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PARTISAN FERTILITY AND PRESIDENTIAL ELECTIONS

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ABSTRACT

Changes in political leadership drive large changes in economic optimism. We exploit the surprise 2016 election of Trump to identify the effects of a shift in political power on one of the most consequential household decisions: whether to have a child. Republican-leaning counties experience a sharp and persistent increase in fertility relative to Democratic counties: a 1.1 to 2.6 percentage point difference in annual births, depending on the intensity of partisanship. Hispanics, a group targeted by Trump, see fertility fall relative to non-Hispanics, especially compared to rural or evangelical whites. Further, following Trump pre-election campaign visits, relative Hispanic fertility declines.

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1. Introduction

Shifts in political power drive sharp changes in optimism about the future in the United States. Voters become more positive about the direction of the nation's economy when they are politically aligned with the winning president, and vice versa. These swings by partisan orientation are large, immediate and persistent, and especially so after the unexpected victory of President Trump in the 2016 election. Similarly, after the 2020 Presidential election, Democratic and Republican optimism rapidly exchanged positions (see Figures 1 and A1). The swings around these two elections are larger than the COVID-19 induced drop in economic optimism.

Do these sharp partisan changes in outlook result in meaningful downstream effects? This paper examines fertility choices following a surge in Republican sentiment and a parallel collapse in Democratic sentiment. Fertility is an irreversible, long-horizon decision made by households, with ensuing effects on labor force participation, housing investment, and consumption choices. These effects may have distributional consequences, with groups targeted by political rhetoric or policy promises responding more to changes in national leadership.

The surprise outcome of the 2016 Presidential election is especially valuable for identifying the effect of shifts in political power. Using option markets, Langer and Lemoine (2020) calculates a 12% probability of a Trump victory, while The New York Times and FiveThirtyEight's polling-based forecasts were 15% and 29%, respectively. We exploit the 2016 upset as a sharp and unexpected change in political power, using event study designs to compare fertility choices across groups likely to favor Republican or Democratic candidates.

Using administrative data for the universe of U.S. births, our first approach compares fertility across counties with low versus high Democratic vote shares, before versus after the November 2016 Presidential election. Republican-leaning counties experience a marked increase in fertility relative to Democratic counties, equaling a 1.1 percentage point (pp) difference in annual births. Relative to Democratic counties, this amounts to roughly 23,000 more births to mothers in Republican counties in the year following the election. These effects persist for the two years post-election for which data is available.

Trump's candidacy attracted a different set of voters compared to prior Republican coalitions (Confessore and Cohn, 2016). To capture these new Republican voters, we use the

county-level *change* in the Republican vote share between 2008 and 2016. Using this second measure, we estimate a 1.7 pp increase in annual births in counties whose rightward shift was above versus below the median.

These two measures of partisanship measure different sources of variation: the correlation between them is only 0.16. We can combine both measures to define counties in the tails of the partisan distribution. To do so, we take counties which had a high ex ante level of Republican support *and* shifted strongly towards Trump, and compare them to those with a high level of Democratic support *and* shifted less. This contrast estimates a 2.6 pp difference in annual births in the extreme Republican counties relative to extreme Democratic counties.

Our second approach compares Hispanics to other groups within the same counties. Hispanics were specifically targeted by the Trump campaign and voted approximately two-to-one for Hillary Clinton in 2016.[1] Over the subsequent twelve months, we estimate a 1.7 pp decline in births for Hispanic mothers relative to non-Hispanics. When we contrast Hispanics to two groups that heavily supported Trump — whites in rural counties and whites in evangelical counties — we find even stronger effects (2.8 pp and 2.5 pp, respectively). We further find heterogeneous effects by the degree of political polarization in a county (Autor et al., 2020): the relative fertility decline for Hispanics is more than twice as large in more versus less polarized counties.

Taken together, the larger effects we find as the intensity of partisanship increases — i.e., more politically extreme counties, Hispanics versus rural and evangelical whites, and more polarized counties — all point towards partisanship driving these effects, as opposed to changes in policy.[2] All of our results display parallel pre-trends, each measure of partisanship is robust to alternate definitions, and effects are persistent.[3]

Our estimated fertility effects are comparable to the effects of unemployment and cash transfers on fertility. For example, Dettling and Kearney (2014) and Schaller (2016) report

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[1] When launching his campaign, Trump said "When Mexico sends its people, they're not sending their best... They're sending people that have lots of problems, and they're bringing those problems with us. They're bringing drugs. They're bringing crime. They're rapists. And some, I assume, are good people... It's coming from all over South and Latin America." (Phillips, 2017).

[2] Mian et al. (2021) finds little evidence of changes in county or state level tax rates and transfers that differentially benefited partisans following the 2000 and 2008 elections. Immigration policy changes may contribute to differential Hispanic fertility, but excluding Hispanics leads to similar across-county results by political party.

[3] As an alternative outcome, we find supporting evidence using Google search data for "pregnancy test."

that a 1% increase in the unemployment rate is associated with a decrease in birth rates between 1.4% and 2.2%. Similarly, Raute (2019) and Milligan (2005) find that a $1,000 increase (in 2020 USD) in cash subsidies for a birth results in a 1.8% to 2.1% increase in fertility.

To further bolster the idea that it is political sentiment which drives fertility changes, we examine the effects of Presidential campaign visits. Our dynamic event study design compares Hispanic versus non-Hispanic fertility over time in counties visited by Trump, using counties he will visit later as controls. In the months following a campaign visit, the fertility rate for Hispanics relative to non-Hispanics falls by 1.2% of the mean.

To place our results in perspective, we examine the two preceding party-switching Presidential elections. After George W. Bush barely won the 2000 election, we find some evidence that relative fertility in Democratic counties falls, particularly for those with low evangelical shares. For Obama's 2008 election victory, which was not a surprise, we find no partisan fertility effect; however, the Great Recession confounds this analysis.

Our paper relates to a recent literature which documents rising political polarization in the United States (Gentzkow, 2016, Autor et al., 2020, Boxell et al., 2020, Bertrand and Kamenica, 2018, Pew, 2020). The literature has also documented that survey-based economic optimism of partisans changes around elections (Bartels, 2002, Evans and Andersen, 2006, Mian et al., 2021). A few papers report a relationship between partisanship and spending on consumer goods (Gerber and Huber, 2009, Benhabib and Spiegel, 2019, Gillitzer and Prasad, 2018), but others have challenged this link (McGrath, 2017, Mian et al., 2021). Further, a group of papers have linked partisanship with financial outcomes, such as tax evasion, stock market trading, corporate credit ratings, and retirement investing (Cullen et al., 2021, Cookson et al., 2020, Kempf and Tsoutsoura, 2020, Meeuwis et al., 2021).[4]

Across many nations, growing political polarization and declining fertility are two fundamental challenges facing society. We estimate effects at the intersection of these two forces. Our contribution is to causally link partisan sentiment to one of the most consequential household decisions: whether to have a child (Becker, 1960). Unlike many consumption and invest-

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[4]More broadly, our paper relates to a literature on how economic factors influence fertility choices, including unemployment, income, housing prices, coal busts, fracking booms, Medicaid eligibility, COVID-19, cash transfers, and child subsidies (Autor et al., 2019, Cohen et al., 2013, Schaller, 2016, Dettling and Kearney, 2014, Kearney and Levine, 2009, 2020, Lindo, 2010, Lovenheim and Mumford, 2013, Black et al., 2013, Aizer et al., 2020, McCrary and Royer, 2011, Raute, 2019, Duncan et al., 2017).

ment choices, having a child is a long-term commitment requiring significant time and money. According to the USDA, the estimated financial cost of raising a child from birth to age 17 is $233,000 (Lino, 2020).

Growing partisanship makes understanding the downstream effects of elections increasingly relevant. The shifts in fertility we identify have practical implications for regional public finance and population-based congressional apportionment, given partisan sorting across residential geographies (Kaplan et al., 2020, Brown and Enos, 2021).[5] Moreover, understanding the drivers of fertility is important in light of below-replacement fertility and its structural effects on economic growth (Jones, 2020).

2. Optimism, Data, and Research Design

We begin by examining how fertility responds to the unexpected election victory of candidate Trump in 2016. We use two main strategies in a difference-in-differences (DID) design: comparing fertility in Republican versus Democratic-leaning counties, and comparing Hispanic fertility to that of non-Hispanics within the same county.

2.1. Optimism and Elections

It is well established that partisans of the winning side in a Presidential election become more optimistic about the direction of the economy.[6] Figure 1 plots the percentage of positive minus negative responses (labeled "net better") to the question "Do you think the nation's economy is getting better or worse?" among registered voters. Republican voters became immediately more optimistic following the November 2016 election, with the net better fraction rising from -63% to +63% over the course of four months. In contrast, the net better fraction for Democrats falls from +52% to -4% over the same period, after which it continues to erode. Similar swings in optimism, but in the opposite direction, occurred after the close election which candidate Biden won in 2020. To benchmark the large magnitude of these swings, the COVID-19 stock market crash caused the Republican net better percentage to fall from +83% to -19% and the Democratic percentage from -42% to -87%.

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[5]For example, New York lost a congressional seat to Minnesota by 89 residents based on the 2020 Census (Goldmacher, 2021).

[6]Shifts in optimism may reflect general expectations, or beliefs about specific policies that could impact an individual's group.

An alternative measure of economic optimism is the Bloomberg Consumer Comfort Index, reported in Figure A1. This uses a different sampling scheme, but reveals comparable patterns over a longer time frame. The figure highlights the sharp reversal in sentiment after the surprise 2016 election; in contrast, optimism changes were more gradual for preceding elections. Using micro-data from both Gallup and the University of Michigan Survey of Consumers, Mian et al. (2021) find similar patterns for the 2008 and 2016 elections. While these various surveys measure economic optimism, individuals' non-economic outlook could be similarly affected along party lines.

2.2. Fertility Data

We use restricted-use U.S. administrative natality data between 1994 and 2019 from the National Center for Health Statistics (NCHS). The data covers the universe of U.S. births and provides detailed information that includes the month of birth (MOB), the month of the first day of the mother's last menstrual period (MLMP), and the mother's age, education, race/ethnicity and county of residence. We restrict our attention to singleton births to U.S. resident mothers between the ages of 18 and 44.

Our main outcome of interest is the number of births conceived in a county-month per 1,000 females between 15 and 44 years old.[7] We use mothers' reported MLMP as a proxy for conception date following the literature (e.g., Dehejia and Lleras-Muney 2004).[8] Summary statistics for fertility are in Table A1; the mean monthly fertility rate in a county is 4.5 births per 1,000 females. We deseasonalize fertility by subtracting its county $\times$ month-of-year average using data starting from 2010, and refer to this variable as excess fertility.

