

Are place-based policies capitalized into local home prices? Evidence from England

Robert Calvert Jump*

Adam Scavette[†]

Sierra Stoney[‡]

January 30, 2025

Abstract

Place-based policies are often believed to increase house prices and rents in treated areas, which may detrimentally affect the welfare of incumbent residents. In this paper we study the housing market effects of a comprehensive place-based policy – England’s Neighbourhood Renewal Fund – that sought to improve outcomes related to crime, education, health, worklessness and the lived environment in deprived parts of the country. Using various difference-in-differences models, we demonstrate that house prices *fell* in areas treated by the Neighbourhood Renewal Fund relative to untreated areas. Moreover, sales increased for the types of housing that saw relative price falls, suggesting the presence of positive housing supply shocks. We speculate that this may be due to the supply-side focus of the policy’s labor market interventions.

Keywords: Place-Based Policies, House Price Capitalization, Urban Renewal.

JEL Codes: R31, R38, R58.

Acknowledgements:

Conflict of interest statement: No specific funding has been received for this study. The views expressed here are those of the authors and do not necessarily reflect the views of the Federal Reserve Bank of Philadelphia or the Federal Reserve System.

*University of Greenwich. Email: r.g.calvertjump@greenwich.ac.uk

[†]Federal Reserve Bank of Philadelphia. Email: adam.scavette@phil.frb.org

[‡]George Washington University. Email: sierra.stoney@gwu.edu

1 Introduction

Place-based policies encompass spatially targeted government efforts to improve the local economies of distressed areas. Most of the literature has focused on evaluating the effects of place-based policies on employment or output (Neumark & Simpson, 2015), as improving opportunities tends to be the primary intended outcome for governments. However, there is also a considerable body of evidence on how these policies impact local housing markets, which may affect the welfare of incumbent residents in targeted areas. Any capitalization of place-based policies into home prices and rents will improve welfare for incumbent homeowners and landlords, while decreasing welfare for incumbent renters, who must pay more in rent or to purchase a home locally. Thus, program evaluators must examine the housing market effects of policies if the goal is to improve the welfare of distressed incumbent residents, as outsized effects on the cost of living may offset any positive labor market effects.

Traditional economic development policies focus on stimulating local demand for employment through industrial recruitment and special economic zones (e.g., enterprise zones, opportunity zones, or empowerment zones), both of which leverage tax incentives and subsidies to firms. A long-standing critique of traditional economic development policies is that their benefits disproportionately accrue to landowners, as increasing local labor demand raises both business and residential demand of land to accommodate new businesses and residents (Bartik, 1991). For example, Bartik et al. (1987) study the recruitment of a General Motors plant to Spring Hill, Tennessee and find the elasticity of property values to employment growth to be close to unity, a result consistent with other industrial recruitment studies examined in Bartik (1991).

Other studies find significant increases in real estate prices associated with special economic zones including U.S. federal empowerment zones (Hanson, 2009; Krupka & Noonan, 2009; Busso et al., 2013; Reynolds & Rohlin, 2015), UK enterprise zones (Erickson & Syms, 1986; Bond et al., 2012), and U.S. city enterprise zones (Hodge & Komarek, 2016). This result has not gone unchallenged, however, as some studies have found mixed or null effects of special economic zones on local real estate prices (Boarnet & Bogart, 1996; Landers, 2006;

Freedman, 2012; Chen et al., 2023).

Most urban renewal programs primarily focus on direct housing interventions in blighted neighborhoods through demolition and redevelopment (Rossi-Hansberg et al., 2010; Cole, 2012; Chareyron, 2022), improving social housing (Koster & van Ommeren, 2019), or housing subsidies (Braakman & McDonald, 2020). However, there are relatively few studies on comprehensive renewal programs that include direct economic interventions (e.g., on education and workforce development) alongside housing interventions. Miller et al. (2021) find that the Jobs Plus program, which aided public housing residents with rental assistance and workforce training within six U.S. cities between 1998 and 2003, resulted in long-term improvements in employment and earnings. Aarland et al. (2017) study a comprehensive area-based initiative in Norway from 2007-2016 focused on improving transportation, environment, development and education and find mixed evidence on housing prices. Albanese et al. (2021) study an Italian urban regeneration policy from 2008-2012 and find no evidence of improvement in economic outcomes, but some evidence of housing price increases (in larger areas with large investments in public goods).

