

FDI, Import Competition, and U.S. Presidential Elections: The Case of Japan Bashing*

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Abstract

During the 1980s, trade with Japan became a U.S. political issue. "Japan Bashing", in which destruction of Japanese products took place in public, was widespread but eventually faded in the 1990s. We utilize a unique U.S. county-level Japanese FDI dataset and examine the impacts FDI and import competition had on the share of votes won by the respective Republican and Democratic presidential candidates. Our results from the 1976-1992 period suggest that counties that hosted FDI were more likely to vote for the Republican candidate and those counties whose industries were Japanese competitors were more likely to support the Democratic candidate.

Keywords: FDI, Import Competition, Japan Bashing, U.S. Presidential Elections, Reagan Revolution

JEL Classification: F13, F16, F23, P33, R13.

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1 Introduction

The results of the 2016 U.S. presidential election stunned financial markets, betting markets, and most political commentators. While the results were close in states that are usually considered swing states (i.e., Florida and Ohio), the results from states which encompass the Rust Belt were very surprising. Michigan, Wisconsin, and Pennsylvania had not voted for a Republican presidential candidate since 1988. Post-election analysis suggested that President Donald Trump won the Rust Belt by flipping white working-class voters from voting Democratic to voting Republican. While the Republican Party has traditionally supported free trade and the Democratic Party supported unionized labor, presidential candidates from both parties blamed globalization for the stagnating wages of the American working class during the 2016 election cycle. For example, President Trump attacked the North American Free Trade Agreement (NAFTA), the Trans-Pacific Partnership (TPP), and China during the Republican primary and the general election because he believed that American manufacturing workers have been harmed by the trade policies.¹ As such, many political observers and commentators argued after the election that President Trump's fierce opposition to globalization was a major factor in his ability to win Ohio, Michigan, Wisconsin, and Pennsylvania. Moreover, after the election, he has used social media to pressure both domestic and foreign manufacturing companies to keep jobs in the United States. For example, on January 5, 2017 he tweeted "Toyota Motor said will build a new plant in Baja, Mexico, to build Corolla cars for U.S. NO WAY! Build plant in U.S. or pay big border tax." Shortly thereafter, Toyota announced their intention to make a \$10 billion capital investment in the U.S. over the next five years.²

Recent academic papers have shown that globalization, particularly import competition with China, is responsible not only for the swift decline of U.S. manufacturing employment (Pierce and Schott, 2016) but also for exacerbating political polarization (Autor, Dorn, Hanson, and Majlesi, 2016a) and effecting both U.S. congressional elections (Che, Lu, Pierce, Schott, and Tao, 2016) and the 2016 presidential election (Autor, Dorn, Hanson and Majlesi, 2016b). However, in the

¹On the Democratic side, Bernie Sanders (who ran for the Democratic nomination as an Independent) consistently argued that the TPP, which was negotiated by President Barack Obama, would hurt the American working class which aided in Sanders surprising popularity. As a result, Hillary Clinton was forced to reverse her original support of the TPP she took as President Obama's Secretary of State and campaigned against the legislation in the general election. While Secretary Clinton's campaign disputed her original support for the TPP, political fact checker's from the Washington Post Newspaper argued otherwise.

²Whether Toyota changed their capital expenditure plans as a result of President Trump's involvement or only announced previous planned expenditures was subject to debate.

1980s, the rise of the Japanese economy along with the substantial rise in the U.S. trade deficit with Japan became a political issue in the United States. Much of the political concern regarding import competition with Japan was a result of the stagnation of the U.S. automobile industry in the 1970s and 1980s due to competition from Japan. In particular, the impact was significant in the Midwest where the Big Three (General Motors, Ford, and Chrysler) lost their customers to more efficient Japanese cars (Toyota, Honda, and Nissan) after the 1973 oil crisis. Moreover, Japanese companies purchased several high profile U.S. companies (e.g., Firestone and Capitol Records) and purchased several U.S. landmarks in Los Angeles, New York City, and Chicago.³ As a result, anti-Japanese sentiment manifested itself in the public destruction of Japanese products. In particular, one high profile case of "Japan Bashing" occurred when a group of congressman used sledgehammers to crush a Toshiba radio on the steps of the Capitol.⁴

Our aim is to examine the effect of Japan's export penetration in U.S. markets and Japan's foreign direct investment (FDI) on county-level votes in U.S. presidential elections over the 1976-1992 time period. In particular, we utilize a unique U.S. county-level Japanese FDI dataset to study two channels through which Japan's market access to the United States may have impacted voting patterns in U.S. presidential elections. First, similar to Autor et al (2016a) we posit that U.S. counties that were impacted by import competition with Japanese counterparts would support the party favoring protectionism. As such, during our sample period, we posit that counties impacted by Japanese import competition likely supported the Democratic candidate. Second, we posit that U.S. counties that experienced the job creation effect from Japanese FDI would likely support the Republican candidate whose constituency benefited from globalization. Protectionism and political outcomes has been studied in the trade policy literature⁵; however, to the best of our knowledge, previous studies have not examined the effect of FDI and import competition on county-level voting

³For example, the ARCO plaza in L.A. and ABC's NYC headquarters were sold to Shuwa Investments Co. in 1986, and Rockefeller Center was sold to Mitsubishi Estate in 1989.

⁴Prior to the 1980s, Japan was almost exclusively mentioned in the Republican and Democratic Party platforms as a vital partner with regards to U.S. national defense interests in the Pacific region. However, during the 1980s, Japan's trade practice and government policies were mentioned as an economic threat. See, for example, the following quotes from the section titled "Meeting the Challenge of Economic Competition" of the Democratic Party platform of 1984: "The United States continues to struggle with trade barriers that affect its areas of international strength. Subsidized export financing on the part of Europe and Japan has also created problems for the United States, as has the use of industrial policies in Europe and Japan. In some cases, foreign governments target areas of America's competitive strength. In other cases, industrial targeting has been used to maintain industries that cannot meet international competition often diverting exports to the American market and increasing the burden or adjustment for America's import-competing industries."

⁵See, for example, Grossman and Helpman (1994) and Goldberg and Maggi (1999) for political decision for trade protection. Bhagwati et al (1987) and Blonigen and Figlio (1999) for political decisions for FDI.

patterns in U.S. presidential elections. To preview our results, we find that voting shares for the Democratic (Republican) candidates increased (decreased) in the counties where they faced strong import exposure from Japan and decreased (increased) in the counties where Japanese FDI created local job opportunities. Our results are robust to instrumental variable (IV) methods even after including demographic control variables.

Our theory is based on the one-factor general equilibrium framework in Autor, Dorn, and Hanson (2013) and is extended to include exogenous county-level employment opportunities resulting from Japanese FDI. In the model, Japan's trade shock impacts U.S. manufacturing firms negatively through price competition which lowers local wages and employment because Japan does not import enough U.S. goods to offset the economic effects of Japanese exports. Our theory also builds upon Bhagwati, Brecher, Dinopoulos, and Srinivasan (1987) who formalize FDI in a trade policy framework. In Bhagwati et al (1987), FDI may reduce protectionism if foreign firms create goodwill in local communities by creating job opportunities rather than reducing local employment. As such, goodwill created from FDI likely influences voter perception and attitude towards globalization policy.

Over the 1980s and 1990s, Japanese automobile manufactures shifted their strategy of how they accessed U.S. markets. Whereas prior to the 1980s, Japanese manufactures primarily manufactured cars in Japan and subsequently exported them to the United States, beginning in the 1980s Japanese manufactures began manufacturing cars in the United States. As a result of the shift of big automobile manufacturers, Japanese parts and components producers also invested in the United States. Indeed, our data suggest that American workers employed by Japanese affiliates increased by eleven fold from 29,464 in 1976 to 315,358 in 1992.⁶ While trade economists have long believed that this shift in strategy was motivated to avoid trade costs (i.e., Markusen, 1984), the shift could have, in part, been driven by business and political calculations to reduce protectionism risk by creating jobs in key congressional districts. We are not aware of any papers that study the effects of county-level location patterns of Japanese FDI on county-level voting patterns. The closest empirical paper to ours on voting patterns and FDI is Blonigen and Figlio (1998) who examine the correlation between the voting pattern of U.S. Senators from 1985 to 1994 and the flows of FDI into a legislator's state. They find a diverging effect of FDI on senators' voting patterns such

⁶See section 2.4 for the data sources. These figures are our estimates from Toyo Keizai's Overseas Japanese Companies yearbooks.

that legislators who already supported free trade would further soften their stance for protectionist measures but senators who opposed free trade hardened their stance for protectionism.

We use changes in county-level presidential elections to study if FDI changed local preferences for globalization over the 1976-1992 time period when "Japan Bashing" was at its height. Presidential elections were chosen because voter turnout is usually higher than in mid-term elections. We believe our time period is ideal for several reasons. First, there was systematic and persistent differences between Democratic and Republican policies regarding globalization policy. The Democratic Party's political base included labor unions who argued vehemently against globalization, whereas the Republican Party's base included corporations that usually promoted and benefited from globalization. Second, China was not a large exporter to U.S. markets. Indeed, Japan was the only country that was criticized heavily for international trade policies. Moreover, whereas current Chinese exports consist primarily of U.S. and foreign branded products, Japanese exports in the 1980s were almost purely Japanese products with Japanese brand names. Therefore, it was an easily seen threat for American consumers and workers. Third, we can avoid much of the NAFTA debate given that it did not come into force until 1994. Finally, there was a clear regional shift in voter preferences for the two political parties. For example, note in Figures 1 and 2 that in the 1976 election voters from California and Michigan supported the Republican candidate Gerald Ford; however, in the 1992 election voters from the same states supported the Democratic candidate Bill Clinton by an overwhelming margin.⁷ The Deep South began to shift away from the Democratic Party after Democrats' 1960s Civil Rights initiatives (Kuziemko and Washington, 2015), and has consistently voted for Republican candidates since the 1980s. Interestingly, the Deep South did not experience fierce import competition but did host foreign businesses including Japanese manufacturing firms, which we believe may have contributed to the Deep South's support for Republican candidates.

