morning Herald	Charles H. Grasty	Watertown Daily Times	Johnson Newspaper Corporation
The Hartford Courant	Chicago TribuneMedia Group	Milwaukee Journal Sentinel	Journal Media Group
The Beacon News	Chicago TribuneMedia Group	Albuquerque Journal	Journal Publishing Company
Lake County News-Sun	Chicago TribuneMedia Group	New Haven Register	Journal Register Company
Post-Tribune	Chicago TribuneMedia Group	News & Record	Landmark Communications
The Sun	Chicago TribuneMedia Group	The Virginian-Pilot	Landmark Media Enterprises
The Morning Call	Chicago TribuneMedia Group	The Roanoke Times	Landmark Media Enterprises
Austin American-Statesman	Cox Enterprises	Herald & Review	Lee Enterprises
The Berkshire Eagle	Digital First Media	Southern Illinoisan	Lee Enterprises
Naples Daily News	Gannett Company	St. Louis Post-Dispatch	Lee Enterprises
Ventura County Star	John P. Scripps Newspaper Group	Lincoln Journal Star	Lee Enterprises
Tulsa World	locally owned	La Crosse Tribune	Lee Enterprises
Delaware County Daily Times	MediaNews Group	News-Republic/South Central Wisconsin News	Lee Enterprises
Las Vegas Review-Journal	Stephens Media LLC	Arizona Daily Star	Lee Enterprises
Sun Herald	The McClatchy Company	Sioux City Journal	Lee Enterprises
The Gainesville Sun	The New York Times Company	The Pantagraph	Lee Enterprises
Sarasota Herald-Tribune	The New York Times Company	The Bismarck Tribune	Lee Enterprises
Telegram & Gazette	The New York Times Company	Portland Press Herald	MaineToday MediaInc
Herald-Journal	The New York Times Company	The Modesto Bee	The McClatchy Company

Name	Ownership	Name	Ownership
The Columbus Dispatch	Wolfe family	Winston-Salem Journal	Media General
The Press-Enterprise	A. H. Belo Corporation	Richmond Times-Dispatch	Media General
The Providence Journal	A. H. Belo Corporation	St. Paul Pioneer Press	MediaNews Group
The Dallas Morning News	A. H. Belo Corporation	York Daily Record	MediaNews Group
The Birmingham News	Advance Publications	The Salt Lake Tribune	MediaNews Group
Mobile Register	Advance Publications	The San Diego Union-Tribune	MLIM Holdings
The Times-Picayune	Advance Publications	The Florida Times-Union	Morris Communications
The Star-Ledger	Advance Publications	The Augusta Chronicle	Morris Communications
Staten Island Advance	Advance Publications	New York Daily News	Mortimer Zuckerman
The Post-Standard	Advance Publications	The Boston Globe	New York Times Company
The Plain Dealer	Advance Publications	Cape Cod Times	Newcastle Investment Corp
The Oregonian	Advance Publications	New York Post	News Corp
The Express-Times	Advance Publications	The News-Sentinel	Ogden Newspapers Inc
The Patriot-News	Advance Publications	The Philadelphia Inquirer	John R. Walker and John Norvell
Daily News-Record	Advance Publications	The Washington Times	Operations Holdings
Bangor Daily News	Bangor Publishing Company	Daily Herald	Paddock family
Omaha World-Herald	Berkshire Hathaway	The Philadelphia Daily News	Philadelphia Media Network
The Buffalo News	Berkshire Hathaway	Salisbury Post	Postto Salisbury Newsmedia LLC
Akron Beacon Journal	Black Press Ltd.	The News-Gazette	Professional Impressions Media Group
The Blade	Block Communications	The Santa Fe New Mexican	Robin McKinney Martin
Pittsburgh Post-Gazette	Block Communications	South Bend Tribune	Schurz Communications

Name	Ownership	Name	Ownership
The Flint Journal	Booth Newspapers(Advance Publications)	Corpus Christi Caller-Times	Scripps Howardgroup
The Times Leader	Civitas Media	The Reporter	Southwest Regional Publishing Co
The Columbian	Columbian Publishing Co.	Star Tribune	Star Tribune Media Company LLC
The State Journal-Register	Copley Press Inc	Chicago Sun-Times	Sun-Times Media Group
Journal Star	Copley Press Inc	The Tampa Tribune	Tampa Media Group, Inc
The Spokesman-Review	Cowles Company	The Gazette	The Gazette Compan
The Palm Beach Post	Cox Enterprises	The Huntsville Times	The Huntsville Times
Constitution	Cox Enterprises	The Journal Gazette	The Journal Gazette Co
Dayton Daily News	Cox Enterprises	The Fresno Bee	The McClatchy Company
Charleston Daily Mail	Daily Gazette Company	The Sacramento Bee	The McClatchy Company
Charleston Gazette	Daily Gazette Company	Bradenton Herald	The McClatchy Company
Daily News	Digital First Media	The Miami Herald	The McClatchy Company
Press-Telegram	Digital First Media	Columbus Ledger-Enquirer	The McClatchy Company
The Orange County Register	Digital First Media	The Macon Telegraph	The McClatchy Company
San Jose Mercury News	Digital First Media	The Wichita Eagle	The McClatchy Company
The Denver Post	Digital First Media	Lexington Herald-Leader	The McClatchy Company
The Post and Courier	Evening Post Industries	The Kansas City Star	The McClatchy Company
Duluth News-Tribune	Forum Communications	The Charlotte Observer	The McClatchy Company
Evansville Courier & Press	Gannett Company	The News & Observer	The McClatchy Company
The Commercial Appeal	Gannett Company	Centre Daily Times	The McClatchy Company