One prominent example of such a policy implemented was England’s Neighbourhood Renewal Fund (NRF), launched by Tony Blair’s Labour Government in 2001. The NRF sought to reverse decades of urban decline across English cities by using central government funds to improve outcomes related to crime, education, health, and worklessness. Around £3 billion were spent on NRF programs from 2001 to 2008 across 88 of the England’s most deprived local authority districts, mostly within the country’s largest cities (e.g. London, Birmingham, Manchester, and Liverpool). Alonso et al. (2019) find that the NRF reduced both violent and property crime across treated districts. Additionally, Calvert Jump & Scavette (2024) find strong labor supply effects through increased employment and self-employment among residents of targeted neighborhoods along with reduced unemployment, but little impact on labor demand. Is it possible that these improved outcomes (e.g., reduced crime, increased employment) related to the NRF were capitalized into local housing markets?

In this paper we seek to answer this question, by using difference-in-differences models esti-

mated on real estate price and volume data. We first outline the policy under examination, before describing the data and methodology. We then discuss the results. We find that house prices fell, and sales volumes increased, in areas treated by the NRF relative to untreated areas. In other words, the economic benefits of this particular place-based policy were not capitalized into local home prices.

2 The Neighbourhood Renewal Fund

The NRF was established as a funding mechanism to support the National Strategy for Neighbourhood Renewal (NSNR). The NSNR's objectives were to reduce worklessness and crime and improve health, education and skills, housing and the physical environment in England's most economically disadvantaged neighborhoods, both in absolute and relative terms (AMION Consulting, 2010). The decision to direct funding resources to a subset of communities based on their relative disadvantage deviated from previous English neighborhood renewal policies which had not been geographically targeted (Cole and Etherington, 2005). Earlier policies had resulted in reduced national deprivation, but increased disparity between the most deprived local areas and national levels. The NSNR was designed to address this disparity, and had indeed narrowed the gaps in deprivation measures between targeted neighborhoods and national levels by 2010 (AMION Consulting, 2010).

NRF resources were allocated to Local Strategic Partnerships (LSPs) serving targeted neighborhoods. These LSPs then funded local projects to meet the NSNR's goals by improving local service delivery, and incorporating meaningful community engagement in neighborhood improvement. Within these constraints, LSPs were afforded discretion in determining how to deploy the funds locally (AMION Consulting, 2010). While the novel flexibility allowed through the NRF enabled neighborhoods to fund projects that would not otherwise have been possible, Lupton et al. (2013) note that the amount of funding was relatively small compared to other sources, amounting to between £66 and £120 per capita in recipient neighborhoods.

The Cowen et al. (2008) assessment of how a subset of LSPs used their NRF resources

found that housing projects primarily focused on improving the quality of social housing building stock and service provision, as well as developing processes for resident engagement in program design. By their nature, these projects narrowly benefitted social housing residents directly. To a lesser extent, LSPs dedicated a share of funds to coordinating improved private rental quality and management with landlords. Combined with public safety and environmental improvements that directly improved neighborhood quality, better private and social housing quality ought to have increased home prices by contributing to the neighborhoods' improved reputation (Freybote, Simon, and Veldandi, 2023).

AMION Consulting's comprehensive 2010 evaluation of the NSNR measured the NRF's outcomes in terms of perceived changes to neighborhood livability. They found that NRF-funded housing and environmental interventions modestly improved community satisfaction. Furthermore, the evaluators assessed how well a subset of NRF-funded projects met their stated objectives across 14 local authority districts, finding that housing and environmental interventions were least effective while crime interventions were most effective. Overall, the NRF was found to improve environmental conditions, but had "little direct impact" on housing improvements.

Although NRF projects were intended to directly benefit economic outcomes and neighborhood satisfaction for existing residents, they indirectly improved the neighborhood's reputation more broadly. Based on case studies of 18 NRF recipient neighborhoods and 3 deprived neighborhoods that did not receive NRF funds, ECOTEC (2010) found that neighborhoods receiving NRF funding were considered better places to live as the result of livability improvements, namely public services, local infrastructure, and a greater sense of "community spirit". Reported housing quality improvements within NRF-recipient neighborhoods were attributable to both increased neighborhood desirability and enforcement action against private landlord neglect. As a result, local housing prices in this (limited) set of neighborhoods rose faster than the national rate.

But while a minority of NRF recipient neighborhood reputations improved as the result of "more vibrant retail areas and new housing", perceived quality of life in others was

dampened by limited housing affordability and housing choice. While the quality of social housing improved due to both NRF and Decent Homes programs, the lack of family-sized and accessible units and long waiting lists resulted in eligible families remaining in less affordable private rentals (ECOTEC, 2010).

