# Did Austerity Cause Brexit?

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- Backlash against globalization resulted in adverse political consequence.

  - The withdrawal of the welfare state has, in the case of UK, been a main driver behind political events such as Brexit.
  - Other channels that usually blamed might have had only limited effect (e.g., immigration, import competition).

## What was chronology of events?

The Conservative party imposes austerity measures after 2010;

$\rightarrow$ Certain demographics turn against mainstream political parties between 2010 and 2015.
$\rightarrow$ UKIP benefits from this support and increases its importance between 2010 and 2015 $\rightarrow$ Brexit referendum in 2016;
$\rightarrow$ Leave option is declared the winner by a rather narrow margin.

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- Election data
  - Westminster, European and local elections.
  - In total, 570 harmonized constituencies.
  - Data accounts for the diversity of electoral systems, and timing of elections.

- Individual-level panel data
  - Political preferences.
  - Attitudes towards the quality and representativity of the political system.
  - Direct questions about Brexit.

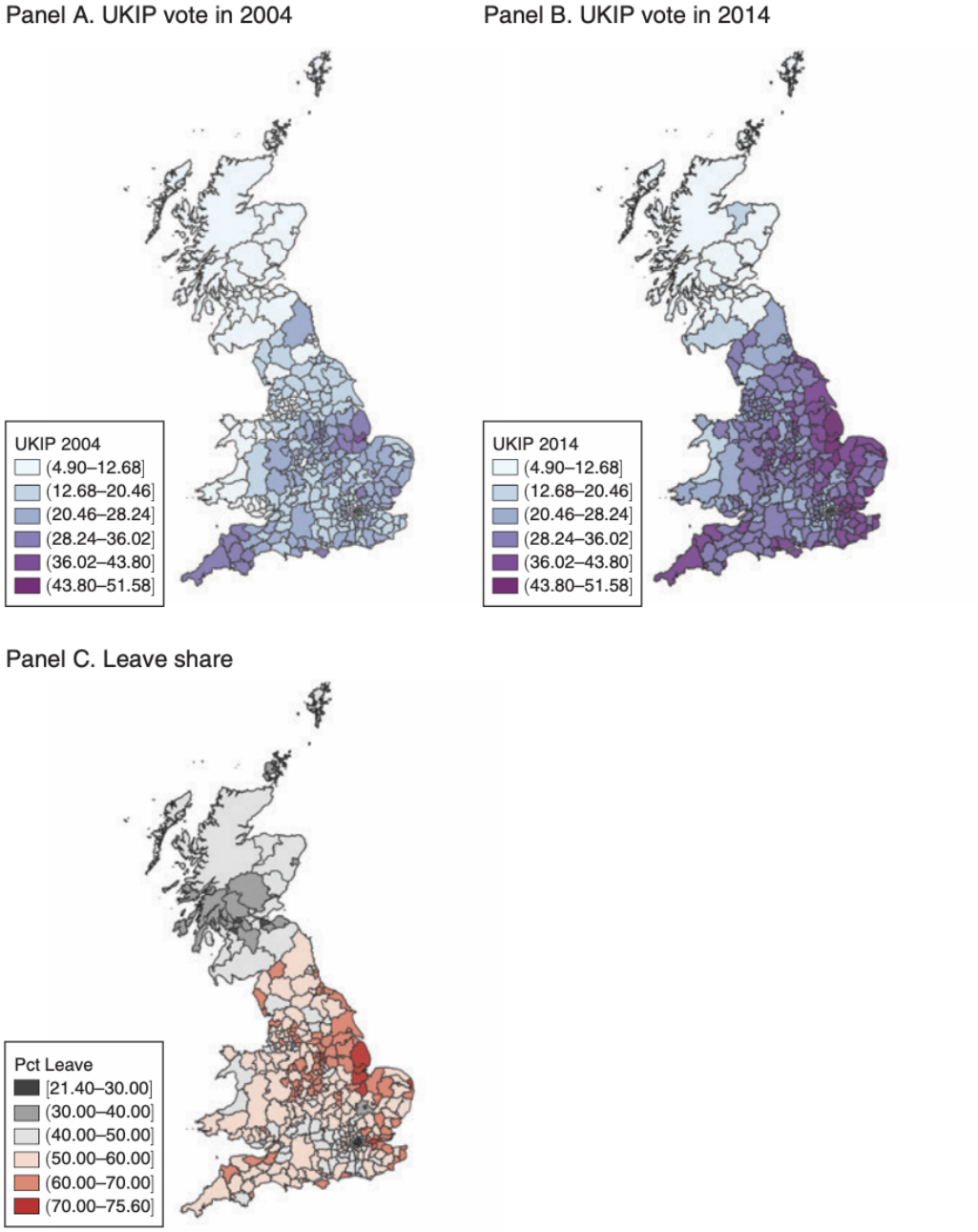


FIGURE 2. UKIP VOTE SHARE IN THE EP ELECTIONS IN 2004, 2014, AND THE LEAVE SHARE IN THE 2016 EUROPEAN UNION REFERENDUM

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FIGURE 3. NONPARAMETRIC EFFECT OF EDUCATIONAL QUALIFICATION, SOCIOECONOMIC STATUS, AND SECTORAL EMPLOYMENT OF THE RESIDENT POPULATION AS OF 2001 ON SUPPORT FOR UKIP OVER TIME

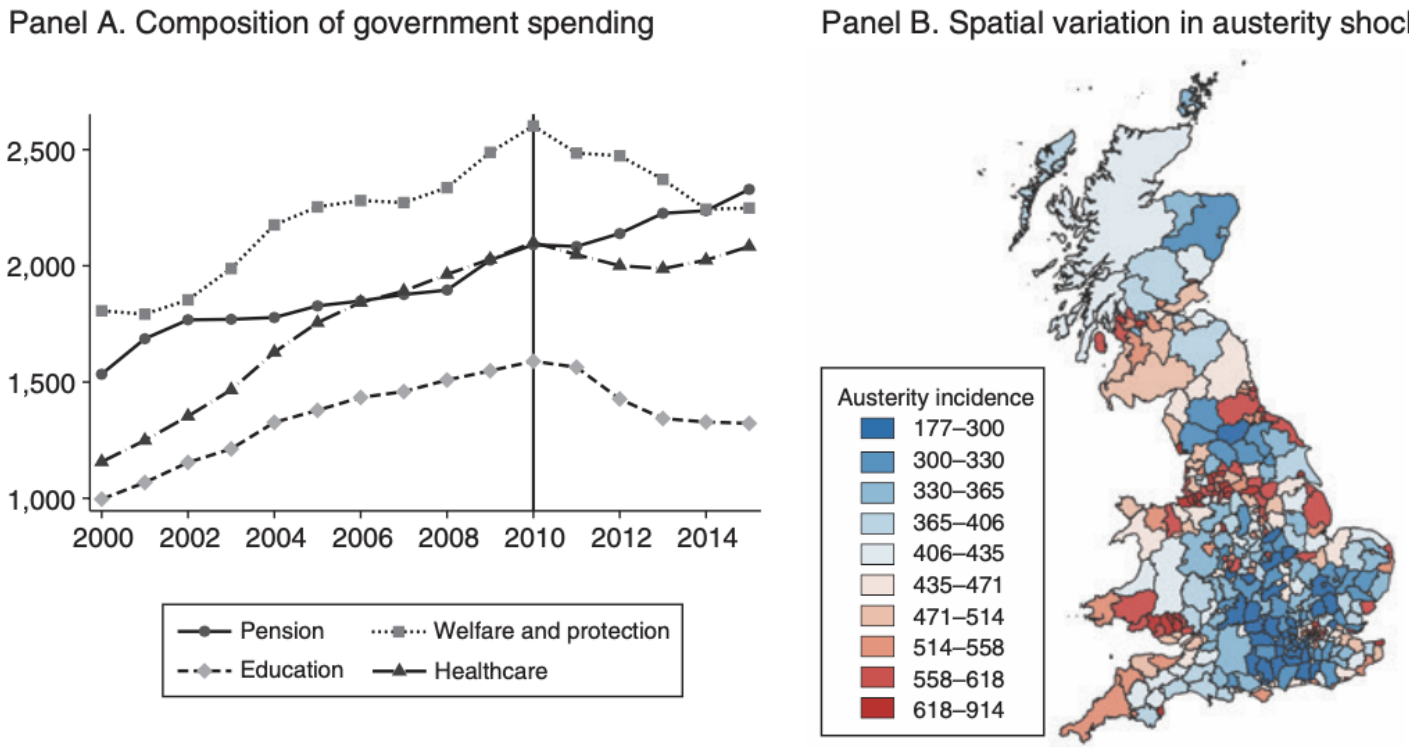


FIGURE 4. GOVERMENT SPENDING PER CAPITA AND DISTRIBUTION OF AUSTERITY SHOCK ACROSS LOCAL AUTHORITY DISTRICTS IN THE UNITED KINGDOM

