

# Left Behind: The Local Effects of Deindustrialization in France\*

Brice Berland<sup>†</sup>    Marco Tabellini<sup>‡</sup>    Clemence Tricaud<sup>§</sup>

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## Abstract

This paper studies the long-run local consequences of deindustrialization in France. Using harmonized municipal census data from 1968 to 2016, we show that municipalities experiencing larger declines in manufacturing employment faced persistently higher unemployment, lower incomes, slower population growth, and greater social isolation. Deindustrialization also reduced civic participation, lowering voter turnout and support for European integration while increasing the vote share of the far-right. We further show that these areas differ markedly in contemporary community life: municipalities more exposed to manufacturing decline today host fewer local amenities—such as shops, health facilities, and cultural venues—and generate fewer grassroots civic organizations. Together, the results document how the retreat of manufacturing reshaped not only local economies but also the social and civic fabric of French communities.

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<sup>†</sup>CREST-ENSAE-Institut Polytechnique de Paris. Email: brice.berland@ensae.fr

<sup>‡</sup>Harvard Business School, NBER, CEPR, and IZA. Email: mtabellini@hbs.edu

<sup>§</sup>UCLA Anderson, NBER and CEPR. Email: clemence.tricaud@anderson.ucla.edu

# 1 Introduction

The manufacturing sector is considered one of the backbones of modern economic development and of the liberal social order that emerged from it (Polanyi, 1944; Kaldor, 1966; Rodrik, 2013). From the Ruhr Valley to Detroit, from Birmingham to Lyon, industrial production generated not only rapid economic growth and rising living standards but also a broad middle and working class that underpinned democratic stability. Manufacturing provided stable, well-paid jobs for workers with limited education, enabling social mobility and embedding economic security within communities. As Kaldor (1966) described, manufacturing was the “engine of growth;” yet, it was also an engine of inclusion, anchoring communities in shared prosperity and civic life (Acemoglu, 2025). The factory town was not simply a site of production—it was a social institution, where work, identity, and local solidarity converged (Bluestone and Harrison, 1982; Cowie and Heathcott, 2003).

Since the 1970s, this world has changed profoundly. In the United States, the share of manufacturing in total employment fell from about 25% in 1970 to less than 8% today; in Germany, it declined from roughly 35% to 15%; and, in France from 27% in 1968 to 15% in 2016. These shifts, driven largely by automation and global competition, have triggered intense debate over the economic and social consequences of deindustrialization. A large body of research documents the adverse effects of industrial decline on employment, wages, and local economic activity at the labor market level (Autor et al., 2013; Charles et al., 2018; Acemoglu and Restrepo, 2020). Other studies emphasize that these effects extend beyond employment, linking them to declining marriage and fertility rates (Autor et al., 2019) and political discontent (Colantone and Stanig, 2018; Autor et al., 2020; Bekhtiar, 2025). Despite this growing literature, we still lack a comprehensive account of the long-run impact of deindustrialization on places—how the decline of local manufacturing reshaped not only economic performance, but also social life, demographics, and civic engagement at the community level.

This paper seeks to make progress on this question by studying the effects of the decline in manufacturing employment across French municipalities between 1968 and 2016. To this end, we assemble a new dataset that harmonizes information from the French population censuses (INSEE) with detailed administrative data on income, housing, and political behavior from Piketty and Cagé (2023), covering more than 30,000 municipalities over five decades. We use these data to track the local consequences of deindustrialization along multiple dimensions—economic, social, demo-

graphic, and political.

France is a particularly well-suited context to study these questions. First, it entered the postwar period with one of the largest manufacturing sectors in Western Europe: in 1968, more than one in four workers were employed in manufacturing, a share comparable to that of Germany and substantially higher than that of the United States. France then experienced one of the steepest manufacturing declines, leaving it today among the most deindustrialized economies in the G7. Second, the decline of French manufacturing reflects exposure to multiple, distinct forces—including technological change, protective labor policies, trade liberalization, and shifts in Europe’s economic geography—that unfolded at different points in time and affected different regions with varying intensity. This staggered pattern of shocks generated rich spatial and temporal variation in local manufacturing decline. Third, the social role of industrial employment has historically been especially salient in France. Large unionized workplaces, dense networks of works councils and labor organizations, and the centrality of industrial firms to local public life all meant that manufacturing was tightly intertwined with community identity and civic participation. Studying deindustrialization in this setting therefore offers a unique opportunity to document not only economic adjustment, but also the broader social and political changes that accompanied the retreat of industry. Moreover, the administrative fragmentation of France into thousands of municipalities allows us to track the consequences of deindustrialization at a uniquely local scale.

Figure 1 summarizes our results, displaying binned scatterplots of the relationship between the 1968–2016 change in economic and social indicators and the corresponding change in manufacturing employment share, after partialling out department fixed effects.<sup>1</sup> The figure shows that municipalities that experienced larger declines in manufacturing employment, expressed as a share of total employment, saw sharper increases in unemployment (Panel A). It also documents that areas with greater industrial decline exhibit lower electoral participation (Panel B), consistent with the view that manufacturing employment helped sustain social and civic life in local communities.

To study these relationships systematically, we expand the set of outcomes and estimate stacked first-difference regressions, exploiting changes in manufacturing employment between each of the eight census waves. This specification controls for municipality and census-period fixed effects, thereby exploiting within-municipality variation in changes in manufacturing employment over time. In our preferred specification, a

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<sup>1</sup>We focus on mainland France, excluding overseas territories and Corsica. Mainland France is divided into 94 departments, which are intermediate administrative units between municipalities and regions.

10 percentage point decline in the manufacturing employment share is associated with a 0.52 percentage point increase in the unemployment rate (corresponding to a 6.4% increase) and a reduction in per capita income of 1.2%. These patterns extend to other dimensions of local economic performance: municipalities losing more manufacturing jobs experienced slower growth in GDP per capita, and higher housing vacancy rates.

Turning to the social consequences of deindustrialization, we find that in municipalities where manufacturing employment declined more, the share of people living alone rose substantially, and the share of married individuals fell. Civic participation also fell more in municipalities with larger declines in manufacturing employment. According to our estimates, a 10 percentage point reduction in the manufacturing employment share is associated with a 0.48 and 0.31 percentage point decline in turnout in both presidential and legislative elections, respectively. Consistent with the broader literature linking economic decline to political realignment ([Colantone and Stanig, 2018](#); [Autor et al., 2020](#)), we also find that support for left-wing parties declined more in areas that experienced larger manufacturing job losses.

We complement the stacked first difference analysis by estimating long-difference regressions, which show that the effects of deindustrialization are not transient.<sup>2</sup> Municipalities that lost more manufacturing employment between 1968 and 2016 experienced sustained economic and social divergence. A 10 percentage point decline in the manufacturing share is associated with a long-run increase in unemployment of about 1 percentage point and an average income loss of 3.8%. On the social side, a 10 percentage point decline in manufacturing corresponds to a 6.5% increase in the share of single-person households and a 1.3 percentage points (1.7% relative to the mean) reduction in turnout in presidential elections, between 1968 and 2016. To benchmark these effects, consider that the median municipality experienced a 12.3 percentage point decline in its manufacturing employment share between 1968 and 2016. Taken together, these long-run estimates confirm that the economic and social disintegration accompanying industrial decline was deep and persistent, shaping local trajectories for decades.

While the analysis so far has emphasized correlations, the persistence and timing of these relationships suggest a causal link from manufacturing decline to economic and social declines. To further corroborate this interpretation, we provide several robustness checks. First, we show that the estimates are stable when restricting the sample to

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<sup>2</sup>Beyond measuring the long-term cumulative effects of deindustrialization, this specification also alleviates the identification concerns related to two-way fixed effect estimations (e.g., [Borusyak et al. 2024](#)).

larger municipalities, when removing population weights, and when using alternative definitions of the decline in manufacturing employment. Second, the effects remain significant when we estimate more stringent specifications that incorporate time-varying department trends or interact period dummies with pre-determined sociodemographic characteristics to allow for heterogeneous local trajectories. The point estimates are generally smaller in these specifications. Indeed, these controls remove not only potential confounding patterns but also some of the meaningful differential exposure to manufacturing decline that our analysis aims to document. Since the purpose of the paper is to characterize how places more severely affected by manufacturing job losses evolved over the deindustrialization period, we view the more parsimonious baseline specification as better aligned with our descriptive objective. The more demanding specifications nevertheless serve as robustness checks, showing that the qualitative patterns are not driven by flexible local trends.

Beyond the economic, social, and political outcomes, we also analyze the broader demographic implications of manufacturing decline. Municipalities that lost more manufacturing employment experienced slower population growth and an aging demographic structure. These trends are mainly due to migration patterns: while we find limited effect on fertility, municipalities that lost more manufacturing employment experienced larger population outflows. Deindustrialization triggered outmigration at both ends of the education distribution: among residents with lower levels of education—who were hit harder by the loss of manufacturing jobs—as well as among residents with higher levels of education, who likely found fewer opportunities in these places. As a result, these areas gradually lost population and human capital.

Next, we examine how the long-run decline in manufacturing employment relates to contemporary indicators of community life and local civic capacity. Our analysis shows that municipalities that were more exposed to manufacturing decline between 1968 and 2016 host fewer local amenities today—such as shops, schools, health facilities, cultural venues, and sports centers—and generate fewer new civic associations. We find consistently negative relationships between long-run industrial decline and the number of local services and grassroots organizations per capita. These patterns suggest that deindustrialization reshaped not only employment and income trajectories, but also the institutional and physical infrastructure that supports everyday social interaction and local collective action.

Finally, we document that long-run manufacturing decline is strongly associated

with lower civic engagement and greater political disaffection. Municipalities that experienced larger industrial losses exhibit significantly lower turnout and reduced support for European integration, as well as higher vote shares for the far-right in recent presidential and legislative elections. Although these cross-sectional relationships are suggestive, they mirror the dynamic evidence presented earlier and resonate with findings from other Western economies, where economic dislocation has contributed to political polarization and the rise of anti-establishment movements (Colantone and Stanig, 2018, 2019; Autor et al., 2020).

Taken together, our findings paint a consistent picture of how the long-run decline of manufacturing reshaped local life in France. Municipalities that experienced larger contractions in industrial employment saw persistently weaker labor-market outcomes, declining incomes, slower population growth, and notable increases in social isolation and political disengagement. These patterns extend to contemporary indicators of community life: former industrial areas exhibit fewer local amenities, weaker associational activity, lower civic participation, and greater support for anti-establishment political movements.

## 2 Historical context and Data

### 2.1 The decline of manufacturing in France

France has undergone one of the deepest deindustrialization processes among advanced economies. In the mid-1970s, industrial employment accounted for nearly one-quarter of total employment; by 2018, it had fallen to about 10%, representing a loss of more than 2.5 million industrial jobs. Together with the United Kingdom, France is now among the most deindustrialized countries in the G7 (Dufourcq, 2022).

Several structural and policy factors have contributed to this decline. The first wave of deindustrialization was triggered by the oil shocks of the 1970s, which multiplied energy costs tenfold between 1973 and 1980 and coincided with the arrival of the baby-boom generation on the labor market, leading to the onset of mass unemployment. This employment shock was further exacerbated by profound structural shifts. Rapid productivity driven by technical progress, together with a shift in consumer preferences toward services as incomes rose, reduced the share of industrial employment (Fontagné and Lorenzi, 2005; Kalantzis and Thubin, 2017). In France, successive increases in social contributions during the 1980s and labor regulations, including the reduction in

working hours, further raised labor costs.