3 Data

We use median house price data and sales volume from the Office for National Statistics' (ONS) House Price Statistics for Small Areas (HPSSAs) dataset at the local authority district level.¹ Our main dependent variable is the median house price per local authority, which covers all residential housing prices within an area. We also estimate the impact of the NRF on median housing prices of four different building types: terraced houses, semi-detached houses, detached houses, and flats. Terraced houses are typically identical two- to four-story homes built in a continuous row, where each home shares at least one side wall with a neighbor. Semi-detached homes are single buildings split into two separate homes with each home sharing only one side wall with a neighbor. Detached homes are standalone buildings. Flats are self-contained residential units within a larger building that include shared spaces and facilities (e.g., hallways and stairwells).

The treatment data are from Alonso et al. (2019). A district's treatment status was determined by its score on the Index of Multiple Deprivation (IMD), which was developed by the Office of the Deputy Prime Minister to analyze well-being across the United Kingdom's local authority districts. The original iteration of the IMD scored local authority districts along six different dimensions – income, employment, health, education, housing, and access to services. Districts that scored in the top 50 most deprived on any of these metrics in 2000 qualified for NRF assistance. Eighty-eight out of England's 352 local authority districts were selected for NRF assistance based on this analysis, as illustrated in figure 1.

¹<https://www.ons.gov.uk/peoplepopulationandcommunity/housing/bulletins/housepricestatisticsforsmallareas/yearendingmarch2023>

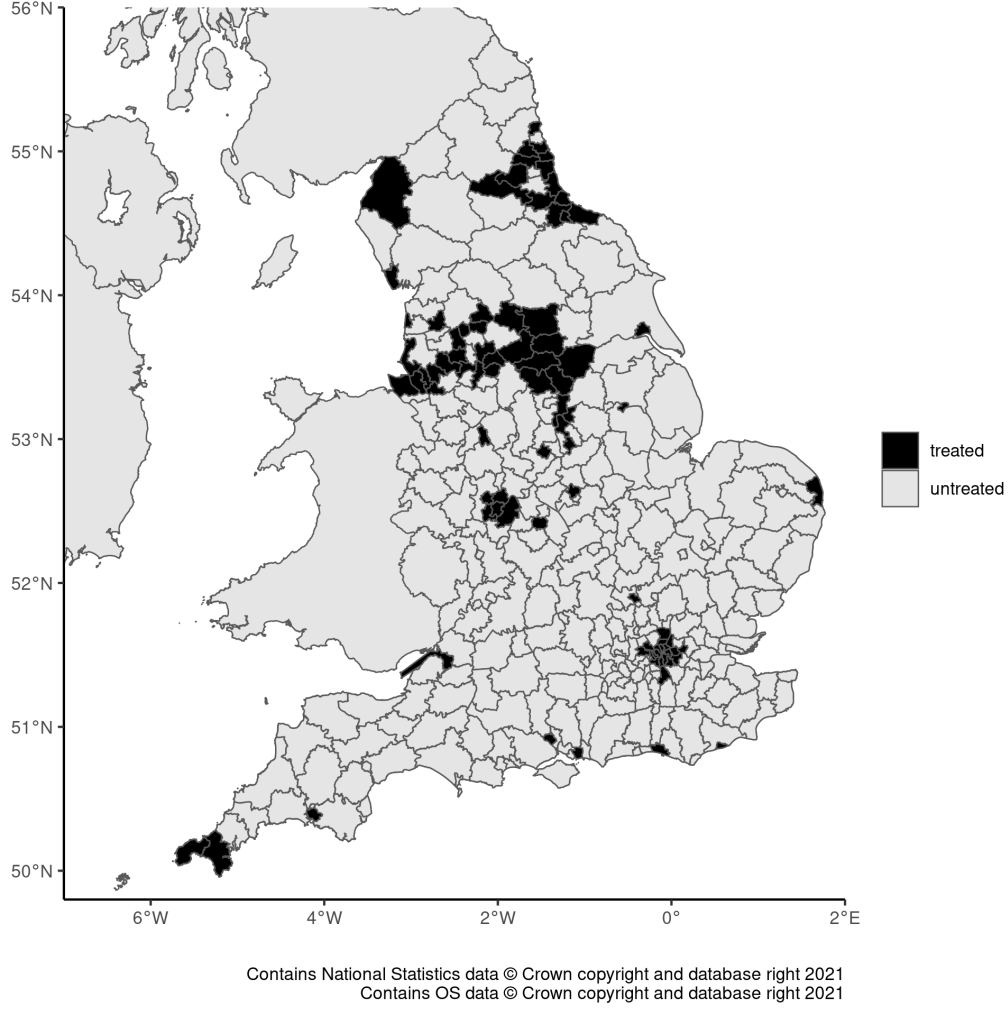


Figure 1: Map of England (with surrounding geography included for reference), with Neighbourhood Renewal Fund treatment areas highlighted in black. Source: Calvert Jump & Scavette (2024).