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# District-level model

■ Three econometric models, centered around a pooled difference-in-differences specification:

$$y_{i,r,t} = \alpha_i + \beta_{r,t} + \gamma \times \mathbb{1}(Year > 2010) \times Austerity_{i,j} + \in_{i,r,t}$$

where

- $y_{i,r,t}$ is the UKIP voter share in an election in a district in a region
- $\alpha_i$ is a vector of time-invariant political preferences across districts
- $\beta_{r,t}$ is a vector of non-linear time trends across regions
- $\mathbb{1}(Year > 2010)$ is a characteristic function interacted with the exposure of district $i$ to austery measure $j$, $Austerity_{i,j}$

The pooled DiD estimator is complemented by event studies which confirm the results.

TABLE 1—THE IMPACT OF DIFFERENT AUSTERITY MEASURES ON SUPPORT FOR UKIP ACROSS LOCAL, EUROPEAN, AND WESTMINSTER ELECTIONS

| UKIP vote share in: | Overall (1) | TC (2) | CB (3) | CTB (4) | DLA (5) | BTX (6) |
|---|---|---|---|---|---|---|
| *Panel A. Local elections* | | | | | | |
| $\mathbf{1}(Year > 2010) \times Austerity$ | 0.014 | 0.081 | 0.036 | 0.128 | 0.166 | 0.162 |
| | (0.003) | (0.013) | (0.044) | (0.036) | (0.031) | (0.086) |
| Average effect | 6.460 | 7.116 | 2.587 | 0.9208 | 6.084 | 1.747 |
| Standard deviation | 1.747 | 1.903 | 0.3405 | 0.9960 | 2.028 | 0.9033 |
| Mean of dependent variable | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 | 4.49 |
| Local authority districts | 345 | 346 | 346 | 346 | 346 | 346 |
| Observations | 3,260 | 3,263 | 3,263 | 3,263 | 3,263 | 3,263 |
| *Panel B. European elections* | | | | | | |
| $\mathbf{1}(Year > 2010) \times Austerity$ | 0.008 | 0.049 | 0.054 | 0.060 | 0.128 | 0.001 |
| | (0.002) | (0.009) | (0.028) | (0.028) | (0.018) | (0.047) |
| Average effect | 3.692 | 4.297 | 3.893 | 0.4322 | 4.672 | 0.0086 |
| Standard deviation | 0.9988 | 1.149 | 0.5125 | 0.4676 | 1.557 | 0.0044 |
| Mean of dependent variable | 21.1 | 21.1 | 21.1 | 21.1 | 21.1 | 21.1 |
| Local authority districts | 378 | 379 | 379 | 379 | 379 | 379 |
| Observations | 1,134 | 1,137 | 1,137 | 1,137 | 1,137 | 1,137 |
| *Panel C. Westminster elections* | | | | | | |
| $\mathbf{1}(Year > 2010) \times Austerity$ | 0.008 | 0.076 | −0.025 | 0.043 | 0.178 | 0.064 |
| | (0.002) | (0.009) | (0.025) | (0.030) | (0.021) | (0.041) |
| Average effect | 3.978 | 6.997 | −1.81 | 0.3966 | 6.664 | 0.7642 |
| Standard deviation | 0.9839 | 1.715 | 0.2260 | 0.3542 | 2.062 | 0.3735 |
| Mean of dependent variable | 6.03 | 6.03 | 6.03 | 6.03 | 6.03 | 6.03 |
| Harmonized constituencies | 566 | 566 | 566 | 566 | 566 | 566 |
| Observations | 2,047 | 2,047 | 2,047 | 2,047 | 2,047 | 2,047 |