Name	Ownership	Name	Ownership
The Knoxville News-Sentinel	Gannett Company	The State	The McClatchy Company
Record Searchlight	Gannett Company	The News Tribune	The McClatchy Company
The Fayetteville Observer	GateHouse Media	Fort Worth Star-Telegram	The McClatchy Company
Erie Daily Times	GateHouse Media	The Daily Oklahoman	The Oklahoman Media Company
The Press Democrat	Halifax	The Seattle Times	The Seattle Times Company
Daytona Beach News-Journal	Halifax	Yakima Herald-Republic	The Seattle Times Company
Times Union	Hearst Communications	St. Petersburg Times	Times Publishing Company
Houston Chronicle	Hearst Corporation	The Union Leader	Union Leader Corp
San Antonio Express-News	Hearst Corporation	Arkansas Democrat-Gazette	WEHCO Media, Inc
Seattle Post-Intelligencer	Hearst Corporation	Chattanooga Times/Chattanooga Free Press	WEHCO Media, Inc
		Telegraph Herald	Woodward Communications, Inc

TABLE A10——NEWSPAPER OWNERSHIP

	ΔNegative Ratio	
	(1)	(2)
Newspaper Exposure to Chinese Imports 1998-2012 (in 1,000 pts)	0.040**	
	(0.017)	
Newspaper PNTR Exposure (% pts)		1,085.080*
		(650.937)
Owner- fixed effect	Yes	Yes
Control Variables	Yes	Yes
Method	IV	DD
Observations	147	147
Weak identification	80.37	

Note: Robust standard errors are in parentheses. The table reports the results of the impact of Chinese import competition on media slant against China with owner-fixed effect. The dependent variable is the change in the percentage of newspapers' negative reports in total China-related reports from 1998 and 2012. Columns (1) reports the estimation results using the instrumental variable framework of Autor et al. (2013). Column (2) reports the estimation results obtained from the DD framework as in Pierce and Schott (2016). Weak identification tests represent the Wald version of the Kleibergen-Paap (2006) rk statistics. Estimates for the constant term and control variables are suppressed for space. See Appendix Table A9 for the list of newspaper owners.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

TABLE A11——PLACEBO TEST: NON-CHINA SPECIFIC WORDS AND ARTICLES

	Δ Negative Ratio(Non-China-related News)		Δ(Negative China Article/ All Negative article)	
	(1)	(2)	(3)	(4)
Newspaper Exposure to Chinese Imports 1998-2012 (in 1000 pts)	-0.001		-0.000	
	(0.002)		(0.000)	
Newspaper PNTR Exposure (% pts)		7.350		1.070
		(57.744)		(7.498)
Control Variables	Yes	Yes	Yes	Yes
Method	IV	DD	IV	DD
Observations	147	147	147	147
Weak identification	80.37		80.37	

Note: Robust standard errors are in parentheses. The dependent variables in columns (1)-(2) are the change in percentage of negative reporting in non-China-related reports from 1998 to 2012. The dependent variable in columns (3)-(4) is the change in the ratio of articles with negative words about China to the number of articles with negative words from 1998 to 2012. The keywords generated in this result are non-china-specific keywords as indicated in Table A3. Columns (1) and (3) report the estimation results using the instrumental variable framework of Autor et al. (2013) with control variables. Columns (2) and (4) report the estimation results obtained from the DD framework as in Pierce and Schott (2016). Estimates for the constant term and control variables are suppressed.