The rest of the paper proceeds as follows. Section 2 provides a brief summary of the political climate in the United States over our sample time period as well as a summary of U.S. trade and FDI with Japan. Section 3 describes our theoretical model and empirical results, and section 4

⁷We use the county-level data on U.S. presidential elections from the Inter-University Consortium on Political and Social Research (ICPSR) database for 1976, 1980, 1984, and 1988, and from Dave Leip's Atlas of U.S. Presidential Elections for 1992. We use the 1976 (Jimmy Carter (D) versus Gerald Ford (R)), 1980 (Jimmy Carter (D) versus Ronald Reagan (R)), 1984 (Walter Mondale (D) versus Ronald Reagan (R)), 1988 (Michael Dukakis (D) versus George H. W. Bush (R)), and 1992 (Bill Clinton (D) versus George H. W. Bush (R)).

concludes.

2 U.S. Politics, Trade, and FDI in the 1980s

2.1 The Southern Realignment and the Reagan Revolution

The Southern Realignment that occurred during the 1980s substantially altered the political landscape in the United States. For example, voter identification with the Democratic Party fell by approximately 8% from 64% to 56% during President Ronald Reagan's time in office which was the largest drop in party identification in 50 years. A large strand of political science literature argues that the genesis of the Reagan Revolution actually had begun 20 years earlier. That is, the shift of political support of white working-class voters from the Democratic Party to the Republican Party began during the 1960s. While there is little disagreement regarding the realignment of the South from the Democratic Party over the 1960-1980 time period, the political science literature has not reached a consensus as to the primary cause.

One strand of literature argues that racial attitudes are very persistent and as such, the Democratic Civil Rights platforms that began in the 1960s caused a large majority of the southern Democrats to leave the party. Anecdotally, the success of Alabama's governor George Wallace in the 1968 presidential election provides support for that interpretation given that the Civil Rights legislation was passed in 1963 and 1964. Wallace had been a Democrat but ran as an independent because the Democratic Party had rejected pro-segregationist ideas. Wallace ran on a segregationist platform and won 13% of the vote and carried Arkansas, Louisiana, Mississippi, Alabama, and Georgia and won their 45 electoral college votes. Kuziemko and Washington (2015) provide strong quantitative evidence that racial attitudes explain the sharp decline in support for the Democratic Party during the 1960s. Using Gallup surveys, Kuziemko and Washington (2015) find that 75% of the drop in support of the Democratic Party is explained by racial attitudes. However, another strand of literature argues that while race was a factor in white working-class voters leaving the Democratic Party, economic well-being was the dominant factor. This line of argument suggests that the switch in support of the southern Democrats was caused by the drop in support for the redistribution policies of the Democrats because the South had caught up economically (i.e., Brewer

and Stonecash, 2001; Shafer and Johnston, 2009).⁸

Regardless of the cause of the realignment, Meffert, Norpoth, and Ruhil (2001) argue that the political realignment that occurred during the 1980s was a shift in the partisan equilibrium in which the Reagan Revolution cut deeply into the dominant Democratic coalition that began with President Franklin D. Roosevelt and the New Deal Democrats. The new equilibrium was the foundation for the Republican Party gaining control of the House of Representatives in 1994. Since gaining the majority in the House in 1994, the Republicans have controlled the House for 18 out of the past 22 years whereas before 1994, the Democrats had controlled the House for 58 out of the previous 62 years.⁹ We believe that the transition in the partisan equilibrium during the Reagan Revolution was likely a rare event in the modern history of the United States and study how globalization impacted the transition to the partisan equilibrium.

2.2 Japanese Exports and FDI to the United States

We focus on import competition from Japan and the job creation effect from Japanese FDI during the 1980s. A few points are worth mentioning regarding how Japan may have impacted U.S. politics. First, the obvious economic effect would be if increased import competition with Japanese counterparts resulted in domestic citizens losing job opportunities. One would expect that voters in districts negatively impacted by import competition may support the more protectionist candidate. Second, if Japanese FDI results in creating job opportunities, voters may support candidates supporting policies that would host corporations in their local communities. Finally, the magnitudes of the changes would depend upon the degree of perceived economic competition and the degree to which FDI provides jobs for local residents.

Figure 3 shows that there had been persistent bilateral trade deficits during the period of 1972-1992. U.S. trade deficit increased from \$5.7 billion in 1972 to \$59.3 billion in 1988. The significant trade imbalance in the early 1980s was partly caused by the appreciation of the U.S. dollar. Throughout the early 1980s, the U.S. dollar appreciated against the Japanese Yen, Deutsche Mark,

⁸See also Erikson and Tedin (1981) who argue President Reagan's communication skill as a primary cause (i.e., President Reagan was called the Great Communicator) and Andersen (1979) and Norpoth (1987) who argue generational shifts as a primary cause.

⁹Some political scientists argue that a partisan equilibrium is fluid (Erikson, MacKuen, and Stimson, 1998) or constant (Green, Palmquist, and Schickler, 1998); however, given the dominance of the Republican Party in the House of Representatives since the Reagan Revolution, we believe that shifts in the partisan equilibrium are likely rare events.

French Franc, and British Pound because of the high interest rate policy of the Volcker disinflation. Table 1 shows that transportation and electronic equipment were the leading imports from Japan. Note in the table, the share of the top three categories of Japanese exports (transportation equipment, industrial machinery, and electronic equipment) was 55.7% in 1976, which increased to 76.0% in 1992.¹⁰ This caused considerable difficulties for U.S. auto and electronics industries, and a broad alliance of manufacturers began a campaign for protection against foreign competitors; this opposition resulted in severe protest of Japanese firms and became known as "Japan Bashing". In fact, the campaign against Japan acquired sufficient U.S. political support so as to pressure Japanese automakers into voluntary export restrictions (VER)¹¹ and sign the Plaza Accord to depreciate the U.S. dollar.¹² "Japan Bashing" eventually faded in the 1990s after U.S. import growth from Japan substantially slowed and Japanese FDI created substantial job opportunities in the United States.¹³

2.3 U.S. Import Exposure

Our theoretical model is based on Autor, Dorn, and Hanson (2013) who examine the general equilibrium effect of rising Chinese import competition on U.S. local labor markets. As such, we assume that local markets are treated as a small open economy, and each local market consists of monopolistically competitive traded industries (i.e., manufacturing) and a homogeneous non-traded industry. Moreover, each symmetric producer in a traded industry faces the CES demand, uses one factor of input (i.e., labor), and produces one variety (i.e., Helpman and Krugman, 1987). In our empirical work, we focus on the log change in employment for U.S. county i 's traded industries over two election years:

$$\Delta L_{it} = \ln(L_{it}) - \ln(L_{i,t-4})$$

¹⁰While import exposure to Japanese products was an economic threat to U.S. regions which produced autos and electronics, other U.S. regions were benefactors from increased exports to Japan. Because Japan was scarce in natural resources, U.S. regions that produced non-manufacturing goods benefited from trade with Japan although the rate at of U.S. import growth significantly outpaced the rate of U.S. export growth.

¹¹See, for example, Feenstra (1988).

¹²France, West Germany, Japan, the United States, and the United Kingdom agreed the Plaza Accord to depreciate the U.S. dollar against Japanese Yen by intervening in currency markets. As a result, Japanese Yen appreciated sharply after 1985.

¹³As shown in Figure 3, U.S. imports from Japan increased the most from 1984 to 1988 and slowed down in the 1990s, whereas job opportunities created by Japanese FDI increased the most from 1988 to 1992 and continued adding job opportunities in the 1990s.

where $L_{it} = \sum_{j \in T} L_{ijt}$ and L_{ijt} is employment in a traded industry j in year t .

We are focusing on employment because we believe that job opportunities are likely a key factor in determining a voter's attitude towards globalization. In our model, Japan affects each county's employment through three exogenous channels. First, import exposure is captured by the change in Japan's export capacity in each industry j (ΔA_{Jjt}).¹⁴ Second, export opportunity is captured by the change in Japan's expenditure on each industry j (ΔE_{Jjt}). Finally, the job creation effect of FDI is captured by the change in employment by Japanese manufacturing plants hosted in county i (ΔL_{Jit}). We assume that Japanese FDI is an exogenous event for local labor markets because the share of counties that hosted Japanese FDI were small over the 1980s. The number of U.S. counties that hosted Japanese FDI in 1976 was 78 of 3,109 counties, which increased to 248 in 1988. We also assume that Japanese firms that switch their strategy in how they penetrate U.S. markets (i.e., from exporting to investing) do not change their product prices in each local market. For example, we assume that Toyota charges the same price for a Camry assembled in Georgetown, Kentucky as that of one exported from Japan. By assuming this single pricing rule, the shift in strategy from exporting to FDI does not change the relative prices of American versus Japanese varieties in U.S. counties.