The natality data only records the *month* of the beginning of the mother's last menstrual period. There is typically a seven-day lag between the first day of menses and the fertile period, which lasts approximately two weeks (NCHS, 2005). Thus, MLMP measures the month of conception with noise. Since the election occurred on November 8, 2016, a mother

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[7]We use as the denominator the number of fertile females between 15 and 44 years old – rather than 18 and 44 – because U.S. intercensal county population estimates by age, sex, and ethnicity are reported in five-year age bins. The population estimates are from Census Bureau. We adjust births due to the extra day in February of leap years by multiplying the fertility rate in that month by 28/29. To ensure that the fertility rate is calculated based on a reasonably-sized female pool, we drop counties whose fertile female population is below the 10th percentile in 2012 (i.e., 769 women).

[8]We remove misreported records by requiring the difference between MOB and MLMP to be between five and 12 months.

whose MLMP is in October could have conceived her child after the election. Assuming a uniform distribution of conception dates in a month, about 30% of mothers whose MLMP is in October are predicted to conceive after the election.

2.3. Difference-in-Differences Event Study

Our main research design is a DID event study using the 2016 Presidential election as the event. Our first approach compares fertility across Democratic and Republican counties before versus after the election. To measure county partisanship, we obtain the county-level vote share in Presidential elections from the MIT Election Data and Science Lab. In our first definition, counties are categorized as Democratic if their Democratic vote share in 2012 is above the median, and Republican otherwise.

To include the new Republican voters who were drawn to Trump in 2016, our second definition uses the county-level *change* in the Republican vote share between 2008 and 2016 and classifies counties with an above-median change (i.e., a shift more than 5.8 percentage points) as Republican, and Democratic otherwise.

Our first regression model is:

$$\mathrm{Y}_{ct} = \sum_{t=-3}^{3} \beta_t \times Democratic_c + \alpha_c + \alpha_t + \epsilon_{ct} \tag{1}$$

where Y_{ct} is the excess fertility rate in county c and time t, which is the number of time periods relative to the Presidential election. We use $t = -1$ as our comparison period. Our treatment variable is $Democratic_c$, which equals one if county c is classified as Democratic, and zero otherwise. We include event time fixed effects α_t to control for national fertility trends. Including county fixed effects α_c is largely redundant, because our excess fertility rate already controls for county $\times$ month-of-year effects.[9] We cluster standard errors by county.

While the data is monthly, for precision and ease of presentation in our main analyses we collapse the data by quarter. For the 2016 election we define $t = 0$ as October, November, and December. As described in section 2.2, October is a partially-treated month, which is why we group it with November and December.

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[9]We obtain excess fertility by subtracting county $\times$ month-of-year means, which is not perfectly colinear with county fixed effects because it is based on a longer sample period.

Our second approach compares fertility by race and ethnic group *within* the same county. Our comparison focuses on Hispanic versus non-Hispanic fertility due to Trump's adversarial rhetoric towards this group. Our second regression model is:

$$\mathrm{Y}_{kct} = \sum_{t=-3}^{3} \beta_t \times Hispanic_k + Hispanic_k \times \alpha_c + \alpha_t + \epsilon_{kct} \qquad (2)$$

where Y_{kct} is the excess fertility rate for females belonging to ethnic group k in county c in quarter t. $Hispanic_k$ is one if the ethnic group is Hispanic, and zero otherwise. Similar to equation 1, the Hispanic $\times$ county fixed effects are largely redundant given that excess fertility is calculated by subtracting ethnicity $\times$ county $\times$ month-of-year means for each group.

If the result of the 2016 Presidential election was unanticipated, and fertility trends across counties and across different ethnic groups are parallel in the absence of the election, the β_t vectors in equations 1 and 2 identify the impact of Presidential election on fertility decisions before and after the election. As we will show, both of these conditions appear to hold.

3. Results from the 2016 Presidential Election

3.1. Fertility Effects across Political Geographies

In Figure 2, we show the effects of the 2016 election on fertility in Democratic and Republican counties. In panel A1, we start by comparing the raw trend of monthly excess fertility in counties with above- or below-median Democratic vote share in the 2012 presidential election. The blue line captures the excess fertility in Democratic counties and the red in Republican counties. Both lines are normalized to be 0 in September 2016. The vertical shaded area spanning the months of October and November indicates the period immediately surrounding the election. As described in section 2.2, October represents a partially-treated month due to how conceptions are measured in our data.

The first thing to note is that the blue and red lines lie on top of each other in the pre-period. These parallel trends diverge after the election, with the red line rising rapidly in November and December. There remains a gap between the red and the blue lines through the remainder of the sample period.

Panel A2 plots the β_t coefficients from equation 1, representing the effect of the Presidential

election on fertility in Democratic versus Republican counties. Confirming the pattern in the raw data, there are no pre-trends, but large effects in all four quarters after the election, which are statistically different from zero.

In 2016, Trump attracted a different voter coalition relative to prior Republican candidates. We use the county-level change in the Republican vote share between 2008 and 2016 to capture these new voters. Panel B1 plots the monthly excess fertility for counties with an above-median shift towards the Republican party (red dashed line) and counties with a below-median shift (blue line). Panel B2 plots the quarterly regression coefficients. Again there is no evidence of differential pre-trends either in the raw data, or in the regression setting. Further, the gaps in excess fertility rate are as large, or larger, compared to those in column A.

Since the measures of partisanship in columns A and B capture different sources of variation (their correlation is 0.16), we combine them to identify counties in the tails of the partisan distribution. In column C, we define extreme Republican counties (dashed red line) as those with a below-median Democratic vote share and an above-median vote shift towards Trump. We similarly define extreme Democratic counties (blue line).

Comparing more extreme counties yields larger effects: the fertility gap in column C approximately doubles compared to either column A or B. In panel C1, the jump in the dashed red line is particularly dramatic. This pattern suggests it is Republican fertility in the most extreme counties that drives the majority of the effect, assuming the excess birth rates would have stayed at zero for both groups otherwise. The stronger fertility effects we find for more politically extreme counties adds credence to the idea that partisanship drives our results.[10]

Regression results corresponding to these figures are found in Table 1, columns (1) through (3). For example, consider the $Treat_0$ coefficient in column (1); this represents a drop of 0.144 excess births per 1,000 women in Democratic versus Republican counties in the quarter of the election (quarter 0).

The sum of the treatment effects in quarters 0 through 3 in column (1) indicates there were 0.597 fewer excess births per 1,000 women in Democratic versus Republican counties in the year following the election, which corresponds to a 1.1 pp difference. This translates to

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[10]In May 2016, there is a sizable jump in the dashed red line in panel C1. This was the month that Trump became the presumptive nominee of the Republican party, which may have contributed to the jump.

an annual fertility gap of 23,000 births (or 0.7% of all 2015 births) between Republican and Democratic counties.[11] Similarly, column (2) indicates 0.964 fewer excess births per 1,000 women in counties which experienced a below versus above median shift in Republican vote share, corresponding to a 1.7 pp difference. Finally, column (3) reports that extreme Democratic (versus extreme Republican) counties experienced an even larger effect: a difference of 2.6 pp in excess fertility.

In our main specification we restrict the time window to the three quarters before and after the election, in order to minimize contamination by midterm elections. Appendix Figure A2 expands the time window to seven quarters pre and post election, that is, the period between the two midterms. These figures show similar patterns and reveal persistence of the treatment effect out to a two year horizon, suggesting no short-run harvesting.

3.2. Fertility Effects by Ethnicity

As a different measure of political partisanship, we compare Hispanics to non-Hispanics. This split is motivated by Trump's harsh rhetoric towards the Hispanic population, beginning with his first campaign speech in which he compared Hispanic immigrants to rapists and criminals. Moreover, Hispanics have historically backed Democratic candidates by a wide margin, voting two-to-one for Hillary Clinton in 2016.

Figure 3 plots excess fertility for Hispanics and non-Hispanics surrounding the 2016 election. Panel A1 shows similar pre-trends for Hispanic and non-Hispanic women. Following the election, non-Hispanic fertility rises for two months while that of Hispanics *falls* markedly over time; the gap between the two persists in every month in the post-election period. Panel A2 plots the quarterly regression estimates for equation 2. There are no pre-trends, but large and consistent negative fertility effects. Corresponding quarterly estimates are reported in Table 1. Over the post-treatment year there are 1.107 fewer Hispanic versus non-Hispanic births per 1,000 fertile women, which corresponds to a fertility effect of 1.7 pp.

Given the strong support for Trump among whites in rural areas, in column B we replace the control group of non-Hispanics with non-Hispanic whites in predominantly rural counties

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[11]This translation to number of births, makes the additional assumption that pre-post comparisons for treated and control groups are separately identified, so we can calculate the *number* of births for each group using the estimated *rate* coefficients. We multiply the sum of the group-specific post coefficients by the 2015 female population for each group (divided by 1,000), and then take the difference.

as defined by the Census Bureau. Panel B1 shows an immediate and dramatic *rise* in rural non-Hispanic white fertility. As panel B2 shows, there are no differential pre-trends, and the estimated annual effect corresponds to a sizable 2.8 pp.

Trump also had strong support from evangelical whites, so in column C we use counties with an above-median evangelical share as the control (excluding historically black protestant churches). These evangelical counties have weak correlation with the rural counties (0.17). Panel C1 plots excess fertility, and reveals a sharp post-election difference between the groups: the estimated annual effect from Panel C2 corresponds to a 2.5 pp difference.

Appendix Figure A3 expands the time window to two years before and after the election. The panels in this figure show that after Trump became the presumptive Republican nominee there was an immediate drop in relative Hispanic fertility.[12] We view this as a second unexpected shock, which generated similar relative fertility declines for Hispanics, likely as a result of his aggressive anti-Hispanic rhetoric. In Appendix Figure A2 there is not a similar effect by partisan affiliation; this likely reflects the fact that Trump winning the nomination was viewed as, if anything, increasing the probability of a Democratic victory. In the two years after the Presidential election the effects persist.

As a final exercise, we explore whether more politically polarized counties experience larger effects. We take advantage of the arguably exogenous shock to local economic conditions caused by the China trade shock. Autor et al. (2020) show that trade-exposed counties become more polarized, both on the left and right of the political spectrum; we use their proxy for county-level polarization.

We create two interaction terms, multiplying β_t in equation 2 with whether a county is above or below the median of the instrumented China trade shock of Autor et al. (2020). Results are plotted in Appendix Figure A4. The difference in the gap between Hispanics and non-Hispanics in more versus less polarized counties, summed over the four quarters after the election, is statistically significant (p value = 0.037). The post-election percentage point difference between Hispanics and non-Hispanics is more than twice as large (117%) in more versus less polarized counties.

Taken in combination, the larger effects we find as the intensity of partisanship increases —

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[12] We determine the timing of Trump's presumptive nomination using the Iowa Electronic Markets (RCONV16).

i.e., when we consider more politically extreme counties, compare Hispanics to non-Hispanic whites in rural or evangelical counties, and contrast more to less-polarized counties — strongly point towards partisanship driving these effects, as opposed to alternative mechanisms.

3.3. Robustness

Table A2 provides the results for a variety of robustness tests. Columns (1) to (6) repeat our main regressions in Table 1, with the addition of controls for county income, income squared, and 2-digit NAICS employment shares. This mediation analysis controls for potentially endogenous variables, which could be channels for the estimated fertility effects. However, our estimates are unaffected by their inclusion.