TABLE A12——TIME VARYING CIRCULATION WEIGHT AND THICKNESS OF MEDIA MARKETS

	Δ(Negative Ratio)		
	(1)	(2)	(3)
Newspaper Exposure to Chinese Imports (weighted on average of 1998 and 2012 circulation)	0.022**		
	(0.010)		
Newspaper Exposure to Chinese Imports (1998 circulation fixed)		0.042***	
		(0.016)	
Newspaper PNTR Exposure (% pts)			979.007***
			(362.861)
Media market thickness in 1998		0.000	-0.004
		(0.008)	(0.008)
Control Variables	Yes	Yes	Yes
Method	IV	IV	DD
Observations	127	147	147

Note: Robust standard errors are in parentheses. The table reports the results of the impact of Chinese import competition on media slant against China. The dependent variable is the change in percentage of newspaper's negative reports in total China-related reports from 1998 and 2012. Column (1) reports the estimation with newspapers' Chinese import exposure weighted on the average circulation between 1998 and 2012. Columns (2) and (3) report the results with an additional control on media market thickness using the instrumental variable framework of Autor et al. (2013) and the DD framework as in Pierce and Schott (2016), respectively. Weak identification tests represent the Wald version of the Kleibergen-Paap (2006) rk statistics. Estimates for the constant term and control variables are suppressed for space.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

TABLE A13—– COVERAGE OF CHINA-RELATED ARTICLES IN ALL ARTICLES

	Δ(China/All*100) 1998-2012	
	(1)	(2)
Newspaper Exposure to Chinese Imports 1998-2012 (in 1000 pts)	-0.012 (0.011)	
Newspaper PNTR Exposure (% pts)		-387.691 (287.864)
Control Variables	Yes	Yes
Method	IV	DD
Observations	147	147
Weak identification	80.366	

Note: Robust standard errors are in parentheses. The dependent variable in the table is the percentage of China-related articles in the total number of articles in each newspaper. Columns (1) and (2) report the results with an additional control on media market thickness using the instrumental variable framework of Autor et al. (2013) and the DD framework as in Pierce and Schott (2016), respectively.

TABLE A14—– EXCLUDING EDITORIALS

	ΔNegative Ratio 1998-2012	
	(1)	(2)
Newspaper Exposure to Chinese Imports 1998-2012 (in 1000 pts)	0.042***	
	(0.015)	
Newspaper PNTR Exposure (% pts)		999.486***
		(351.085)
Observations	147	147
Control Variables	Yes	Yes
Method	IV	DD
Weak identification	80.37	

Note: Robust standard errors are in parentheses. We exclude opinion pieces by excluding articles with headline containing "editor," "editorial," "opinion," "op-ed," and "letter."
***Significant at the 1 percent level.

TABLE A15−−WEIGHTED REGRESSIONS

	ΔNegative Ratio	
	(1)	(2)
Newspaper Exposure to Chinese Imports 1998-2012 (in 1000 pts)	0.028**	
	(0.014)	
Newspaper PNTR Exposure (% pts)		951.299***
		(354.916)
Control Variables	Yes	Yes
Method	IV	DD
Observations	147	147
Weak identification	80.37	

Note: Robust standard errors are in parentheses. The table reports the results of the impact of Chinese import competition on media slant against China. The dependent variable is the change in percentage of newspapers' negative reports in total China-related reports from 1998 and 2012. Columns (1) reports the estimation results using the instrumental variable framework of Autor et al. (2013). Column (2) reports the estimation results obtained from the DD framework as in Pierce and Schott (2016). Weak identification tests represent the Wald version of the Kleibergen-Paap (2006) rk statistics. Estimates for the constant term and control variables are suppressed for space. The regressions are weighted on the circulation in 1998.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

TABLE A16—– HARVARD IV-4 KEYWORD SEARCH

		Δ(NgtvTop1000/China)			ΔNgPsTop500			ΔNgPsTop1000		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Newspaper Exposure to Chinese Imports (in 1000 pts)	1998-2012	0.039*	0.040**		0.030*	0.025*		0.024*	0.018	
		(0.021)	(0.020)		(0.017)	(0.015)		(0.015)	(0.012)	
Newspaper PNTR Exposure (% pts)				631.339*			750.095*			196.536
				(330.937)			(407.865)			(262.464)
Control Variables		No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Method		IV	IV	DD	IV	IV	DD	IV	IV	DD
Observations		146	146	146	147	147	147	147	147	147
Weak identification		55.49	79.11		56.28	80.37		56.03	79.67	

Note:

1. "Human" is excluded in the positive list as it is associated with a number of reports about human rights issues, which are mostly negative in China-related news.
2. NgPsTop500=(NegativeTop500-PositiveTop500)/ (NegativeTop500+PositiveTop500).
3. NgPsTop500=(NegativeTop1000-PositiveTop1000)/ (NegativeTop1000+PositiveTop1000).
4. For 2012, Daytona Beach News-Journal has no search results for both the top 500 positive and negative keywords in China-related news, therefore the newspaper is dropped from the sample

**Significant at the 5 percent level.

*Significant at the 10 percent level.

TABLE A17——POSITIVE WORD AND EXPORT EXPOSURE

	Δ(PSTVTop500/China)	Δ(PSTVTop1000/China)
	(1)	(2)
Newspaper Exposure to Chinese	-0.983	-0.112
Exports 1998-2012 (in 1,000 pts)	(4.039)	(1.080)
Observations	147	147
Control Variables	Yes	Yes
Method	IV	IV

Note: Robust standard errors are in parentheses. The table reports the results of the impact of Chinese export on positive reports about China. The dependent variable is the change in the percentage of newspapers' positive reports in total China-related reports from 1998 and 2012. The positive keyword list is constructed according to the Harvard IV-4 dictionary (see Appendix Table A3).