4 Methodology

We use three empirical approaches for our main results: difference-in-differences (DiD), generalized difference-in-differences (GDiD), synthetic difference-in-differences (SDiD). The simple difference-in-differences specification is as follows:

$$y_{it} = \alpha_i + \delta_t + \beta D_{it} + \epsilon_{it}. \quad (1)$$

We first estimate the impact of the NRF on house prices in treated local authority districts with these DiD models. The dependent variable y_{it} is the natural log of a respective median

home price variable (e.g., all home prices, detached home prices, semi-detached home prices, terraced home prices, flat prices) in local authority district $i = 1, \dots, 285$ and year $t = 1996, \dots, 2008$. Area and time fixed effects are captured by α_i and δ_t , respectively. Dummy variable D_t equals one from 2002 onward for NRF treated districts. The control group consists of all districts in England that were not allotted funds for the NRF program, as in Alonso et al. (2019) and Calvert Jump & Scavette (2024). We cluster standard errors at the local authority district level.

The generalized difference-in-differences model is as follows:

$$y_{it} = \alpha_i + \delta_t + \sum_{j=-6}^{+6} \gamma_j D_{it+j} + \epsilon_{it}. \quad (2)$$

While the DiD models provide the average treatment effect of the NRF on home prices over the period 2002 through 2008, the GDiD models not only estimate how the NRF's impact on home prices varied over the treatment period (via the lags), but the leads also provide an informal placebo test of whether the common trends assumption holds for the DiD treatment effect estimates to be unbiased. Any significant lead coefficients in equation 2 would indicate a violation of the common trends assumption. The same dependent variables, area, and time fixed effects from equation 1 apply for equation 2, and the standard errors are also clustered at the local authority district level. The leads and lags in equation 2 are dummy variables set to one for NRF treated counties and zero for control counties.

Finally, as a robustness check to our DiD estimates, we estimate SDiD models (Arkhangelsky et al., 2021) as follows:

$$\left(\hat{\alpha}, \hat{\beta}, \hat{\delta}, \hat{\mu} \right) = \arg \min_{\alpha, \beta, \delta, \mu} \sum_{i=1}^N \sum_{t=1}^T (Y_{it} - \mu - \alpha_i - \delta_t - \beta D_{it})^2 \hat{\omega}_i \hat{\lambda}_t. \quad (3)$$

The SDiD model relaxes the common trends assumption from the DiD models by allowing potentially different pre-trends among treated and control units. The average treatment effect on the treated (ATT), $\hat{\beta}$, is estimated from a two-way fixed effect regression of the dependent variable, y_{it} , on the NRF policy variable D_{it} , constant μ , area fixed effects α_i ,