To examine whether the county-level results are driven by Hispanic fertility we re-estimate columns (1) to (3) of Table 1 excluding Hispanic births. The (unreported) estimated effects summed over the following year fall by 31, 17, and 13 percent, respectively. This suggests that while changes to immigration policy may contribute to differential Hispanic fertility, Hispanics are not the principal driver of the county-level political party results.

Column (7) changes the definition of county partisanship used in Table 1 column (1) and in Figure 2 column A. Instead of using the 50th percentile of Democratic vote share in a county as the partisan classification cutoff, here we define Democratic counties as those with Democratic vote shares above the 60th percentile, and Republican counties as those below the 40th percentile. We drop the counties with vote shares in between these cutoffs. Using this classification, the cumulative effect in the year after the election is similar to our original estimate.

Column (8) of Table A2 changes the measure we use in Table 1 column (2) and in Figure 2 column B. Our main estimate uses counties' shift towards the Republican party between 2008 and 2016 to define treatment and control groups; here we use the shift between 2012 and 2016. The results are likewise unaffected.

Columns (9) and (10) change the treatment group that we use in Table 1 column (4) and in Figure 3. Column (9) replaces the treatment group (Hispanics) with Mexicans, as Trump often referred to them specifically in his anti-Hispanic rhetoric, and they make up the largest Hispanic group in the U.S. For Mexicans, the fertility effect approximately doubles relative to all Hispanics (from 1.7 to 3.3 pp). To test whether the relative fertility losses we identify are

specific to Hispanics, or whether they occurred among all minority groups, we drop Hispanics from column (10). We use non-Hispanic minorities as the treatment group, and non-Hispanic whites as the control. While there is a relative fertility drop in quarter one after the election, the effect over the whole year is much smaller, and not statistically distinguishable from zero.

As a final exercise, we perform our main analysis using the Google search index for "pregnancy test" (scaled by the highest local weekly search rate for the term) as the dependent variable. Consistent with our main results, Table A3 shows that Democratic-leaning designated marketing areas (DMAs) and those with a high proportion of Hispanics both see relative falls in this search following the 2016 election.

3.4. Results from Preceding Elections

To place our results in perspective, we examine the two preceding party-switching Presidential elections. We note that in these elections the level of polarization in U.S. politics (and across candidates), was substantially lower compared to the 2016 election (Pew, 2014, Enke, 2020).

In the year 2000, George W. Bush barely won the election, with the Supreme Court determining the final outcome in December. When we compare Republican to Democratic-leaning counties in Appendix Figure A5 we find some evidence that relative Democratic fertility falls. George W. Bush had particularly strong support among evangelical voters (Niebuhr, 2000). Comparing counties with high and low evangelical shares, we find sizable drops in relative fertility for less evangelical counties in the three quarters after the election.

Obama's 2008 election victory was not a surprise (as is visible in Appendix Figure A1), but his nomination was. We find no relative difference in Republican and Democratic fertility in Appendix Figure A6 column A. However, in column B we find some suggestive evidence that Black versus non-Black fertility rose after Obama became the presumptive nominee. One caveat is that the Great Recession (December 2007-June 2009) confounds this analysis.

4. Evidence from Pre-Election Campaign Visits

To bolster the notion that it is political sentiment that drives fertility changes, we examine the effects of Trump's pre-election campaign visits. Local residents appear to pay attention to

these events. Appendix Figure A7 shows that the Google search index for "Trump" starts to rise about two weeks before Trump's first campaign visit to a DMA, peaking in the week of the visit. We hypothesize that when Trump visits an area for the first time on the campaign trail, it excites his base and may reduce the optimism of his opponents, in turn affecting relative fertility.

4.1. Data

We collect Trump's campaign visits between January 2015 and November 2016 from the National Journal's Travel Tracker.[13] The data contains date, time, and city information for each visit. We map city names to county. Trump visited a total of 230 counties during his campaign; the mean and variance of these counties' fertility are reported in Table A1.

While we have the actual date of Trump's campaign visit, the natality data only records the month of the first day of mother's last menstrual period (MLMP). This means that women whose menses occur in the second half of the month preceding a visit may be fertile when a visit occurs. Likewise, women whose menses begin in the month of a visit may not be fertile until the following month. This means that women whose MLMP is in month -1 can also be treated by Trump's campaign visit. Similarly, women whose MLMP is in month 0 may not have been treated.[14]

4.2. Research Design

We use a triple DID dynamic event study comparing fertility between Hispanic and non-Hispanic fertile females in counties visited by Trump before and after the visit, using counties he will visit later as controls. We focus on Trump's *first* campaign visit to a county so as not to contaminate our estimate with the effects from prior visits. We use counties that Trump will visit in the future as controls, rather than counties he will never visit, because unvisited counties are considerably different. We use a dynamic event study because there may

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[13]Travel Tracker compiles information from candidates' public campaign schedules and excludes events that candidates hold in their home states.

[14]The predicted percentage of fertile days in the month of a campaign visit (month 0) for women whose MLMP occurs in month -1, is approximately two thirds that of women whose MLMP occurs in month 0. This calculation assumes a uniform distribution of conception dates and visits throughout a month. Moreover, Google search data in Figure A7 suggests some anticipation of the campaign visit. Including anticipation would increase the percentage of fertile days for women whose MLMP occurs in month -1 to over 90% that of women whose MLMP occurs in month 0.

have been heterogeneous effects across counties visited at different times as Trump's campaign strategy and rhetoric evolved over time (Sun and Abraham, 2020). To implement the dynamic event study we stack our panel data as a series of 4×2 matrices (Hispanics/non-Hispanics in treatment/control counties × pre/post), and adapt the R package from Novgorodsky and Setzler (2019).

The outcome is the fertility rate among women by Hispanic ethnicity in a county and month. We define the omitted period as month -3, because women whose MLMP occurs in month -1 may also be treated, and to allow for potential anticipation one month before the actual visit. We define counties visited in month g as cohort g, and cohort-specific event time in calendar month m as $e_g = m - g$.

Under the identifying assumption that earlier visited and later visited counties share similar fertility trends in the absence of Trump's campaign visits, we can identify the treatment effect on the fertility of Hispanics versus others in treated cohort g in event time e_g, which we label as $\beta_{e_g}^H$. Following Sun and Abraham (2020), we define the average treatment effect for event time e as:

$$\beta_e^H = \sum_{g \in G} \beta_{e_g}^H \times w_g \tag{3}$$

where w_g (the aggregation weight) is the Hispanic fertile female population in counties belonging to cohort g. We calculate clustered standard errors for β_e^H via the delta method.

All counties in the regression sample experience their first Trump visit by November 2016. As a result, restricting controls to be eventually-visited counties forces us to trade off the number of post periods with the number of cohorts we can estimate treatment effects for. We estimate effects for event times from -7 to +5 months. This implies that the last cohort we can estimate effects for have their first Trump visits in April 2016.[15]

4.3. Fertility Response to Trump Campaign Visits

Figure 4 plots the average treatment effect from seven months before a visit to five months after. The Hispanic fertility rate relative to non-Hispanics in the same county starts to decrease in month -1, which is when partial treatment of mothers begins, and continues through month

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[15]Since control counties must be visited by November 2016 and there is one month of anticipation, treatment effects can only be estimated up to September 2016. Five months before September 2016 is April 2016.

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2. However, the positive treatment effect in month 5 indicates that the depressed fertility in months -1 to 2 may constitute harvesting. Following a campaign visit, the monthly average fertility rate for Hispanics falls relative to non-Hispanics by 1.5% of the mean. Corresponding regression estimates are reported in Table A4 column (1). As a robustness test, we use the total fertile female population in counties belonging to cohort g as the aggregation weights w_g in column (2); results are quantitatively similar.

5. Conclusion

This paper documents a new consequence of elections and a new determinant of fertility. We are the first to causally link political partisanship to fertility choices. Unlike many consumption and investment choices, this is a long-term commitment, requiring significant time and money. We compare Republican to Democratic-leaning counties, before and after the 2016 Presidential election. We find a reallocation of births across political geographies, which corresponds to a 1.1 to 2.6 pp increase in Republican versus Democratic county births. We likewise find a disparate and negative impact on relative Hispanic fertility (1.7 to 2.8 pp). Reinforcing the idea that political sentiment drives these changes, relative Hispanic fertility declines after a Trump pre-election campaign visit.

Growing political polarization and declining fertility are two challenges facing society, and we estimate effects at the intersection of the two. From a policy perspective, shifts in fertility across political groups have practical implications for regional public finance and population-based congressional apportionment, given partisan sorting across residential geographies.

This paper opens up several avenues for future research, such as disentangling whether fertility is responding to pure sentiment, to different partisan information-processing models, or to expectations of how future policy will benefit them. While we estimate relative effects, it is still unknown how aggregate fertility responds, including over longer time horizons. Further questions include how partisanship impacts other consequential choices, and whether growing polarization amplifies effects.

References

Aizer, A., Eli, S., and Lleras-Muney, A. (2020). The incentive effects of cash transfers to the poor. *NBER Working Paper*.

Autor, D., Dorn, D., Hanson, G., et al. (2019). When work disappears: Manufacturing decline and the falling marriage market value of young men. *American Economic Review: Insights*, 1(2):161–78.

Autor, D., Dorn, D., Hanson, G., Majlesi, K., et al. (2020). Importing political polarization? the electoral consequences of rising trade exposure. *American Economic Review*, 110(10):3139–83.

Bartels, L. M. (2002). Beyond the running tally: Partisan bias in political perceptions. *Political Behavior*, 24(2):117–150.

Becker, G. S. (1960). An economic analysis of fertility. In *Demographic and economic change in developed countries*, pages 209–240. Columbia University Press.

Benhabib, J. and Spiegel, M. M. (2019). Sentiments and economic activity: Evidence from us states. *The Economic Journal*, 129(618):715–733.

Bertrand, M. and Kamenica, E. (2018). Coming apart? cultural distances in the united states over time. *NBER Working Paper*.

Black, D. A., Kolesnikova, N., Sanders, S. G., and Taylor, L. J. (2013). Are children "normal"? *The Review of Economics and Statistics*, 95(1):21–33.

Boxell, L., Gentzkow, M., and Shapiro, J. M. (2020). Cross-country trends in affective polarization. *NBER Working Paper*.

Brown, J. R. and Enos, R. D. (2021). The measurement of partisan sorting for 180 million voters. *Nature Human Behaviour*, pages 1–11.

Cohen, A., Dehejia, R., and Romanov, D. (2013). Financial incentives and fertility. *Review of Economics and Statistics*, 95(1):1–20.

Confessore, N. and Cohn, N. (2016). Donald Trump's victory was built on unique coalition of white voters. *New York Times*, November 9 ,2016.

Cookson, J. A., Engelberg, J. E., and Mullins, W. (2020). Does partisanship shape investor beliefs? evidence from the covid-19 pandemic. *The Review of Asset Pricing Studies*, 10(4):863–893.