TABLE A18—– THE IMPACT OF MEDIA SLANT AGAINST CHINA ON DEMOCRATS VOTING SHARE (2000-2016)

	ΔHouse Democrats Share		ΔSenate Democrats Share		ΔPresidential Democrats Share	
	(1)	(2)	(3)	(4)	(5)	(6)
Δcounty Media Slant	0.107***	0.0963***	0.0969***	0.0970***	0.0133	0.0159
	(0.0264)	(0.0270)	(0.0199)	(0.0198)	(0.0113)	(0.0113)
Δcounty Media Slant*		-0.0875**		-0.0330		-0.0191
Period12-16		(0.0358)		(0.0534)		(0.0130)
Period12-16		-0.0873***		-0.145***		-0.0844***
		(0.00746)		(0.00906)		(0.00277)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,943	4,080	1,205	1,853	1,961	4,089
Period	2000-2012	2000-2016	2000-2012	2000-2016	2000-2012	2000-2016

Note: Robust standard errors are in parentheses. The dependent variables in columns (1), (3) and (5) are the changes of Democrats voting share at the county level in House, Senate, and presidential elections, respectively, from 2000 to 2012. Columns (2), (4) and (6) are the results when we stacked the change in voting share and media slant for 2000-2012 with the changes for 2012-2016. *Period12-16* is the dummy variable for period between 2012 and 2016. Control variables at the county level include Asian population, population with a bachelor's degree, population with graduate or professional degree, unemployed population, female population, median income level and number of newspapers circulated in respective initial year. Estimates for the constant term and control variables are suppressed.

***Significant at the 1 percent level.

**Significant at the 5 percent level.

1 Appendix B

1.1 B1 Measuring Media Slant

As summarized in Larcinese et al. (2011), there are three types of measurement of media attitudes: 1) Implicit measure analyzing the wording and language used in newspaper articles. For example, Gentzkow and Shapiro (2010) make a list of partisan words by cluster analyzing the speech by Republican and Democratic congresspeople. Then they identify the partisan attitude of newspaper by keyword-searching the newspaper articles that resemble the use of the same phrase as in congressional speech. Groseclose and Mulyo (2005) adopt a similar strategy. They compare the citation patterns of think tanks between congressional speech and newspaper articles to identify the partisan bias of the newspaper. 2) Explicit political behavior by the newspaper such as endorsement of candidates in elections. For example, Ansolabehere et al. (2006) collect editorial endorsements from 67 newspapers. They find that newspaper endorsements are more inclined to officeholders and can increase incumbents' vote shares. 3) Agenda-setting approach using the amount of coverage devoted to a certain issue. For example, Larcinese et al. (2011) measures 140 U.S newspapers' partisan bias by searching a set of keywords on negative economic issues. They find that Democrat-endorsing newspapers report relatively fewer negative news articles on economic issues when a Democrat is in the office. Puglisi and Snyder (2010) use automatic keyword-based search method for reports of scandals and find that Democratic-leaning newspapers report more about Republican-related scandals. We use an agenda-setting approach to measure media slant in this research.

Specifically, we use an automated keyword method to classify negative negative reports on China. The method is widely used in media economics research (for example, Gentzkow and Shapiro, 2010; Larcinese et al., 2011). The keyword list used for search could be context-based or based on a general linguistic sentiment dictionary. The advantage of a context-based dictionary (in our case, a China-specific keyword list) is that it provides more accurate results. For example, "human" is considered a positive word in thes Harvard IV-4 sentimental dictionary but searching the word in China-related news yields a majority of results about human rights issues in China, which are generally negative. However, the disadvantage of a China-specific keyword list is that we need to make our own judgment in choosing the keyword, which raises the concerns of subjectivity. Therefore, we also use the Harvard IV-4 sentiment dictionary and sentiment analysis in a robustness check.

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Appendix B2

The sample newspaper articles are all from the Boston Globe 1998 reports.

DOW JONES

Negative Sample

The Boston Globe

NATIONAL/FOREIGN
As China grows, it pollutes

Indira A.R. Lakshmanan, Globe Staff
1,044 words
2 July 1998
The Boston Globe
BSTNGB
City Edition
A2
English

BEIJING -- Communist China's founder Mao Zedong once gazed from the top of Tiananmen Gate and famously declared that the next time, he wanted to see smokestacks filling the landscape behind the square.

Mao almost got his wish. Not far away is a complex of 168 hulking steel and iron mills -- almost a city unto itself. The countless smokestacks spew black soot, causing stinky air, gray skies, and chronic ailments for many of Beijing's 12 million residents.