Globalization accelerated the process. The entry of China into the World Trade Organization in 2001 and the integration of low-cost Central and Eastern European economies intensified competition and created powerful relocation incentives. In France, these offshoring pressures were amplified by a production structure dominated by large corporations, in contrast to the Italian and German models, which rely more heavily on denser networks of small and medium-sized enterprises that tend to be less prone to offshoring (DGE, 2024). According to Malgouyres (2017), China’s WTO accession cost France 270,000 jobs, including 100,000 in manufacturing. The 2008 financial crisis precipitated a new wave of closures and relocations. From 1995 to 2015, France lost nearly half of its factories and one-third of its industrial employment.

Because manufacturing plants and industrial clusters were distributed unevenly across the territory, municipalities differed sharply in their exposure to the downturn. France’s administrative geography makes these patterns particularly visible. With roughly 35,000 municipalities—the unit at which census, electoral, and administrative data are collected—the French setting offers a fine-grained window into how communities adapted to industrial decline over nearly five decades.

Figure 2 plots the share of residents employed in manufacturing for each municipality across our eight census waves, from 1968 to 2016. The decline was particularly severe in the traditional industrial basins of the North—historically centered on coal mining, metallurgy, mechanical engineering, and textiles—and in the Northeast, home to France’s steel corridor from Lorraine to Alsace. Large industrial employers such as Usinor, Arcelor, Moulinex, Creusot-Loire, and the mines of the Nord–Pas-de-Calais collapsed or restructured, triggering substantial and lasting employment losses. Yet deindustrialization was not confined to these regions. Much of western and central France saw major reductions in manufacturing activity, often concentrated in smaller towns specialized in food processing, furniture, or light manufacturing. The map reveals substantial within-region heterogeneity: municipalities separated by only a few kilometers often experienced very different trajectories depending on their industrial composition in the late 1960s and early 1970s.

This variation, rooted in pre-existing industrial structures and reinforced by the staggered nature of global, European, and domestic shocks, allows us to track not only the economic adjustment to deindustrialization but also its social, demographic, and political consequences at a uniquely local scale.

## 2.2 Data

We use a wide range of indicators to measure the economic and social impact of deindustrialization at the municipal level.

We primarily rely on individual-level data from the French census conducted by the National Institute of Statistics and Economic Studies ([INSEE](#)) since 1968. More specifically, we use the complementary census datasets made available through Saphir ([INSEE](#)), which provide information on the share of employed workers in manufacturing—our main explanatory variable. Until 2006, the census was conducted every seven to nine years. Since then, it has been conducted annually, with each year covering approximately one-fifth of the territory, so that the entire country is surveyed over a five-year cycle. For example, the 2006 census covers the 2004–2008 period, the 2007 census covers 2005–2009, and so on. This methodology implies that census data are comparable across five-year intervals. As illustrated in [Figure 2](#), we consider eight census waves: all pre-2006 censuses (1968, 1975, 1982, 1990, and 1999), as well as the 2006, 2011, and 2016 censuses.

For each complementary census, a random sample of 20–25% of individuals is surveyed in each municipality. Because census data are less representative in small municipalities, we exclude municipalities with fewer than 500 inhabitants from our analysis.<sup>3</sup> In addition to employment and industry data, the census provides information on individuals’ age, education level, geographic mobility, household composition, marital status, and housing characteristics. To measure fertility, we further rely on yearly birth data from the Monthly Municipal Civil Registry, also produced by [INSEE](#).

In order to assess the economic impact of deindustrialization beyond employment, we use data from [Piketty and Cagé \(2023\)](#), which provide annual measures of income and GDP per capita at the municipal level, as well as average housing prices.<sup>4</sup>

Political variables are also drawn from [Piketty and Cagé \(2023\)](#), based on municipal-level results from the 1969, 1974, 1981, 1988, 1995, 2002, 2007, 2012, and 2017 presidential elections, and the 1967, 1973, 1981, 1993, 2002, 2007, 2012, and 2017 parliamentary elections. Presidential elections were held every seven years until 2002, and every five years thereafter, now aligning with the parliamentary cycle.<sup>5</sup> We selected election years

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<sup>3</sup>As shown in [Table B1](#), our results are robust to including all municipalities or to excluding those with fewer than 2,000 inhabitants, following [CNIS’s guidelines](#).

<sup>4</sup>Income per capita is available from 1982 onward, while the other variables we use from [Piketty and Cagé \(2023\)](#) are available throughout our period of analysis.

<sup>5</sup>Parliamentary elections may also occur following a presidential dissolution, as was the case for the 1981 election included in our analysis.



that best correspond to our census periods (e.g., when comparing the 1975 and 1968 censuses, we use the 1974 and 1969 presidential elections, respectively). Both presidential and parliamentary elections follow a two-round plurality voting system. While presidential elections are held nationwide, parliamentary elections are conducted at the constituency level, with each of the 577 constituencies electing one member of parliament. We focus on municipal-level results and consider both turnout rates and the vote shares of major political orientations in the first round.<sup>6</sup>

Finally, we incorporate several additional sources for contemporary outcomes. Data on the number of local amenities available in each municipality are obtained from the 2018 Permanent Database of Facilities (*Base permanente des équipements*, BPE (2018)). We group facilities into six categories: health, education, other public services (post offices and train stations), culture, sports, and retail (shops). We also compute the number of grassroots organizations created in each municipality between 2018 and 2024 based on the National Register of Associations (*Répertoire National des Associations*, RNA).<sup>7</sup>

Table 1 presents some descriptive statistics on our main sample at the start and end of our period of analysis. We consider a total of 10,258 municipalities above 500 inhabitants that we can observe in each of our 8 census waves.<sup>8</sup> In 1968, the average municipality in our sample had 3,805 inhabitants, the unemployment rate was 1.48%, and, among the employed workers, 28.5% worked in manufacturing. In 2016, this share drops to 15.7%.<sup>9</sup>

### 3 Empirical Strategy

Our analysis is conducted at the municipal level, exploiting the detailed administrative and census data described in Section 2.2. The baseline specification relates changes in local outcomes to changes in the share of employment in manufacturing, capturing how the decline of industrial employment shaped the economic, demographic, and social

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<sup>6</sup>We define the vote shares of the “left” and “right” following the classification of Piketty and Cagé (2023), which assigns all votes to one of the two blocs, allocating votes for centrist candidates equally between them. We analyze the far-right vote share in the 2017 election, using Marine Le Pen’s vote share.

<sup>7</sup>We are interested in how the manufacturing decline between the 1968 and 2016 census is related to contemporary outcome. Given that the 2016 census is carried out over the five-year window from 2014 to 2018, we measure contemporary outcomes starting in 2018.

<sup>8</sup>Given that our explanatory variable is the manufacturing employment share, we also exclude 335 municipalities with no resident employed in at least one census year over the period of analysis.

<sup>9</sup>Appendix Tables A1 to A4 report descriptive statistics for our full set of variables, in levels for 1968 and for the end of the analysis period, as well as in first and long differences.

evolution of French municipalities over the past five decades. Formally, we estimate a stacked first-difference specification of the form:

$$\Delta y_{mt} = \alpha_m + \gamma_t + \beta \Delta \%Mfg_{mt} + \mu_{mt} \quad (1)$$

where  $m$  indexes municipalities and  $t$  indexes census periods. Each observation corresponds to the change between two consecutive census years from 1968 to 2016. The dependent variable,  $\Delta y_{mt}$ , measures the change in a given outcome between periods—for example, the change in the unemployment rate, average income, or voter turnout. The main explanatory variable,  $\%Mfg_{mt}$ , is the corresponding change in the share of manufacturing employment, defined as the number of residents employed in manufacturing over total employment. The model includes municipality ( $\alpha_m$ ) and period ( $\gamma_t$ ) fixed effects. Standard errors are clustered at the department level, and regressions are weighted by the municipality’s population in the initial year of the period, ensuring that estimates reflect the relative importance of larger places while preserving comparability across time.<sup>10</sup>

The inclusion of municipality fixed effects in a stacked first difference framework implies that both levels and municipality-specific average trends are absorbed. Hence, identification relies solely on deviations from each municipality’s long-run linear trend in outcomes and manufacturing employment, relative to common national shocks captured by period fixed effects. Intuitively, the specification compares municipalities that experienced sharper or milder manufacturing declines than would be predicted by their own historical trajectory and by aggregate trends in the same period. The coefficient  $\beta$  therefore measures the average within-municipality association between changes in manufacturing employment and contemporaneous changes in local economic or social outcomes, net of municipality-specific linear trends and period-wide shocks.

This specification allows us to control for municipality-specific average trends, that are not related to the deindustrialization period, while still exploiting much of the spatial variation depicted in Figure 2. We show the robustness of our results to more demanding specifications in Section 4.3.

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<sup>10</sup>As discussed in Section 4.3, our results are robust to alternative samples and to removing population weights.

## 4 Results

### 4.1 Baseline Estimates

**Economic outcomes.** Table 2 reports estimates of Equation (1) for economic outcomes. The results confirm and quantify the patterns displayed in Figure 1, which documented a strong negative correlation between long-run manufacturing decline and local economic performance. Column 1 shows results for the unemployment rate. The coefficient on the change in manufacturing employment is negative and statistically significant, indicating that municipalities that experienced larger manufacturing job losses saw sharper increases in unemployment. A 10 percentage point decline in the manufacturing employment share is associated with a 0.52 percentage-point increase in the local unemployment rate—about 6.4% relative to the mean. This pattern implies that job losses in manufacturing were not offset by job creation in other sectors: workers displaced from industry did not transition smoothly into services or other activities.

Column 2 considers the (log of) average income per capita. The estimated coefficient is positive and statistically significant, implying that places that lost more manufacturing employment also experienced larger reductions in income. The coefficient of 0.118 implies that a 10 percentage point decline in manufacturing employment is associated with an approximately 1.2% reduction in average income per capita. This effect reflects both the direct impact of higher unemployment and potential wage declines among remaining workers as local labor markets weakened. Column 3 confirms this result focusing on GDP, expressed relative to national GDP, per capita. The positive and statistically significant coefficient indicates that a 10 percentage point decline in manufacturing employment is associated with a 1.4% decrease in GDP per capita.

Columns 4 and 5 turn to the housing-market. While we do not detect any significant effect on the (log of) housing prices (column 4), we find that municipalities that experienced larger declines in manufacturing employment saw a stronger increase in the share of vacant housing (column 5). Overall, the estimates in Table 2 provide a coherent picture of the economic adjustment to deindustrialization: municipalities hit harder by manufacturing decline experienced rising unemployment, falling incomes, and lower GDP.

**Social and political outcomes.** Next, we turn to the relationship between deindustrialization and social and political outcomes, presenting results in Table 3. Column 1 shows that municipalities with larger declines in manufacturing employment experi-

enced a more pronounced increase in the share of people living alone. A 10 percentage point decline in the manufacturing employment share is associated with an increase of about 0.26 percentage points in the share of single-person households, roughly 3% relative to the mean. Column 2 confirms this pattern when examining the share of married individuals: areas hit harder by manufacturing losses saw a larger reduction in marriage rates. Together, these results suggest that industrial decline is associated with greater social isolation and weaker family formation.