With the assumption that local trade is balanced, the total impact of trade with Japan and inward FDI from Japan on county i 's manufacturing employment is the following:

$$\Delta L_{it} = \rho_{it} \sum_j c_{ijt} \frac{L_{ijt}}{L_{it}} \left[\theta_{ijJt} \Delta E_{Jjt} - \sum_k \theta_{ijk} \phi_{Jjkt} \Delta A_{Jjt} \right] + \Delta L_{Jit} \quad (1)$$

where θ_{ijJt} is the share of output by county i 's product j that is shipped to Japan ($\theta_{ijJt} \equiv X_{ijJt}/X_{ijt}$), θ_{ijk} is the share of output by county i 's product j that is shipped to each county k ($\theta_{ijk} \equiv X_{ijk}/X_{ijt}$), ϕ_{Jjkt} is the share of Japan varieties in total purchases by each county k ($\phi_{Jjkt} \equiv M_{Jkjt}/E_{kjt}$), and ρ_{it} and c_{ijt} are scaling factors.

As summarized in equation (1), the change in county i 's total manufacturing employment (ΔL_{it}) reflects the weighted change in exports of county i 's product j to Japan ($\theta_{ijJt} \Delta E_{Jjt}$) and the weighted change in demand for county i 's product j to all local markets in the United States ($\sum_k \theta_{ijk} \phi_{Jjkt} \Delta A_{Jjt}$)¹⁵, which are further weighted by the employment share of industry j in each

¹⁴This is consist of changes in Japan's productivities, labor costs, bilateral trade costs, and the number of product varieties made in Japan.

¹⁵In particular, if Japanese counterpart exports cheaper varieties to U.S. markets, American varieties would be

producer county i (L_{ijt}/L_{it}).

As we will discuss in the next section, we assume that a Japanese producer that faces U.S. trade frictions may switch from exporting to FDI. In other words, the change in the number of Japanese varieties shipped from Japan would be negatively related to the change in the number of Japanese FDI establishments.¹⁶ Therefore, the switch in the strategy may cause an endogeneity or simultaneity problem through this negative association. As such, we address this issue in the empirical section of the paper.

The trade imbalance is a critical assumption to theoretically obtain the heterogeneous effects of trade with Japan on U.S. local labor markets. As shown in Figure 3, there had been persistent bilateral trade deficits during the period of 1976-1992. Therefore, we follow Autor et al (2013) and focus only on U.S. imports from Japan and Japanese FDI into the United States. Following the manipulation in equation (1), we can derive:

$$\Delta L_{it} = -\tilde{\rho}_{it} \sum_j \frac{L_{ijt}}{L_{it}} \frac{M_{Jjt} \Delta A_{Jjt}}{L_{jt}} + \Delta L_{Jit} \quad (2)$$

where L_{jt} is U.S. employment in industry j , and $M_{Jjt} \Delta A_{Jjt}$ would be approximated by ΔIM_{Jjt} , the change in U.S. imports from Japan.

Data on U.S. imports from Japan for years 1972, 1976, 1980, 1984, 1988, and 1992 at the 4-digit SIC (1987) industry level were derived from Schott (2010). Following Autor et al (2013), we derive the local employment structure at the county level from the County Business Patterns (CBP) data in 1976, 1980, 1984, 1988, and 1992.¹⁷ In addition, information on additional trade statistics for producing instrumental variables (IVs), are obtained from the United Nation (UN) comtrade database. After combining these sources, we have 3,109 counties in election years 1976, 1980, 1984, 1988 and 1992 for a total of 15,545 observations. One of the main objectives of the paper is to examine the impact of import competition with Japan on local labor outcomes. In particular, in equation (1), we use the nominal values of U.S. imports at the 4-digit SIC level for manufacturing industries.¹⁸ Figure 4 displays a color coded U.S. map that illustrates whether a relatively expensive, and American producers would lose market shares in all local product markets in the United States.

¹⁶The change in the number of Japanese varieties shipped from Japan is $\Delta \tilde{M}_{Jt}$ where $\tilde{M}_{Jt} = \sum_j M_{Jjt} - \sum_i N_{Jit}$, M_{Jjt} is the number of Japanese varieties (including both exporting and FDI varieties) in industry j , and N_{Jit} is the number of Japanese FDI establishments in county i . Moreover, ΔA_{Jjt} should also reflect ΔM_{Jjt} .

¹⁷See Appendix I for the detailed strategy for data development.

¹⁸We also prepared the 3-digit level SIC industries that include agriculture and mining. Our results do not

county had a high (brown) or low (yellow) degree of exposure to Japanese imports in 1988. Table 2 lists the 20 counties in the United States that had the highest exposure to Japanese imports. Note in Figure 4 that the area that is most susceptible to Japanese imports is, without a doubt, the Rust Belt. The counties close to Detroit, Michigan and Columbus, Ohio where automobile industries located were significantly exposed to Japanese exports.

2.4 Japanese FDI to U.S. Counties

Data on Japanese establishments in the United States for years 1972, 1976, 1980, 1984, 1988, and 1992 are derived from Toyo Keizai's Overseas Japanese Companies yearbooks. The data are ideal for our U.S. county-level study because the official data from the Japanese government do not report county-level location information.^{19,20} Moreover, we are able to distinguish between establishments that were founded as sales representative offices (i.e., import their products from Japan and work for customer services) and those that invested or acquired production facilities (i.e., produce or assemble their products in the United States). In our empirical analysis, FDI refers only to the production facilities by excluding any sales representative offices or service related establishments. Because some Japanese establishments do not report the number of local employment, and we cannot clearly distinguish local American employees from Japanese employees from headquarters, we prefer to use the number of establishments over employees throughout the empirical analysis. This does not affect the theoretical consistency with the Autor et al (2013) model because the import competition index in equation (2) is also derived under the symmetric assumption of producers.

The theoretical approach we take is essentially that proposed by Markusen (1984) in his study of a firm's choice of FDI over exporting. We assume that each industry is populated by many manufacturing producers. If a producer seeks to export its variety to a foreign country, it faces a variable trade cost. If a producer seeks to invest, it faces a fixed cost to establish or acquire a production facility. In general, a producer chooses FDI over exporting when trade costs are high, and FDI fixed costs are low. If we introduce firm heterogeneity in productivity and a fixed cost of serving the country such as setting up a sales representative office (Helpman, Melitz, and

change, depending on the degree of the aggregation.

¹⁹In particular, the Survey on Overseas Business Activities by Ministry of Economy, Trade and Industry reports the locations of Japanese establishments at the state level.

²⁰We use the information on zip codes and addresses of the subsidiaries and affiliates and allocate them into U.S. counties. See Appendix I for detailed strategy to prepare our dataset.

Yeaple, 2004), we also expect that only the highest productive producers would choose FDI over exporting. Therefore, the number of Japanese producers that penetrate into U.S. markets via FDI is determined by U.S.- Japan bilateral factors such as exchange rate, and producer-specific factors such as trade and FDI related costs.

If Japanese producers decide to invest in the United States, they need to choose where to locate. As noted above and shown in Figure 3, the number of Japanese FDI establishments located in the United States was around 184 in 1976, which increased to 1,190 in 1992. Interestingly, only 78 of 3,109 U.S. counties hosted Japanese establishments in 1976 but that number increased to 380 in 1992. Figure 5 displays a color coded U.S. map that illustrates whether a county hosted at least one Japanese producer (red) or did not host any FDI (white) in 1992. In fact, the map suggests that Japanese FDI went not only to the big cities (San Francisco, Los Angeles, and New York City) but also to the Deep South and Midwest. Table 2 lists the top 20 U.S. counties that hosted Japanese FDI. The observation from the table suggests that Japanese producers agglomerated in California, suggesting the importance of information externalities related to location choice. Therefore, we follow Head, Ries, and Swenson (1995) and consider agglomeration effects as determinants for the choice of host counties. For example, potential Japanese investors would choose the locations that are not only close to other Japanese firms' current locations in the United States, but also close to American manufacturing bases. In our empirical framework, we estimate the following reduced-form equation:

$$N_{Jit} = F(N_{Jct}, N_{i,t-4}, X_{it}, D_t) \quad (3)$$

where N_{Jit} is the number of Japanese FDI establishments in county i at year t , N_{Jct} is the number of Japanese manufacturing establishments in county i 's commuting zone c at year t , $N_{i,t-4}$ is the number of American manufacturing firms in county i at year $t-4$, X_{it} includes the typical county-specific control variables, and the year-specific dummy variable (D_t) should capture the bilateral determinants of Japanese firms' location choice of the United States over other countries.²¹

We use equation (3) to study the determinants of the location choice of Japanese FDI. Accord-

²¹We obtain most of the county-level control variables from the U.S. Census Bureau and interpolate the missing data. We also obtain other county-level variables from Chetty et al (2014). In this paper, X_{it} includes log median income, log of area, log county population, log of the share of white population, and log of the share of high school graduates.

ing to Japanese agglomeration effects, a county will likely host Japanese FDI if there are more Japanese establishments in the broader region (i.e., commuting zones), more American manufacturing producers in the same county, and more specialized in the manufacturing sector.

We estimate the above equation with Probit, Tobit, and Poisson models given that the majority of U.S. counties did not host Japanese FDI and given the nature of our count data. For estimating the Probit models, the dependent variable is a binary variable that is equal to one when county i hosted at least one Japanese FDI and zero otherwise. We use $\ln(1 + N_{Jit})$ as the dependent variable and the left-censoring limit of zero in order to estimate the Tobit models. The independent variables are identical in all empirical specifications. Additionally, we use the 4-year lagged values of the number of Japanese affiliates in the local commuting zones as an instrumental variable for the current number of Japanese affiliates.