Cullen, J. B., Turner, N., and Washington, E. L. (2021). Political alignment, attitudes toward government and tax evasion. *American Economic Journal: Economic Policy*, (Forthcoming).

Dehejia, R. and Lleras-Muney, A. (2004). Booms, busts, and babies' health. *The Quarterly Journal of Economics*, 119(3):1091–1130.

Dettling, L. J. and Kearney, M. S. (2014). House prices and birth rates: The impact of the real estate market on the decision to have a baby. *Journal of Public Economics*, 110:82–100.

Duncan, B., Mansour, H., and Rees, D. I. (2017). It's just a game the super bowl and low birth weight. *Journal of Human Resources*, 52(4):946–978.

Enke, B. (2020). Moral values and voting. *Journal of Political Economy*, 128(10):3679–3729.

Evans, G. and Andersen, R. (2006). The political conditioning of economic perceptions. *The Journal of Politics*, 68(1):194–207.

Gentzkow, M. (2016). Polarization in 2016. *Working Paper*.

Gerber, A. S. and Huber, G. A. (2009). Partisanship and economic behavior: Do partisan differences in economic forecasts predict real economic behavior? *American Political Science Review*, pages 407–426.

Gillitzer, C. and Prasad, N. (2018). The effect of consumer sentiment on consumption: Cross-sectional evidence from elections. *American Economic Journal: Macroeconomics*, 10(4):234–69.

Goldmacher, S. (2021). New york loses house seat after coming up 89 people short on census. *New York Times*, April 26, 2021.

Jones, C. I. (2020). The end of economic growth? unintended consequences of a declining population. *NBER Working Paper*.

Kaplan, E., Spenkuch, J., and Sullivan, R. (2020). Partisan spatial sorting in the united states: A theoretical and empirical overview. *Working Paper*.

Kearney, M. and Levine, P. (2020). The coming covid-19 baby bust. *Brookings*.

Kearney, M. S. and Levine, P. B. (2009). Subsidized contraception, fertility, and sexual behavior. *The Review of Economics and Statistics*, 91(1):137–151.

Kempf, E. and Tsoutsoura, M. (2020). Partisan professionals: Evidence from credit rating analysts. *NBER Working Paper*.

Langer, A. and Lemoine, D. (2020). What were the odds? estimating the market's probability of uncertain events. *NBER Working Paper*.

Lindo, J. M. (2010). Are children really inferior goods? evidence from displacement-driven income shocks. *Journal of Human Resources*, 45(2):301–327.

Lino, M. (2020). The cost of raising a child. *U.S. DEPARTMENT OF AGRICULTURE*.

Lovenheim, M. F. and Mumford, K. J. (2013). Do family wealth shocks affect fertility choices? evidence from the housing market. *Review of Economics and Statistics*, 95(2):464–475.

McCrary, J. and Royer, H. (2011). The effect of female education on fertility and infant health: evidence from school entry policies using exact date of birth. *American Economic Review*, 101(1):158–95.

McGrath, M. C. (2017). Economic behavior and the partisan perceptual screen. *Quarterly Journal of Political Science*, 11(4):363–83.

Meeuwis, M., Parker, J. A., Schoar, A., and Simester, D. I. (2021). Belief disagreement and portfolio choice. *Working Paper*.

Mian, A. R., Sufi, A., and Khoshkhou, N. (2021). Partisan bias, economic expectations, and household spending. *The Review of Economics and Statistics*, (Forthcoming).

Milligan, K. (2005). Subsidizing the stork: New evidence on tax incentives and fertility. *Review of Economics and Statistics*, 87(3):539–555.

Niebuhr, G. (2000). The 2000 campaign: The christian right; evangelicals found a believer in Bush. *New York Times*, February 21, 2000.

Novgorodsky, D. and Setzler, B. (2019). Practical guide to event studies.

Pew (2014). Political polarization in the American public. *Pew Research Center Report*.

Pew (2020). America is exceptional in the nature of its political divide. *Pew Research Center*.

Phillips, A. (2017). 'They're rapists.' President Trump's campaign launch speech two years later, annotated. *Washington Post*, June 16, 2017.

Raute, A. (2019). Can financial incentives reduce the baby gap? evidence from a reform in maternity leave benefits. *Journal of Public Economics*, 169:203–222.

Schaller, J. (2016). Booms, busts, and fertility testing the becker model using gender-specific labor demand. *Journal of Human Resources*, 51(1):1–29.

Sun, L. and Abraham, S. (2020). Estimating dynamic treatment effects in event studies with heterogeneous treatment effects. *Journal of Econometrics*.
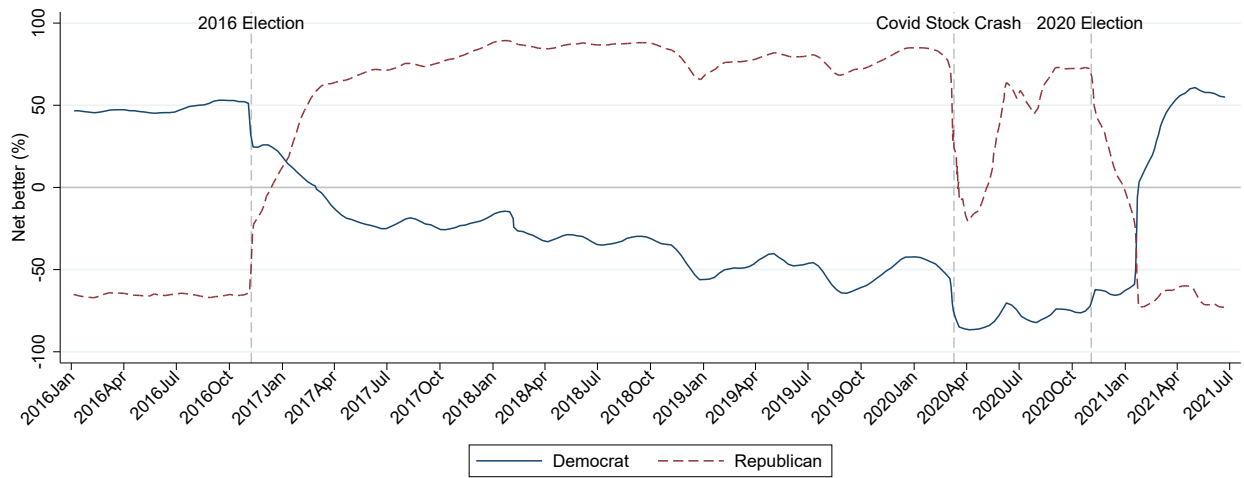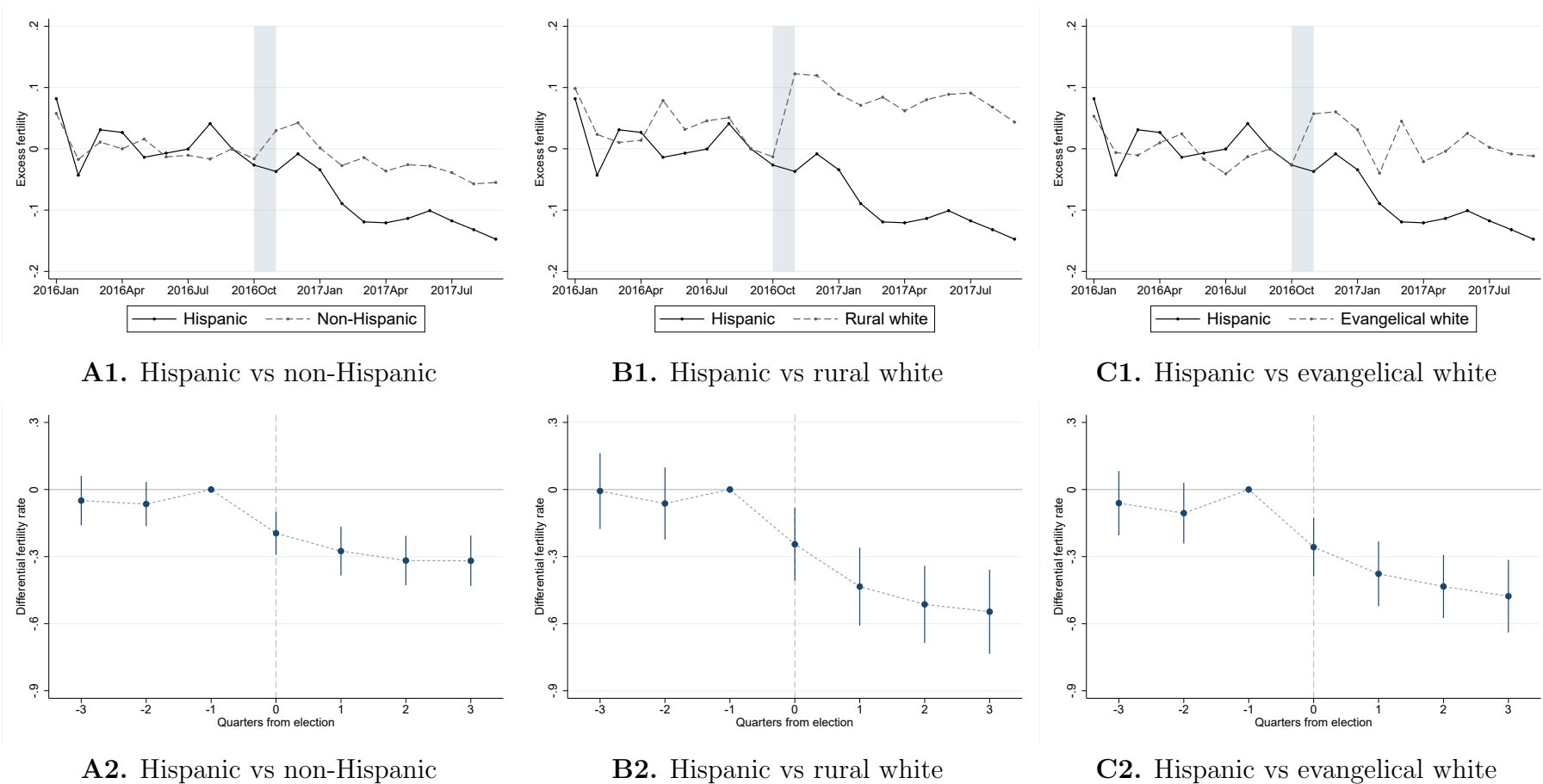
Figure 1: ECONOMIC OUTLOOK BY PARTY AFFILIATION