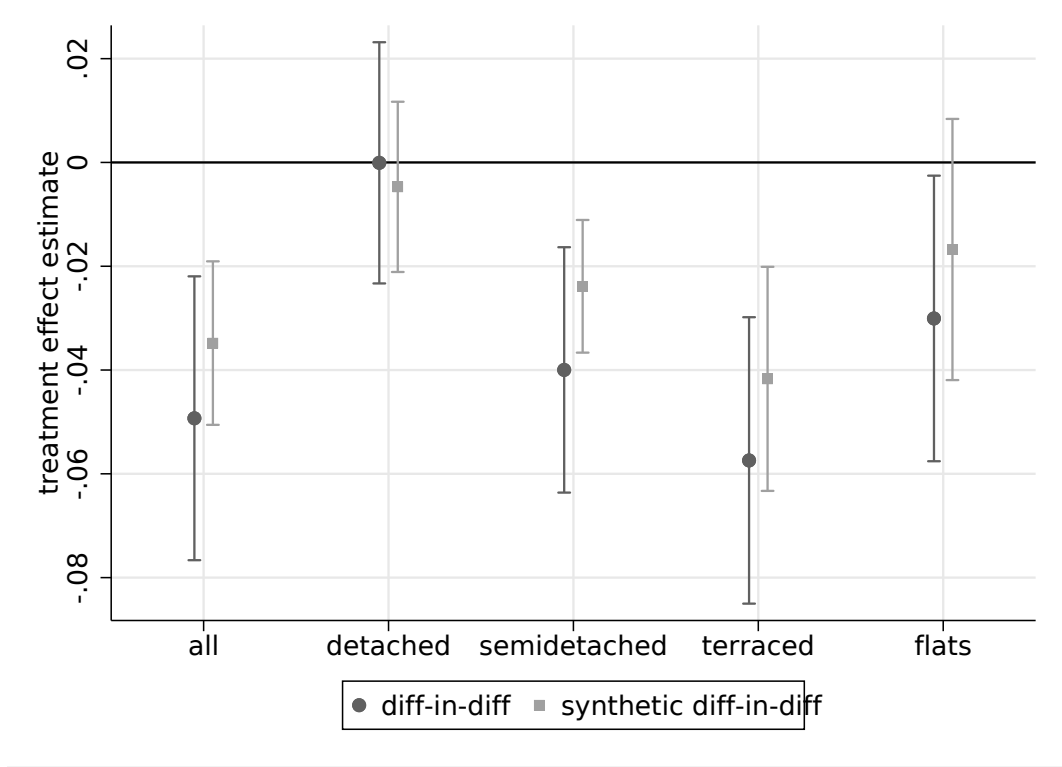


Figure 2: Point estimates and 95% confidence intervals for the difference-in-differences and synthetic difference-in-differences models on sales price (by home type).

and year fixed effects δ_t . Unit weights ω and time weights λ are optimally selected so that the control groups' pre-treatment outcomes match the treated groups' as closely as possible. See Clarke et al. (2023) for a more detailed explanation of the SDiD estimation process.

5 Results

Figure 2 plots point estimates and 95% confidence intervals for the simple difference-in-differences and synthetic difference-in-differences models on sales price, split between different types of home, using equations (2) and (3). The simple and synthetic difference-in-differences estimates are qualitatively similar to one another, while any quantitative differences in the estimates are relatively small. The main conclusion is that the change in median sales prices between 1996-2001 and 2002-2008 (i.e., pre- and post-NRF) was significantly lower in treated districts than non-treated districts. This effect seems to be driven by semi-detached houses, terraced houses, and flats, with detached houses unaffected.

This pronounced negative effect on house prices is surprising, as the existing literature on

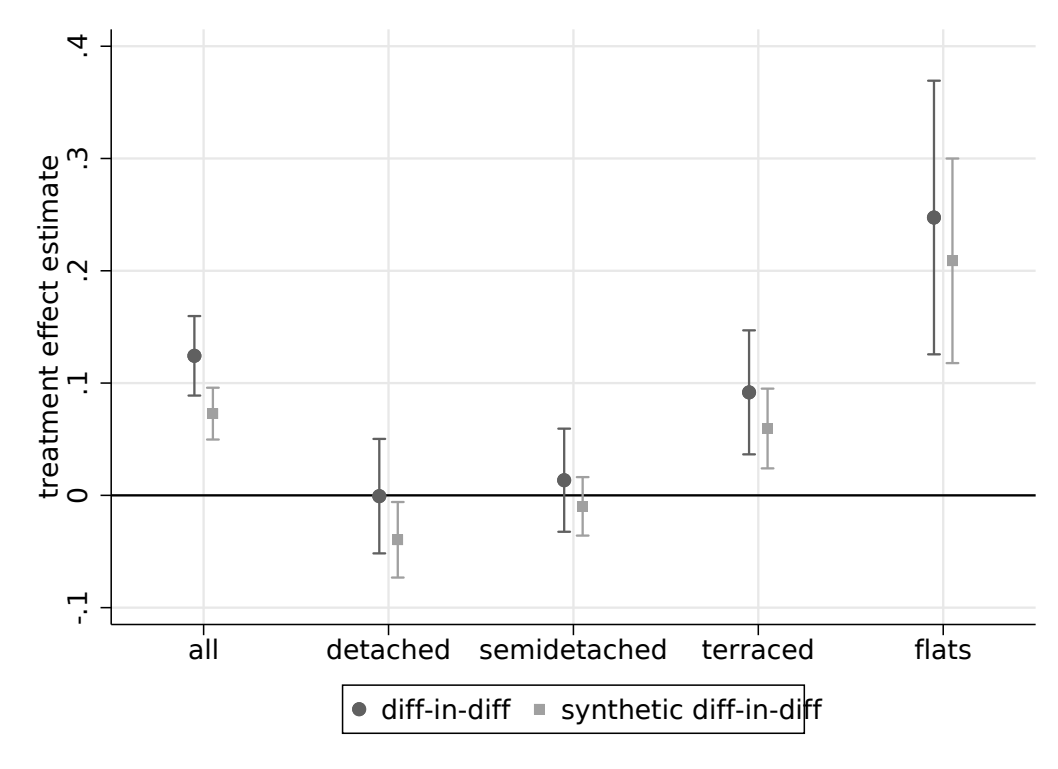


Figure 3: Point estimates and 95% confidence intervals for the difference-in-differences and synthetic difference-in-differences models on sales volume (by home type).