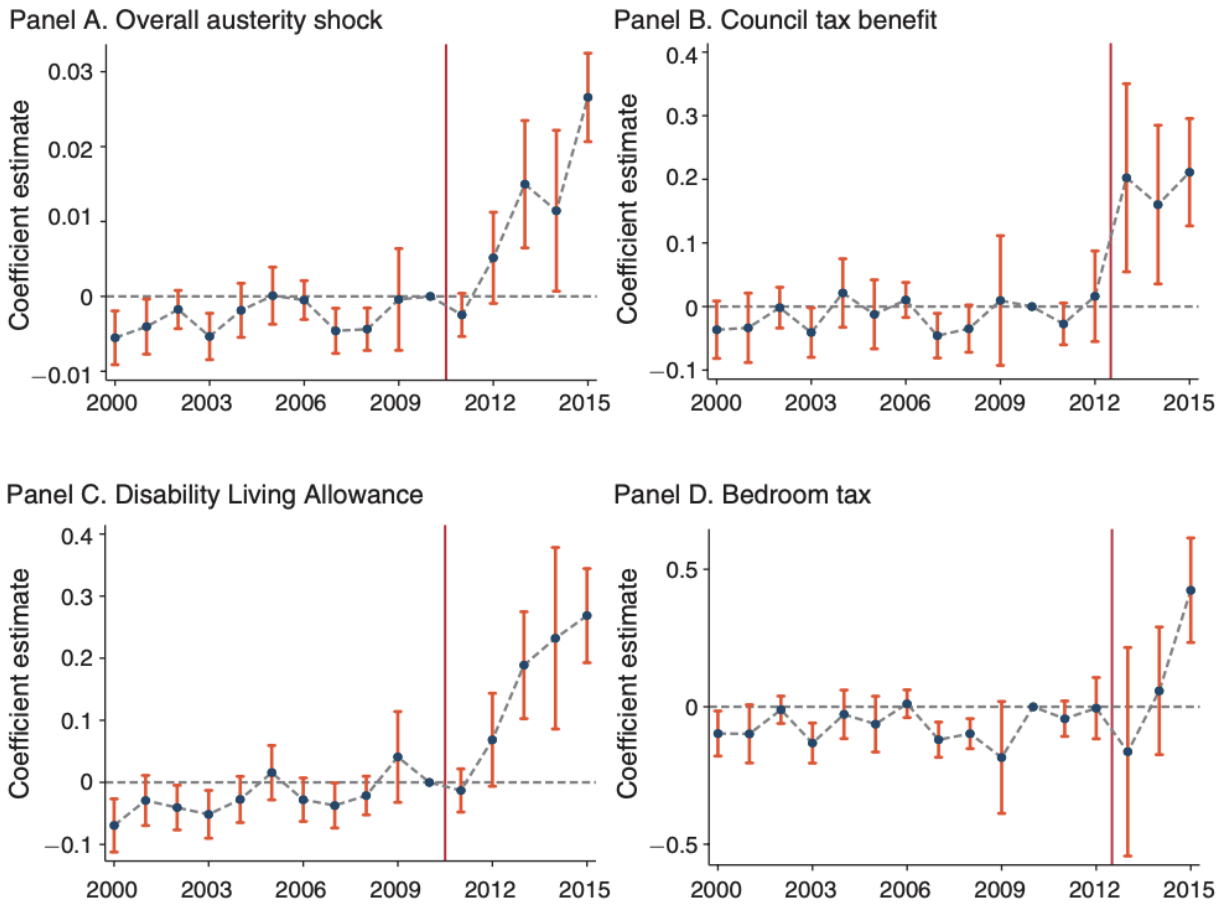


FIGURE 5. NONPARAMETRIC EFFECT OF AUSTERITY ON SUPPORT FOR UKIP OVERALL AND BY INDIVIDUAL MEASURES

*Notes:* The dependent variable is the percentage of votes for UKIP in English and Welsh local council elections from 2000–2015. The graph plots point estimates of the interaction between these simulated incidence of the austerity measures and a set of year fixed effects. All regression include local authority district fixed effects and NUTS1 region-by-year fixed effects. Standard errors are clustered at the district level with 90 percent confidence bands indicated.

# Individual-level model

■ Three econometric models, centered around a pooled difference-in-differences specification:

$$y_{i,w,d,t} = \alpha_i + \beta_{d,w,t} + \gamma \times Post_{i,j,t} \times T_{i,j} + \in_{i,d,w,t}$$

where

- $y_{i,r,t}$ is a dummy revealing if an individual has a preference for UKIP
- $\beta_{d,w,t}$ captures time-fixed effects.
- $Post_{i,j,t}$ captures the welfare benefit cuts.
- $T_{i,j}$ is a sub-population

The pooled DiD estimator is complemented by event studies which confirm the results.