Note: This figure plots the percentage of positive minus negative responses ("net better") to the question "Do you think the nation's economy is getting better or worse?" among registered voters. The survey is administered by CIVIQS, which uses a list-based sampling methodology to select panelists to receive online polls. They use dynamic Bayesian multilevel regression with post-stratification weights to adjust the demographics of the sample to those of the U.S. population and to smooth out day-to-day sampling variability.
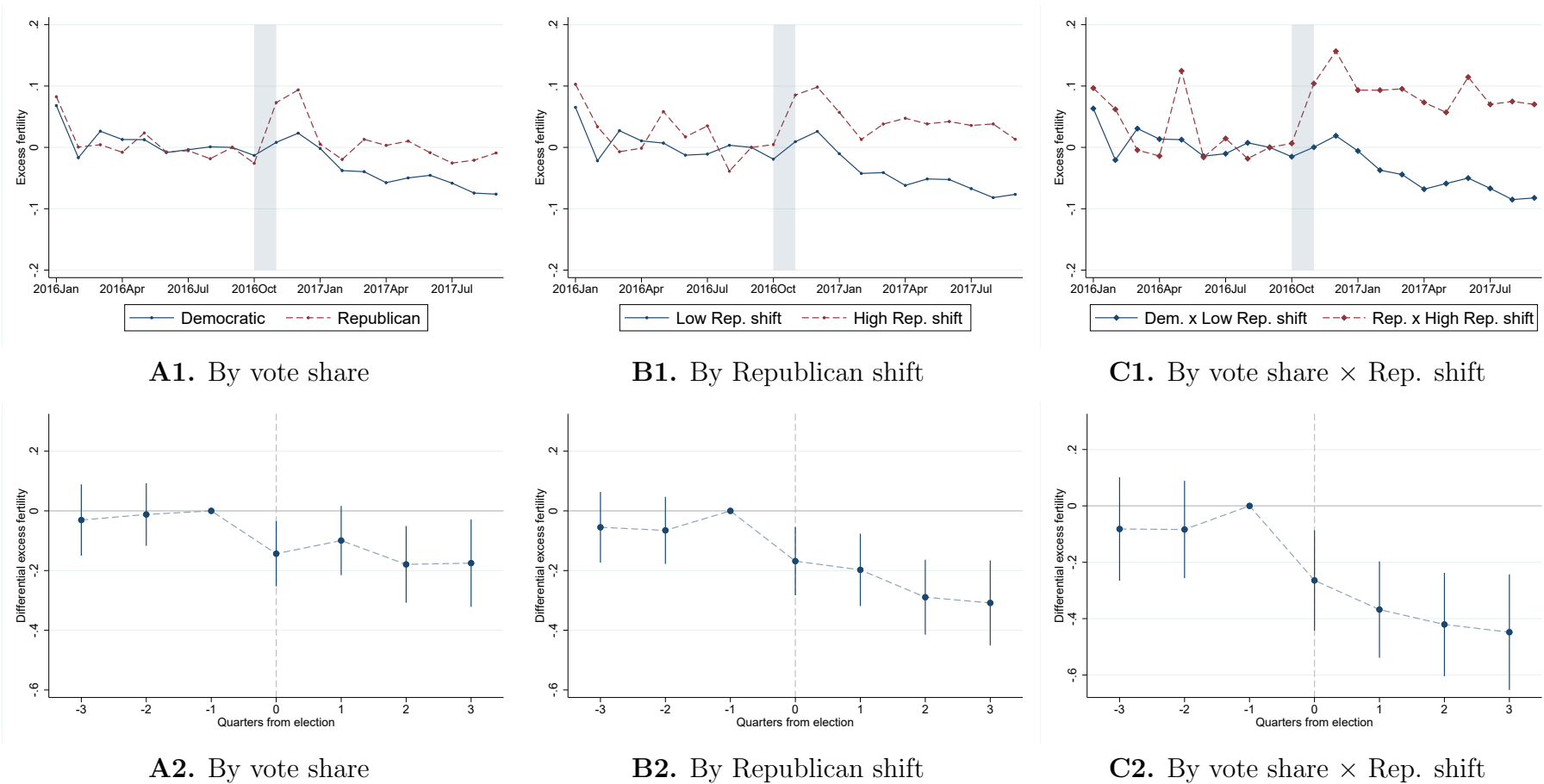
Figure 2: 2016 Presidential Election and Fertility in Democratic versus Republican Counties

Note: This figure plots effects (and 95% confidence intervals) for the excess fertility rate in Democratic-leaning relative to Republican-leaning counties around the 2016 Presidential election. Fertility rates in panels A1 to C1 are normalized to September 2016. As described in section 2.3, October represents a partially-treated month, so we shade October and November to indicate the onset of treatment. Panel A1 plots the excess fertility rate in counties with above-median versus below-median Democrat vote shares in the 2012 Presidential election; Panel B1 counties with above-median versus below-median *change* in Republican vote shares between the 2008 and 2016 Presidential elections; Panel C1 counties with *both* below-median Democrat vote shares and above-median Republican shifts versus counties where both measures are the opposite. Panels A2 to C2 plot the interactions between quarters and an indicator for Democratic-leaning counties from equation 1. The omitted quarter is -1 (July-September 2016). Specifications correspond to Table 1 columns (1) to (3).

A1. Hispanic vs non-Hispanic   **B1.** Hispanic vs rural white   **C1.** Hispanic vs evangelical white

A2. Hispanic vs non-Hispanic   **B2.** Hispanic vs rural white   **C2.** Hispanic vs evangelical white

Figure 3: 2016 PRESIDENTIAL ELECTION AND HISPANIC VERSUS NON-HISPANIC FERTILITY (WITHIN-COUNTY)

Note: See note to Figure 2. This figure plots effects (and 95% confidence intervals) for the excess fertility rate of Hispanics versus other groups around the 2016 Presidential election. Panel A1 plots the excess fertility rate of Hispanics versus non-Hispanics; Panel B1 versus non-Hispanic whites living in rural counties (using the Census Bureau definition); Panel C1 versus non-Hispanic whites living in counties with above-median evangelical share (using data from the Association of Religion Data Archives). Panels A2 to C2 plot the interactions between quarters and an indicator for Hispanic ethnicity from equation 2. Specifications correspond to Table 1 columns (4) to (6).
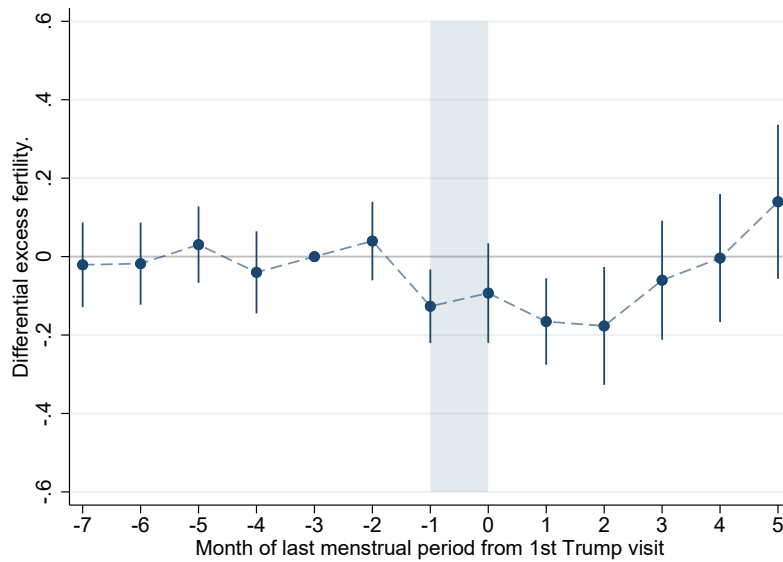
Figure 4: TRUMP CAMPAIGN VISITS AND RELATIVE HISPANIC FERTILITY

Note: This figure plots dynamic event study coefficients (and 95% confidence intervals) that compare fertility between Hispanic and non-Hispanic females (difference 1), in counties visited by Trump before and after his first campaign visit (difference 2), using counties he will visit later as controls (difference 3). As described in section 4.1, month -1 represents a partially-treated month, so we shade both months -1 and 0 to indicate the onset of treatment. The omitted period is month -3. Specification corresponds to Table A4 column (1).

Table 1: 2016 Presidential Election and Fertility

	(1) Dem. vs Rep.	(2) High vs low Rep. shift	(3) Vote share × shift	(4) Hisp. vs non-Hisp.	(5) Hisp. vs rural white	(6) Hisp. vs evan. white
Treat_{-3}	-0.031	-0.055	-0.082	-0.050	-0.007	-0.061
	(0.061)	(0.060)	(0.094)	(0.057)	(0.086)	(0.073)
Treat_{-2}	-0.012	-0.065	-0.084	-0.065	-0.062	-0.106
	(0.053)	(0.057)	(0.088)	(0.050)	(0.082)	(0.069)
Treat_0	-0.144**	-0.168***	-0.264***	-0.196***	-0.245***	-0.258***
	(0.056)	(0.058)	(0.091)	(0.049)	(0.083)	(0.067)
Treat_1	-0.099*	-0.198***	-0.368***	-0.275***	-0.434***	-0.377***
	(0.059)	(0.062)	(0.087)	(0.056)	(0.089)	(0.074)
Treat_2	-0.179***	-0.289***	-0.421***	-0.318***	-0.513***	-0.433***
	(0.066)	(0.064)	(0.093)	(0.056)	(0.088)	(0.072)
Treat_3	-0.175**	-0.308***	-0.448***	-0.319***	-0.546***	-0.477***
	(0.075)	(0.073)	(0.105)	(0.058)	(0.096)	(0.083)
Sum Treat (0 to 3)	-0.597	-0.964	-1.501	-1.107	-1.739	-1.545
p value	0.005	0.000	0.000	0.000	0.000	0.000
Observations	19,691	19,691	11,438	39,620	30,947	29,694
R-squared	0.424	0.425	0.446	0.372	0.306	0.331
County FE	Y	Y	Y	N	N	N
County × ethnicity FE	N	N	N	Y	Y	Y
Quarter event FE	Y	Y	Y	Y	Y	Y
N clusters (counties)	2,813	2,813	1,634	2,830	2,830	2,830

Note: This table reports the estimates depicted in panels A2 to C2 in both Figures 2 and 3. The dependent variable is the excess fertility rate. Columns (1) to (3) report interactions between quarters and a Democratic-leaning indicator from equation 1. Column (1) compares counties with above-median versus below-median Democrat vote shares in the 2012 Presidential election; column (2) counties with above-median versus below-median *change* in Republican vote shares between the 2008 and 2016 Presidential elections; column (3) counties with *both* below-median Democrat vote shares and above-median Republican shifts versus counties where both measures are the opposite. Columns (4) to (6) use within county variation, reporting interactions between quarters and an indicator for Hispanic ethnicity from equation 2. Column (4) compares Hispanics versus non-Hispanics; column (5) versus non-Hispanic whites living in rural counties; column (6) versus non-Hispanic whites living in counties with above-median evangelical share. The omitted quarter is -1 (July-September of 2016). Standard errors are clustered by county.
*** 1%, ** 5%, * 10% significance level

Online Appendix for

"Partisan Fertility and Presidential Elections"