Table 3 reports the parameter estimates obtained from the Probit, Tobit, and Poisson regressions. We have 15,268 observations, of which approximately 6% are non-zeros. As discussed by Head et al (1995), agglomeration effects help us to explain the location choice of Japanese FDI. The first two columns in the table report the parameters (not the marginal effects at means) estimated from the Probit regressions. We find that the probability of FDI from Japan to county i is positively and statistically significantly associated with the number of Japanese subsidiaries and the number of American manufacturing firms. Similarly, the next two columns report the results from the Tobit regressions where the number of Japanese FDI is positively and statistically significantly related to the agglomeration effects. We also find that the share of manufacturing is associated positively with Japanese FDI. Interestingly, the log of county-level median income is negatively associated with Japanese FDI although it is not statistically significant for most of the specifications. Finally, the year dummy variable should capture the overall trends in Japanese FDI to the United States. Consistent with the expectation, the coefficients for the year dummy variables increased over the time period, suggesting that the sharp appreciation of the Japanese Yen enhanced the probability of Japanese investment everywhere in the United States. We use the estimates in Table 3 to obtain the predicted values of the probability and the number of Japanese FDI into each U.S. county. We use the predicted values to examine the correlation between the voting patterns in the presidential elections and FDI.

3 Empirical Strategy

3.1 Voting Patterns and Social Characteristics in U.S. Counties

We obtain the share of votes won in each county by the Democratic or Republican candidates from the Inter-University Consortium on Political and Social Research (ICPSR) database for presidential elections in 1976, 1980, 1984, and 1988, and from Dave Leip’s Atlas of U.S. Presidential Elections for 1992. County- and industry-level employment data are obtained from the U.S. Bureau of Census’ County Business Patterns. We obtain county-level data on the shares of high school graduates and shares of the white population from the U.S. Census Bureau and interpolate the missing data. Acharya et al (2016) and Kuziemko and Washington (2015) show that the history of slavery and its subsequent political events have persistent impacts on the contemporary voting patterns in the United States. Therefore, we also obtain the slave population share in 1860 from Acharya et al (2016) and develop a dummy variable (D_i^s) that is one if the county’s slave share is greater than 28% (75th percentile value across all the counties) and zero otherwise.

As a preliminary, we first estimated the following equation with and without various fixed effects:

$$S_{it}^p = \alpha_1 white_{it} + \alpha_2 HS_{it} + \alpha_3 mfg_{it} + \alpha_4 D_i^s + \varepsilon_{it} \quad (4)$$

where S_{it}^p is the county-level voting share of a candidate from a party p where p could be the Democratic candidates (D) or the Republican candidates (R); $white_{it}$ is the share of white population in each county i in election year t , HS_{it} is the share of the population that graduated high school, and mfg_{it} is the share of the labor force employed in the manufacturing sector.

As shown in Table 4, counties whose population is predominantly white, tend to vote for the Republican candidates and counties with high shares of high school graduates support the Republican candidates. Consistent with Acharya et al (2016), the southern counties that had high shares of slaves in 1860 are more likely to vote for the Republican candidates. Somewhat surprisingly, high population shares of manufacturing employment are not strong or consistent voting determinants for the shares of the two parties.

3.2 Voting Patterns and Globalization

Some social issues and demographic characteristics of U.S. counties (e.g., the persistent impact of slavery) do not change significantly over the four-year span between the two presidential elections. By using the change over the two elections, we are able to focus on the short-term factors that contributed to the changes in voting patterns. In particular, we use the following specification:

$$\Delta S_{it}^p = \beta_1 \Delta I_{Jit} + \beta_2 \Delta L_{Jit} + \sum_{t=1980}^{1992} \gamma_t D_t + \varepsilon_{it} \quad (5)$$

where $\Delta S_{it}^p = S_{it}^p - S_{i,t-4}^p$, the import competition variable $\Delta I_{Jit} = \sum_j \frac{L_{ijt}}{L_{it}} \frac{\Delta IM_{Jjt}}{L_{jt}}$ is from equation (2), ΔL_{Jit} is the change in the log predicted values of the number of Japanese FDI establishments in county i estimated from equation (3) with the IV Tobit model.²²

In equation (5), it is critical to include the year dummy variables (D_t) because some candidates won by overwhelming margins. In our empirical analysis, we use the county-level data on U.S. presidential elections for 1976 (Jimmy Carter (D) versus Gerald Ford (R)), 1980 (Jimmy Carter (D) versus Ronald Reagan (R)), 1984 (Walter Mondale (D) versus Ronald Reagan (R)), 1988 (Michael Dukakis (D) versus George H. W. Bush (R)), and 1992 (Bill Clinton (D) versus George H. W. Bush (R)).

We report the main results with clustered standard errors in Table 5.1 for the Democratic shares and Table 5.2 displays the results for the Republican shares. We report the results from equation (5) and the results with the demographic control variables. The OLS estimation results suggest that the import competition variable is a statistically significant determinant for the voting share of the Democratic candidates at the 5% confidence level without the control variables; however, it is not statistically significant once the control variables are included. The results from the Republican shares are more robust, suggesting that counties that faced severe import competition with Japan did not support the Republican candidates. We also find that the FDI variable is a statistically significant determinant for the voting shares of both the Democratic and Republican candidates.²³ The counties that hosted Japanese FDI are more likely to vote for the Republican candidates and

²²The results are robust for any specifications reported in Table 3: Probit, IV Probit, or Poisson. We use the IV Tobit because the log difference interpretation of ΔI_{Jit} is consistent with log difference interpretation of predicted number of Japanese FDI.

²³As shown in Table A2 in Appendix, the results are weak and sometimes insignificant once we replace the number of FDI establishments with that of sales representative offices.

less likely to vote for the Democratic candidates. As can be seen from the two tables, the Democratic results are almost the mirror image of the Republican results in terms of our two measures of globalization.²⁴ Our results indicate that the voting shares for the Democratic (Republican) candidates increased (decreased) in the counties where they faced strong import competition from Japan and decreased (increased) in the counties where they see job opportunities created by Japanese FDI. Moreover, our results suggest that globalization had impacted the transition in the U.S. partisan equilibrium during the Reagan Revolution. Since the Deep South didn't experience severe import competition with Japan and hosted Japanese FDI, globalization partly explains why the southern white working-class workers left the Democratic Party. Finally, our results are robust to alternative specifications such as the dynamic panel estimation methods and to alternative measures of the dependent variables such as the log change in the number of votes for each party's candidate.

3.3 The Results from the IV Method

Typical in the literature, there are several potential endogeneity and simultaneity problems in estimating equation (5). First, import competition and FDI variables could be simultaneously determined if Japanese FDI variable (N_{Jit}) includes sales representative offices, and the number of sales representative offices increases as Japanese exports to the United States increase. To mitigate the estimation bias, we exclude any export-support establishments in N_{Jit} . Second, even after we exclude sales representative offices in the FDI variable, the shift in the strategy from exporting to FDI could create the potential problem of endogeneity and simultaneity. Specifically, Japanese varieties available in the United States (M_{Jjt}) in equation (2) consists of Japanese varieties shipped from Japan to the United States and those produced in Japanese FDI establishments in the United States. To address this problem, we follow Autor et al (2013) and prepare the following instrumental variable for ΔI_{Jit} :

$$\Delta IV_{Jit} = \sum_j \frac{L_{ij,t-4}}{L_{i,t-4}} \frac{\Delta IM_{Jjt}^A}{L_{j,t-4}} \quad (6)$$

where IM_{Jjt}^A consist of Japan's aggregated exports to eight advanced countries (i.e., Australia, Denmark, France, the Netherlands, New Zealand, Spain, Sweden, and the United Kingdom) so

²⁴The results also suggest that our globalization variables explain better for the Republican shares than for the Democratic shares (i.e., R-squared is around 0.77 for the Republican shares as in Table 5.1, whereas that is around 0.48 for the Democratic shares as in Table 5.2).

that IM_{Jjt}^A could capture all the Japanese varieties in industry j .

We report the results with two stage least squares (TSLS) in Table 6.²⁵ Although the magnitudes of the coefficients for the FDI variables decline slightly, the TSLS estimation results suggest that both import competition and FDI variables are statistically significant determinants for the voting patterns at the 1% confidence level.

To check the uniqueness of our results from FDI and Japan, we report additional analyses in our appendices. In Appendix II, we report the results when the number of Japanese FDI is replaced with the number of Japanese sales representative offices. While we find evidence that the voting shares for the Republican candidates increased in the counties that hosted Japanese sales offices, we cannot find statistically significant associations for the voting shares for the Democratic candidates. In Appendix III, we report the results when we replace import competition with Japan (ΔI_{Jit}) with that with West Germany (ΔI_{Git}). The results suggest that counties that faced import competition with West Germany did not have any impacts on the voting patterns at the county level. We believe that there may be several possible explanations for the differences in results. In particular, import competition from West Germany may simply be viewed differently than competition from Japan. The degree to which historical and sociological factors (e.g., race, family heritage, and ethnic identification) influence voter attitudes towards trade with a specific country would be an interesting future line of research.

3.4 Economic Significance

While the magnitude of the coefficients may seem small in our results, the effects can have meaningful impacts on the presidential elections given that the states allocate their electoral college votes in a winner-take-all manner (with the exception of Maine and Nebraska). For example, in the 1976 presidential election Jimmy Carter won Ohio by 0.27% (11,000 votes) and won Wisconsin by 1.67% (35,000 votes); if those states were won by Gerald Ford, Ford would have won the 1976 presidential election. The results reported in Tables 5.1 and 5.2 suggest that a one standard deviation increase in the import exposure variable results in a 0.2% increase (decrease) in the Democratic (Republi-

²⁵Since we already use the fitted values for the number of Japanese FDI, we do not use the IV method for the FDI variables.

can) share.^{26,27} Although it is difficult to compare between the import exposure and FDI variables, the magnitudes of the FDI variable appear to be larger than those of the import exposure variable. While a one standard deviation increase in the log of the number of Japanese FDI results in the Democratic share falling by -0.2% to -0.4%, it results in the Republican share increasing by 0.4% to 0.6%.²⁸ This result is not surprising given that on average Japanese FDI establishment employed around 277 workers in 1988.