the NRF suggested – albeit with relatively scant data – that house prices increased as a result of the policy, at least in some areas. Moreover, while there are some papers that suggest that house prices might fall following urban regeneration efforts due to a stigma effect (e.g., Hastings and Dean, 2003; Brattbak and Hansen, 2004), this does not seem to be a plausible explanation. This is because, as illustrated in figure 3, the types of houses for which sale prices fell also saw an increase in sales volume. In other words, there seem to have been positive supply shocks for terraced houses and flats, and to a lesser extent semi-detached housing, which are *prima facie* inconsistent with a stigma mechanism.

Are these effects plausible? The event study regression results in figure 4 are not completely conclusive; there is some evidence that relative house prices were falling in treated areas prior to the receipt of NRF funds, although there was certainly an acceleration after the policy was implemented. And, in any case, this type of small deviation from the assumptions required by simple difference-in-differences models are what the synthetic difference-in-differences model is designed to account for.

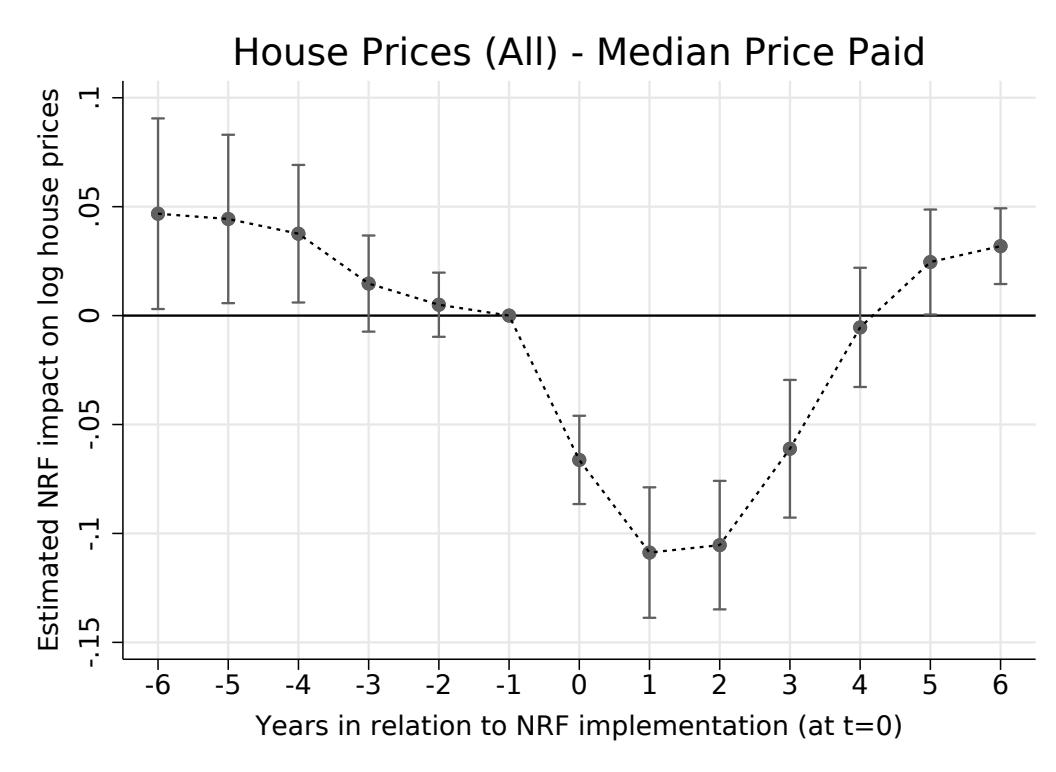


Figure 4: Event study plot from generalized difference-in-differences models of home prices (all home types).

At the same time, these events took place during the real estate bubble of the 2000s that culminated in the financial crisis of 2008, and hence there is a potential problem of external validity. There were, also, other policies that may have had a confounding effect. The most obvious contender is the Housing Market Renewal Programme, but this was relatively small and, in any case, is not thought to have had a major effect on relative house prices (see e.g., Leather and Nevin, 2013).

Another possibility is that the acceleration of house prices that commenced in the UK between 2001 and 2002 *just so happened* to affect wealthier areas rather than the deprived areas more likely to be treated by the NRF. But, as with the stigma effect, one would expect this to show up as a negative demand shock in treated areas relative to non-treated areas, rather than the supply shock evidenced in figures 2 and 3.