Gordon B. Dahl, Runjing Lu, and William Mullins
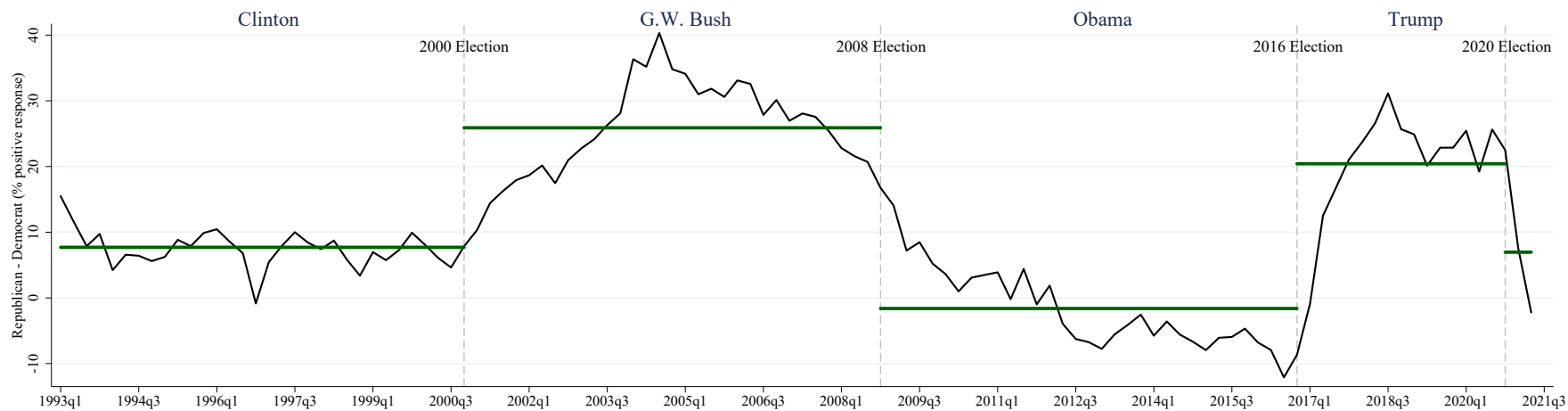
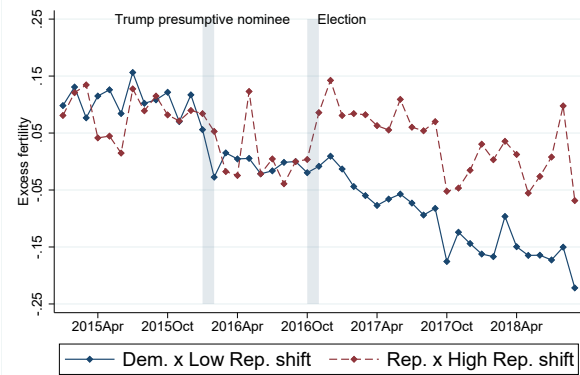**Figure A1:** ECONOMIC OUTLOOK BY PARTY AFFILIATION: THE BLOOMBERG CONSUMER COMFORT INDEX

Note: Survey respondents in the Bloomberg Consumer Comfort Index are asked to rate (i) the national economy, (ii) their personal finances, and (iii) the buying climate as "Excellent," "Good," "Not so Good," or "Poor." The Index is calculated as the four-week rolling average fraction of positive responses ("Good" or "Excellent") across the three questions. The figure plots the difference between Republicans and Democrats, averaged by calendar quarter. The flat lines represent the average level of the index by Presidency. The sample is derived from 1,000 landline and cellular telephone interviews (national random sample), 250 per week, weighted to adjust for probabilities of selection by household size, telephone use, age, sex, race, education, metro status, and region.
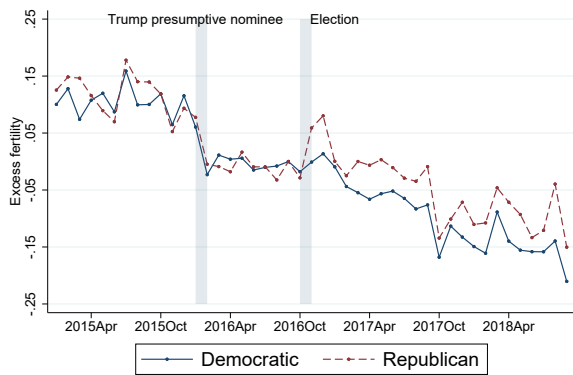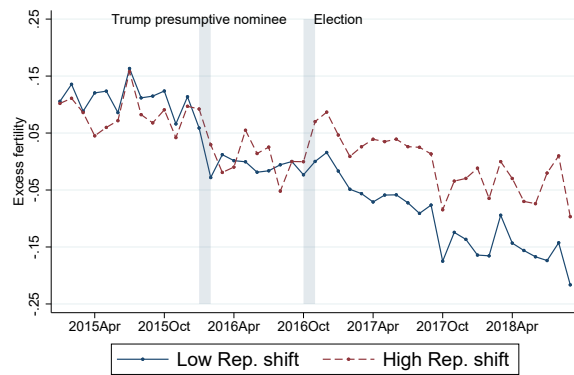
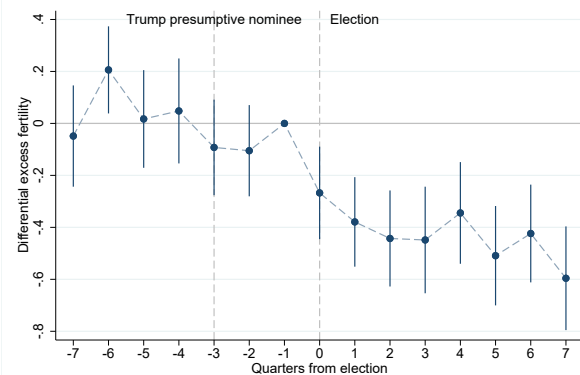**A1.** By vote share   **B1.** By Republican shift   **C1.** By vote share × Rep. shift
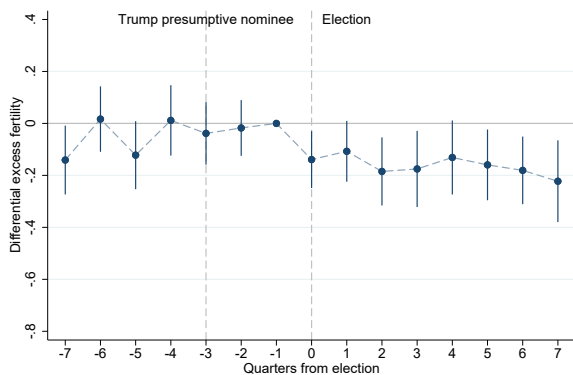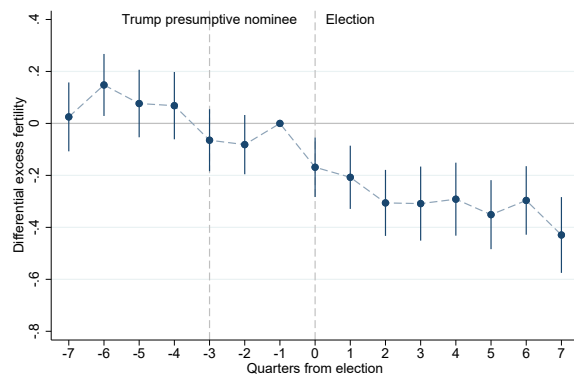
A2. By vote share   **B2.** By Republican shift   **C2.** By vote share × Rep. shift
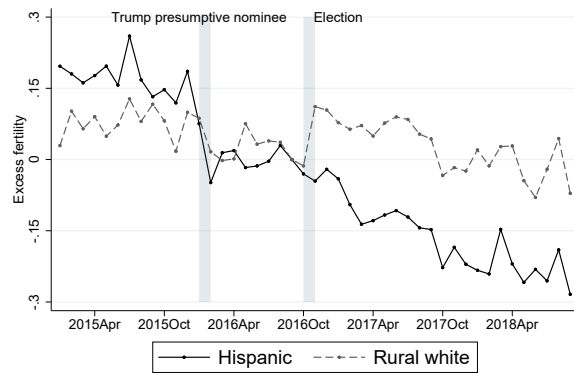
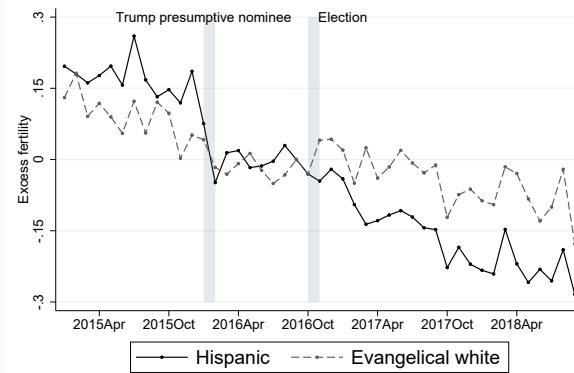**Figure A2:** 2016 Presidential Election and Fertility in Democratic versus Republican Counties (Longer Horizon)

Note: This figure extends Figure 2 panels A1 to C1 to be between January, 2015 and September 2018, and extends panels A2 to C2 to be between ±7 quarters. The shaded areas, which account for partially treated months (see section 2.3), indicate the periods immediately surrounding the New Hampshire primary (January-February 2016) and the Presidential election (October-November 2016). See note to Figure 2 for specifications.
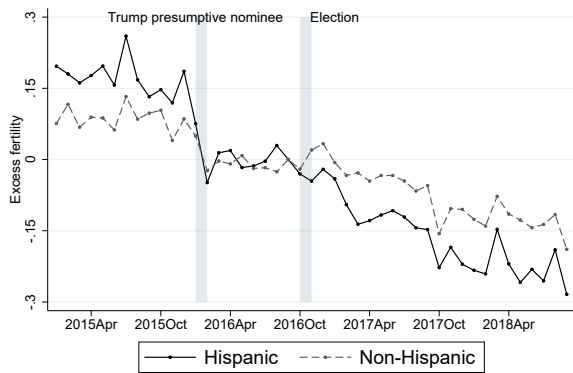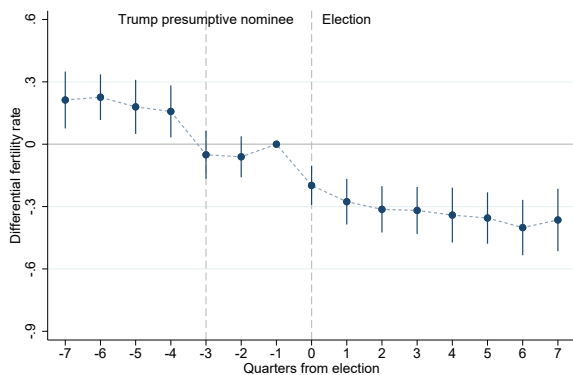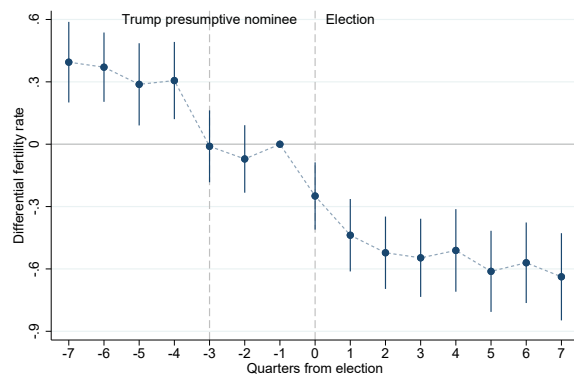
A1. Hispanic vs non-Hispanic
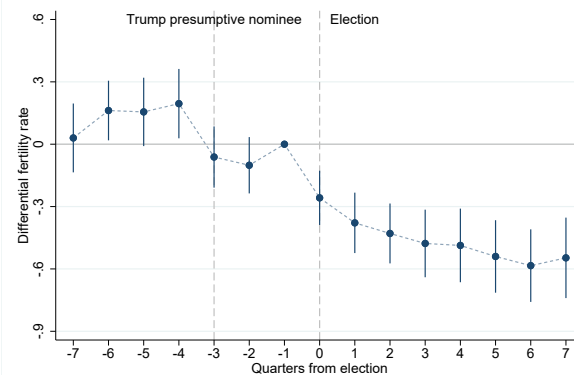
B1. Hispanic vs rural white