TABLE 2—THE IMPACT OF DIFFERENT AUSTERITY MEASURES ON SUPPORT FOR UKIP: EXPLOITING INDIVIDUAL-LEVEL DATA

| Support UKIP: | Any (1) | CTB (2) | DLA (3) | BTX (4) |
|---|---|---|---|---|
| *Panel A* | | | | |
| Post × benefit cut | 0.028 | 0.026 | 0.051 | 0.027 |
| | (0.004) | (0.005) | (0.013) | (0.006) |
| Mean of dependent variable | 0.047 | 0.047 | 0.047 | 0.047 |
| Local authority districts | 379 | 379 | 379 | 379 |
| Observations | 252,642 | 252,642 | 252,642 | 245,352 |
| District FE and region × wave × time fixed effects | X | X | X | X |
| *Panel B* | | | | |
| Post × benefit cut | 0.026 | 0.025 | 0.043 | 0.026 |
| | (0.005) | (0.005) | (0.013) | (0.006) |
| Mean of dependent variable | 0.047 | 0.047 | 0.047 | 0.047 |
| Local authority districts | 379 | 379 | 379 | 379 |
| Observations | 252,642 | 252,642 | 252,642 | 245,352 |
| District × wave × time fixed effects | X | X | X | X |
| *Panel C* | | | | |
| Post × benefit cut | 0.019 | 0.019 | 0.030 | 0.016 |
| | (0.005) | (0.006) | (0.015) | (0.006) |

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TABLE 3—THE IMPACT OF DIFFERENT AUSTERITY MEASURES ON SUPPORT FOR OTHER PARTIES: EXPLOITING INDIVIDUAL-LEVEL DATA

| | Any (1) | CTB (2) | DLA (3) | BTX (4) |
|---|---|---|---|---|
| *Panel A. Support for Conservatives* | | | | |
| Post × benefit cut | −0.023 | −0.019 | −0.022 | −0.027 |
| | (0.005) | (0.005) | (0.011) | (0.006) |
| Mean of dependent variable | 0.259 | 0.259 | 0.259 | 0.261 |
| Local authority districts | 379 | 379 | 379 | 379 |
| Observations | 252,642 | 252,642 | 252,642 | 245,352 |
| *Panel B. Support for Labour* | | | | |
| Post × benefit cut | 0.014 | 0.017 | −0.004 | 0.011 |
| | (0.005) | (0.007) | (0.016) | (0.008) |
| Mean of dependent variable | 0.351 | 0.351 | 0.351 | 0.348 |
| Local authority districts | 379 | 379 | 379 | 379 |
| Observations | 252,642 | 252,642 | 252,642 | 245,352 |
| *Panel C. Support for Liberal Democrats* | | | | |
| Post × benefit cut | 0.008 | 0.004 | −0.003 | 0.013 |
| | (0.003) | (0.004) | (0.010) | (0.005) |
| Mean of dependent variable | 0.0815 | 0.0815 | 0.0815 | 0.0828 |
| Local authority districts | 379 | 379 | 379 | 379 |
| Observations | 252,642 | 252,642 | 252,642 | 245,352 |
| *Panel D. Support for no party* | | | | |
| Post × benefit cut | −0.010 | −0.015 | 0.009 | −0.006 |
| | (0.006) | (0.007) | (0.013) | (0.008) |
| Mean of dependent variable | 0.193 | 0.193 | 0.193 | 0.193 |
| Local authority districts | 379 | 379 | 379 | 379 |
| Observations | 252,642 | 252,642 | 252,642 | 245,352 |

TABLE 4—WIDER MEASURES OF PERCEPTIONS OF DISENFRANCHISEMENT AND TURNOUT: INCLUDED ONLY IN SOME WAVES OF THE USOC STUDY

| | (1) | (2) | (3) |
|---|---|---|---|
| *Panel A. Public officials don't care* | | | |
| Post × benefit cut | 0.078 | 0.073 | 0.051 |
| | (0.020) | (0.021) | (0.040) |
| Mean of dependent variable | 3.37 | 3.37 | 3.37 |
| Local authority districts | 378 | 378 | 378 |
| Observations | 75,547 | 75,547 | 75,547 |
| *Panel B. Don't have say in what government does* | | | |
| Post × benefit cut | 0.096 | 0.093 | 0.068 |
| | (0.020) | (0.021) | (0.041) |
| Mean of dependent variable | 3.34 | 3.34 | 3.34 |
| Local authority districts | 378 | 378 | 378 |
| Observations | 75,897 | 75,897 | 75,897 |
| *Panel C. Your vote is unlikely to make a difference* | | | |
| Post × benefit cut | 0.020 | 0.021 | 0.020 |
| | (0.011) | (0.011) | (0.022) |