6 Concluding remarks

Our conclusions are, therefore, tentative. On the one hand, there seems to be clear evidence that the Neighbourhood Renewal Fund did not result in gentrification, despite positive effects on local labour markets and crime rates, in the sense that these effects do not appear to have been capitalized into higher house prices. This is a positive result.

On the other hand, the policy relevance of this result is somewhat limited, as it is not obvious what was driving the increases in sales volumes, and concomitant falls in sale prices, in NRF treatment areas relative to non-treatment areas between 2002 and 2008. One intriguing possibility is that the nature of the policy – a “place-based people policy” improve labor supply, rather than demand – is itself sufficient to prevent a large increase in the demand for housing. This is *prima facie* possible, as improving within-district labor supply is likely to attract fewer in-migrants to treated areas, and indeed it appears that the population of treated areas continued to decline, relative to non-treated areas, after the NRF was implemented (Calvert Jump and Scavette, 2024). Exploring this possibility is the focus of ongoing research.

References

- Aarland, Kristin & Osland, Liv & Gjestland, Arnstein, 2017. "Do area-based intervention programs affect house prices? A quasi-experimental approach," *Journal of Housing Economics*, Elsevier, vol. 37(C), pages 67-83.
- Albanese, Giuseppe & Ciani, Emanuele & de Blasio, Guido, 2021. "Anything new in town? The local effects of urban regeneration policies in Italy," *Regional Science and Urban Economics*, Elsevier, vol. 86(C).
- AMION Consulting, "Evaluation of the National Strategy for Neighbourhood Renewal: Final Report," U.K. Ministry of *Communities and Local Government* (2010) <https://extra.shu.ac.uk/ndc/downloads/general/Neighbourhood%20Renewal%20Final%20report.pdf>
- Arkhangelsky, Dmitry, Susan Athey, David A. Hirshberg, Guido W. Imbens, and Stefan Wa-

- ger. 2021. "Synthetic Difference-in-Differences." *American Economic Review*, 111 (12): 4088–4118.
- Bartik, Timothy J. & Charles Becker & Steve Lake & John Bush, 1987. "Saturn and State Economic Development," W.E. Upjohn Institute for Employment Research.
- Bartik, Timothy J. 1991. "Who Benefits from State and Local Economic Development Policies?," Books from Upjohn Press, *W.E. Upjohn Institute for Employment Research*.
- Boarnet, Marlon G. & Bogart, William T., 1996. "Enterprise Zones and Employment: Evidence from New Jersey," *Journal of Urban Economics*, Elsevier, vol. 40(2), pages 198-215, September.
- Bond, S. A., Gardiner, B., & Tyler, P. (2012). The impact of enterprise zone tax incentives on local property markets in England: who actually benefits? *Journal of Property Research*, 30(1), 67–85.
- Braakmann, Nils & McDonald, Stephen, 2020. "Housing subsidies and property prices: Evidence from England," *Regional Science and Urban Economics*, Elsevier, vol. 80(C).
- Busso, Matias, Jesse Gregory, and Patrick Kline. 2013. "Assessing the Incidence and Efficiency of a Prominent Place Based Policy." *American Economic Review*, 103 (2): 897–947.
- Calvert Jump, Robert & Scavette, Adam, 2024. "JUE Insight: The Labor Market Effects of Place-Based Policies: Evidence from England's Neighbourhood Renewal Fund, *Journal of Urban Economics*, vol. 144.
- Chareyron, Sylvain & Goffette-Nagot, Florence & Letrouit, Lucie, 2022. "Externalities from urban renewal: Evidence from a French program," *Regional Science and Urban Economics*, Elsevier, vol. 95(C).
- Chen, Jiafeng & Glaeser, Edward & Wessel, David, 2023. "JUE Insight: The (non-)effect of opportunity zones on housing prices," *Journal of Urban Economics*, Elsevier, vol. 133(C).
- Clarke, D., nir, D.P., Athey, S., Imbens, G., 2023. Synthetic difference in differences estimation. Papers 2301.11859, arXiv.org. URL <https://ideas.repec.org/p/arx/papers/2301.11859.html>.
- Cole, Ian, and David Etherington. 2005. "Neighbourhood Renewal Policy and Spatial Differentiation in Housing Markets: Recent Trends in England and Denmark." *European Journal of Housing Policy* 5 (1): 77–75. doi:10.1080/14616710500055703.