C1. Hispanic vs evangelical white

**A2.** Hispanic vs non-Hispanic

B2. Hispanic vs rural white

C2. Hispanic vs evangelical white

Figure A3: 2016 PRESIDENTIAL ELECTION AND HISPANIC VERSUS NON-HISPANIC FERTILITY
(LONGER HORIZON)

Note: This figure extends Figure 3 panels A1 to C1 to be between January, 2015 and September, 2018 and extends panels A2 to C2 to be between ±7 quarters. The shaded areas, which account for partially treated months (see section 2.3), indicate the periods immediately surrounding the New Hampshire primary (January-February 2016) and the Presidential election (October-November 2016). See note to Figure 3 for specifications.
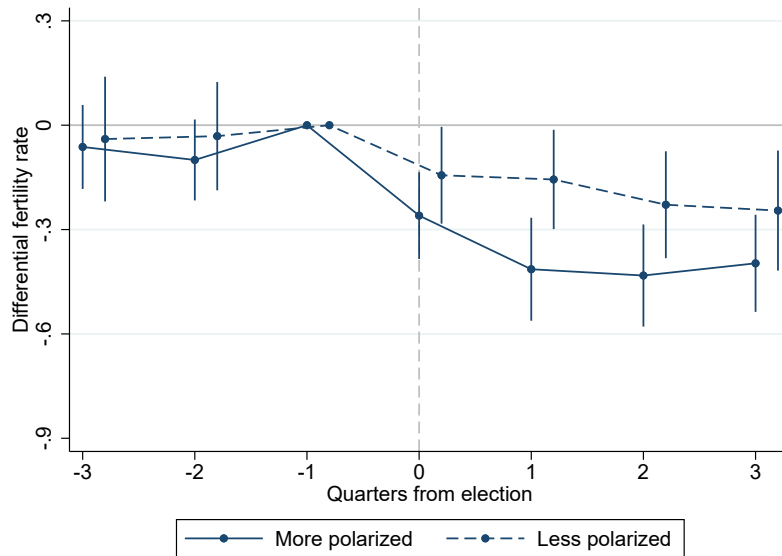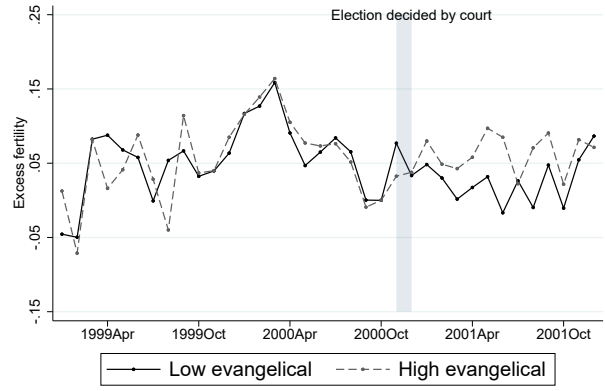
Figure A4: 2016 PRESIDENTIAL ELECTION AND FERTILITY IN MORE VERSUS LESS POLARIZED COUNTIES

Note: This figure plots heterogeneous effects (and 95% confidence intervals) of the 2016 Presidential election on the excess fertility rate among Hispanic versus non-Hispanic fertile females in more versus less polarized counties. A county is defined as more polarized if the county experienced an above-median level of instrumented China trade shock between 2000 and 2008 following Autor et al. (2020). The omitted quarter is -1 (July-September 2016). Specification is described in section 3.2. Coefficients are slightly staggered for visual clarity.
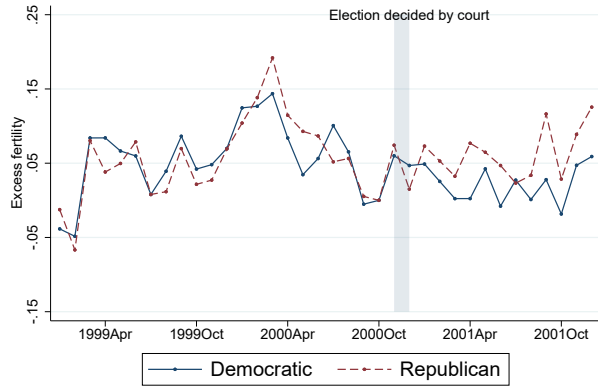
A1. By vote share

B1. By evangelical share

A2. By vote share

B2. By evangelical share

Figure A5: 2000 Presidential Election and Fertility
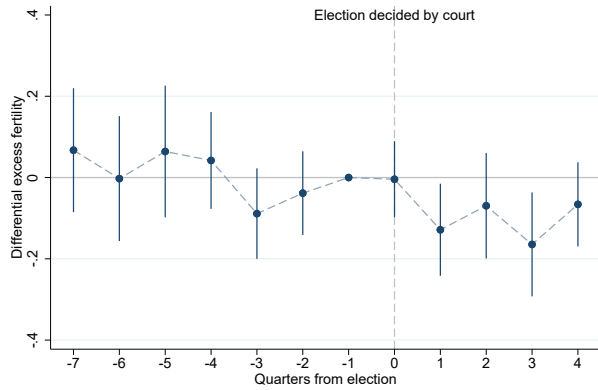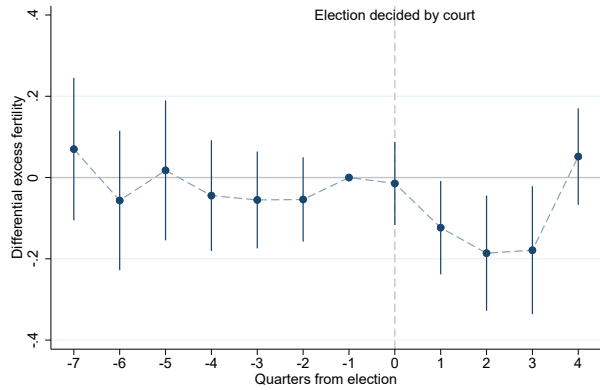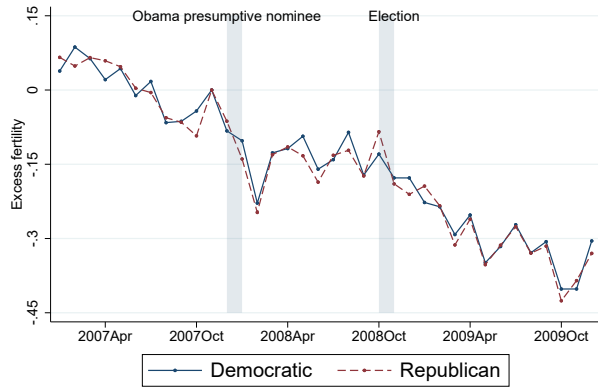
Note: This figure plots effects (and 95% confidence intervals) for the 2000 Presidential election. Excess fertility rates in panels A1 and B1 are normalized to October 2000. The election was decided in December 2000 by the Supreme Court. As described in section 2.3, November represents a partially-treated month, so we shade November and December to indicate the onset of treatment. Panel A1 plots the excess fertility rate in counties with above-median versus below-median Democrat vote shares in the 1996 Presidential election; Panel B1 counties with above-median versus below-median evangelical share. Panels A2 and B2 plot the interactions between quarters and indicators for Democratic-leaning counties or evangelical counties (equation 1). The omitted quarter is -1 (August-October 2000). The specification mirrors that in Table 1 column (1).

A1. Dem. vs Rep.
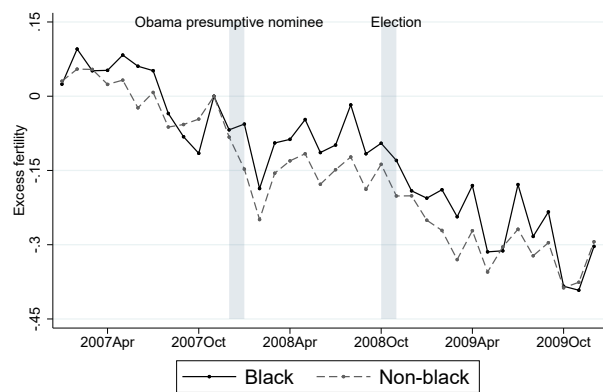

B1. Black vs non-black

A2. Dem. vs Rep.
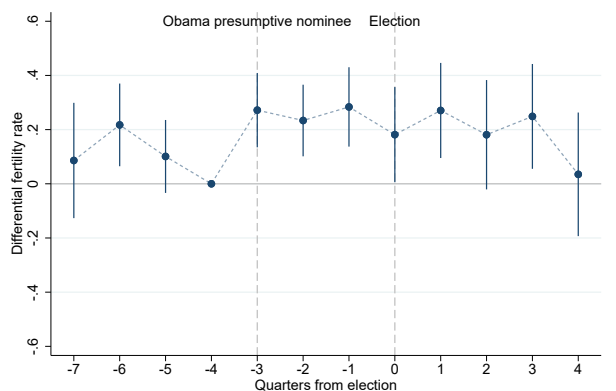
B2. Black vs non-black
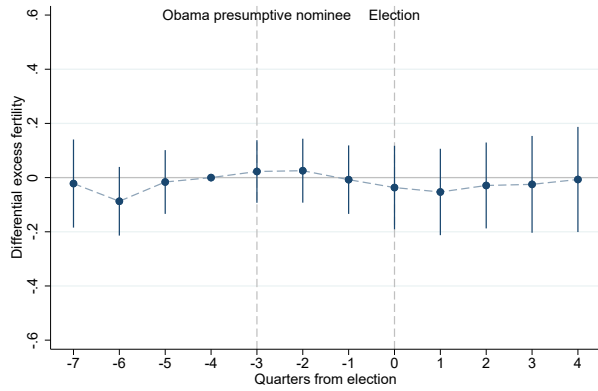
Figure A6: 2008 Presidential Election and Fertility