Finally, our results do not necessarily suggest that voters switch parties. The increase in the Republican share of the vote resulting from increased FDI may simply be a result of increased Republican turnout; similarly, the decline in the Democratic share may be the result of Democratic voters not voting or voting for a third party. Our results are not able to distinguish between those mechanisms.

4 Conclusion

During the 1980s, trade wars with Japan became a U.S. political issue. As such, we used county-level voting data and examined the impact of U.S. international trade policy with Japan on U.S. presidential elections over the 1976-1992 period. Specifically, we used the import competition data (i.e., Autor et al, 2013) and Japanese FDI data to examine the impact of two types of globalization on the share of votes won by the respective Republican and Democratic presidential candidates. Our results suggest that counties that received FDI were more likely to vote for the Republican candidates and those counties whose industries were Japanese competitors were more likely to support the Democratic candidates. Our results suggest that "Japan Bashing" eventually faded in the 1990s after U.S. import growth from Japan substantially slowed and Japanese FDI created substantial job opportunities in the United States. Moreover, globalization had contributed to the transition in the U.S. partisan equilibrium in the Deep South during the Reagan Revolution.

²⁶In 1988, the mean value of the index is 0.916 across the counties with the standard deviation of 1.953. The 5 percentile value is -0.108, whereas the 95 percentile value is 3.35. See Table 2 for the top 20 lists in 1988.

²⁷The coefficient (0.0001) times the standard deviation (1.95).

²⁸In 1988, the mean value of the fitted log FDI is 0.419 across the counties with the standard deviation of 0.220. The 5 percentile value is 0.057, whereas the 95 percentile value is 0.790.

Appendix

I. Data

Data on U.S. imports from Japan for 1972, 1976, 1980, 1984, 1988, and 1992 at the 4-digit SIC (1987) industry level are from Schott (2010). Data on Japanese exports to Australia, Denmark, France, the Netherlands, New Zealand, Spain, Sweden, and the United Kingdom at the SITC Rev 1 (1972) and SITC Rev 2 (1976, 1980, 1984, 1988 and 1992) are from the United Nation Comtrade Database. To concord these SITC data to four-digit SIC industries, we take the following steps. First, we convert the SITC Rev 1 data (1972) to the SITC Rev 2 data using the concordance from the World Integrated Trade Solution (WITS), which assigns 5-digit SITC Rev 1 products to 5-digit SITC Rev 2 products. When a single SITC Rev 1 product is assigned to multiple SITC Rev 2 products, we use data on U.S. import values of 1984 and develop the weights to allocate values into the SITC Rev 2 products. Second, we convert the SITC Rev 2 data into the 4-digit SIC industries using the WITS concordances (6-digit HS 1996 to 4-digit SIC and 6-digit HS 1996 to 5-digit SITC Rev 2). When a single 5-digit SITC Rev 2 product is assigned to multiple 4-digit SIC industries, we use the 4-digit SIC U.S. imports (1992) from Schott (2010) and develop weights to assign the trade values. The simple correlation between data on U.S. imports from Japan aggregated from UN Comtrade Database (SITC Rev 1 and Rev 2) and those from Schott (2010) is 0.95, and the total values of these two databases are almost identical.

Following Autor et al (2013), we derive the local employment structure at the county level from the County Business Patterns (CBP) data in 1972, 1976, 1980, 1984, 1988, and 1992. Since the CBP data do not cover self-employment, some types of agricultural employees, and some service employees, we focus on the manufacturing industries. The CBP data do not disclose information on individual employers, and information on employment by county and industry is sometimes confidential. Moreover, some establishments are not reported at the most disaggregate level of SIC industries. The data, however, always report the exact number of firms in each of establishment size classes for each county-industry cell. We use Autor et al's (2013) imputation strategy and obtain the county-industry data on employment at the SIC 4-digit industry level.

II. U.S. trade with West Germany

The significant U.S. trade imbalance in the early 1980s was partly caused from the appreciation of the U.S. dollar. Throughout the early 1980s, the U.S. dollar had appreciated against the Japanese Yen, Deutsche Mark, French Franc, and British Pound because of the Volcker disinflation. This caused considerable difficulties for U.S. industries. Although we focus on import competition with Japan, West Germany was the third leading exporter of automotive to the United States after Japan and Canada.²⁹ In this appendix, we examine whether or not the results from Japan in Tables 5.1, 5.2, and 6 still hold when we replace Japan (ΔI_{Jit}) with West Germany (ΔI_{Git}) where ΔI_{Git} is developed from U.S. imports from West Germany.

We report the results with the clustered standard errors in Table A1. Because we do not have the FDI variable for West Germany, we report the results from equation (5) without the FDI variable. The OLS estimation results suggest that the import competition variable for West Germany is not a statistically significant determinant for the voting shares of the Democratic candidates; moreover, the TSLS estimation results suggest that it carries a wrong expected sign. The results from the Republican shares are similar, suggesting that counties that faced import competition with West Germany did not have any impacts on the voting patterns at the county level.

III. The Results from Sales Representative Offices

In the empirical analysis of FDI, to avoid the potential endogeneity and simultaneity problems, we exclude sales representative offices and focus on production establishments. The theoretical prediction and empirical evidence provided by Helpman, Melitz, and Yeaple (2004) suggest that FDI firms are more productive and larger in size than exporters. In 1988, Japanese FDI establishments in the United States employed 277 workers on average, whereas Japanese sales representative offices employed 76 workers. Nonetheless, these two types of the establishments could have different implications for local labor markets for several reasons. First, production establishments would hire blue-collar male workers who engage in manual labor, whereas sales representative offices would hire white-collar workers who engage in administrative and service-oriented works. Second, Japanese production establishments locate in suburban areas, but Japanese sales representative offices locate in urban areas. Therefore, these two types of establishments would provide job opportunities for

²⁹Throughout the 1980s, the volume of auto exports from West Germany was around 30% of that from Japan.

different types of workers.

In this appendix, we examine whether or not the results from FDI in Tables 5.1, 5.2, and 6 still hold when we replace the number of Japanese FDI with the number of Japanese sales representative offices. We report the results with the clustered standard errors in Table A2. The OLS and TSLS estimation results suggest that the voting shares for the Republican candidates increased in the counties that hosted Japanese sales offices; however, we cannot find statistically significant associations for the voting shares for the Democratic candidates. Overall, the results with the sales representative offices are weaker than those with FDI establishments, suggesting that the job-creation effects of manufacturing establishments for blue-collar male workers contributed to the increased support for the Republican candidates during the 1980s.

References

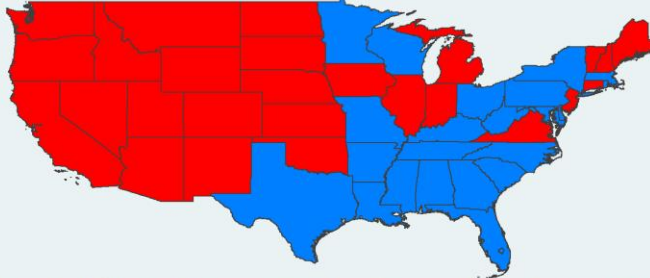
- [1] Acharya, A., M. Blackwell, and M. Sen, 2016, "The Political Legacy of American Slavery," *Journal of Politics* 78(3), 621-641.
- [2] Andersen, Kristi, 1979, *The Creation of a Democratic Majority, 1928-1936*, University of Chicago Press.
- [3] Autor, D., D. Dorn, and G.H. Hanson, 2013, "The China Syndrome: Local Labor Market Effects of Import Competition in the United States," *American Economic Review* 103(6), 2121-2168.
- [4] Autor, D., D. Dorn, G.H. Hanson, and K. Majlesi, 2016a, "Importing Political Polarization? The Electoral Consequences of Rising Trade Exposure," Working Paper.
- [5] Autor, D., D. Dorn, G.H. Hanson, and K. Majlesi, 2016b, "A Note on the Effect of Rising Trade Exposure on the 2016 Presidential Election," Working Paper.
- [6] Bhagwati, J.N., R.A. Brecher, E. Dinopoulos, and T.N. Srinivasan, 1987, "Quid Pro Quo Foreign Investment and Welfare: A Political-Economy-Theoretic Model," *Journal of Development Economics* 27, 127-38.
- [7] Blonigen, B.A., and D.N. Figlio, 1998, "Voting for Protection: Does Direct Foreign Investment Influence Legislator Behavior?" *American Economic Review* 88(4), 1002-1014.