Columns 3 and 4 examine civic engagement through changes in voter turnout. Figure 1 already suggested that municipalities with larger manufacturing declines experienced lower civic participation. The results in Table 3 confirm these patterns: we see a clear decline in electoral participation in municipalities where manufacturing employment fell more. A 10 percentage point drop in manufacturing employment corresponds to a 0.48 percentage point decline in turnout in presidential elections and a 0.31 percentage point decline in parliamentary elections. The effects are somewhat larger in presidential contests, but once expressed relative to mean turnout levels, the magnitudes are comparable. These findings indicate that deindustrialization was accompanied by a measurable erosion of civic participation—one of the core dimensions of local social capital.

Finally, columns 5 and 6 examine political preferences more directly, focusing on changes in the vote share of left-wing parties. The estimates indicate that municipalities that experienced larger manufacturing declines also saw greater losses in left-wing electoral support. This shift is consistent with recent evidence linking deindustrialization and economic distress to the weakening of traditional working-class alignments and the rise of populist or anti-establishment movements (e.g., [Colantone and Stanig, 2018, 2019](#); [Autor et al., 2020](#); [Anelli et al., 2021](#)). In the French context, our results mirror this broader pattern: the economic and social dislocation caused by the long-run decline of manufacturing translated into reduced support for the political forces historically rooted in industrial labor.

## 4.2 Long Difference Regressions

In this section, we replicate the stacked first-difference analysis by estimating long-difference regressions that relate cumulative changes in outcomes between 1968 and 2016 to the corresponding long-run change in manufacturing employment. Because municipality fixed effects would absorb all the variation in this specification, we instead

include department fixed effects to account for persistent regional differences.<sup>11</sup> We focus on four main outcomes: the unemployment rate, (log) income per capita, the share of the population living alone, and turnout in presidential elections. These are reported in Table 4.

Estimating long differences serves two purposes. First, it provides a complementary econometric check on our baseline two-way fixed effects results. Collapsing the panel into a single cross-section mitigates concerns raised in recent work that heterogeneous treatment effects can bias conventional fixed-effects estimates (Goodman-Bacon, 2021; De Chaisemartin and d’Haultfoeuille, 2020; Borusyak et al., 2024). Second, it is conceptually useful for our setting: we are interested in the cumulative, long-run effects of the manufacturing collapse rather than short-term adjustments. The long-difference specification therefore captures the full extent of the structural transformation that unfolded over five decades, tracing how the retreat of industry reshaped local economic performance, social life, and civic engagement.

The results confirm and strengthen the patterns observed in the short-run analysis. Column 1 shows a strong negative association between the long-run change in manufacturing employment and the change in the unemployment rate. A 10 percentage point decline in the manufacturing employment share is associated with an increase in unemployment of roughly 1 percentage point—larger than in the stacked specification—suggesting that the local employment effects of deindustrialization accumulated over time. Column 2 turns to income per capita. The coefficient implies that a 10 percentage point reduction in the manufacturing share corresponds to an approximately 3.8% decline in average income per capita, pointing to a persistent erosion of earnings capacity and widening disparities across municipalities. Together, these results indicate that the loss of manufacturing employment translated into a lasting deterioration in local economic conditions.

The social and civic consequences are equally pronounced. Columns 3 and 4 show that municipalities with larger industrial declines experienced both a greater increase in the share of people living alone and a more pronounced drop in voter turnout. A 10 percentage point fall in manufacturing employment is associated with a 0.36 percentage point increase in single-person households (about 6.5% relative to the mean in 1968) and a 1.3 percentage point decline in presidential election turnout. These effects underscore the long-run social fragmentation and political disengagement that

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<sup>11</sup>We excluded Paris from this specification because it is the only city that also holds department status.

accompanied industrial decline.

Overall, the long-difference estimates reinforce the central message of our analysis. Deindustrialization was not a temporary shock but a deep and persistent transformation. Over five decades, municipalities that lost more manufacturing employment experienced sustained economic stagnation, weaker community ties, and lower civic participation—the defining features of France’s long deindustrialization.

Considering that between 1968 and 2016 the median municipality (in terms of population) experienced a decline in its manufacturing employment share of approximately 12.3 percentage points, our estimates imply an average increase in unemployment of 1.28 percentage points, a reduction in income per capita of 4.6%, an increase in single-person households of 8%, and a turnout decline of about 1.6 percentage points.

### 4.3 Robustness Checks

In this section, we test the robustness of the main results presented in Section 4.1. We focus on the four key outcomes: the unemployment rate, (log) income per capita, the share of the population living alone, and turnout in presidential elections.

We first assess the robustness of our findings to alternative sample and weighting choices in Table B1. Panel A reproduces the baseline stacked first-difference estimates. Panel B presents the unweighted specification, which assigns equal weight to all municipalities regardless of size. Panel C expands the sample to all municipalities, including those with fewer than 500 inhabitants. Panel D restricts the sample to municipalities above 2,000 residents, where census data are more precise and labor markets are more diversified. The estimated coefficients remain statistically significant across all four specifications. The effects are somewhat larger in the sample of larger municipalities and, accordingly, lower when we do not weight by the population size. This is consistent with the fact that larger municipalities experienced sharper industrial decline.

Table B2 next shows that our findings are robust to considering an alternative definition of our main regressor—namely dividing the number of workers in manufacturing by the working-age population instead of the labor force. If anything, the economic estimates are even larger.

Finally, Table B3 reports results obtained from more demanding specifications. Panel A reproduces the baseline estimate. In each panel, we then add, one at a time, period interactions with the following baseline municipal characteristics: (i) population and population density (Panel B), (ii) unemployment (Panel C), (iii) education

composition (Panel D), (iv) age structure and immigrant shares (Panel E). The penultimate panel adds department-by-year fixed effects to flexibly absorb time-varying regional shocks. The final panel includes both the full set of interacted controls and department-by-year fixed effects. All estimates keep the same sign across all specifications. They also all remain statistically significant—except for the share of individuals living alone, which loses significance in 2 out of 6 of the augmented specifications. The magnitudes decline when we incorporate heterogeneous local trends or time-varying regional shocks. Indeed, while it helps isolating variation that is plausibly exogenous, doing so comes at the cost of stripping away meaningful long-run differences across municipalities that are themselves part of the deindustrialization process. In other words, although the more demanding specifications provide valuable robustness checks, they also narrow the lens through which the adjustment of communities can be observed.

#### 4.4 The Demographic Implications of Manufacturing Decline

Having established the economic, social, and political implications of the manufacturing decline, we now turn to its broader demographic consequences. Table 5 presents estimates of equation (1) for population dynamics, fertility, age structure, and migration flows. Column 1 reports results for (log) population. The coefficient on the change in manufacturing employment is positive and statistically significant, indicating that municipalities that experienced larger manufacturing declines saw slower population growth. A 10 percentage-point decline in the manufacturing employment share is associated with a reduction in population growth of roughly 1.4%, consistent with deindustrializing areas losing residents over each intercensal period.

Column 2 examines the relationship between manufacturing decline and the birth rate.<sup>12</sup> Although the point estimate is positive, it is not statistically distinguishable from zero, suggesting that fertility responses played a limited role in shaping population trends during our period of analysis. By contrast, column 3 documents a clear effect on age structure: municipalities hit harder by manufacturing decline experienced sharper increases in their dependency ratios (defined as the ratio of elderly to working-age adults). A 10 percentage-point decline in manufacturing employment is associated

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<sup>12</sup>We have yearly data on the number of births, from which we compute the yearly birth rate as the total number of births divided by the number of women of childbearing age. In order to compute changes between the census periods, we compute the changes in the birth rate in 4-year window around the starting and ending census wave. For instance, when comparing the 1975 and 1982 censuses, we compute the change in the birth rate between 1973-1977 and 1980-1984. The only exception is for the first census comparison (1968 vs. 1975) as we do not have birth data before 1968. We thus compare the birth rate between 1968-1970 and 1973-1977.

with a 0.65-point increase in the dependency ratio (a 2.2% increase, relative to the baseline mean), indicating a shift toward older populations in places where industrial employment contracted more.

Columns 4 and 5 turn to migration flows, which provide insight into the mechanisms underlying these demographic changes. The estimates show that deindustrializing municipalities experienced larger outmigration, while the effects for in-migration are imprecise. A 10 percentage-point decline in the manufacturing employment share is associated with a 0.68 percentage-point increase in the out-migration rate. These magnitudes imply that population decline in deindustrializing areas is driven primarily by mobility responses rather than differential fertility or mortality.

In Table A5, we decompose the out-migration responses by education level. The manufacturing decline is mainly associated with higher out-migration among individuals with no diploma (column 2) and among those with higher education (column 5). The former effect is consistent with the fact that blue-collar workers were hit harder by the loss of manufacturing jobs, while the latter effect is consistent with the idea that deindustrializing places became less attractive.

Taken together, the estimates in Table 5 suggest that deindustrialization reshaped not only local labor markets and social conditions but also the demographic composition of French municipalities. Areas that lost more manufacturing employment experienced slower population growth, aging populations, and sustained net outmigration—patterns consistent with the long-term decline of economic opportunity in former industrial communities.

## 5 Manufacturing Decline and Social Capital in the Long-Run

We conclude by examining how the long-run decline in manufacturing employment relates to contemporary local conditions. To this end, we regress outcomes measured at the end of our sample period on the 1968–2016 change in manufacturing employment, controlling for department fixed effects. Because these specifications rely on cross-sectional variation, they should be interpreted as suggestive evidence. Nonetheless, they offer a useful snapshot of how former industrial communities differ from otherwise similar municipalities after five decades of structural change.

Table 6 reports estimates for local amenities. Columns 1-7 document a strong



negative association between long-run manufacturing decline and the availability of local services per capita. Municipalities that lost more manufacturing employment host significantly fewer local shops, health facilities, schools, cultural venues, and sports facilities per capita in 2018. The magnitudes are economically meaningful: a 10 percentage-point drop in the manufacturing employment share is associated with roughly 9.5 fewer local amenities per 10,000 residents overall, with sizable declines across most categories of services. These patterns suggest that the long-run consequences of deindustrialization extend well beyond employment and income, affecting the physical and institutional infrastructure that supports everyday life.

Column 8 of Table 6 turns to local social capital, measured as the average number of new associations created annually between 2018 and 2024, per capita. The results show that municipalities more heavily affected by manufacturing decline exhibit significantly lower rates of association formation. A 10 percentage-point decline in the manufacturing employment share implies about 0.42 fewer associations created per 10,000 residents per year—an appreciable reduction given a mean of about 9 new associations per 10,000 residents per year. The decline in civic organization is consistent with the broader deterioration in community cohesion documented in Section 4, suggesting that the shrinking of the manufacturing base weakened the social structures that typically sustain collective action and local engagement.