Note: This figure plots effects (and 95% confidence intervals) for the 2008 Presidential election. Fertility rates in panels A1 and B1 are normalized to November 2007. Obama became the presumptive nominee after the Iowa Caucus. The shaded areas, which account for partially treated months (see section 2.3), indicate the periods immediately surrounding the Iowa Caucus (December 2007-January 2008) and the Presidential election (October-November 2008). Panel A1 plots the excess fertility rate in counties with above-median versus below-median Democrat vote shares in the 2004 Presidential election; Panel B1 the excess fertility rate for black versus non-black mothers (within county). Panels A2 and B2 plot the interactions between quarters and indicators for Democratic-leaning counties (equation 1) and black mothers (equation 2). The omitted quarter is -4 (October-December 2007). Specifications mirror those in Table 1, columns (1) and (4).
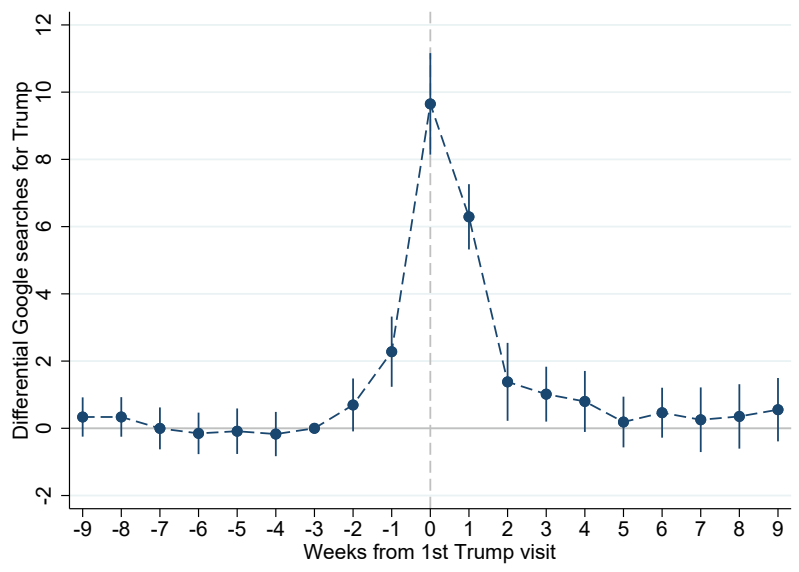
Figure A7: Google Search Index for "Trump" around Campaign Visits

Note: This figure plots dynamic treatment effects (and 95% confidence intervals) for Trump's first campaign visit to a Designated Market Area (DMA) on the weekly Google search index for "Trump" relative to DMAs with *later* visits. The omitted period is -3.

Table A1: Summary Statistics for 2016 Election

Panel A: Election sample	Fertility rate		Excess fertility rate	
Race	Mean	SD	Mean	SD
Total	4.499	0.855	-0.087	0.487
Hispanic	5.140	1.461	-0.228	1.037
African American	4.612	1.569	-0.012	1.207
Mexican	4.701	1.796	-0.148	1.386
Non-Hispanic	4.287	0.889	-0.061	0.531
Non-African American	4.147	0.910	-0.101	0.513
Non-Hispanic minority	4.731	1.328	-0.038	0.989
Non-Hispanic white	4.263	1.028	-0.067	0.624
N counties	2,830	2,830	2,830	2,830

Panel B: Campaign sample				
Race	Mean	SD		
Hispanic	5.159	1.064		
Non-Hispanic	4.299	0.649		
Non-Hispanic white	4.204	0.768		
N counties	230	230		

Notes: The fertility rate corresponds to monthly births conceived per 1,000 women who are between 15 and 44 years old for each race/ethnicity in a county. The excess fertility rate is calculated by subtracting the race/ethnicity × county × month-of-year mean using data from 2010 onward. Data in panels A and B cover January 2016 - September 2017 and September 2014 - September 2016, respectively.

Table A2: ROBUSTNESS - 2016 PRESIDENTIAL ELECTION AND FERTILITY

	(1) Dem. vs Rep.	(2) H vs L Rep. shift	(3) Share x shift	(4) HP vs non-HP	(5) HP vs rural WH	(6) HP vs evan. WH	(7) Dem. vs Rep. p40/p60	(8) H vs L Rep. shift 12-16	(9) Mexican vs non-HP	(10) Minority vs WH
$Treat_{-3}$	-0.030	-0.055	-0.082	-0.050	-0.007	-0.061	0.011	0.031	0.019	-0.002
	(0.061)	(0.060)	(0.094)	(0.057)	(0.086)	(0.073)	(0.071)	(0.061)	(0.088)	(0.075)
$Treat_{-2}$	-0.012	-0.065	-0.084	-0.065	-0.063	-0.106	0.003	0.000	-0.058	0.078
	(0.054)	(0.057)	(0.088)	(0.050)	(0.082)	(0.069)	(0.061)	(0.055)	(0.067)	(0.056)
$Treat_0$	-0.144**	-0.169***	-0.265***	-0.195***	-0.245***	-0.258***	-0.130**	-0.177***	-0.222***	0.042
	(0.056)	(0.058)	(0.091)	(0.049)	(0.083)	(0.067)	(0.062)	(0.057)	(0.054)	(0.053)
$Treat_1$	-0.091	-0.197***	-0.343***	-0.272***	-0.459***	-0.387***	-0.121*	-0.227***	-0.334***	-0.170***
	(0.058)	(0.061)	(0.086)	(0.054)	(0.088)	(0.071)	(0.063)	(0.063)	(0.061)	(0.056)
$Treat_2$	-0.171***	-0.288***	-0.396***	-0.315***	-0.539***	-0.444***	-0.230***	-0.244***	-0.330***	-0.093
	(0.064)	(0.063)	(0.092)	(0.053)	(0.085)	(0.068)	(0.069)	(0.068)	(0.063)	(0.061)
$Treat_3$	-0.166**	-0.307***	-0.423***	-0.316***	-0.572***	-0.487***	-0.183**	-0.314***	-0.354***	-0.042
	(0.073)	(0.072)	(0.103)	(0.057)	(0.095)	(0.082)	(0.083)	(0.074)	(0.066)	(0.065)
Sum Treat (0 to 3)	-0.572	-0.96	-1.426	-1.099	-1.815	-1.576	-0.664	-0.963	-1.241	-0.263
p value	0.006	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.177
Observations	19,684	19,684	11,431	39,606	30,933	29,687	15,750	19,691	39,487	39,620
R-squared	0.425	0.426	0.448	0.373	0.307	0.333	0.429	0.425	0.357	0.326
County FE	Y	Y	Y	N	N	N	Y	Y	N	N
County × ethnicity FE	N	N	N	Y	Y	Y	N	N	Y	Y
Quarter event FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Income & industry share	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
N clusters (counties)	2,812	2,812	1,633	2,829	2,829	2,829	2,250	2,813	2,830	2,830

Note: Columns (1) through (6) parallel the specifications in Table 1 but add controls for county income, income squared, and county monthly two-digit NAICS employment share. Column (7) categorizes counties as Republican or Democratic-leaning by whether they are below the 40th percentile or above the 60th percentile in the 2012 Democrat vote share. Column (8) uses the shift in Republican vote share between 2012-2016 instead of 2008-2016. Column (9) replaces Hispanics (HP) as the treatment group with Mexicans, while column (10) compares non-Hispanic minorities versus non-Hispanic whites (WH). The omitted quarter is -1 (July-September 2016). Standard errors are clustered by county.
*** 1%, ** 5%, * 10% significance level

Table A3: 2016 Presidential Election and Google Searches for "Pregnancy Test"

	(1) Dem. vs Rep.	(2) High vs low Rep. shift	(3) High vs low Hisp.
Treat_{-3}	-3.587	0.628	3.322
	(3.483)	(3.114)	(2.851)
Treat_{-2}	-2.514	-0.226	-0.155
	(2.842)	(2.925)	(2.648)
Treat_0	-5.709*	-7.443***	-6.320**
	(2.899)	(2.818)	(2.813)
Treat_1	-3.589	-6.193**	-5.425*
	(3.109)	(2.683)	(2.834)
Treat_2	-1.992	-2.560	-2.241
	(3.506)	(3.253)	(3.235)
Treat_3	-0.424	-5.333	-4.427
	(4.146)	(3.604)	(3.485)
Sum Treat (0 to 3)	-11.714	-21.529	-18.413
p value	0.343	0.048	0.086
Observations	1,435	1,435	1,456
R-squared	0.490	0.497	0.498
DMA FE	Y	Y	Y
Quarter event FE	Y	Y	Y
N clusters (DMAs)	201	201	203

Note: This table reports the effects of the 2016 Presidential election on Google searches for "pregnancy test." The dependent variable is the weekly percentage of Google searches taken from a random sample of total searches and scaled by the highest weekly search rate in the same DMA during the entire extraction period. Since each extraction is based on a random sample, we use the average Google search rate across 15 extractions taken between November 2020 and January 2021 as our outcome. Columns (1) through (3) report interactions between quarters and an indicator for DMAs having above-median Democrat vote shares in the 2012 election, an indicator for DMAs having an above-median change in Republican vote share from the 2012 to the 2016 election, and an indicator for having above-median Hispanic population percentage, respectively. The omitted quarter is -1 (July-September 2016). Standard errors are clustered by DMA.
*** 1%, ** 5%, * 10% significance level

Table A4: TRUMP CAMPAIGN VISITS AND RELATIVE HISPANIC FERTILITY

	Baseline	Alternative weight
Treat_{-7M}	-0.021	-0.068
	(0.055)	(0.062)
Treat_{-6M}	-0.018	-0.070
	(0.053)	(0.062)
Treat_{-5M}	0.031	0.047
	(0.050)	(0.062)
Treat_{-4M}	-0.040	-0.018
	(0.053)	(0.063)
Treat_{-2M}	0.040	0.042
	(0.051)	(0.058)
Treat_{-1M}	-0.127	-0.108
	(0.048)***	(0.059)*
Treat_{0M}	-0.093	-0.073
	(0.065)	(0.068)
Treat_{1M}	-0.166	-0.154
	(0.056)***	(0.069)**
Treat_{2M}	-0.177	-0.157
	(0.077)**	(0.083)*
Treat_{3M}	-0.060	-0.029
	(0.077)	(0.091)
Treat_{4M}	-0.004	0.009
	(0.083)	(0.087)
Treat_{5M}	0.140	0.123
	(0.100)	(0.110)
Avg. Treat(-1 to 5)	-0.069	-0.056
p value	0.203	0.379
Observations	129,872	129,872
R-squared	0.412	0.412
Outcome mean	4.540	4.540
N clusters (counties)	230	230

Note: This table presents dynamic event study coefficients that compare fertility between Hispanic and non-Hispanic females (difference 1), in counties visited by Trump before and after his first campaign visit (difference 2), using counties he will visit later as controls (difference 3). The omitted period is -3. Column (1) uses the Hispanic female population in treated counties as the aggregation weight, while column (2) uses the total female population in treated counties. Specification corresponds to Figure 4.
*** 1%, ** 5%, * 10% significance level