- [8] Brewer, M.D., and J.M. Stonecash, 2001, "Class, Race Issues, and Declining White Support for the Democratic Party in the South," *Political Behavior* 23(2), 131-155.
- [9] Che, Y., Y. Lu, J.R. Pierce, P.K. Schott, and Z. Tao, 2016, "Does Trade Liberalization with China Influence U.S. Elections?" Working Paper.
- [10] Chetty, R., N. Hendren, P. Kline, and E. Saez, 2014, "Where is the Land of Opportunity? The Geography of Intergenerational Mobility in the United States," *Quarterly Journal of Economics* 129(4), 1553-1623.
- [11] Erikson, R.S., and M.B. MacKuen, and J.A. Stimson, 1998, "What Moves Macropartisanship? A Response to Green, Palmquist, and Schickler," *American Political Science Review* 92(4), 901-912.
- [12] Erikson, R.S., and K.L. Tedin, 1981, "The 1928–1936 Partisan Realignment: The Case for the Conversion Hypothesis," *American Political Science Review* 75(4), 951-962.
- [13] Feenstra, R.C., 1988, "Quality Change Under Trade Restraints in Japanese Autos," *Quarterly Journal of Economics* 103(1), 131-146.
- [14] Goldberg, P.K., and G. Maggi, 1999, "Protection for Sale: An Empirical Investigation," *American Economic Review* 89(5), 1135-1155.
- [15] Green, D., B. Palmquist, and E. Schickler, 1998, "Macropartisanship: A Replication and Critique," *American Political Science Review* 92(4), 883-899.
- [16] Grossman, G.M., and E. Helpman, 1994, "Protection for Sale," *American Economic Review* 84(4), 833-850.
- [17] Head, K., J. Ries, and D. Swenson, 1995, "Agglomeration Benefits and Location Choice: Evidence from Japanese Manufacturing Investments in the United States," *Journal of International Economics* 38, 223-247.
- [18] Helpman, E., and P. Krugman, 1987, "Market Structure and Foreign Trade," Cambridge, MA: MIT Press.
- [19] Helpman, E., M.J. Melitz, and S.R. Yeaple, 2004, "Export Versus FDI with Heterogeneous Firms," *American Economic Review* 94(1), 300-316.

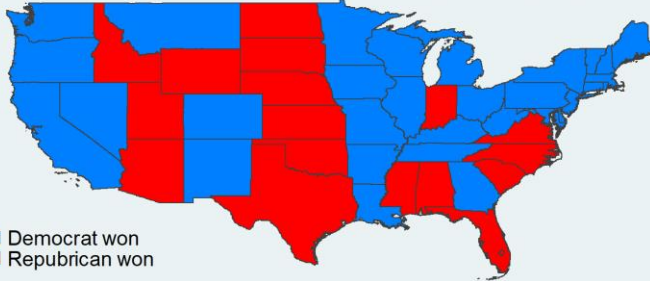
- [20] Kuziemko, I., and E. Washington, 2015, "Why Did the Democrats Lose the South? Bringing New Data to and Old Debate," NBER Working Paper #21703.
- [21] Markusen, J.R., 1984, "Multinationals, Multi-plant Economies, and the Gains from Trade," *Journal of International Economics* 16, 205-26.
- [22] Meffert, M.F., H. Norpoth, and A.V.S. Ruhil, 2001, "Realignment and Macropartisanship," *American Political Science Review* 95(4), 953-962.
- [23] Norpoth, Helmut, 1987, "Under Way and Here to Stay Party Realignment in the 1980s?" *Public Opinion Quarterly* 51(3), 376-391.
- [24] Pierce, J.R., and P.K. Schott, 2016, "The surprisingly swift decline of US manufacturing employment," *American Economic Review* 106(7), 1632-1662.
- [25] Schott, P.K., 2010, "U.S. Manufacturing Exports and Imports by SIC or NAICS Category and Partner Country, 1972 to 2005," Working Paper.
- [26] Shafer, B.E., and R. Johnston, 2009, *The End of Southern Exceptionalism*, Harvard University Press.

Figures and Tables

Fig 1. U.S. presidential election votes by states
1976: Jimmy Carter (Democratic) vs Gerald Ford (Republican)

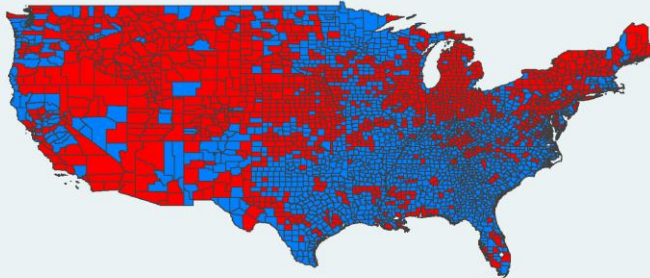


1992: Bill Clinton (Democratic) vs George Bush (Republican)

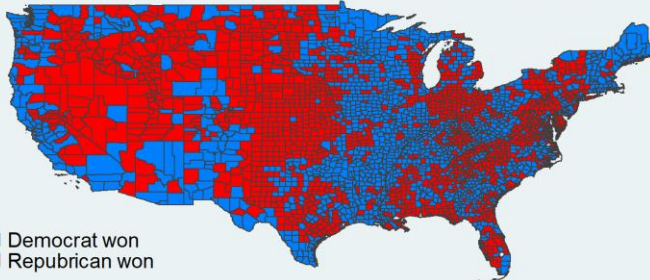


■ Democrat won
■ Republican won

Fig 2. U.S. presidential election votes by counties
1976: Jimmy Carter (Democratic) vs Gerald Ford (Republican)



1992: Bill Clinton (Democratic) vs George Bush (Republican)



■ Democrat won
■ Republican won

Table 1: U.S. imports from Japan by products (1976-1992)

rank	2-digit sectors		Imports (billion \$US)		
	SIC	Name	1976	1992	change
1	37	Transportation equipment	4.3	31.2	629%
2	35	Industrial machinery and computer equipment	1.3	20.3	1502%
3	36	Electronic and other electrical equipment	2.9	20.8	608%
4	38	Measuring, medical and optical goods	1.5	7.8	432%
5	39	Miscellaneous manufacturing industries	0.3	3.2	844%
6	28	Chemical products	0.4	2.8	607%
7	34	Fabricated metals	0.7	2.5	278%
8	30	Rubber and miscellaneous plastic products	0.2	1.7	645%
9	32	Stone, clay, glass, and concrete products	0.3	0.7	185%
10	22	Textiles	0.3	0.6	79%

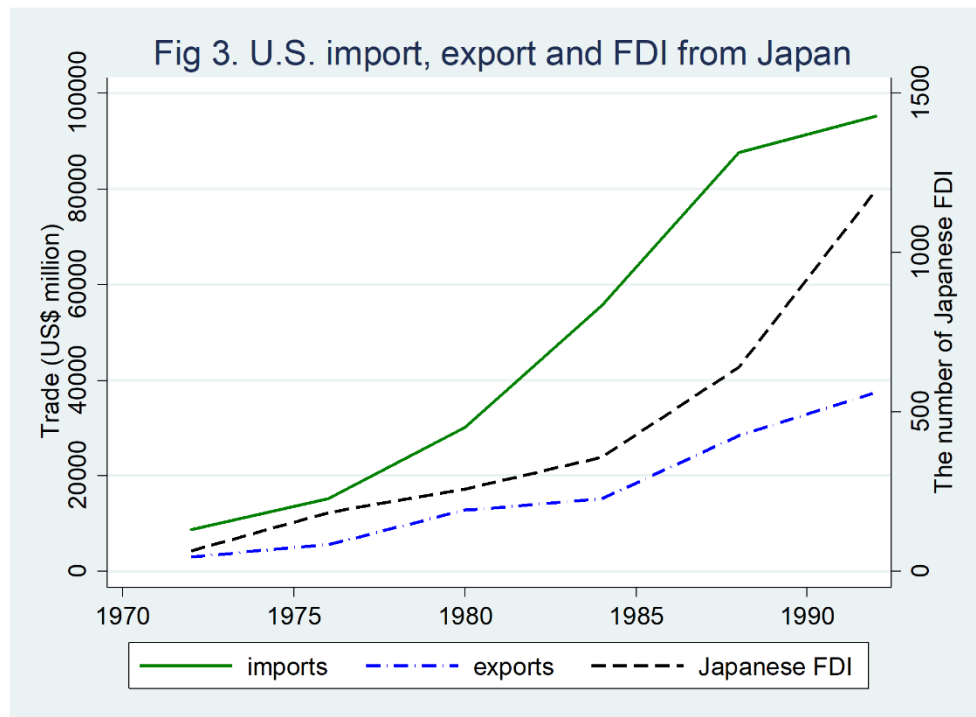


Table 2: Top 20 counties

		Import Competition Index (1988)			The number of Japanese FDI (1992)			
rank	index	County			count	County		
		Name	State	Closest city		Name	State	Closest city
1	28.9	Pembina	ND	Grafton, ND	83	New York	NY	New York, NY
2	28.3	Winnebago	IA	Mason, IA	82	Los Angeles	CA	Los Angeles, CA
3	23.0	Peach	GA	Macon, GA	58	Riverside	CA	Los Angeles, CA
4	22.4	Prowers	CO	Pueblo, CO	53	Santa Clara	CA	San Jose, CA
5	22.2	Union	OH	Columbus, OH	41	Cook	IL	Chicago, IL
6	21.4	Kenosha	WI	Racine, WI	36	Orange	CA	Los Angeles, CA
7	20.7	Clark	OH	Dayton, OH	31	San Diego	CA	San Diego, CA
8	20.3	Boone	IL	Rockford, IL	29	Harris	TX	Houston, TX
9	19.3	Ingham	MI	Lansing, MI	29	King	WA	Seattle, WA
10	18.0	Richland	IL	Olney, IL	21	Brown	OH	Cincinnati, OH
11	16.5	Chaves	NM	Roswell, NM	19	Lake	IL	Chicago, IL
12	16.2	Rock	WI	Racine, WI	19	Ulster	NY	Poughkeepsie, NY
13	15.6	Gregory	SD	Winner, SD	19	Grand Traverse	MI	Traverse, MI
14	14.3	Calloway	KY	Murray, KY	18	New Castle	DE	Wilmington, DE
15	13.9	Buena Vista	VA	Staunton, VA	18	Bergen	NJ	Newark, NJ
16	13.1	Sully	SD	Pierre, SD	17	Oakland	MI	Detroit, MI
17	13.0	St. Charles	MO	St. Louis, MO	13	Alameda	CA	San Francisco, CA
18	12.9	Oakland	MI	Detroit, MI	12	Middlesex	MA	Boston, MA
19	12.2	Orleans	NY	Buffalo, NY	12	Wayne	MI	Detroit, MI
20	11.8	Genesee	MI	Detroit, MI	11	Bulloch	GA	Statesboro, GA

Notes: (1) Japanese FDI excludes any establishments whose objectives are sales, promotions, R&D, market research, or services. (2) We have total count of 1,344 Japanese FDI firms in 1992.