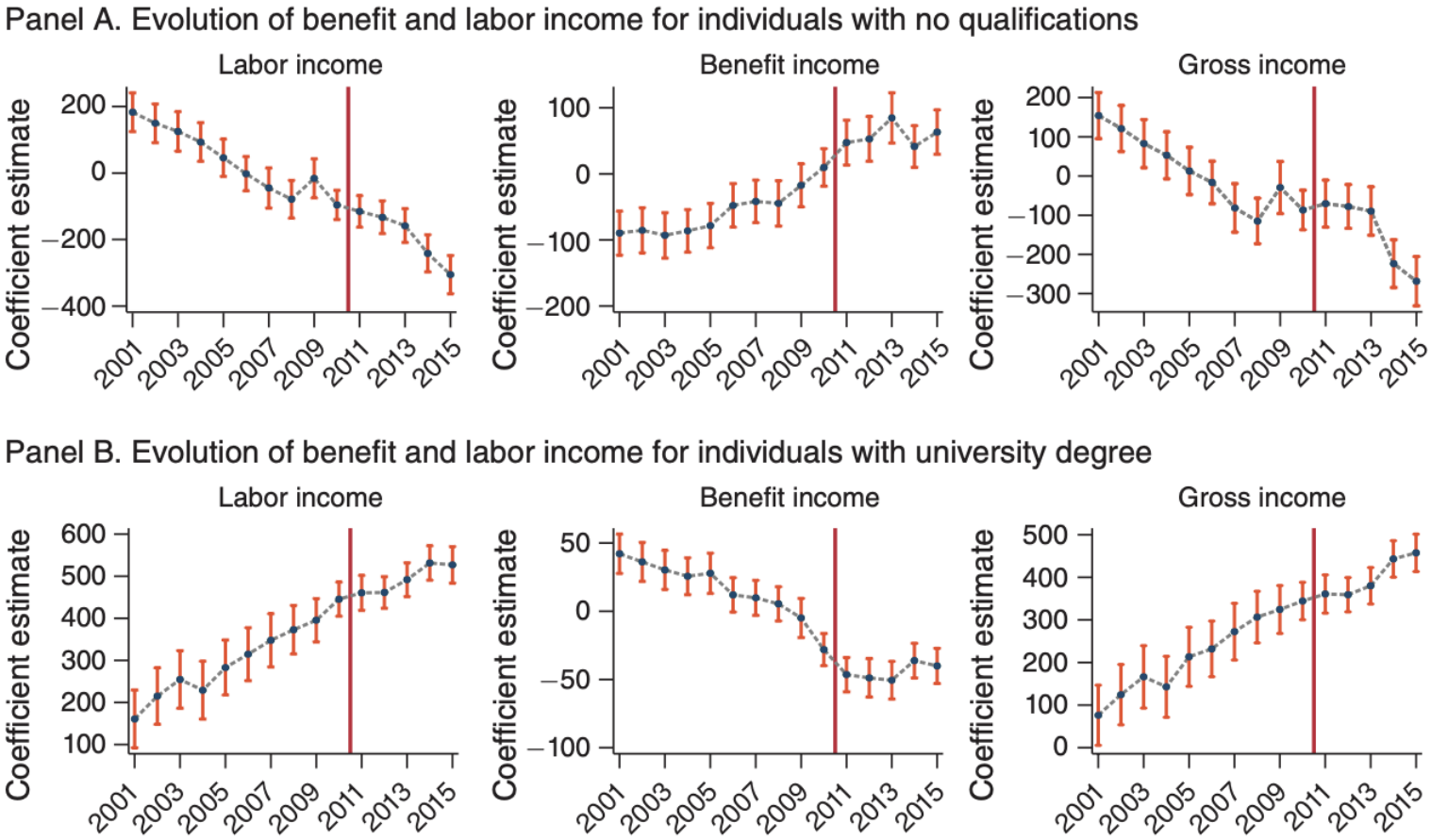


FIGURE 8. NONPARAMETRIC ESTIMATES CAPTURING THE EVOLUTION OF LABOR AND BENEFIT INCOME *WITHIN-INDIVIDUALS* OVER TIME FOR RESPONDENTS WITH LOW AND HIGH LEVELS OF EDUCATIONAL ATTAINMENT

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- Fetzer agrees that the causes of people relying on the welfare state are crucial for understanding this dynamic. How could we capture these causes better?

- Is Fetzer's approach methodologically sound in terms of identifying causation?

- Is this paper really about Brexit?