Table 7 examines additional measures of civic and political behavior. Column 1 focuses on turnout in the 2005 Constitutional Treaty referendum—a national vote concerning European integration. This represents a major moment of democratic participation, involving high salience questions about national sovereignty, economic governance, and the future of the European project (Hobolt, 2009). Because referendum turnout is less shaped by party loyalties than parliamentary or presidential races, we view it as a useful proxy for baseline civic engagement. The results indicate that municipalities with larger long-run manufacturing declines experienced significantly lower turnout: a 10 percentage point drop in manufacturing employment is associated with a 1.1 percentage points (or, 1.5% relative to the mean) lower turnout.

Column 2 examines support for the EU project directly. We find a strong negative association: a 10 percentage point decline in the manufacturing share is associated with a 2.2 percentage point reduction in the 2005 “Yes” vote (about 5.3% relative to the mean), indicating that dissatisfaction with European integration was more pronounced in areas more exposed to industrial decline.

Columns 3 and 4 turn to support for the far-right in the 2017 presidential and legislative elections. The estimates show that municipalities experiencing larger long-run declines in manufacturing employment exhibit significantly higher far-right vote shares. A 10 percentage-point reduction in manufacturing employment is associated with an increase of 0.82 percentage points in far-right support in the 2017 legislative election—equivalent to about 4.7% of the mean. These patterns mirror findings from other European contexts linking economic hardship to political realignment and the rise of populist or anti-establishment sentiment (e.g., [Colantone and Stanig, 2018, 2019](#); [Autor et al., 2020](#); [Anelli et al., 2021](#); [Bekhtiar, 2025](#)).

Taken together, the evidence in Tables 6 and 7 suggests that the retreat of manufacturing employment left a deep and lasting imprint on local communities. Although these cross-sectional estimates cannot establish causality, the patterns are consistent with the dynamic results presented earlier: municipalities hit hardest by deindustrialization exhibit weaker civic participation, reduced social capital, diminished local amenities, and greater political disaffection. These long-term differences portray communities that have undergone not only economic restructuring but also profound social and civic transformation.

## 6 Conclusion

For much of the twentieth century, manufacturing was not only a driver of economic growth but also a cornerstone of the social and civic order that developed around it ([Acemoglu, 2025](#)). Stable industrial jobs anchored communities, structured local life, and sustained broad middle-class prosperity ([Bluestone and Harrison, 1982](#)). Over the past five decades, however, this world has changed dramatically. The retreat of manufacturing has been visible in many advanced economies, and France—once among the most industrialized countries in Europe—offers a particularly revealing example of this transformation.

In this paper, we examine how the long-run decline of manufacturing employment reshaped French municipalities between 1968 and 2016. We show that deindustrialization was associated with persistently higher unemployment, lower incomes, and slower population growth. Social conditions deteriorated as well: areas that lost more manufacturing employment saw greater increases in the share of people living alone, lower marriage rates, and substantial declines in voter turnout. Politically, support for left-

wing parties weakened in municipalities more affected by industrial decline, consistent with broader patterns of political realignment in response to economic dislocation.

These changes are reflected in contemporary local conditions. Municipalities that experienced larger long-term declines in manufacturing employment host fewer shops, schools, sports facilities, and health centers today, and they exhibit markedly lower rates of civic association formation in recent years. These patterns suggest that deindustrialization reshaped not only economic trajectories but also the institutional and material foundations of community life. The same municipalities display lower turnout in the last national referendum, reduced support for European integration, and higher vote shares for the far-right—indicators of a deeper and more persistent form of political dissatisfaction that echoes the social and civic weakening documented in our panel analysis.

Taken together, these findings reveal a broad and long-lasting transformation of local life in France. Deindustrialization contributed to economic stagnation, demographic decline, weakened social cohesion, and diminished civic and political engagement—changes that accumulated gradually yet persistently over half a century. At the same time, several open questions remain. To what extent can targeted place-based policies reverse these trends, and which forms of investment—economic, social, or institutional—are most effective at rebuilding community capacity? How persistent are the political consequences of industrial decline, and do they fade as new generations come of age? More broadly, as advanced economies continue to adjust to structural changes, understanding the mechanisms that sustain civic life and social capital in post-industrial areas remains a central challenge for future research.

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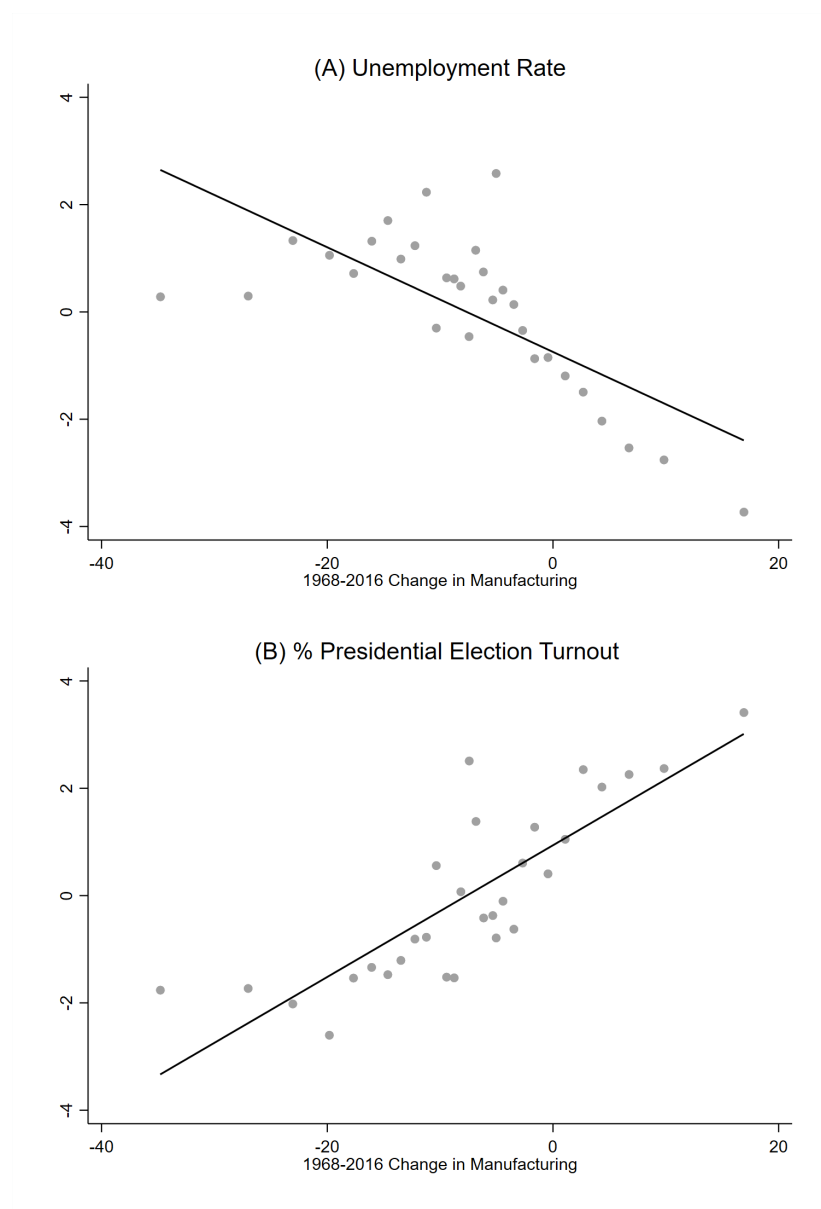
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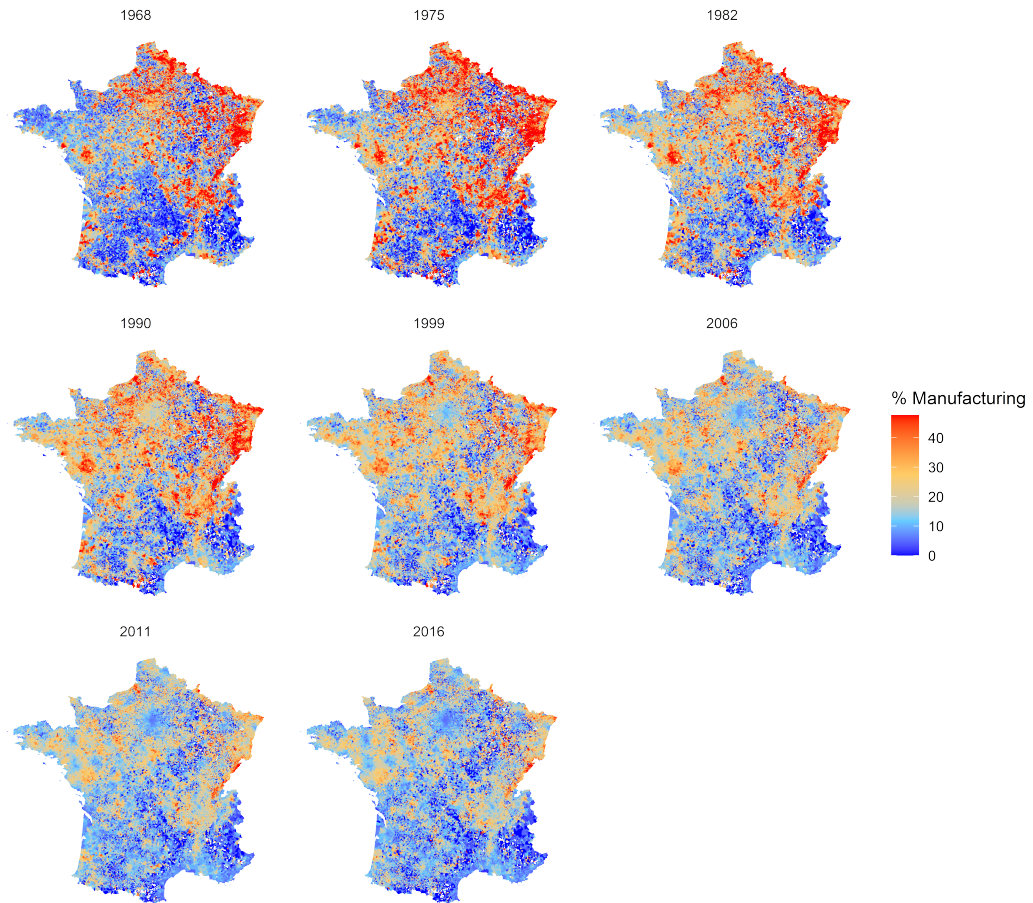
# Figures and Tables

Figure 1. Manufacturing Decline and Changes in Socio-Economic Indicators



*Notes:* This figure shows binned scatterplots of the relationship between the 1968–2016 long-run difference in manufacturing employment and the 1968–2016 long-run difference in the unemployment rate and voter turnout in presidential elections at the municipal level. The sample includes a balanced panel of municipalities with more than 500 inhabitants over the period (see Section 2.2 for more details). Variables on the x- and y-axes represent residual changes after partialling out department fixed effects. The point estimates are  $-0.104$  for the unemployment rate and  $0.132$  for electoral turnout. The associated standard errors, clustered at the department level, are  $0.012$  and  $0.014$ , respectively.

Figure 2. Manufacturing Share Over Time



*Notes:* The figure displays, for each French municipality, the share of residents working in the manufacturing sector for each census year between 1968 and 2016, as recorded by the National Institute of Statistics and Economic Studies (INSEE).