Fig 4. Import competition index (1988)

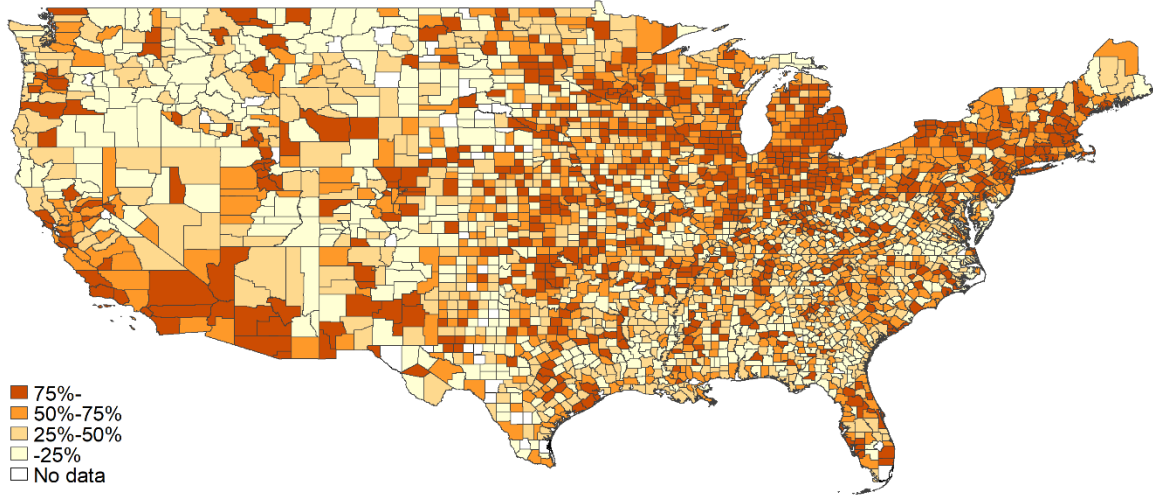


Fig 5. Japanese FDI to U.S. (1992)

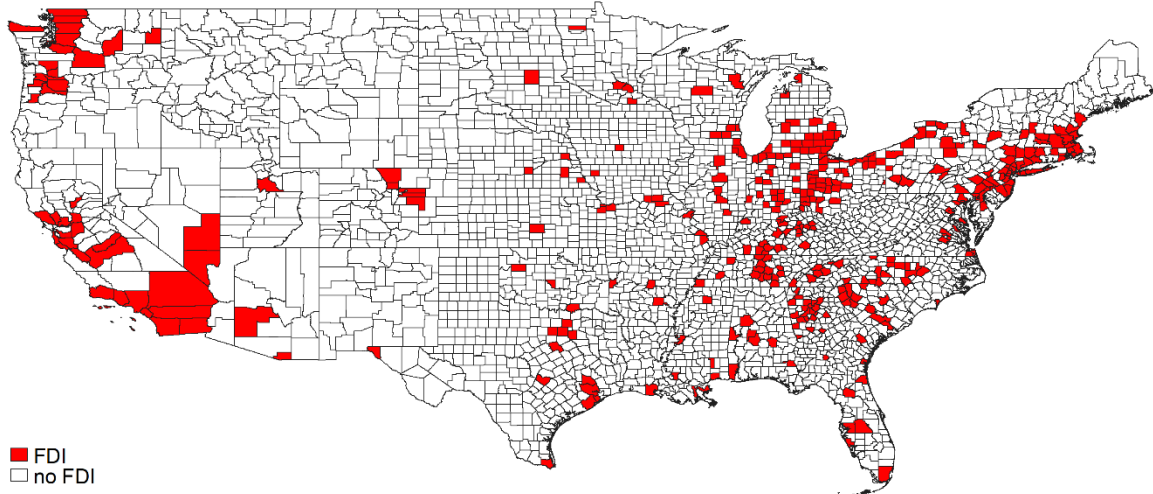


Table 3: Determinants of location choice of Japanese FDI

	FDI dummy		ln(1 + # of FDI)				# of FDI
	Probit	IV probit	Tobit	Tobit	IV tobit	IV tobit	Poisson
Agglomeration variables							
ln(Japan agglomeration)	0.405*** (0.037)	0.328*** (0.034)	0.472*** (0.034)	0.451*** (0.037)	0.418*** (0.034)	0.374*** (0.038)	0.560*** (0.064)
ln(US agglomeration)	0.459*** (0.031)	0.477*** (0.029)	0.512*** (0.030)	0.546*** (0.033)	0.538*** (0.030)	0.562*** (0.033)	0.724*** (0.043)
Year fixed effects (1976 = 0)							
1980 dummy	0.053 (0.064)	0.152** (0.063)	0.062 (0.068)	0.031 (0.066)	0.171*** (0.066)	0.150** (0.065)	0.153** (0.072)
1984 dummy	0.191** (0.075)	0.290*** (0.077)	0.203** (0.080)	0.137* (0.082)	0.313*** (0.081)	0.275*** (0.085)	0.215* (0.112)
1988 dummy	0.500*** (0.089)	0.597*** (0.091)	0.549*** (0.096)	0.440*** (0.101)	0.656*** (0.097)	0.596*** (0.105)	0.560*** (0.174)
1992 dummy	0.691*** (0.104)	0.818*** (0.106)	0.762*** (0.112)	0.634*** (0.124)	0.897*** (0.115)	0.836*** (0.130)	0.885*** (0.203)
County control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State fixed effects	No	No	No	Yes	No	Yes	No
IV test							
Wald statistics	-	167.4	-	-	156.2	138.5	-
P-values	-	0.000	-	-	0.000	0.000	-
Observations	15,216	15,216	15,216	15,216	15,216	15,216	15,216

Notes: (1) ln(Japan agglomeration) is ln(1 + the number of non-service Japanese establishments in county i 's commuting zone) and ln(US agglomeration) is ln(1+ the number of US manufacturing firms (50+ employees) in county i). (2) Standard errors that are clustered at the county level are in parentheses. (3) ***, ** and * indicate significance at the 1%, 5% and 10% confidence levels, respectively. (4) ln(Japan agglomeration) is instrumented with the past value (4 years ago) in the IV regressions.

Table 4: Determinants of voting shares at the county level

	Democratic share			Republican share		
	M1	M2	M3	M1	M2	M3
Election variables						
White share	-0.280*** (0.012)	-0.326*** (0.013)	-0.177*** (0.042)	0.244*** (0.012)	0.302*** (0.013)	0.069* (0.038)
High school share	-0.331*** (0.018)	-0.298*** (0.020)	-0.785*** (0.037)	0.219*** (0.018)	0.257*** (0.020)	0.978*** (0.035)
Manufacturing share	-0.015* (0.008)	-0.036*** (0.008)	0.002 (0.013)	0.021*** (0.008)	0.027*** (0.008)	-0.017 (0.013)
Slave county dummy	-0.051*** (0.003)	-0.029*** (0.004)		0.048*** (0.003)	0.029*** (0.004)	
Year fixed effects (1976 = 0)						
1980 dummy	-0.099*** (0.001)	-0.101*** (0.001)	-0.082*** (0.002)	0.065*** (0.001)	0.064*** (0.001)	0.036*** (0.002)
1984 dummy	-0.127*** (0.002)	-0.131*** (0.002)	-0.092*** (0.003)	0.146*** (0.002)	0.144*** (0.002)	0.087*** (0.003)
1988 dummy	-0.053*** (0.003)	-0.058*** (0.003)	0.002 (0.005)	0.074*** (0.002)	0.070*** (0.003)	-0.019*** (0.004)
1992 dummy	-0.076*** (0.003)	-0.082*** (0.003)	-0.003 (0.006)	-0.095*** (0.003)	-0.099*** (0.003)	-0.216*** (0.006)
State fixed effects	No	Yes	No	No	Yes	No
County fixed effects	No	No	Yes	No	No	Yes
Observations	15,292	15,292	15,292	15,292	15,292	15,292
R-squared	0.436	0.525	0.562	0.500	0.581	0.758

Notes: (1) Standard errors that are clustered at the county level are in parentheses. (2) ***, ** and * indicate significance at the 1%, 5% and 10% confidence levels, respectively. (3) Slave county dummy variable is developed from the 1860 census data (Acharya et al, 2016).