Shougang Iron and Steel Works emits half the air pollution in Beijing, according to some environmentalists. But it is just one of 1,000 factories in the city, and one among several reasons Beijing is the most polluted city in China and, at times, the dirtiest capital in the world. In an irony Mao might have appreciated, the smog is so bad some days it's hard to see Mao's enormous portrait on Tiananmen Gate from across the square.

President Clinton highlighted China's environmental challenges today in Guilin, where he will be cruising the Li River, enjoying the sparkling postcard setting immortalized by countless poets and praising officials for cleaning up a waterway that 20 years ago was a murky mess. Clinton said the environment should not be sacrificed for growth.

According to the Associated Press, Clinton told Chinese environmentalists in Guilin that even in America "there is a big fight" over the environment because "there are always people who are afraid if we take any step it will hurt the economy."

Unfortunately, Guilin is the exception. For a more telling view of the monumental task facing a nation that is both industrializing and polluting at record speed, Clinton need have gone no further than Shougang.

China faces a dilemma shared by all developing nations: how to expand the economy and raise incomes rapidly while protecting the environment. But as the most populous nation, one of the fastest developing, and one saddled with old, polluting technology, how China balances its need to develop with the pressure to do it cleanly will have implications for the global environment.

From the ozone layer to global warming, from acid rain to species extinction, China's choices will affect the world. For its own citizens, the costs are even more immediate: dirty air and unsafe drinking water.

Economic reform "has meant everyone wants to get rich as quick as possible, so the environment is degrading very quickly," said Liang Congjie, president of Friends of Nature, a nongovernmental organization, and one of the people Clinton will meet today.

"Chinese people have a right to a better life," Liang added, "but that also means preserving resources and the environment."

Fortunately, China's leaders seem to recognize the dangers of development. Two years ago, then-Premier Li Peng berated officials who weren't enforcing environmental laws, and the government pledged to invest $54 billion in the environment by 2000.

But that sentiment has not uniformly trickled down. Beijing, which has one-tenth the cars Los Angeles has but suffers almost equal auto emissions, banned leaded gasoline Jan. 1, and ordered that new cars be fitted with

catalytic converters. But many local officials feel more pressure to meet industrial targets than to protect the environment. Others have levied fines on polluters, but never spent the money to clean up.

One of new Premier Zhu Rongji's first acts this year was to elevate the National Environmental Protection Agency to ministry level, giving it more power to enforce regulations. But closing dirty plants means laying off workers and losing taxes, something local officials are reluctant to do.

China has five of the 10 dirtiest cities in the world. Factory waste and sewage have contaminated all of China's freshwater lakes and most of its big rivers.

Lung cancer is the leading cause of death in China's cities. Indoor coal-burning for cooking and heat in rural areas causes 111,000 premature deaths a year, according to a World Bank study.

Almost half of urban rivers have the potential to endanger drinking water. Acid rain threatens 10 percent of land area. And children in major cities have lead in their blood 80 percent higher than levels dangerous for mental development, the World Bank said.

The contrast is stark between most of the country and Guilin, where riverside factories were shut and trees replanted to protect a famous landscape.

"Guilin is probably the last place in China" Clinton "will see environmental problems," said Grace Ge Gabriel, Beijing representative for the International Fund for Animal Welfare, based in Yarmouth Port, Mass. "Even the moat around Beijing's Forbidden City is polluted with wastewater and dump sites. People used to swim and fish in there. Now there's no fish."

Still, for most people here, the connection between environmental damage and daily life is not always clear.

Residents agree that despite discomfort, they don't want Shougang shut down. "People in this whole district have health problems," acknowledged a 48-year-old steel worker named Zhao. "But it's better to move it far away. Closing it is impossible. Too many of us depend on it."

In China's nascent, but active environmental movement, numerous efforts are underway to educate people.

Friends of Nature started a campaign to bring one's own chopsticks to restaurants to avoid killing trees. Global Village of Beijing produces books and television, and has started recycling.

"From the 1950s to the '70s, almost everything was recycled in China because people were so poor. But when people got money, they followed industrialized world habits of using things once," said Sheri Xiaoyi Liao, president of Global Village of Beijing.

Another group, the Foundation of Civilizational Development, started a project to rebuild all 6,800 public toilets in Beijing. Most are appallingly substandard, contributing to air and water pollution. Two-fifths of Beijing's residents do not have a toilet at home. "Toilets may not be the worst polluter in Beijing, but they are closest to people's lives," said Lou Xiaoqi, secretary general of the foundation. "All pollution comes from a lack of consciousness. When Mao saw smokestacks as progress, he didn't realize they caused so many problems."

THU

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Non-Negative Sample 1

The Boston Globe

METRO/REGION
BC helps launch MBA course in China

Marcella Bombardieri, Globe Correspondent
138 words
27 June 1998
The Boston Globe
BSTNGB
City Edition
A8
English

Boston College and 24 other Jesuit universities are joining to open the first foreign MBA program in Beijing to be recognized by the Chinese government. On Monday, President Clinton will attend the groundbreaking of the Beijing International Management Program, based at Peking University.