Table 1. Descriptive Statistics

Variable	Mean	SD	Min	P5	P25	Median	P75	P95	Max	N
<i>Panel A: 1968</i>										
Population	3,804.87	29,568.13	500.00	560.00	764.00	1,136.00	2,212.00	11,524.00	2,573,732.00	10,258
Manufacturing share (%)	28.52	17.50	0.00	5.85	14.29	25.23	39.81	62.24	89.10	10,258
Unemployment rate (%)	1.48	1.55	0.00	0.00	0.00	1.23	2.18	4.29	32.76	10,258
Living alone (%)	5.56	2.35	0.00	2.15	3.90	5.31	6.91	9.83	18.22	10,258
Turnout (presidential, %)	79.29	5.69	6.52	69.77	76.03	79.58	82.95	87.92	100.00	10,223
Average income	11,008.55	2,850.21	3,463.97	7,073.60	9,117.02	10,649.71	12,446.30	16,067.65	36,099.30	10,258
<i>Panel B: 2016</i>										
Population	4,925.96	27,005.32	500.00	644.62	1,045.00	1,749.41	3,629.03	15,637.70	2,190,109.00	10,258
Manufacturing share (%)	15.67	7.26	0.00	5.88	10.38	14.67	19.71	28.99	58.06	10,258
Unemployment rate (%)	11.88	5.12	0.00	4.99	8.26	11.09	14.74	21.28	41.94	10,258
Living alone (%)	12.99	4.37	3.50	7.41	9.83	12.14	15.43	21.41	36.69	10,258
Turnout (presidential, %)	81.84	4.15	58.30	74.11	79.51	82.38	84.72	87.64	93.33	10,258
Average income	18,001.62	4,627.33	8,074.43	13,001.57	15,149.63	16,959.72	19,662.43	26,456.40	83,842.05	10,258
<i>Panel C: First-Difference</i>										
$\Delta$ Population	160.16	1,573.06	-276,787.00	-250.00	-29.12	52.00	192.00	909.00	68,831.25	71,806
$\Delta$ Manufacturing share (%)	-1.84	6.82	-65.32	-12.73	-5.62	-1.88	1.81	9.31	54.99	71,806
$\Delta$ Unemployment rate (%)	1.48	4.13	-28.86	-5.05	-0.90	1.37	3.79	8.37	37.15	71,806
$\Delta$ Living alone (%)	1.06	1.84	-11.51	-1.99	0.09	1.10	2.09	3.92	19.75	71,806
$\Delta$ Turnout (presidential, %)	-0.59	5.99	-76.72	-10.66	-3.96	-0.96	3.29	9.15	79.98	71,130
$\Delta$ Average income	1,398.61	1,870.89	-54,354.52	-812.23	398.32	1,226.94	2,273.53	3,998.57	41,124.68	51,290
<i>Panel D: Long-Difference</i>										
$\Delta_{LD}$ Population	1,121.10	5,133.67	-383,623.50	-716.64	21.17	427.65	1,296.18	5,410.75	119,520.90	10,258
$\Delta_{LD}$ Manufacturing share (%)	-12.86	16.13	-71.80	-42.71	-23.55	-10.59	-0.72	9.76	33.97	10,258
$\Delta_{LD}$ Unemployment rate (%)	10.39	5.09	-11.79	3.33	6.87	9.69	13.26	19.70	40.59	10,258
$\Delta_{LD}$ Living alone (%)	7.43	4.29	-7.45	1.21	4.51	7.03	9.85	15.23	27.68	10,258
$\Delta_{LD}$ Turnout (presidential, %)	2.56	6.30	-22.77	-7.28	-1.48	2.37	6.32	12.98	79.21	10,223
$\Delta_{LD}$ Average income	6,993.07	3,384.64	-16,937.59	2,730.26	5,013.12	6,648.73	8,404.14	12,495.00	47,742.75	10,258

*Notes:* Panel A and Panel B provide summary statistics for the years 1968 and 2016, respectively. Panel C reports the stacked first-differences ( $\Delta$ ) across the seven intercensal changes between 1968 and 2016. Panel D reports the long-difference ( $\Delta_{LD}$ ), calculated as the change between the 2016 and 1968 values. The sample includes a balanced panel of municipalities with more than 500 inhabitants over the period (see Section 2.2 for more details). Average income is available only from 1982 onward and is reported in constant 2022 Euros. We thus report the income in 1982 in Panel A and calculate the inter-census and long-difference changes starting from that year. Turnout refers to the participation rate in the first round of the Presidential elections closest to the census year.

Table 2. The Economic Consequences of Manufacturing Decline

Outcome	$\Delta\%$ Unemploy Rate (1)	$\Delta\log(\text{Aver. Income})\times 100$ (2)	$\Delta\text{GDP PC}$ (3)	$\Delta\log(\text{Housing Price})\times 100$ (4)	$\Delta\%$ Vacant Housing (5)
$\Delta\%$ Manufacturing	-0.052*** (0.009)	0.118*** (0.028)	0.139*** (0.029)	-0.021 (0.074)	-0.047*** (0.009)
Observations	71,806	51,290	71,806	71,806	71,806
Mean Dep. Var.	8.173	9.550	85.12	10.84	7.302
SD Dep. Var.	5.438	0.294	26.04	1.065	3.769
Municipality FEs	Yes	Yes	Yes	Yes	Yes
Census Year FEs	Yes	Yes	Yes	Yes	Yes

*Notes:* The table presents OLS estimates from Equation (1). The sample includes a balanced panel of municipalities with more than 500 inhabitants over the period (see Section 2.2 for more details). The dependent variable is the unemployment rate (column 1), the (log of) average income per capita (column 2), GDP per capita expressed as a percentage of the national average (column 3), the (log of) average housing price in thousand euros (column 4), and the share of vacant housing in the total housing stock (column 5). All dependent variables are computed as changes between two census waves. Income data are only available starting in 1982, so that we start with the 1982 census and thus only consider six instead of eight census waves for this outcome.  $\Delta\%$ Manufacturing denotes the intercensal changes in the manufacturing share of total employment. All regressions include municipality fixed-effects, census-year fixed effects, and are weighted by the start-of-period population. The mean and standard deviation of the dependent variables are computed as averages of the start-of-period values. Standard errors, clustered at the department level, are reported in parentheses. Significance level: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table 3. The Social and Political Consequences of Manufacturing Decline

Outcome			$\Delta\%$ Turnout		$\Delta\%$ Left	
	$\Delta\%$ Living Alone	$\Delta\%$ Marriage	Presidential	Parliamentary	Presidential	Parliamentary
	(1)	(2)	(3)	(4)	(5)	(6)
$\Delta\%$ Manufacturing	-0.026*** (0.009)	0.027*** (0.008)	0.048*** (0.013)	0.031*** (0.007)	0.066*** (0.024)	0.044** (0.022)
Observations	71,806	71,806	67,676	62,986	67,648	62,979
Mean Dep. Var.	8.930	45.50	82.56	68.53	42.70	45.74
SD Dep. Var.	4.323	5.590	5.555	11.39	11.85	14.30
Municipality FEs	Yes	Yes	Yes	Yes	Yes	Yes
Census Year FEs	Yes	Yes	Yes	Yes	Yes	Yes

*Notes:* The table presents OLS estimates from Equation (1). The sample includes a balanced panel of municipalities with more than 500 inhabitants over the period (see Section 2.2 for more details). The dependent variable is the share of people living alone (column 1), the share of married people (column 2), the presidential (resp. parliamentary) election turnout (resp. column 3 and 4), and the share of left-wing voters in the presidential (resp. parliamentary) elections (resp. column 5 and 6). All dependent variables are computed as changes between two census waves.  $\Delta\%$ Manufacturing denotes the intercensal changes in the manufacturing share of total employment. All regressions include municipality fixed-effects, census-year fixed effects, and are weighted by the start-of-period population. The mean and standard deviation of the dependent variables are computed as averages of the start-of-period values. Standard errors, clustered at the department level, are reported in parentheses. Significance level: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table 4. The Long-Term Consequences of Manufacturing Decline

Outcome	$\Delta_{LD}\%$ Unemploy Rate	$\Delta_{LD}\log(\text{Aver. Income}) \times 100$	$\Delta_{LD}\%$ Living Alone	$\Delta_{LD}\%$ Turnout
	(1)	(2)	(3)	(4)
$\Delta_{LD}\%$ Manufacturing	-0.104*** (0.012)	0.375*** (0.065)	-0.036* (0.021)	0.132*** (0.014)
Observations	10,257	10,257	10,257	10,222
Mean Dep. Var.	1.481	9.275	5.559	79.28
SD Dep. Var.	1.554	0.251	2.348	5.691
Department FEs	Yes	Yes	Yes	Yes

*Notes:* The table reports OLS estimates from the long difference regression (see Section 4.2). The sample includes a balanced panel of municipalities with more than 500 inhabitants over the period (see Section 2.2 for more details). The dependent variable is the unemployment rate (column 1), the (log of) average income per capita (column 2), the share of people living alone (column 3), and the presidential election turnout (column 4). All dependent variables are computed as the long-run difference between 1968 and 2016.  $\Delta_{LD}\%$ Manufacturing denotes the 1968-2016 long-run difference in the manufacturing share of total employment. Income is available starting in 1982 only, so that we consider the long-run change in income and manufacturing employment between 1982 and 2016 in column 2. All regressions include department fixed effects and are weighted by the start-of-period population. Paris is excluded from this regression because it is a municipality with the status of a department. The mean and standard deviation of the dependent variables are computed as of 1968. Standard errors, clustered at the department level, are reported in parentheses. Significance level: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table 5. The Demographic Consequences of Manufacturing Decline

Outcome	$\Delta \log(\text{Population}) \times 100$	$\Delta \text{Birth Rate}$	$\Delta \text{Dependency Ratio}$	In Mig Rate	Out Mig Rate
	(1)	(2)	(3)	(4)	(5)
$\Delta \% \text{Manufacturing}$	0.143*** (0.038)	0.424 (0.312)	-0.065*** (0.010)	0.062 (0.039)	-0.068*** (0.013)
Observations	71,806	71,806	71,806	51,290	51,290
Mean Dep. Var.	7.534	290	29.88	34.79	25.35
SD Dep. Var.	1.002	85.46	13.61	21.04	8.404
Municipality FEs	Yes	Yes	Yes	Yes	Yes
Census Year FEs	Yes	Yes	Yes	Yes	Yes

*Notes:* The table presents OLS estimates from Equation (1). The sample includes a balanced panel of municipalities with more than 500 inhabitants over the period (see Section 2.2 for more details). The dependent variable is the log population (column 1), the birth rate as defined in Section 4.4 (column 2), the dependency ratio, measured as the ratio of elderly to working-age adults (column 3), the in-migration rate (resp. out-migration rate) defined as the number of people entering (resp. leaving) the municipality during each intercensal period, divided by the population at the start of the census period, and multiplied by 10,000 (columns 4 and 5, respectively). All dependent variables are computed as changes between two census waves, except for the in- and out-migration rates, which are expressed in levels. Migration variables are available up to 2006 only so that for these variables we do not exploit the last two census waves.  $\Delta \% \text{Manufacturing}$  denotes the intercensal changes in the manufacturing share of total employment. All regressions include municipality fixed-effects, census-year fixed effects, and are weighted by the start-of-period population. The mean and standard deviation of the dependent variables are computed as averages of the start-of-period values. Standard errors, clustered at the department level, are reported in parentheses. Significance level: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table 6. Contemporary Effects: Amenities and Associations