Table 5.1: Changes in voting shares of democratic candidates (OLS)

	Δ Democratic share					
	w/o control variables			with control variables		
	M1	M2	M3	M4	M5	M6
Import competition	0.001** (0.000)		0.001** (0.000)	0.000 (0.000)		0.000 (0.000)
Inward FDI		-0.008*** (0.003)	-0.008*** (0.003)		-0.004 (0.003)	-0.004* (0.003)
Year fixed effects (1980=0)						
1984 dummy	0.070*** (0.002)	0.069*** (0.002)	0.069*** (0.002)	0.071*** (0.002)	0.071*** (0.002)	0.071*** (0.002)
1988 dummy	0.171*** (0.002)	0.172*** (0.002)	0.172*** (0.002)	0.175*** (0.002)	0.175*** (0.002)	0.175*** (0.002)
1992 dummy	0.076*** (0.001)	0.077*** (0.001)	0.077*** (0.001)	0.076*** (0.001)	0.077*** (0.001)	0.077*** (0.001)
Control variables						
Δ White share				-0.025 (0.038)	-0.027 (0.038)	-0.026 (0.039)
Δ High school share				-0.569*** (0.034)	-0.553*** (0.035)	-0.550*** (0.035)
Δ Manufacturing share				0.010 (0.007)	0.006 (0.007)	0.007 (0.008)
Observations	12,237	12,120	12,102	12,151	12,120	12,102
R-squared	0.487	0.486	0.486	0.494	0.494	0.494

Notes: (1) Standard errors that are clustered at the county level are in parentheses. (2) ***, ** and * indicate significance at the 1%, 5% and 10% confidence levels, respectively. (3) Inward FDI is the fitted value of IV Tobit results in Table 3.

Table 5.2: Changes in voting shares of republican candidates (OLS)

	Δ Republican share					
	w/o control variables			with control variables		
	M1	M2	M3	M4	M5	M6
Import competition	-0.001*** (0.000)		-0.001*** (0.000)	-0.001** (0.000)		-0.001** (0.000)
Inward FDI		0.013*** (0.002)	0.014*** (0.002)		0.009*** (0.002)	0.009*** (0.002)
Year fixed effects (1980=0)						
1984 dummy	0.018*** (0.002)	0.019*** (0.002)	0.019*** (0.002)	0.016*** (0.002)	0.016*** (0.002)	0.016*** (0.002)
1988 dummy	-0.135*** (0.002)	-0.137*** (0.002)	-0.137*** (0.002)	-0.141*** (0.002)	-0.142*** (0.002)	-0.141*** (0.002)
1992 dummy	-0.232*** (0.002)	-0.233*** (0.002)	-0.233*** (0.002)	-0.233*** (0.002)	-0.234*** (0.002)	-0.234*** (0.002)
Control variables						
Δ White share				-0.007 (0.038)	0.001 (0.038)	-0.002 (0.039)
Δ High school share				0.922*** (0.033)	0.897*** (0.034)	0.896*** (0.034)
Δ Manufacturing share				-0.007 (0.007)	-0.002 (0.006)	-0.001 (0.007)
Observations	12,237	12,120	12,102	12,151	12,120	12,102
R-squared	0.763	0.766	0.766	0.775	0.776	0.776

Notes: Table 5.1.

Table 6: Changes in voting shares (TSLS)

	Δ Democratic share				Δ Republican share			
	w/o control variables		with control variables		w/o control variables		with control variables	
	M1	M2	M3	M4	M1	M2	M3	M4
Import competition	0.003** (0.001)	0.004** (0.002)	0.003** (0.001)	0.003** (0.001)	-0.003** (0.001)	-0.003** (0.001)	-0.002* (0.001)	-0.002* (0.001)
Inward FDI		-0.009*** (0.003)		-0.005** (0.003)		0.015*** (0.002)		0.010*** (0.002)
Year fixed effects (1980=0)								
1984 dummy	0.069*** (0.002)	0.068*** (0.002)	0.070*** (0.002)	0.070*** (0.002)	0.019*** (0.002)	0.020*** (0.002)	0.016*** (0.002)	0.017*** (0.002)
1988 dummy	0.169*** (0.002)	0.170*** (0.002)	0.173*** (0.002)	0.173*** (0.002)	-0.133*** (0.002)	-0.135*** (0.002)	-0.139*** (0.002)	-0.140*** (0.002)
1992 dummy	0.076*** (0.001)	0.077*** (0.001)	0.076*** (0.001)	0.077*** (0.001)	-0.232*** (0.002)	-0.233*** (0.002)	-0.233*** (0.002)	-0.234*** (0.002)
Control variables								
Δ White share			-0.020 (0.039)	-0.022 (0.040)			-0.009 (0.039)	-0.004 (0.040)
Δ High school share			-0.557*** (0.035)	-0.537*** (0.036)			0.913*** (0.033)	0.886*** (0.034)
Δ Manufacturing share			0.010 (0.007)	0.007 (0.008)			-0.008 (0.007)	-0.001 (0.007)
IV tests								
Min eigen statistics	647.1	649.3	649.5	642.6	647.1	649.3	649.5	642.6
Durbin statistics	4.431	4.787	3.518	3.626	3.805	4.252	2.252	2.412
Observations	12,172	12,089	12,134	12,089	12,172	12,089	12,134	12,089
R-squared	0.483	0.482	0.491	0.491	0.763	0.764	0.775	0.776

Notes: (1) Standard errors that are clustered at the county level are in parentheses. (2) ***, ** and * indicate significance at the 1%, 5% and 10% confidence levels, respectively. (3) Import competition index's instrumental variable is developed from the past values (4 years ago) of sectoral employment and Japan's sectoral exports to seven developed countries (Australia, Denmark, France, the Netherlands, New Zealand, Spain, Sweden, and the United Kingdom). (4) IV test statistics are calculated from normal standard errors without clustering. Minimum eigenvalue statistics (Cragg and Donald, 1993) test the assumption of weak instrument and Durbin statistics test the exogenous assumption of import competition index. We reject these null hypotheses and validate the use and choice of our instrumental variable.

Table A1: Changes in voting shares and the effects of sales office investments

	Δ Democratic share				Δ Republican share			
	w/o control variables		with control variables		w/o control variables		with control variables	
	M1	M2	M3	M4	M1	M2	M3	M4
Import competition	0.003** (0.001)	0.004** (0.002)	0.003** (0.001)	0.003** (0.001)	-0.003** (0.001)	-0.003** (0.001)	-0.002* (0.001)	-0.002* (0.001)
Sales offices		-0.005*** (0.002)		-0.001 (0.002)		0.010*** (0.002)		0.004*** (0.002)
Year fixed effects (1980=0)								
1984 dummy	0.069*** (0.002)	0.067*** (0.002)	0.070*** (0.002)	0.069*** (0.002)	0.019*** (0.002)	0.022*** (0.002)	0.016*** (0.002)	0.018*** (0.002)
1988 dummy	0.169*** (0.002)	0.168*** (0.002)	0.173*** (0.002)	0.172*** (0.002)	-0.133*** (0.002)	-0.132*** (0.002)	-0.139*** (0.002)	-0.138*** (0.002)
1992 dummy	0.076*** (0.001)	0.075*** (0.001)	0.076*** (0.001)	0.076*** (0.001)	-0.232*** (0.002)	-0.230*** (0.002)	-0.233*** (0.002)	-0.232*** (0.002)
Control variables								
Δ White share			-0.020 (0.039)	-0.020 (0.040)			-0.009 (0.039)	-0.008 (0.040)
Δ High school share			-0.557*** (0.035)	-0.541*** (0.036)			0.913*** (0.033)	0.886*** (0.034)
Δ Manufacturing share			0.010 (0.007)	0.009 (0.008)			-0.008 (0.007)	-0.003 (0.007)
IV tests								
Min eigen statistics	647.1	650.2	649.5	642.8	647.1	650.2	649.5	642.8
Durbin statistics	4.431	4.774	3.518	3.552	3.805	4.309	2.252	2.371
Observations	12,172	12,089	12,134	12,089	12,172	12,089	12,134	12,089
R-squared	0.483	0.482	0.491	0.491	0.763	0.764	0.775	0.775

Notes: (1) Standard errors that are clustered at the county level are in parentheses. (2) ***, ** and * indicate significance at the 1%, 5% and 10% confidence levels, respectively. (3) Sales offices indicate that we use the number of sales offices (without production) to approximate the job creation effects of Japanese establishments.

Table A2: Changes in voting shares and import competition with West Germany

	Δ Democratic share				Δ Republican share			
	OLS		TSLS		OLS		TSLS	
	M1	M2	M3	M4	M1	M2	M3	M4
Import competition	0.001 (0.001)	0.000 (0.001)	-0.009** (0.004)	-0.012*** (0.004)	-0.003** (0.001)	-0.002 (0.001)	-0.006 (0.004)	-0.002 (0.004)
Year fixed effects (1980=0)								
1984 dummy	0.070*** (0.002)	0.071*** (0.002)	0.069*** (0.002)	0.071*** (0.002)	0.018*** (0.002)	0.015*** (0.002)	0.018*** (0.002)	0.015*** (0.002)
1988 dummy	0.172*** (0.002)	0.175*** (0.002)	0.173*** (0.002)	0.177*** (0.002)	-0.135*** (0.002)	-0.141*** (0.002)	-0.134*** (0.002)	-0.141*** (0.002)
1992 dummy	0.076*** (0.001)	0.077*** (0.001)	0.076*** (0.001)	0.076*** (0.001)	-0.233*** (0.002)	-0.233*** (0.002)	-0.233*** (0.002)	-0.233*** (0.002)
Control variables								
Δ White share		-0.025 (0.038)		-0.035 (0.038)		-0.008 (0.038)		-0.010 (0.038)
Δ High school share		-0.571*** (0.034)		-0.581*** (0.035)		0.924*** (0.033)		0.924*** (0.033)
Δ Manufacturing share		0.010 (0.007)		0.010 (0.008)		-0.007 (0.007)		-0.007 (0.007)
IV tests								
Min eigen statistics			1376	1371			1376	1371
Durbin statistics			6.409	8.923			1.173	0.039
Observations	12,248	12,160	12,189	12,150	12,160	12,189	12,189	12,150
R-squared	0.487	0.494	0.484	0.491	0.775	0.141	0.764	0.775

Notes: See Tables 5.1 and 6.