Up to 60 students will attend master of business administration courses taught in English by American and Chinese professors. Fordham University will grant the degrees.

John J. Neuhauser, dean of the Carroll School of Management at BC, said the venture will benefit participants from both countries. "The Chinese feel there is going to be a need for hundreds of thousands of MBA types in the next few years," Neuhauser said. "And this will give us much broader exposure to Chinese culture."

SAT

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Non-Negative Sample 2

The Boston Globe

OP-ED
In a Chinese church, hope soars

Ying Ma
703 words
28 June 1998
The Boston Globe
BSTNGB
City Edition
E7
English

Ying Ma is a research associate in Asia studies at the Council on Foreign Relations in New York.

Mid-February in Beijing. In front of an old church, a minister with a face wrinkled by life shook my hand and said in Chinese, "Come back to see us often."

Today, President Clinton will visit this very church -- Chongwenmen -- with his motorcade, secret servicemen, assistants, interpreters, and Hillary for a glimpse of Christian life in China. The president would like this visit to show that he cares about religious freedom in China. The Chinese government would claim this church represents China's abundance of religious freedom. China critics in the United States will brand this visit as another show to hide the true face of religious persecution. Lost in all the rhetoric and the media showmanship will be a most important fact: This church represents great hope for further progress in China.

In February I visited Chongwenmen Church with a religious delegation appointed by President Clinton and invited by President Jiang Zemin to discuss issues of religious freedom.

Having emigrated from China in 1985 unaware of a Christian presence in the country, I found myself that Sunday in a church packed with worshippers who could recite verses from the Bible and who eagerly sang along with the choir. With no idea what a hymn was in 1985, I heard the choir singing hymns in Mandarin that day about love, the love of Christ.

Standing before the church's Chinese characters for Immanuel, exuding confidence and joy, a young pastor introduced his guests from America. The old ministers of the church had explained to the delegation previously that a generation of possible ministers was lost in the spiritual desecration and oppression of the Cultural Revolution. Young people began to study Christianity again only after China began its major reforms 20 years ago. Now represented by the young pastor wearing a suit and tie, a new generation of religious leaders has finally risen in China.

One of our delegation's religious leaders preached that day. As he talked about truth, honesty, and devotion to God, the congregation zealously responded "Amen." And in that church where Chinese from all walks of life gathered to listen to an American preach, the service seemed no different than any found in America. And no different from churches in America, within that old church and its heavenly choir music existed something ephemeral, something beautiful: hope.

Hope appeared in the fellowship between the young pastor and the American religious leader he introduced. It appeared in the hunger for spiritual salvation among those who responded "Amen" eagerly. It appeared in the sense of comfort and pride on the old ministers' faces that told of suffering in China's more turbulent past. And as hope soared alongside the voices in the choir, no improvements to China's current limitations of religious freedom seemed impossible.

Clinton, during his nine-day visit to China, will witness this hope. Yet even if he tries to tell Americans about it, numerous China critics will refuse to believe his church visit as anything more than a media show.

Hearing the likes of Republican Senator John Ashcroft of Missouri, Gary Bauer of the Family Research Council, and Democratic Representative Nancy Pelosi of California condemn China as the worst persecutor of religious believers in recent days, I am reminded that the old minister with a face wrinkled by life had

complained when we first met that most Americans simply do not understand Christians in China or China itself. Many of America's relentless critics of China continually prove him right.

To be sure, the success of Chongwenmen cannot justify the abuses faced by religious believers throughout China. Unlike what the Chinese government claims, Sunday worship at this church does not mean religious freedom for China.

But having seen this church and many other religious locations throughout China where hope is abound, I advise America's professional China bashers, as the old minister had advised me, to visit China often. But in the meantime, their claim that all Chinese religious believers exist in misery remains not only inaccurate, but gravely irresponsible.

SUN

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Appendix B3

The newspaper *Austin American-Statesman* is one of the top five newspapers with greatest import exposure to China (8289.823) and The *Santa Fe New Mexican* is one of the least (151.070). We search for the sample articles concerning business and economics issued as shown in the following.

Perry's policies didn't bring factory from China to Texas

W. Gardner Selby
707 words
2 November 2011
Austin American-Statesman
AAS
Final
A6
English

Rick Perry

After Mitt Romney revisited his vow to challenge China for manipulating its currency to advantage in foreign trade, Rick Perry said at the Oct. 11 Republican debate that one policy or another isn't vital to getting more Americans back to work.

Talking up domestic energy resources, the Texas governor also said the country needs a president committed to "pulling the regulations back, freeing this country to go develop the energy industry that we have in this country. I can promise you that we do that, and we'll create an environment in this country where the manufacturing will come back to this country. We did it in Texas. We brought CHI Manufacturing , that had business in China, back to the state of Texas."

Perry was referring to the hair-care company owned by Farouk Shami of Houston, who sought the state's 2010 Democratic gubernatorial nomination.