Outcome	Local Amenities							Association
	All	Local Shop	Health	School	Culture	Sport	Train & Post-Office	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$\Delta_{LD} \% \text{Manufacturing}$	0.947*** (0.147)	0.620*** (0.111)	0.165*** (0.048)	0.040*** (0.006)	0.004** (0.002)	0.136*** (0.024)	-0.018 (0.033)	0.042*** (0.010)
Observations	10,257	10,257	10,257	10,257	10,257	10,257	10,257	10,257
Mean Dep. Var.	274.7	185.8	44.92	12.56	0.522	19.29	11.62	9.409
SD Dep. Var.	113.3	86.07	35.39	6.322	1.765	12.66	9.786	5.492
Department FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*Notes:* The table presents the OLS estimates from the long difference regression. The sample includes a balanced panel of municipalities with more than 500 inhabitants over the period (see Section 2.2 for more details). In column 1, the dependent variable is the total number of local amenities per 10,000 inhabitants (based on the 2016 population). In columns (2) to (7), the dependent variable is disaggregated into six categories: local shops, health, education, culture, sports, and post office & train station. In column 8, the dependent variable is the average number of grassroots associations created annually between 2018 and 2024 per 10,000 inhabitants (based on the 2016 population).  $\Delta_{LD} \% \text{Manufacturing}$  denotes the 1968–2016 long-run difference in the manufacturing share of total employment. All regressions include department fixed effects and are weighted by the start-of-period population. Paris is excluded from the analysis because it is a municipality with the status of a department. Standard errors, clustered at the department level, are reported in parentheses. Significance level: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table 7. Contemporary Effects: EU Referendum and Far-Right Vote Share

Outcome	2005 Referendum		% Far-Right Vote	
	%Turnout	%Vote YES	Presidential	Parliamentary
	(1)	(2)	(3)	(4)
$\Delta_{LD}\%$ Manufacturing	0.112*** (0.015)	0.219*** (0.037)	-0.051* (0.029)	-0.082** (0.032)
Observations	10,257	10,255	10,257	10,257
Mean Dep. Var.	72.71	41.58	25.22	17.41
SD Dep. Var.	4.670	9.678	8.143	7.636
Department FEs	Yes	Yes	Yes	Yes

*Notes:* The table reports OLS estimates from the long difference regression. The sample includes a balanced panel of municipalities with more than 500 inhabitants over the period (see Section 2.2 for more details). The dependent variable is the turnout rate in the 2005 referendum (column 1), the share of voters in favor of the European Union (EU) project in the 2005 referendum (column 2), and the share of far-right voters in the first round of the 2017 presidential and parliamentary elections (columns 3 and 4, respectively). The 2005 referendum asked: “Do you approve the bill authorizing the ratification of the treaty establishing a Constitution for Europe?”.  $\Delta_{LD}\%$ Manufacturing denotes the 1968–2016 long-run difference in the manufacturing share of total employment for the Far-right Vote share while the long difference is 1968–2006 for the 2005 referendum. All regressions include department fixed effects and are weighted by the start-of-period population. Paris is excluded from the analysis because it is a municipality with the status of a department. Standard errors, clustered at the department level, are reported in parentheses. Significance level: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

# Online Appendix: Additional material

<a href="#">A Additional Figures and Tables</a>	1
<a href="#">B Robustness Checks</a>	5

# A Additional Figures and Tables

Table A1. Descriptive Statistics – 1968

Variable	Mean	SD	Min	P5	P25	Median	P75	P95	Max	N
Population	3,804.87	29,568.13	500.00	560.00	764.00	1,136.00	2,212.00	11,524.00	2,573,732.00	10,258
Manufacturing share (%)	28.52	17.50	0.00	5.85	14.29	25.23	39.81	62.24	89.10	10,258
Unemployment rate (%)	1.48	1.55	0.00	0.00	0.00	1.23	2.18	4.29	32.76	10,258
Married share (%)	46.49	4.33	18.80	39.31	43.71	46.61	49.32	53.33	62.03	10,258
Living alone (%)	5.56	2.35	0.00	2.15	3.90	5.31	6.91	9.83	18.22	10,258
Vacant housing share (%)	6.95	4.10	0.00	2.10	4.30	6.15	8.74	14.36	57.73	10,258
Birth rate (per 1,000)	251.50	69.72	0.00	150.00	206.31	245.10	290.63	366.07	1,122.95	10,258
Dependency ratio	25.70	10.14	2.66	12.10	18.79	24.23	31.25	43.70	202.08	10,258
Out-migration rate (per 10,000)	26.79	9.73	2.62	13.62	20.43	25.99	32.29	42.04	433.55	10,258
In-migration rate (per 10,000)	35.74	30.79	0.00	10.78	20.21	29.58	42.22	78.74	973.00	10,258
Average income	11,008.55	2,850.21	3,463.97	7,073.61	9,117.02	10,649.71	12,446.30	16,067.65	36,099.30	10,258
GDP per capita	85.79	25.05	22.50	52.52	69.04	82.51	98.41	129.38	384.27	10,258
Housing price	10.04	4.45	2.31	4.62	6.98	9.24	12.23	17.85	73.87	10,258
Turnout (presidential, %)	79.29	5.69	6.52	69.77	76.03	79.58	82.95	87.92	100.00	10,223
Turnout (parliamentary, %)	81.80	6.01	21.62	71.37	78.54	82.35	85.81	90.55	100.00	10,218
Left vote (presidential, %)	30.31	12.82	0.85	8.91	21.66	30.03	38.60	52.00	84.26	10,223
Left vote (parliamentary, %)	44.08	19.28	0.23	9.33	31.13	44.45	58.30	74.53	95.89	10,218
Population share (0–14 yrs, %)	26.13	5.17	3.64	17.72	22.63	26.03	29.54	34.56	47.20	10,258
Population share (15–29 yrs, %)	19.66	3.61	6.36	13.79	17.34	19.73	21.98	25.29	51.97	10,258
Population share (30–44 yrs, %)	19.16	3.00	7.69	14.29	17.20	19.15	21.04	24.17	32.22	10,258
Population share (45–59 yrs, %)	15.48	3.22	3.65	10.42	13.36	15.34	17.48	20.99	31.25	10,258
Population share (60–74 yrs, %)	14.51	4.43	1.24	7.85	11.48	14.11	17.23	22.30	35.95	10,258
Population share (75+ yrs, %)	5.06	2.49	0.00	1.77	3.32	4.71	6.39	9.48	44.57	10,258
European immigrant share (%)	4.29	4.84	0.00	0.00	0.63	2.64	6.32	14.54	34.76	10,258
Non-European immigrant share (%)	0.59	1.32	0.00	0.00	0.00	0.00	0.60	3.05	24.46	10,258
No diploma (%)	86.61	6.59	49.15	74.36	82.94	87.73	91.38	95.30	100.00	10,258
Vocational degree (%)	8.03	4.24	0.00	2.19	4.87	7.42	10.64	15.75	37.69	10,258
High-school diploma (%)	3.78	2.16	0.00	0.83	2.22	3.49	4.98	7.75	15.84	10,258
Higher education (%)	1.58	1.74	0.00	0.00	0.47	1.16	2.22	4.55	24.24	10,258
Population density	323.83	1,161.12	4.35	22.24	42.27	75.68	173.13	1,217.58	26,087.19	10,258

*Notes:* The sample includes a balanced panel of municipalities with more than 500 inhabitants over the period (see Section 2.2 for more details). Socio-demographic variables are derived from the 1968 Census using the SAPHIR dataset, except for internal migration, which uses 1975 Census. Economic and political variables are drawn from [Piketty and Cagé \(2023\)](#). Specifically, political variables are computed using the first-round results of the 1969 presidential election and the 1967 parliamentary election. Economic variable values refer to 1968, with the exception of average income, which is measured in 1982 and is reported in constant 2022 Euros.

Table A2. Descriptive Statistics – End of period

Variable	Mean	SD	Min	P5	P25	Median	P75	P95	Max	N
Population	4,925.96	27,005.32	500.00	644.62	1,045.00	1,749.41	3,629.03	15,637.70	2,190,109.00	10,258
Manufacturing share (%)	15.67	7.26	0.00	5.88	10.38	14.67	19.71	28.99	58.06	10,258
Unemployment rate (%)	11.88	5.12	0.00	4.99	8.26	11.09	14.74	21.28	41.94	10,258
Married share (%)	39.58	5.42	14.59	30.65	36.02	39.56	43.16	48.44	60.14	10,258
Living alone (%)	12.99	4.37	3.50	7.41	9.83	12.14	15.43	21.41	36.69	10,258
Vacant housing share (%)	8.63	4.03	0.04	3.56	5.72	7.84	10.76	16.32	33.60	10,258
Birth rate (per 1,000)	186.77	43.52	0.00	120.41	158.93	184.25	211.71	260.65	488.26	10,258
Dependency ratio	38.53	15.91	4.82	19.46	27.48	35.17	45.89	69.25	156.16	10,258
Out-migration rate (per 10,000)	20.39	5.40	3.54	12.18	16.81	20.07	23.63	29.42	97.28	10,258
In-migration rate (per 10,000)	31.06	8.51	6.82	18.99	25.32	30.16	35.66	46.25	97.54	10,258
Average income	18,001.62	4,627.33	8,074.43	13,001.57	15,149.63	16,959.72	19,662.43	26,456.40	83,842.05	10,258
GDP per capita	84.25	29.86	31.79	56.08	66.92	77.62	93.73	130.68	857.03	10,258
Housing price	158.49	74.06	38.59	72.66	108.61	144.72	189.76	288.65	1,203.53	10,258
Turnout (presidential, %)	81.84	4.15	58.30	74.11	79.51	82.38	84.72	87.64	93.33	10,258
Turnout (parliamentary, %)	51.29	5.90	21.24	41.31	47.59	51.45	55.19	60.67	76.88	10,258
Left vote (presidential, %)	37.56	7.32	13.98	26.36	32.38	36.99	42.41	50.06	68.67	10,257
Left vote (parliamentary, %)	44.15	10.54	9.38	27.79	36.42	43.66	51.64	61.67	81.94	10,258
Far-right vote (presidential, %)	25.22	8.15	0.00	12.50	19.17	24.78	30.93	39.18	52.49	10,258
Far-right vote (parliamentary, %)	17.40	7.64	1.03	6.87	11.58	16.37	22.22	31.26	51.78	10,258
"Yes" vote (EU Constitution referendum 2005, %)	41.58	9.68	12.44	26.61	34.95	41.00	47.85	58.20	82.53	10,256
Turnout (EU Constitution referendum 2005, %)	72.71	4.67	45.69	64.47	69.82	73.20	75.96	79.57	100.00	10,258
Total amenities (per 10,000)	274.68	113.26	41.75	140.66	200.17	253.02	323.10	479.64	1,468.87	10,258
Shops (per 10,000)	185.77	86.08	0.00	83.77	131.24	171.40	222.22	331.05	1,224.06	10,258
Health amenities (per 10,000)	44.92	35.39	0.00	0.00	20.20	40.82	62.45	109.32	320.46	10,258
Education amenities (per 10,000)	12.56	6.32	0.00	5.55	8.58	11.19	15.03	24.69	61.26	10,258
Cultural amenities (per 10,000)	0.52	1.77	0.00	0.00	0.00	0.00	0.00	3.41	33.19	10,258
Sports facilities (per 10,000)	19.29	12.66	0.00	4.31	10.28	16.53	25.50	43.70	116.50	10,258
Association creations (per 10,000 and per year)	9.41	5.49	0.00	0.00	6.19	8.84	12.05	18.73	76.83	10,258
Population share (0–14 yrs, %)	18.08	3.74	2.80	11.76	15.65	18.18	20.57	24.11	31.53	10,258
Population share (15–29 yrs, %)	14.53	3.51	3.38	9.09	12.27	14.40	16.58	20.15	42.82	10,258
Population share (30–44 yrs, %)	18.20	3.54	4.55	12.19	15.96	18.26	20.53	23.95	37.09	10,258
Population share (45–59 yrs, %)	21.06	3.31	4.88	16.05	18.85	20.82	23.07	26.83	35.73	10,258
Population share (60–74 yrs, %)	17.76	4.54	5.00	11.24	14.61	17.26	20.35	25.91	42.66	10,258
Population share (75+ yrs, %)	10.37	4.56	0.25	4.61	7.11	9.49	12.68	19.25	33.97	10,258
European immigrant share (%)	2.83	2.66	0.00	0.48	1.16	2.15	3.63	7.18	36.14	10,258
Non-European immigrant share (%)	2.16	3.18	0.00	0.23	0.62	1.11	2.28	7.87	38.92	10,258
No diploma (%)	30.16	8.24	7.72	17.72	24.11	29.50	35.62	44.69	62.77	10,258
Vocational degree (%)	28.69	5.65	5.17	19.22	25.17	28.77	32.35	37.76	50.00	10,258
High-school diploma (%)	17.32	3.27	3.77	11.97	15.27	17.32	19.33	22.64	40.30	10,258
Higher education (%)	23.84	9.13	1.09	11.65	17.24	22.51	28.89	40.49	70.55	10,258
Population density	425.29	1,295.80	3.19	22.58	57.51	120.09	286.04	1,609.94	26,338.81	10,258