- Cole, I. (2012). Housing Market Renewal and Demolition in England in the 2000s: The Governance of ‘Wicked problems.’ *International Journal of Housing Policy*, 12(3), 347–366. <https://doi.org/10.1080/14616718.2012.709672>
- Cowen, Georgina et al, “Impacts and outcomes of the Neighbourhood Renewal Fund,” *U.K. Department for Communities and Local Government* (November 2008).
- Delgado, Michael S. & Florax, Raymond J.G.M., 2015. ”Difference-in-differences techniques for spatial data: Local autocorrelation and spatial interaction,” *Economics Letters*, Elsevier, vol. 137(C), pages 123-126.
- Department for Communities and Local Government. Dept. for Com. and Local Gov’t, 2015. The working neighbourhoods fund scoping study report 2: Evaluation plan for the working neighbourhoods fund. Tech. rep.
- ECOTEC Research and Consulting Ltd., “Evaluation of the National Strategy for Neighbourhood Renewal: Local research project,” U.K. Department of Communities and Local Government (March 2010).
- Erickson, R. A., & Syms, P. M. (1986). The effects of enterprise zones on local property markets. *Regional Studies*, 20(1), 1–14.
- Freedman, Matthew, 2012. ”Teaching new markets old tricks: The effects of subsidized investment on low-income neighborhoods,” *Journal of Public Economics*, Elsevier, vol. 96(11), pages 1000-1014.
- Freybote, Julia, Lauren Simon, and Akhila Veldani, “Adjacency Neighborhood Effects and Owner-Assessed Home Values,” *Journal of Housing Research* 32 no 2 (2023): 123-141.
- Hanson, Andrew. 2009. “Local employment, poverty, and property value effects of geographically-targeted tax incentives: An instrumental variables approach,” *Regional Science and Urban Economics* 39:6, 721–31.
- Hodge, Timothy R. & Komarek, Timothy M., 2016. ”Capitalizing on Neighborhood Enterprise Zones: Are Detroit residents paying for the NEZ Homestead exemption?,” *Regional Science and Urban Economics*, Elsevier, vol. 61(C), pages 18-25.
- Landers, Jim, 2006. ”Why Don't Enterprise Zones Work? Estimates of the Extent that EZ Benefits

are Capitalized into Property Values,” *Journal of Regional Analysis and Policy*, Mid-Continent Regional Science Association, vol. 36(1), pages 1-16.

Koster, Hans & Jos van Ommeren, 2019. ”Place-Based Policies and the Housing Market,” *The Review of Economics and Statistics*, MIT Press, vol. 101(3), pages 400-414, July.

Krupka, Douglas J. and Douglas S. Noonan. 2009. ”Empowerment zones, neighborhood change and owner-occupied housing,” *Regional Science and Urban Economics* 39:4, 386–96.

Ladd, H. F. (1994). Spatially Targeted Economic Development Strategies: Do They Work? *Cityscape*, 1(1), 193–218. <http://www.jstor.org/stable/20868371>

Leather, P. and Nevin, B. (2013). The Housing Market Renewal Programme: Origins, Outcomes and the Effectiveness of Public Policy Interventions in a Volatile Market. *Urban Studies*, 50(5), 856-875.

Lupton, Ruth, Alex Fenton and Amanda Fitzgerald, ”Labour’s record on neighbourhood renewal in England: policy, spending and outcomes 1997-2010,” *Centre for Analysis of Social Exclusion*: London, UK, Social Policy in a Cold Climate, Working Paper 6 (2013).

Miller, C. & Castells, N. & Verma, N. & Vermette, J. & Kanengiser, H. 2021. Long-term Effects from the Original Jobs Plus Demonstration: Employment and Earnings for Public Housing Residents after 20 Years. Office of Policy Development and Research. U.S. Department of Housing and Urban Development. <https://www.huduser.gov/portal/portal/sites/default/files/pdf/Jobs-Plus-Long-Term-Effects.pdf>.

Neumark, David & Simpson, Helen, 2015. ”Place-Based Policies,” Handbook of Regional and Urban Economics, in: Gilles Duranton & J. V. Henderson & William C. Strange (ed.), *Handbook of Regional and Urban Economics*, edition 1, volume 5, chapter 0, pages 1197-1287, Elsevier.

Reynolds, C. Lockwood and Shawn M. Rohlin. 2015. ”The effects of location-based tax policies on the distribution of household income: Evidence from the federal Empowerment Zone program,” *Journal of Urban Economics* 88, 1–15.

Rossi-Hansberg, Esteban & Pierre-Daniel Sarte & Raymond Owens, 2010. ”Housing Externalities,” *Journal of Political Economy*, University of Chicago Press, vol. 118(3), pages 485-535, June.