During that campaign, we fact-checked a Shami TV ad that he had just brought 1,200 jobs to Texas "by moving his factories here from China." Half True, we said at the time. Shami's campaign told us that the jobs were created at a new Houston facility, CHI USA, in July 2009 as a result of moving production from South Korea, not China.

Then-Shami spokesman Vince Leibowitz said that some jobs had been created as a result of relocating production from China, but not the ones advertised as part of Shami's campaign.

The Texas governor's office reminded us that Perry attended a July 30, 2009, ribbon-cutting in Houston when Farouk Systems announced its plans to shift 1,200 jobs from South Korea and China to Houston.

Thanking Shami for his "bold move," Perry said: "We are celebrating a leader who is moving jobs from another country ... to Texas." A press release issued by the governor's office that day starts by saying that at the plant, Perry "credited Texas' predictable regulatory climate, low taxes and skilled workforce with attracting jobs and companies from around the world."

Shami isn't shown speaking in a video of the announcement. He's also not quoted in the press release.

News accounts do not mention any state role in Shami's decision to move jobs from abroad to Houston, nor is he quoted crediting a state action for prompting him to shift jobs from abroad.

In describing the job moves, Shami has been quoted as citing automation at the Houston plant as critical and his desire to get away from counterfeiting of his products in China, among other factors.

"We won't have to fly products in, we won't have to pay duties and we won't have as many defects," Shami told the Houston Business Journal at the time. "We may be sacrificing some of the profit, but the increase in volume will make up for that loss in profit."

Farouk Systems spokeswoman Amy Johnson told us the Houston plant has 1,200 jobs with 300 more to be added soon.

Johnson also said some of the company's limited-edition hair irons are still made in China.

In earlier years, she said, 40 percent of the company's products were made here, 60 percent overseas. Now, she said, the split is 80 percent here, 20 percent overseas.

We asked Johnson for details about how many jobs have shifted from China to Texas and how either the Texas economy or actions by Texas state government encouraged those moves.

She replied that Shami wanted to talk to us, but we did not hear from him.

Ironing all this out: There's no indication that qualities specific to the Texas economy or actions by Perry and state government merit credit for the shift of jobs from South Korea and China to Texas. CHI still has products made in China. Ultimately, Perry's statement overreaches by indicating the company deserted China and by claiming that anyone besides Shami "brought" the jobs from abroad.

We rate Perry's claim Mostly False.

wgselby@statesman.com

(BOX)

Rick Perry

Statement: 'We brought CHI Manufacturing, that had business in China, back to the state of Texas.'

Document AAS0000020111107e7b20001m

SANTA FE NEW MEXICAN
santafenewmexican.com

Neighbors
CHINA TRIP PROVIDED POLITICAL PERSPECTIVE

GUSSIE FAUNTLEROY
474 words
9 January 2011
The Santa Fe New Mexican
SFNM
C-7
English

Here's one way to get young Republicans and Democrats to feel the bipartisan spirit: send them to China, or somewhere else in the world where their political differences back home seem small in comparison to what they share as Americans in a foreign land.

That's part of what Elaine Lujan experienced in December as part of a small bipartisan delegation on a two-week international exchange in China. The trip was arranged by the American Council of Young Political Leaders, a nonprofit organization that has sent emerging young leaders between ages

25 and 40 to more than 90 countries since its founding in 1966.

Lujan is an assistant attorney general in the Civil Division of the New Mexico Attorney General's Office. The 30-year-old Albuquerque native was nominated to be a delegate by Al Lama, chief deputy attorney general and an ACYPL alumnus. As it turned out, she was the only delegate on the China trip from the western United States.

The group of four Democrats and four Republicans started their visit in Beijing and ended it in Shanghai. In between, they visited cities and rural villages, meeting with high-level Communist party ministers and other government officials, attorneys and businesspeople. They also spoke with villagers, visited children in an orphanage and met with university law students. Each place they went, the Americans were hosted by member groups of the All-China Youth Federation, a nationwide alliance of youth organizations.

"The Chinese are very invested in youth," Lujan said. For example, her Chinese counterparts, young attorneys, were vetted and have been trained for their careers since high school.

Lujan learned that while education, mentoring and opportunities for youth are very good in Chinese cities, disparities between urban and rural areas are wide. The Americans were told the Chinese government is working to improve conditions for its rural population.

Getting a clear picture of the situation was difficult, however, because virtually all responses from government officials appeared scripted, Lujan said. The Americans' most open dialogue took place with the youngest people they met-university students and kids at the orphanage.

One thing eminently clear was the enormous economic growth and development taking place in China, with whole sections of cities being built in a matter of months.

While in China, the delegates took turns as leader-of-the-day, with each day's leader in charge of asking questions during formal meetings and presenting short, unrehearsed speeches to rooms full of high-level Chinese.

"I'll definitely have more leadership skills in my job now," Lujan said, adding that the trip was "the opportunity of a lifetime."

If you have news about a public employee, contact Fauntleroy at gussie7@fairpoint.net.

See pdf's for exact rendition, caption, graphics and photographer info.

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Appendix B4

Examples of sentiment analysis results of lead paragraphs in *The Boston Globe*'s China-related report in 1998

1.CHINESE FAMILY HOME COMES TO SALEM

The Boston Globe, 27 March 1998

Negative score: 0.237

SALEM – The Peabody Essex Museum, renowned for its collections of Asian art and artifacts, has acquired an 18th-century Chinese ancestral home, enabling the museum to re-create more than 200 years of Chinese culture on its downtown Salem campus. The home, known as the Yin Yu Tang residence, or the Hall of Great Abundance, was owned and occupied by generations of the Huang family, salt merchants who lived in rural Xiuning County, a southeast region known for its distinct vernacular-style architecture.

2.A NEW PUZZLE FOR CHINA'S LEADERS

The Boston Globe, 8 January 1998

Negative score: 8.189

The Communist rulers of Beijing ended last year tangling with a tar baby. The tar baby – passive, sticky, and invincible – was played by the Internet, which the leaders want to censor. The more they thrashed about in a futile effort to teach the tar baby who's boss, promulgating fines and penalties to prevent the wrong kinds of information from being sent or received, the more foolish the Beijing bosses appeared. Zhu Entao, the deputy public security minister, told the state-owned news service Xinhua that Beijing appreciates the commercial and technological benefits that come from being hooked up to Internet Web sites and e-mail. "But the connection has also brought about some security problems, including manufacturing and publicizing harmful information as well as leaking state secrets through the Internet," the deputy minister explained.

Appendix C: Robustness Checks on Autor et al.'s (2013) IV

In this appendix, we conduct a series of robustness checks following Autor et al. (2013), to address the potential endogeneity problems associated with our measure of trade exposure. More specifically, while we use the Chinese imports of eight other developed countries as an instrumental variable for our key variable of U.S. imports from China, one may argue that there could be some common industry shocks (such as booming demand for real estate construction or the rising importance of IT technology) that drive the demand in both the United States and eight other developed countries. Therefore, following Autor et al. (2013), we construct two subsamples: 1) dropping the construction-related industries: the steel, flat glass and cement industries, and 2) dropping the computer industry, and repeat the analysis. As shown in columns 1-6 in Appendix Table C1, our results are generally robust to these two subsamples, although the effect of trade exposure on media bias for the subsample excluding the computer industry is weakened slightly once the control variables are included into Autor et al.'s method. In addition, we also focus on a third subsample: 3) excluding apparel, footwear, and textiles industries for which China is the world's dominant exporter, and find our main results robust to this subsample (columns (7)-(9) in Appendix Table C1).

We also incorporate export data to construct the net trade exposure as

$$\sum_c \frac{w_{c,m}^{1998}}{w_m^{1998}} \sum_j \frac{L_{cj}^{1998}}{L_j^{1998}} \frac{\Delta \grave{M}_j^{US}}{L_c^{1998}} - \sum_c \frac{w_{c,m}^{1998}}{w_m^{1998}} \sum_j \frac{L_{cj}^{1998}}{L_j^{1998}} \frac{\Delta \grave{X}_j^{US}}{L_c^{1998}}$$

Where ΔX_j^{US} is U.S. exports to China in industry j. We instrument the net import measure using import exposure and export exposure constructed similar as equation (2), using trade data from other eight developed countries. The result still holds as shown in Appendix C2.

TABLE C1-- SELECTED INDUSTRIES

	Exclude Construction-Related Industries ΔNegative Ratio			Exclude Computer Industries ΔNegative Ratio			Exclude China's Dominant Exports ΔNegative Ratio		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Newspaper Exposure to Chinese Imports 1998-2012 (in 1000 pts)	0.0405***	0.0435***		0.0405***	0.0435***		0.0339***	0.0435***	
	(0.0135)	(0.0135)		(0.0135)	(0.0135)		(0.0108)	(0.0101)	
Newspaper NTRGap Exposure (% pts)			976.884***			975.997***			969.943**
			(362.973)			(367.958)			(376.7)
Control Variables	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Method	IV	IV	DD	IV	IV	DD	IV	IV	DD
Observations	147	147	147	147	147	147	147	147	147
Weak identification	294.1	256		294.1	256		796	705.4	

Note: Robust standard errors in parentheses.

***Significant at the 1 percent level.

TABLE C2: NET TRADE EXPOSURE

	ΔNegative Ratio 1998-2012	
	(1)	(2)
Newspaper Net Trade Exposure (in 1000 pts)	0.0433**	0.0486***
	(0.0208)	(0.0179)
Control Variables	NO	Yes
Method	IV	IV
Observations	147	147
Weak identification	26.74	28.75

Note: Robust standard errors in parentheses.

***Significant at the 1 percent level.

**Significant at the 5 percent level.