*Notes:* The sample includes a balanced panel of municipalities with more than 500 inhabitants over the period (see Section 2.2 for more details). Socio-demographic variables are derived from the 2016 Census using the SAPHIR dataset, except for internal migration, which uses 2006 data. Economic and political variables are drawn from [Piketty and Cagé \(2023\)](#). Specifically, the economic variable values refer to 2018. Political variables are computed using the first-round results of the 2017 presidential election, the 2017 parliamentary election, and the 2005 referendum. The 2005 referendum asked: "Do you approve the bill authorizing the ratification of the treaty establishing a Constitution for Europe?" The average number of associations created annually between 2018 and 2024 per 10,000 inhabitants comes from the national register of associations. Variables on local amenities come from the permanent database of facilities from 2018.

Table A3. Descriptive Statistics – First Differences

Variable	Mean	SD	Min	P5	P25	Median	P75	P95	Max	N
Δ Population	160.16	1,573.06	-276,787.00	-250.00	-29.12	52.00	192.00	909.00	68,831.25	71,806
Δ Manufacturing share (%)	-1.84	6.82	-65.32	-12.73	-5.62	-1.88	1.81	9.31	54.99	71,806
Δ Unemployment rate (%)	1.48	4.13	-28.86	-5.05	-0.90	1.37	3.79	8.37	37.15	71,806
Δ Married share (%)	-0.99	4.16	-26.08	-7.45	-3.56	-1.20	1.45	6.10	28.15	71,806
Δ Living alone (%)	1.06	1.84	-11.51	-1.99	0.09	1.10	2.09	3.92	19.75	71,806
Δ Vacant housing share (%)	0.24	3.23	-51.41	-4.83	-1.34	0.35	1.93	4.98	44.88	71,806
Δ Birth rate (per 10,000)	-9.25	102.11	-663.95	-176.50	-72.49	-5.79	51.86	154.43	665.83	71,806
Δ Dependency ratio	1.83	8.40	-173.97	-11.52	-2.60	1.82	6.20	15.27	86.85	71,806
Δ Average income	1,398.61	1,870.89	-54,354.52	-812.23	398.32	1,226.94	2,273.53	3,998.57	41,124.68	51,290
Δ GDP per capita	-0.22	9.90	-257.47	-12.72	-4.28	-0.48	3.65	12.43	275.49	71,806
Δ Housing price	21.21	31.51	-43.09	-0.10	3.29	8.18	24.70	89.54	728.64	71,806
Δ Turnout (presidential, %)	-0.59	5.99	-76.72	-10.66	-3.96	-0.96	3.29	9.15	79.98	71,130
Δ Turnout (parliamentary, %)	-4.44	5.45	-41.78	-13.58	-7.94	-4.20	-0.87	4.02	60.61	70,500
Δ Left vote (presidential, %)	2.19	9.45	-40.07	-11.02	-5.27	0.90	9.06	18.71	55.65	71,123
Δ Left vote (parliamentary, %)	0.01	11.76	-84.92	-21.16	-6.67	1.06	7.12	18.62	83.92	70,498
Δ Population share (0–14 yrs, %)	-1.15	3.71	-23.16	-7.36	-3.25	-1.04	0.99	4.75	22.06	71,806
Δ Population share (15–29 yrs, %)	-0.73	3.80	-27.98	-6.79	-3.04	-0.82	1.45	5.61	33.86	71,806
Δ Population share (30–44 yrs, %)	-0.14	3.82	-20.62	-6.03	-2.55	-0.38	2.13	6.51	20.16	71,806
Δ Population share (45–59 yrs, %)	0.80	4.09	-23.69	-5.89	-1.68	0.75	3.29	7.60	21.18	71,806
Δ Population share (60–74 yrs, %)	0.46	3.79	-22.07	-6.04	-1.65	0.65	2.71	6.42	21.26	71,806
Δ Population share (75+ yrs, %)	0.76	2.41	-35.13	-3.14	-0.57	0.73	2.07	4.74	21.87	71,806
Δ European immigrant share (%)	-0.21	1.72	-24.37	-3.01	-0.68	-0.03	0.43	2.02	19.32	71,806
Δ Non-European immigrant share (%)	0.22	1.18	-26.84	-1.14	-0.07	0.07	0.50	1.91	28.83	71,806
Δ No diploma (%)	-8.06	5.71	-51.32	-17.93	-11.58	-7.66	-4.25	0.50	30.46	71,806
Δ Vocational degree (%)	2.95	4.75	-26.04	-4.53	-0.15	2.82	5.96	10.87	33.78	71,806
Δ High-school diploma (%)	1.93	3.08	-30.45	-2.87	0.12	1.81	3.68	7.10	31.50	71,806
Δ Higher education (%)	3.18	3.51	-21.02	-1.74	0.93	2.78	5.14	9.42	40.48	71,806
Δ Population density	14.50	105.24	-3,083.67	-22.46	-1.53	2.92	13.22	81.29	5,033.00	71,806

Notes: The sample includes a balanced panel of municipalities with more than 500 inhabitants over the period (see Section 2.2 for more details). Socio-demographic variables are derived from the census and further economic and political variables are drawn from [Piketty and Cagé \(2023\)](#). All variables are computed as changes between two census waves. We consider all census waves taking place between 1968 and 2016, except for the income variables that is available only starting in 1982 and for the migration variables that are only available up to 2006.



Table A4. Descriptive Statistics – Long Difference

Variable	Mean	SD	Min	P5	P25	Median	P75	P95	Max	N
$\Delta_{LD}$ Population	1,121.10	5,133.67	-383,623.50	-716.64	21.17	427.65	1,296.19	5,410.75	119,520.90	10,258
$\Delta_{LD}$ Manufacturing share (%)	-12.86	16.13	-71.80	-42.71	-23.55	-10.59	-0.72	9.76	33.97	10,258
$\Delta_{LD}$ Unemployment rate (%)	10.39	5.09	-11.79	3.33	6.87	9.69	13.26	19.70	40.59	10,258
$\Delta_{LD}$ Married share (%)	-6.91	6.78	-33.97	-17.69	-11.68	-7.15	-2.34	4.53	23.74	10,258
$\Delta_{LD}$ Living alone (%)	7.43	4.29	-7.45	1.21	4.51	7.03	9.85	15.23	27.68	10,258
$\Delta_{LD}$ Vacant housing share (%)	1.68	5.22	-50.55	-6.47	-0.95	1.79	4.55	9.78	25.10	10,258
$\Delta_{LD}$ Birth rate (per 10,000)	-64.74	79.23	-915.46	-194.65	-110.73	-62.52	-14.85	56.98	279.92	10,258
$\Delta_{LD}$ Dependency ratio	12.82	15.94	-161.06	-10.42	2.91	11.57	21.21	40.63	124.27	10,258
$\Delta_{LD}$ Average income	6,993.07	3,384.64	-16,937.59	2,730.26	5,013.12	6,648.73	8,404.14	12,495.00	47,742.75	10,258
$\Delta_{LD}$ GDP per capita	-1.54	22.14	-135.69	-32.39	-14.69	-2.56	10.35	30.44	472.77	10,258
$\Delta_{LD}$ Housing price	148.45	70.81	33.86	66.21	100.74	135.20	179.06	272.98	1,129.66	10,258
$\Delta_{LD}$ Left vote (presidential, %)	2.56	6.30	-22.77	-7.28	-1.48	2.37	6.32	12.98	79.21	10,223
$\Delta_{LD}$ Left vote (parliamentary, %)	-30.50	8.06	-60.69	-43.98	-35.71	-30.35	-25.34	-17.32	33.31	10,218
$\Delta_{LD}$ Far-right vote (presidential, %)	7.26	12.64	-50.95	-14.28	-0.96	7.52	15.76	28.14	47.63	10,222
$\Delta_{LD}$ Far-right vote (parliamentary, %)	0.08	18.80	-62.04	-30.31	-12.83	-0.37	13.08	31.20	68.39	10,218
$\Delta_{LD}$ Population share (0–14 yrs, %)	-8.05	5.60	-33.24	-17.16	-11.69	-8.06	-4.43	1.20	16.37	10,258
$\Delta_{LD}$ Population share (15–29 yrs, %)	-5.14	4.09	-31.46	-11.73	-7.61	-5.08	-2.65	1.45	26.08	10,258
$\Delta_{LD}$ Population share (30–44 yrs, %)	-0.95	4.40	-18.00	-7.95	-3.93	-1.07	1.86	6.55	19.43	10,258
$\Delta_{LD}$ Population share (45–59 yrs, %)	5.57	4.59	-13.28	-1.93	2.70	5.47	8.49	13.31	28.47	10,258
$\Delta_{LD}$ Population share (60–74 yrs, %)	3.25	5.48	-19.24	-5.83	-0.20	3.31	6.74	12.17	26.39	10,258
$\Delta_{LD}$ Population share (75+ yrs, %)	5.31	4.41	-33.63	-1.14	2.44	4.92	7.78	13.19	26.02	10,258
$\Delta_{LD}$ European immigrant share (%)	-1.46	4.22	-28.01	-9.72	-2.99	-0.39	0.79	3.15	27.62	10,258
$\Delta_{LD}$ Non-European immigrant share (%)	1.57	2.84	-22.39	-0.52	0.42	0.86	1.74	6.36	33.30	10,258
$\Delta_{LD}$ No diploma (%)	-56.45	9.30	-84.18	-70.82	-63.20	-57.00	-50.04	-40.44	-17.18	10,258
$\Delta_{LD}$ Vocational degree (%)	20.66	7.52	-8.12	7.04	16.24	21.12	25.64	32.16	44.64	10,258
$\Delta_{LD}$ High-school diploma (%)	13.54	3.93	-2.28	7.35	10.92	13.42	16.13	20.07	36.83	10,258
$\Delta_{LD}$ Higher education (%)	22.25	8.53	0.81	10.33	16.09	21.19	27.31	38.05	65.66	10,258
$\Delta_{LD}$ Population density	101.47	335.10	-3,640.59	-52.94	0.97	26.11	94.85	512.32	5,724.52	10,258

Notes: The sample includes a balanced panel of municipalities with more than 500 inhabitants over the period (see Section 2.2 for more details). Socio-demographic variables are derived from the census and further economic and political variables are drawn from [Piketty and Cagé \(2023\)](#). All variables are computed as the long-run difference between 1968 and 2016, except for the income variables that is available only starting in 1982 and for the migration outcomes that are only available up to 2006.

Table A5. Out-Migration Effects by Education Level

Outcome	Out-migration Rate				
	All (1)	No Diploma (2)	Vocational (3)	Baccalaureate (4)	High Education (5)
$\Delta\%$ Manufacturing	-0.068*** (0.013)	-0.042*** (0.008)	0.163*** (0.052)	-0.073* (0.037)	-0.193** (0.084)
Mean Dep. Var.	25.35	15.23	46.19	53.89	75.76
SD Dep. Var.	8.404	6.786	45.86	47.29	80.38
Observations	51,290	51,290	51,290	51,290	51,290
Municipality FEs	Yes	Yes	Yes	Yes	Yes
Census Year FEs	Yes	Yes	Yes	Yes	Yes

Notes: The table presents OLS estimates from Equation (1). The sample includes a balanced panel of municipalities with more than 500 inhabitants over the period 1968–2006 (see Section 2.2 for more details). The dependent variable is the out-migration rate, defined as the number of people leaving the municipality during each intercensal period, divided by the population at the start of the census period, and multiplied by 10,000. Columns (1) to (5) report results for different education groups: all individuals (column 1), individuals with no diploma (column 2), individuals holding a certificate of vocational aptitude (column 3), individuals with a Baccalaureate (column 4), and individuals with higher education (column 5).  $\Delta\%$ Manufacturing denotes the intercensal changes in the manufacturing share of total employment. All regressions include municipality fixed-effects, census-year fixed effects, and are weighted by the start-of-period population. Standard errors, clustered at the department level, are reported in parentheses. Significance level: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

## B Robustness Checks

Table B1. Robustness to Alternative Samples and Weights

Outcome	$\Delta\%$ Unemploy Rate (1)	$\Delta\log(\text{Aver. Income})\times 100$ (2)	$\Delta\%$ Living Alone (3)	$\Delta\%$ Turnout Pre (4)
<b>Panel A : Stacked Specification - Baseline</b>				
$\Delta\%$ Manufacturing	-0.052*** (0.009)	0.118*** (0.028)	-0.026*** (0.009)	0.048*** (0.013)
Observations	71,806	51,290	71,806	67,676
Mean Dep. Var.	8.173	9.550	8.930	82.56
SD Dep. Var.	5.438	0.294	4.323	5.555
<b>Panel B : Stacked Specification - No Weighting by Start-of-Period Population</b>				
$\Delta\%$ Manufacturing	-0.020*** (0.004)	0.078*** (0.014)	-0.004** (0.001)	0.013*** (0.003)
Observations	71,806	51,290	71,806	67,676
Mean Dep. Var.	8.173	9.550	8.930	82.56
SD Dep. Var.	5.438	0.294	4.323	5.555
<b>Panel C : Stacked Specification - All Municipalities</b>				
$\Delta\%$ Manufacturing	-0.019*** (0.005)	0.069*** (0.015)	-0.015*** (0.005)	0.022*** (0.007)
Observations	225,232	151,060	225,232	212,800
Mean Dep. Var.	7.501	9.498	8.987	83.22
SD Dep. Var.	7.055	0.336	5.359	6.254
<b>Panel D : Stacked Specification - Municipalities Above 2,000 Inhabitants</b>				
$\Delta\%$ Manufacturing	-0.103*** (0.017)	0.217*** (0.058)	-0.039** (0.019)	0.088*** (0.023)
Observations	18,389	13,135	18,389	16,884
Mean Dep. Var.	9.874	9.584	10.22	80.78
SD Dep. Var.	6.004	0.281	5.198	5.629

*Notes:* The table reports OLS estimates from Equation (1). The dependent variable is the unemployment rate (column 1), the log average income per capita (column 2), the share of people living alone (column 3), and the presidential election turnout (column 4). All dependent variables are computed as changes between two census waves.  $\Delta\%$ Manufacturing denotes the intercensal changes in the manufacturing share of total employment. Panel A displays the baseline estimates (municipalities with more than 500 inhabitants, weighted by start-of-period population). Panel B replicates the baseline specification without population weights. Panel C extends the baseline estimation to include all municipalities regardless of population size. Panel D restricts the sample to municipalities with more than 2,000 inhabitants. All regressions include municipality fixed-effects and census-year fixed effects. Standard errors, clustered at the department level, are reported in parentheses. The mean and standard deviation of the dependent variables are computed as averages of the start-of-period values. Significance level: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table B2. Robustness to Using Alternative Manufacturing Shares

Outcome	$\Delta\%$ Unemploy Rate (1)	$\Delta\log(\text{Aver. Income}) \times 100$ (2)	$\Delta\%$ Living Alone (3)	$\Delta\%$ Turnout Pre (4)
$\Delta\%$ Alt.Manufacturing	-0.155*** (0.011)	0.241*** (0.037)	-0.025** (0.012)	0.043*** (0.015)
Observations	71,806	51,290	71,806	67,676
Mean Dep. Var.	8.173	9.550	8.930	82.56
SD Dep. Var.	5.438	0.294	4.323	5.555
Municipality FEs	Yes	Yes	Yes	Yes
Census Year FEs	Yes	Yes	Yes	Yes

*Notes:* The table reports OLS estimates from Equation (1). The sample includes a balanced panel of municipalities with more than 500 inhabitants over the period (see Section 2.2 for more details). The dependent variable is the unemployment rate (column 1), the log average income per capita (column 2), the share of people living alone (column 3), and the presidential election turnout (column 4). All dependent variables are computed as changes between two census waves.  $\Delta\%$ Alt.Manufacturing denotes the intercensal changes in the manufacturing share for all persons aged 18-55 years old. All regressions include municipality fixed-effects, census-year fixed effects, and are weighted by the start-of-period population. The mean and standard deviation of the dependent variables are computed as averages of the start-of-period values. Standard errors, clustered at the department level, are reported in parentheses. Significance level: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table B3. Robustness to Including Additional Control Variables and Fixed Effects

Outcome	$\Delta\%$ Unemploy Rate (1)	$\Delta\log(\text{Aver. Income})\times 100$ (2)	$\Delta\%$ Living Alone (3)	$\Delta\%$ Turnout Pre (4)
<b>Panel A : Baseline</b>				
$\Delta\%$ Manufacturing	-0.052*** (0.009)	0.118*** (0.028)	-0.026*** (0.009)	0.048*** (0.013)
Observations	71,806	51,290	71,806	67,676
Mean Dep. Var.	8.173	9.550	8.930	82.56
SD Dep. Var.	5.438	0.294	4.323	5.555
<b>Panel B : Controls : Population + Density</b>				
$\Delta\%$ Manufacturing	-0.052*** (0.009)	0.129*** (0.023)	-0.026*** (0.009)	0.048*** (0.013)
Observations	71,806	51,290	71,806	67,676
Mean Dep. Var.	8.173	9.550	8.930	82.56
SD Dep. Var.	5.438	0.294	4.323	5.555
<b>Panel C : Controls : Population + Density + Unemployment</b>				
$\Delta\%$ Manufacturing	-0.053*** (0.008)	0.124*** (0.022)	-0.002 (0.002)	0.021*** (0.006)
Observations	71,806	51,290	71,806	67,676
Mean Dep. Var.	8.173	9.550	8.930	82.56
SD Dep. Var.	5.438	0.294	4.323	5.555
<b>Panel D : Controls : Population + Density + Unemployment + Education</b>				
$\Delta\%$ Manufacturing	-0.053*** (0.007)	0.105*** (0.019)	-0.002 (0.002)	0.019*** (0.005)
Observations	71,806	51,290	71,806	67,676
Mean Dep. Var.	8.173	9.550	8.930	82.56
SD Dep. Var.	5.438	0.294	4.323	5.555
<b>Panel E : All Controls : Population + Density + Unemployment + Education + Age + Immigration</b>				
$\Delta\%$ Manufacturing	-0.047*** (0.006)	0.094*** (0.018)	-0.003** (0.001)	0.020*** (0.005)
Observations	71,806	51,290	71,806	67,676
Mean Dep. Var.	8.173	9.550	8.930	82.56
SD Dep. Var.	5.438	0.294	4.323	5.555
<b>Panel F : Department-by-year FEs</b>				
$\Delta\%$ Manufacturing	-0.034*** (0.005)	0.062*** (0.015)	-0.010*** (0.002)	0.011*** (0.003)
Observations	71,799	51,285	71,799	67,669
Mean Dep. Var.	8.173	9.550	8.930	82.56
SD Dep. Var.	5.438	0.294	4.323	5.555
<b>Panel G : Department-by-year FEs + All Controls</b>				
$\Delta\%$ Manufacturing	-0.029*** (0.004)	0.049*** (0.012)	-0.005*** (0.001)	0.008** (0.003)
Observations	71,799	51,285	71,799	67,669
Mean Dep. Var.	8.173	9.550	8.930	82.56
SD Dep. Var.	5.438	0.294	4.323	5.555

*Notes:* The table reports OLS estimates from Equation (1). The sample includes a balanced panel of municipalities with more than 500 inhabitants over the period (see Section 2.2 for more details). The dependent variable is the unemployment rate (column 1), the log average income per capita (column 2), the share of people living alone (column 3), and the presidential election turnout (column 4). All dependent variables are computed as changes between two census waves.  $\Delta\%$ Manufacturing denotes the intercensal changes in the manufacturing share of total employment. Panel A reports the baseline estimates. Panels B through E sequentially add period interactions with baseline municipal characteristics: (i) population and population density, (ii) unemployment, (iii) education composition, (iv) age structure and immigrant shares. Panel F introduces department-by-year fixed effects to the baseline specification. Panel G includes the full set of interacted controls and department-by-year fixed effects simultaneously. All regressions include municipality fixed-effects, census-year fixed effects, and are weighted by the start-of-period population. The mean and standard deviation of the dependent variables are computed as averages of the start-of-period values. Standard errors, clustered at the department level, are reported in parentheses. Significance level: \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .