

Rapid evidence review: Enterprise zones

Introduction

Area based initiatives (ABIs) aim to improve economic, social, or environmental outcomes within specific, often tightly defined, geographic areas through packages of support. These interventions may target businesses, households, or the physical environment.

This rapid evidence review focuses on enterprise zones (EZs) and other ABIs that focus on economic outcomes, such as tax increment financing. It updates our previous [Enterprise Zone evidence review](#), published in 2016.

Things to consider

Policy lessons

- Policymakers should be realistic about the likely impacts of EZs. Only half of studies looking at business outcomes and a third of studies looking at labour market outcomes find a positive effect, and findings are similar for other outcomes. One reason for this is that tax credits and other incentives generally result in small percentage changes in business costs and therefore may not affect outcomes. Another is that ABIs may lead to displacement – shifting activity around, rather than generating new activity.
- Policymakers should be clear on the goals of EZs. Evidence is mixed on whether local residents benefit. Local hiring requirements may help if this is the objective as EZs with these seem to be more effective at improving local residents' labour market outcomes.
- Policymakers should consider the distributional impacts of EZs. As with many local growth policies, the evidence suggests the benefits of EZs are often capitalised into property values, benefiting property owners over renters.

Need for more evidence

- Whilst the evidence on EZs has grown substantially since the publication of our previous evidence review in 2016, there continue to be gaps in the evidence base.
- In particular, there is a need for more evaluation of the impact of the different policy levers (and different combinations of levers), whether impact varies across different types of area (for example, whether the area was growing or declining prior to designation), and on cost-effectiveness.

Evaluation evidence

What is an enterprise zone?

Enterprise zones (EZs) aim to improve economic growth in a specific, often tightly-defined, geographic area. The policy mix varies, but typically includes a combination of tax breaks, wage subsidies, reduced regulation, and investment in physical, transport or communications infrastructure.

In 2011, the UK government announced the creation of 21 EZs in England (subsequently expanded to 24). These EZs offered businesses five-year rebates on business rates, simplified planning regulations, and access to superfast broadband. In some cases, businesses were also able to claim tax relief on new plant and machinery investments. Local authorities will be able to keep 100 percent of any subsequent business rate growth for 25 years after the EZ begins operations. A further 24 EZs were announced in 2016 and 2017. More recently, [freeports](#) and [investment zones](#) have been announced and use many of the same policy levers.

These EZs have not yet been evaluated, but EZ programmes in other countries have and this review summarises findings from those evaluations. It also covers a number of other ABIs that focus on economic outcomes, including the UK's Regional Selective Assistance and Local Enterprise Growth Initiative as well as tax increment financing (TIF) programmes. TIFs capture the increase in property taxes (and sometimes other taxes) resulting from new development, and transfer gains to local government.

Understanding the impact of enterprise zones

Our evidence reviews include studies that What Works Growth has scored three or above on the Maryland Scientific Methods Scale (SMS), which classifies evaluations based on methodological robustness and implementation.¹ Our toolkits and some rapid evidence reviews also include studies with a score of two or above when these add to the evidence base (for example, where there are few studies that score SMS 3 on a policy or outcome). As there are a large number of studies evaluating EZs, this rapid evidence review only includes those that score SMS 3 or above.

This means that we exclude evaluations that provide a simple before-and-after comparison for areas designated as EZs, because we cannot be sure that changes can be attributed to the effect of the EZ. We also exclude case studies or evaluations that focus on process (how the project is implemented) rather than impact (what was the effect of the project). Such studies have a role to play in helping formulate better policy, but they are not the focus of our evidence reviews.

We identified 53 studies that met our evidence standards. This includes the 37 studies included in

1

For more information on how we rank the robustness of evaluations, see our introduction to the Maryland Scientific Methods Scale: <http://www.whatworksgrowth.org/resources/the-scientific-maryland-scale/>

our 2016 evidence review and 16 additional studies.^{2,3,4} Eleven studies were scored as SMS 4 and 42 SMS 3. We did not find any studies that scored as SMS 5, reflecting the fact that EZ designation would be difficult to randomise. Annex 1 provides a summary of each study.

Around three-quarters of the studies (39) evaluate US programmes, including the federal Empowerment Zone (EmZ) and related Enterprise Community (EC) and Renewal Communities (RC) programmes, State Enterprise Zones (ENTZ), tax increment financing (TIF) and other EZ programmes. All US programmes are administrated at the state level (even if funded federally) and have been implemented by at least 40 states at various times since the 1980s. As a result, there is a high degree of variation, although most include tax credits, credits for new jobs, and credits for property taxes.

Seven studies are from France, with six looking at the Zones Franches Urbaines (ZFU), and one Zones de Revitalisation Rural (ZRR). ZFU were created by the French government in 1996 and designed to reduce urban inequality in French neighbourhoods. ZFUs are the smallest spatial unit of a three-tier system of intervention, comprising Zones Urbaine Sensible (ZUS, or Sensitive Urban Zones), Zones de Redynamisation Urbaine (ZRU, or Urban Renewal Zones) and the ZFU. Four studies look at UK policies – Regional Selective Assistance (RSA) and Local Enterprise Growth Initiative (LEGI). Three studies look at policies in other European countries (one each in Italy, Poland, and Sweden). Annex 2 provides an overview of the major programmes included in this evidence review.

All the programmes included in this review aim to revitalise economically distressed and underdeveloped areas, usually characterised by high unemployment, low-income, poverty, social exclusion, and economic decline. With the exception of TIF in the US, the programmes involve a combination of tax exemptions on investment and payroll taxes. Some also offer financial aid, infrastructure and reduce regulation. In contrast to other programmes, TIF captures the incremental increase in property tax revenue and uses it to fund development projects in the area (for example, infrastructure improvements, site remediation or land acquisition) or provide direct subsidies to developers.

Most studies consider the difference between those areas designated as EZs or similar, and those that were not designated. Some assess the effects of the EZ from the date the EZ is announced while others only consider effects once the EZ is operational. The spatial unit of observation also varies across studies, with some studies focusing on effects at the EZ level (usually where the boundary is same as existing administrative geography), some on spatial units smaller than the EZ area (for example, neighbourhoods within the EZ area), and others on effects on spatial units larger than the EZ area (for example, municipalities in which the EZ area is located). When summarising results, we will refer to these as ‘treated areas’, whereas spatial units not in an EZ and used as counterfactual in the studies are referred as ‘comparison areas’. The individual study paragraphs in Annex 1 provide more details on how each of these are defined.

2 One study from the original evidence review – 1248 – has been dropped following a review of its SMS score.

3 Earlier versions of studies EZ-1 and EZ-14 were included in our 2016 evidence review (with reference IDs 1315 and 1260 respectively). Studies 1315 and 1260 were working papers, whilst EZ-1 and EZ-14 are articles in peer-reviewed journals.

4 Studies that were included in the 2016 evidence review use the same reference IDs. Studies identified during the search for this update (including two journal articles that replace working papers included in the original review) use the reference structure EZ-1, EZ-2, etc.

Evidence on impacts

Studies are organised by outcome – number of businesses, labour market outcomes, wages and income, poverty reduction, property prices and rent, spillover and displacement effects, other outcomes, and cost effectiveness.

Be cautious of findings based on a small number of studies.

Number of businesses

When businesses think about where to locate, they are trading off the benefits and costs of producing their products or services in different places. When places are similar in terms of costs and benefits, anything that lowers costs will attract new businesses or encourage the expansion of existing businesses. EZ programmes provide businesses with tax breaks or other incentives to locate or expand in specific areas. EZ incentives provided in more disadvantaged areas may be easily offset if productivity in those areas is low or if labour or land costs are high compared to other areas. This could make an EZ programme ineffective at larger spatial scales (for example, if EZs are used as a tool for rebalancing the national economy).

We found 17 studies that look at effects on the number of businesses. Twelve look at effects on the total number of businesses, and seven at effects on the number of new businesses (including two looking at both). Four studies scored SMS 4, and 13 scored SMS 3.

Outcome	Positive effects	Negative effects	Mixed effects	No effects	Total
Total number of businesses	6	1	3	2	12
New businesses	4	0	0	3	7

Total number of businesses

Twelve studies look at effects on the total number of businesses. Two of these scored SMS 4 and 10 scored SMS 3.⁵

Six studies find positive effects.

- Four of these evaluate the French programme, ZFU.
 - 1262 (SMS 3) finds ZFUs increase the number of businesses in treated areas, with the number about twice what it would have been without the policy after five years. The study finds positive effects on both business creation and relocation, with the latter effect larger. After five years business in the ZFUs no longer benefit from full tax exemptions and ZFUs no longer increase the business growth rate.⁶
 - 1263 (SMS 3) finds Round II ZFUs increase the growth rate of the number of businesses by between 5 and 8 percentage points per year.

⁵ Some studies use terms other than firms or businesses – for example, establishments, plants, and local units – that may refer to smaller units part of a larger business. As the definition will depend on the data used, where these are used, we use the terminology from the original study rather than adopting a uniform terminology.

⁶ The number of new businesses and relocations into the ZFU equals the number of closures in the ZFU and relocations outside the ZFU, cancelling the effect.

- 1257 (SMS 3) finds ZFUs increase the annual growth rate of establishment inflows (both births and relocations) by 8.5 percent over a three-year period. Effects are larger for areas with better transportation and market access.
- 1233 (SMS 3) finds that Round II ZFU increases the probability of establishments in nearby areas re-locating into ZFU areas, with a substantial marginal effect of 2.4 percentage points. The impact varies based on business size, industry characteristics, and establishment mobility, suggesting varied responses to ZFU policies.
- 1258 (SMS 3) finds modest increases – 4 percent – in the number of establishments in treated areas for the Round I of EmZ.
- 1298 (SMS 3) finds RSA has a small positive impact on new plants. Effects are larger in areas with existing plants in the same industry.

Only one study (1235, SMS 3) finds negative effects, with EZs in California decreasing the number of businesses (by 2.1 percent).

Three studies find mixed effects.

- EZ-1 (SMS 4) finds LEGI has no effects on number of businesses in a 1km ring inside the area boundary but has a negative effect in the 2 to 3km ring.
- 1251 (SMS 3) finds that designation has no effect on the number of firms in EmZ but a positive effect in RCs. Tax credits have a positive effect on the number of firms in both EmZs and RCs.
- 1267 (SMS 3) finds mixed effects of EmZ wage tax credits across sectors. The study finds a long-term shift in the composition of businesses in treated areas, with an increase in the share of businesses in manufacturing, a decrease in share of businesses in transportation, and no effects on the share of businesses in construction, retail, and services.

Two studies find no effects on the number of businesses.

- 1313 (SMS 4) finds the rural ZRR programme in France has no effect on the number of businesses.
- 1254 (SMS 3) finds the Territorial Pacts programme in Italy has no effect on the number of plants.

New businesses

Seven studies look at the effects on new business starts. Two scored SMS 4 and five scored SMS 3.

Four studies find positive effects.

- Two studies for France finds ZFUs (both also mentioned in ‘total number of businesses’) have positive effects on new businesses.
 - 1262 (SMS 3) finds ZFUs have a positive effect on business creation.
 - 1263 (SMS 3) finds a positive effect on business births, with births more important than relocations at the beginning of the time period considered, and relocations more important in later periods.
- Two studies for the US find similar results.
 - EZ-2 (SMS 4) finds that Delta Regional Authority (DRA) increases new businesses with no

employees (self-employment) by 2.2 percent.⁷

- 1265 (SMS 3) finds zone designation for urban EZs has a positive effect on business birth rates.

No studies find negative or mixed effects.

Three studies find no effects.

- EZ-18 (SMS 4) finds Opportunity Zones (OZ) have no effect on new business growth rates.
- 1255 (SMS 3) finds EZs in Colorado have no effects on the number of new establishments.
- EZ-3 (SMS 3) finds TIF in Kansas City and St. Louis has no effect on firm births.

Overall, half of studies find an increase in either the number of businesses, the number of new businesses or both. Some find evidence of displacement, with others finding that the increases are concentrated in the initial period post-designation or whilst specific incentives are in place. Given the high turnover of businesses, this may mean increases are only temporary.

Labour market outcomes

Net increases in the number of businesses in the EZ, combined with any expansion by EZ businesses, will tend to increase labour market demand. Assuming labour supply is responsive, this should increase employment in the EZ. Forty-four studies look at the effects on labour markets. Thirty-three studies look at effects on employment. Ten studies look at the effect on employment of local residents and thirteen studies look at the effect on local unemployment. Interpreting these results is complicated by the fact that EZs may change labour market participation. For example, unemployment rates could change even if there is no change in the number of local residents employed in the EZ if the EZ changes the number of people actively looking for work. Changes in household composition also complicate interpretation. For example, if workers already employed in the EZ decide to live closer to work (moving from outside to inside the treated area) then the employment rate of local residents could increase even if there has been no change in employment in the EZ.

We group the findings into three categories – employment, local residents' employment, and local residents' unemployment. Studies that cover more than one labour market outcome will appear in more than one section.

Outcome	Positive effects	Negative effects	Mixed effects	No effects	Total
Employment	6	0	14	14	34
Local residents' employment	3	0	5	2	10
Local residents' unemployment	8	0	1	4	13

⁷ Delta Regional Authority (DRA) was a small federal-state regional commission in the lower Mississippi River Valley founded in 2000 to improve the livelihood of 252 historically poor counties. DRA provided funding for infrastructure, business development, and job training from 2002 to 2015.

Employment

We found 34 studies that look at employment at businesses within the EZ. Six scored SMS 4 and 28 scored SMS 3.

Six studies find positive effects.

- Three studies look at US programmes.
 - 1258 (SMS 3) looks at EmZ, finding designation increases employment by 18 percent.⁸
 - 1251 (SMS 3) finds employment tax credits associated with EmZ and RC designation increase the numbers of both residents and comparison area residents employed by treated firms.
 - EZ-5 (SMS 3) finds employment is, on average, 15.2 percent higher after 5 years, relative to one-year prior to designation for TIFs in Chicago. The number of African Americans and Hispanics workers employed in TIF zones increased by over 20 percent and 10 percent respectively, with this driven by private employers rather than public sector employers.
- Two studies look at ZFU.
 - 1262 (SMS 3) finds that the number of salaried employees in ZFU businesses is 2.6 higher than it would have been without the policy after five years. There is no further growth (up to 15 years).
 - 1233 (SMS 3) finds ZFUs increase employment by 24 percent, with increases in both incumbent and newly located plants. The effect is larger for low-wage than high-wage jobs. Although job destruction is higher in ZFU than comparison areas, the job creation effect is stronger and overall employment increases in ZFU areas compared to comparison areas.
- One study looks at a UK programme. 1314 (SMS 4) finds a 10-percentage point increase in the maximum investment subsidy rate paid by the RSA programme increases employment by 1.2 percent. Treated areas also experience smaller declines in manufacturing employment.

No studies find negative effects.

Fourteen studies find mixed results, with effects varying across geographies, timeframes, characteristics of the programme, economic sectors, and business size.

- Nine studies look at US EZ programmes.
 - EZ-6 (SMS 4) estimates the impact of Louisville EZs on employment growth in several industries and find mixed results. The employment growth rate over the decade post-designation (1990 to 2000) is higher than the pre-programme growth rate (1980 to 1990), with large positive effects in manufacturing and smaller positive effects in services.⁹ There is no effect on the employment growth rate in agriculture, trade, and public administration.
 - 1225 (SMS 4) finds EmZs and ECs have a positive effect on employment, but ENTZs have no effect.
 - 1265 (SMS 3) finds mixed results for urban EZs in California, Florida, New Jersey, New York, Pennsylvania, and Virginia. EZs have no impact on overall employment because

8 Designation refers to the announcement of the decision that an EZ will be implemented in an area. Studies looking at effects of EZ designation assess outcomes following the announcement.

9 The way the study reports the estimates in the original paper makes the magnitudes hard to interpret, so we only report the relative size and sign of the effects.

faster employment growth for new businesses is offset by slower growth for existing businesses.

- 1294 (SMS 3) examines effects of EZs in Atlanta, comparing three types of tax incentives.¹⁰ Commercial EZs have a positive effect on employment, housing EZs have no effect, and job tax credits have either positive or no effects (depending on specification). Only job tax credits have a positive effect on manufacturing employment.
- 1232 (SMS 3) finds EZs in urban areas in Colorado have no overall effect on employment, but large negative effects on employment for the smallest and largest establishments. Data for rural areas is only available for the smallest establishments, for which EZs have small positive employment effects.
- EZ-7 (SMS 3) finds New Jersey's Urban Enterprise Zones (UEZs) have no effects on employment in all treated areas except for one.
- 1255 (SMS 3) finds EZs in Colorado have a positive effect on job creation in new establishments but no effect on existing establishments. Effects vary across sectors.
- 1288 (SMS 3) finds EZ designation increases five-year employment growth rates for new establishments but has no effect on existing establishments. Increasing the portion of the state land occupied by the EZ reduces the employment growth rates for new establishments. Tax incentives for hiring have a positive effect on employment for existing establishments.¹¹
- EZ-8 (SMS 3) finds no overall effects of the OZ programme on jobs postings, but varied effects across different industries, states, and population densities.
- One study (EZ-9, SMS 3) assesses the impact of TIFs in economically distressed areas in Illinois municipalities and finds no overall effect on employment growth. However, the study finds that TIF targeted at industrial development increases employment, whilst TIF targeted at retail decreases employment.
- 1292 (SMS 3) finds Swedish Regional Investment Grants have no effect over the whole time-period considered but some positive effect during the Swedish recession (1993 to 1995).
- EZ-1 (SMS 4) finds the LEGI in the UK has a positive effect on employment when 1km rings on either side of the boundary are compared, but there is no effect when using a 2 to 3km comparison ring.
- Two studies look at Round II of ZFU programme.
 - 1263 (SMS 3) finds ZFUs have a positive effect on employment, but the effect is only significant for 2007.
 - 1257 (SMS 3) finds the growth rate of the number of jobs is higher than in comparison areas over a four-year period, with this driven by better connected ZFUs (where growth is 11.4 percentage points higher). There was no overall increase in hours worked but hours worked did increase in more isolated ZFUs.

Fourteen studies find no effects.

10 Commercial EZ provides property tax abatements to commercial and industrial properties that locate in census tracts designated as depressed. Jobs tax credits allow manufacturing firms in depressed counties to receive a credit against their annual state income tax obligation for each new job created. Housing EZ is an extension of EZ to include housing construction and rehabilitation in the property tax abatements. It also focuses on census tracts designated as depressed.

11 New establishments are firm units with positive employment during the EmZ programme, but zero employment prior to intervention.

- Eleven studies look at US programmes.
 - 1286 (SMS 4) finds the New Markets Tax Credit (NMTC) programme has no effect on employment growth.
 - 1290 (SMS 3) finds EmZs have no effect on employment.
 - 1267 (SMS 3) find EmZ wage tax credits have no effect on employment across different industry sectors.
 - 1235 (SMS 3) finds California's EZs have no effect on employment
 - 1245 (SMS 3) finds EmZs in Atlanta, Baltimore, Chicago, Detroit, New York, and Philadelphia, have no effects on employment.
 - 1217 (SMS 3) finds 1980s EZs in California, Kentucky, New York, Pennsylvania, and Virginia have no effect on employment growth.
 - 1256 (SMS 3) finds UEZs in New Jersey have no significant impacts on municipal employment or sectoral employment during the period 1982 to 1990.
 - EZ-4 (SMS 3) finds OZ designation has no effect on employment.
 - EZ-10 (SMS 3) finds Economic Development Priority Areas (EDPA) implemented in 2005 in Atlanta, Georgia, have no effects on employment.
 - EZ-3 (SMS 3) finds TIF in Kansas City and St. Louis has no effect on employment.
 - EZ-11 (SMS 3) finds TIF designation in Indiana has no effects on job creation.
- Three studies from European countries find no effects on employment.
 - 1313 (SMS 4) finds ZRR in France has no effects on employment and suggests this may be due to ineffective targeting.
 - 1254 (SMS 3) finds that the Italian Territorial Pacts programme has no effects on employment.
 - EZ-12 (SMS 3) finds the tax credit policy in Polish Special Economic Zones has no effects on employment.¹²

Looking across the evaluation evidence, less than 20 percent of studies found a positive effect on employment. Given that there are studies that show positive, mixed and no effects for the same policy, this suggests that some of the variations in findings may reflect either context or implementation.

Local residents' employment

The previous section summarised findings for employment within EZs. An additional consideration is whether the EZ affects the employment of local residents. Ten studies consider this, three scoring SMS 4 and seven SMS 3.

There are three issues to note. First, some EZ policies include local hiring requirements, making it more likely that local residents benefit. Second, as discussed earlier, results for employment rates can be affected by changes in labour market participation or household composition. Third, even when employment outcomes improve for local residents this does not necessarily mean that existing, pre-designation residents have benefited if the EZ led to existing residents being displaced (for example, if rents increase).

12 Special Economic Zones (SEZ) in Poland offer tax exemptions (on corporate and real estate taxes), simplified administrative, and infrastructure investment aimed at attracting foreign direct investment.

Seven studies assess programmes with local hiring conditions.

- Three studies find positive effects.
 - EZ-13 (SMS 4) finds EZs in Texas result in an additional six resident jobs per designated treated area per year, for a total of about 42 additional resident jobs over the full period considered (seven years).¹³ Effects are positive for various industries, including construction, manufacturing, wholesale trade, retail trade, transport and storage, and health care. There are no effects in higher-wage and more skill-intensive industries such as information, finance and insurance, and professional services. Low wage (less than \$15,000 per year) and medium wage (less than \$40,000 per year) resident employment also increases.
 - 1220 (SMS 3) finds Round I EmZ designation increases employment rates by 4 percentage points.
 - 1258 (SMS 3) finds EmZs increase resident employment and non-resident employment in treated areas, with the effect on resident employment larger.
- Four studies find mixed effects.
 - 1225 (SMS 4) finds EmZs and ECs have a positive effect on the proportion of households with wage and salary income. ENTZs have no effect.
 - EZ-14 (SMS 3) finds ZFUs have a positive effect on local residents' employment during the early years of the programme. However, effects are explained by changes in the social composition of the zone rather than an increase in employment for original residents, especially those with lower employability.
 - 1262 (SMS 3) finds ZFUs boost overall resident employment, but at a slower rate than for non-resident employment in the ZFUs. After 15 years, the share of resident employment in treated areas decreases from 30 percent to 26 percent.
 - 1251 (SMS 3) finds EmZ and RC designation has no effect on resident employment, but the tax credit policy lever has a positive effect.
- No studies find negative or no effects.

Three studies assess the effects of programmes without local hiring conditions.

- No studies find positive or negative effects.
- One study finds mixed effects. 1286 (SMS 4) assess the US NMTC programme and finds no overall effect on resident employment. The proportion of resident workers (i.e. people living and working in the same treated area) declines by 0.5 percent and the average commute distance of workers in a treated area increases by 3 percent.¹⁴ It also finds changes in the composition of jobs in the treated areas (more medium- and high-wage jobs) and a decline in the share of employment taken up by residents, which appears to be driven by a decline in the share of low-wage jobs.
- Two studies find no effects.
 - EZ-4 (SMS 3) finds OZs have no effect on resident employment rates.

13 To be eligible for benefits, a business located in an EZ must ensure that 25 percent of its new employees will meet disadvantaged or EZ residence requirements. Census block groups in which 20 percent or more of the residents have incomes below the federal poverty level are automatically designated as EZs.

14 NMTC provides tax credits to investors who make equity investments in Community Development Entities that in turn invest in designated low-income census tracts.

- EZ-5 (SMS 3) finds TIF designation in Chicago has no effects on total employment for residents within TIF districts nor in the vicinity (within a quarter mile) of TIF districts.

As increasing employment for residents is often a key goal of EZ policies, the limited and mixed evidence of these effects is disappointing. The evidence is slightly stronger for policies that included a hiring requirement suggesting policymakers seeking to improve local residents' employment should consider whether to add a local hiring requirement.

Local residents' unemployment

Some studies look at the effects on local residents' unemployment. The reasons for looking at this are similar to local residents' employment and the same caveats apply. We found 13 studies looking at unemployment outcomes. Six studies scored SMS 4 and seven SMS 3.

Eight studies look at programmes with local hiring conditions.

- Five studies find positive effects.
 - 1225 (SMS 4) finds ENTZ, EmZ and EC designation all reduce resident unemployment rates.¹⁵
 - 1220 (SMS 3) finds Round I EmZ designation reduces unemployment rates in treated areas by 4 percentage points.
 - 1238 (SMS 3) finds Chicago's EmZ programme reduces unemployment rates by 7 percent.
 - EZ-14 (SMS 3) finds Round I ZFU reduces unemployment rates by 11 percentage points, 9.5 percentage points when the Paris region is excluded. A further 7.6 percentage points decrease in unemployment rate is found after ZFU hiring conditions tightened in 2002 but is attributed primarily to changes in the social composition of the zones.
 - 1264 (SMS 3) assesses the impact of ZFU in the Paris region and finds exits from unemployment in treated areas increase by 3 percent.
- No studies find negative or mixed effects.
- Three studies find no effects.
 - 1234 (SMS 3) finds Round I EC have no effect on unemployment.
 - 1236 (SMS 3) finds Round I EmZ and ECs have no effect on unemployment.
 - 1245 (SMS 3) finds EmZs in Atlanta, Baltimore, Chicago, Detroit, New York, and Philadelphia have no effect on unemployment.

Five studies look at effects of programmes without local hiring conditions.

- Three studies find positive effects.
 - EZ-2 (SMS 4) finds DRA reduces unemployment rates by 1 percentage point.
 - 1317 (SMS 4) finds \$1 million of NMTC-supported investment reduces the unemployment rate by 0.3 percentage points.
 - 1314 (SMS 4) finds areas predicted to be eligible for higher investment subsidies under

15 Neumark, D. and Young, T. (2019). "Enterprise Zones, Poverty, and Labor Market Outcomes: Resolving Conflicting Evidence" CESifo Working Paper Series, No. 7784 revisits the interventions evaluated in Study 1225. See Annex 1 for more information.

the RSA programme have faster reductions in unemployment compared to ineligible areas. A 10-percentage point increase in the maximum investment subsidy rate is associated with a reduction of unemployment by 4 percent.

- No studies find negative effects.
- One study finds mixed effects. EZ-15 (SMS 4) finds California's Redevelopment Areas (RDAs) have either positive effects or no effects on unemployment, depending on when they were established and the comparison used.
- One study finds no effects. EZ-1 (SMS 4) finds LEI has no effect on unemployment, despite higher employment in treated areas.

Overall, around two-thirds of the studies that look at the impact on unemployment find positive effects, with the majority of the others finding no effects. This suggests that EZ can have a positive effect on local residents' labour outcomes, although in some cases the findings may reflect displacement of pre-intervention residents. Unemployment findings are similar across programmes with and without hiring conditions.

Wages and income

Changes in labour markets may affect residents' wages and income. An increase in demand for workers (higher employment) may increase the wages businesses pay to secure the employees they need. Higher wages and employment (or less unemployment) increase household disposable income, either directly through higher earnings or through more household members receiving a wage. This may be particularly important for EZ programmes focused on deprived areas.

We found 16 studies, of which nine look at the effects on wages, and eight look at household or individual income.^{16,17}

Outcome	Positive effects	Negative effects	Mixed effects	No effects	Total
Wages	2	0	5	2	9
Income	3	0	3	2	8

Wages

Wages tend to increase when there is more competition for workers. Wages can also increase when businesses require higher skill workers. We found 10 studies that look at the effects on wages, all from the US and France. Two studies scored SMS 4 and eight scored SMS 3.

Three studies look at residents' wages.

- One study finds positive effects. 1258 (SMS 3) finds Round I of the EmZ increases weekly wages by 12 percent for treated areas residents employed within the same area, compared to a 4.5 percent increase for treated areas residents employed in comparison areas.
- No studies find negative effects.

¹⁶ Income includes wages and other income – such as benefits, pensions, or investment income.

¹⁷ One study (EZ-15) includes findings on both wages and household income. One study (1251) appears in the wages section twice in both sub-sections (on residents' wages and wages paid by businesses located in treated areas).

- One study finds mixed effects. 1251 (SMS 3) finds tax credits have a positive effect on average wages of EmZ residents working in treated firms but not the wages of RC residents working in treated firms. There is no effect on wages for EmZ and RC residents working in non-treated firms.
- One study finds no effects. EZ-4 (SMS 3) finds the OZ programme has no effect on resident earnings.

Seven studies look at wages paid by businesses located in treated areas.

- Two studies find positive effects.
 - 1251 (SMS 3, also mentioned in residents' wages) has a positive effect on wages paid in EmZ and RC areas. As discussed above, there was also a positive effect on average wages of EmZ residents but not RC residents working in treated firms. There was no effect on average wages of residents of comparison areas working for treated firms.
 - 1234 (SMS 3) finds RC designation increases payroll per employee by 18 percent.
- No study finds negative effects.
- Four studies find mixed effects.
 - EZ-15 (SMS 4) finds that California's RDAs have either no effects or positive effects on wages, depending on when they were established and the comparison used. 1219 (SMS 3) finds California's EZs have mixed effects on wage growth, depending on the time period considered.
 - 1232 (SMS 3) finds Colorado EZs have no overall effect on monthly payroll per worker in treated areas but they are lower for the smallest establishments (less than three employees).
 - 1257 (SMS 3) finds ZFUs have no overall effect on wages in treated businesses but have a small positive effect in more isolated areas.
 - 1233 (SMS 3) finds the ZFU programme has no overall effect on wages or on wages of low wage workers but has a negative effect on wages of high-wage workers.
- One study finds no effects. 1313 (SMS 4) finds ZRR in France have no effects on wages in treated areas.

Income

Looking at income is important as sometimes increases in wages are offset by declines in other income sources such as benefits, leading to individuals being no better off. Other income sources, such as property income, may also increase due to the EZ. We found eight studies, all from the US, that look at income effects. Some studies consider individual income, others household income. Three studies scored SMS 4 and five SMS 3.

Three studies find positive effects.

- 1225 (SMS 4) finds EmZ, EC and ENTZ all increase average wages and salary income.^{18,19}

18 The outcome defined by the study is average wages and salary income, but there is not information on the specific meaning of this variable and the difference between wage and salary income.

19 Neumark, D. and Young, T. (2019). "Enterprise Zones, Poverty, and Labor Market Outcomes: Resolving Conflicting Evidence" CESifo Working Paper Series, No. 7784 revisits the interventions evaluated in Study 1225. See Annex 1 for more information.

- Two studies find positive effects on household income.
 - EZ-2 (SMS 4) shows that the DRA increases average county median household income by 8 percent in treated areas.
 - 1238 (SMS 3) finds Chicago's EmZ increases median household income by \$10,000.

No studies find negative effects on individual or household income.

Three studies find mixed results on individual or household income.

- EZ-15 (SMS 4) finds California's RDAs established in 1990 have no effects on household income. However, RDAs established before 1990 have mixed effects on household income – negative effects when compared to the closest non-RDA census tract or all adjacent census tracts, and positive effects when compared to all other census tracts in the state.
- 1285 (SMS 3) finds that after 10 years the EmZ programme increases annual (mean) household income by 11 percent but there is no effect on median household income. There are changes in the proportion of households with incomes above twice and below half the poverty line.
- 1219 (SMS 3, also discussed in wages) finds the hiring credit component of California's EZ has mixed effects effect on individual income growth in treated areas.

Two studies find no effects on household income.

- 1236 (SMS 3) finds Round I of EmZ designation and EC designation have no effect on household income in treated areas.
- EZ-10 (SMS 3) finds EDPA implemented in 2005 in Atlanta, Georgia, has no effects on household income.

Whilst a number of studies find positive effects on wages and income, others find no or mixed effects. Only a small number of studies look at whether the effect on wages or income varies across different groups. These studies suggests that whilst EZs might help improve wages and incomes for lower income groups, they can also be displaced if EZs lead to an area becoming more attractive to higher income groups.

Poverty reduction

Improved employment, wages and income outcomes should reduce poverty and mean more people can pay for the goods and services they need. However, as with other individual or household outcomes, any reduction in poverty rates in response to EZs may be the result of a change in household composition – households with higher incomes moving into the area and often displacing original residents (i.e. gentrification).

Effects on poverty are considered in 14 studies. All the studies are from the US. Four studies scored SMS 4 and 10 scored SMS 3.

Outcome	Positive effects	Negative effects	Mixed effects	No effects	Total
Poverty reduction	4	1	5	4	14

Four studies find positive effects.

- 1317 (SMS 4) finds \$1 million of NMTC-supported investment reduces poverty rates by about 1 percentage point.
- 1220 (SMS 3) finds EmZ designation reduces poverty rates by 5 percentage points.
- 1238 (SMS 3) finds EmZs in Chicago reduce the number of people below the poverty line by 10 percent.
- EZ-10 (SMS 3) finds EDPA designation in Atlanta reduces poverty rates by 6 percent.

One study finds negative effects. 1230 (SMS 3) finds EmZs increase poverty rates by 4 percentage points.

Five studies find mixed effects.

- EZ-2 (SMS 4) finds the DRA area reduces poverty rates by 1 percentage point but has a mixed effect on child poverty rates.
- EZ-15 (SMS 4) finds California's RDAs either have no effect on poverty rates or a positive effect, depending on when they were established and the comparison group used.
- 1225 (SMS 4) finds ENTZ and EC designation reduces poverty rates, but EmZ designation has no effect.²⁰
- 1236 (SMS 3) finds EmZ and EC programmes have no overall effect on poverty rates. Analysis by city finds a positive effect on poverty rates in Detroit and Chicago and no effects in Baltimore and New York.
- 1245 (SMS 3) finds EmZs have a positive effect on poverty in Chicago, a negative effect in Detroit, and no effect in Atlanta, Baltimore, New York, and Philadelphia.

Four studies find no effects.

- 1290 (SMS 3) finds EmZs have no effect on poverty rates.
- 1285 (SMS 3) also finds EmZs have no effect on average poverty rates. However, as discussed in the income section, EmZ designation changes the distribution of household income relative to the poverty line, increasing the proportion of households living on below half and above twice the poverty line.
- 1234 (SMS 3) finds EC designation has no effect on poverty rates.
- EZ-4 (SMS 3) finds the OZ programme has no effect on poverty rates.

Just under a third of the studies find positive effects on poverty, whilst the rest find mixed, no, or negative effects. This suggests care should be taken if EZ policies are being pursued as a means to deliver poverty reduction. Another concern is that poverty reduction may reflect displacement if lower income households are being priced out of an area.

Property prices and rents

EZs often involve regeneration projects designed to deliver transport infrastructure or new community assets, making areas nicer, safer, or more accessible. These amenity improvements may increase property prices for either residential or commercial use (often referred to as 'capitalisation').

20 Neumark, D. and Young, T. (2019). "Enterprise Zones, Poverty, and Labor Market Outcomes: Resolving Conflicting Evidence" CESifo Working Paper Series, No. 7784 revisits the interventions evaluated in Study 1225. See Annex 1 for more information.

Commercial property prices may capture benefits to businesses even in circumstances where we see no changes in other economic outcomes (such as employment or number of businesses) if existing businesses are willing to pay higher rents to remain in the improved location. Looking at changes in property prices or rents provides another way of estimating the value to businesses of the support being offered within the zone.

Positive changes induced by EZs (including more jobs or higher wages) may also increase the demand for residential properties, as more people want to move into the area. Residential property prices reflect the changes in demand and capitalisation of improvements of amenities by their owners. If properties prices increase, local businesses and residents may be unable to afford rents in the area and be forced to move out (displacement).

We found 12 studies that evaluated the effect of EZs on property prices and rents – either residential or commercial. All studies are from the US. Three studies scored SMS 4 and nine SMS 3.

Outcome	Positive effects	Negative effects	Mixed effects	No effects	Total
Residential property prices or rents	5	0	2	1	8
Commercial property prices or rents	0	0	1	0	1
Combination	2	0	0	1	3

Eight studies look at residential property prices or rents.

- Five studies find positive effects.
 - 1220 (SMS 3) finds Round I EmZ designation increases residential rents by 7 percent and the value of owner-occupied housing by 22 percent.
 - 1230 (SMS 3) finds EmZ increases residential property prices by 27 percent.
 - 1258 (SMS 3) finds that EmZ increase overall house values by 28 percent.
 - 1234 (SMS 3) finds rural EC designation increases median house values by 4 percent.
 - EZ-10 (SMS 3) finds EDPA implemented in 2005 in Atlanta, Georgia, increases house prices by 7.2 percent.
- No studies find negative effects.
- Two studies find mixed effects.
 - EZ-15 (SMS 4, US) finds California's RDAs have either no effects or a positive effect on average monthly rents for residential properties, depending on when they were established and the comparison used.
 - 1285 (SMS 3) finds EmZ designation increases average (mean) monthly residential rents by \$33 over the period 1990 to 2000 and increases house prices by around \$27,000 but does not increase median rents or house prices.

- One study finds no effects. 1317 (SMS 4) looks at the effects of NMTC-supported investment on residential property value and finds no effects.

Only one study looks at commercial property and finds mixed effects. EZ-16 (SMS 4) finds industrial parcels located in mixed-use TIF districts are valued 11.5 to 23 percent higher than parcels in comparison areas.²¹ In contrast, industrial parcels located in industrial (only) TIF district do not have different prices to parcels in comparison areas.

Three studies look at property prices in general, which may include both residential and commercial.

- Two studies find positive effects.
 - 1290 (SMS 3) finds EmZs have a positive effect of over \$100,000 on nominal median property values.
 - EZ-11 (SMS 3) finds TIF designation in Indiana has a positive effect on average property prices, with properties having 13 percent or approximately \$14,700 higher assessed value.
- No studies find negative or mixed effects.
- One study finds no effects. 1256 (SMS 3) finds UEZs in New Jersey have no effect on property values.

Overall, most of the evidence suggests EZs lead to higher property prices and rents. This suggests the benefits of EZs are often capitalised into property values. This is likely to have distributional impacts, with those owning property benefiting, whilst those renting facing increased costs.

Spillover and displacement effects

Spillover and displacement effects may affect the overall impact of a programme. For example, if an EZ has spillover effects on employment, nearby areas may benefit from increased employment at the same time as treated areas, making the effect on employment larger than if the effect was limited to treated areas (no spillover effects). By contrast, if much of the change within a treated area comes at the expense of nearby local areas (displacement), then this will mean less, or even no, overall effect. For example, if employment increases in treated areas while decreasing in nearby areas, the overall effect of EZs on employment is lower than the effect within EZs.

Eighteen studies consider spillover and displacement effects of EZs. Six studies scored SMS 4 and 12 SMS 3.

Effects on businesses and employment

We found 11 studies that consider spillover and displacement effects of EZ on businesses and employment. Three studies assess effects on both employment and businesses and discussed in both sections.²² Three studies scored SMS 4 and eight SMS 3.

Five studies look at effects on businesses in nearby areas.

- Four studies find displacement effects.
 - 1263 (SMS 3) finds ZFUs decrease the growth rate of establishments in surrounding areas (300-meter-wide ring around ZFUs) on average by 6 percentage points per year and the growth rate of new establishment on average by 4 percentage points per year.

²¹ Mixed use districts also have other commercial or residential properties.

²² Three studies (1235, 1263 and 1289) include findings on both employment and businesses in nearby areas.

- 1233 (SMS 3) finds Round II of ZFU increase the probability of establishments in nearby areas re-locating into ZFU areas.
- 1257 (SMS 3) finds ZFUs increase the growth rate of establishments in ZFUs through both births and relocations. The relocation of existing establishments indicates displacement effects, which are stronger in isolated areas where changes in the number of establishments are only from relocations.
- 1289 (SMS 3) looks at spillovers from EmZs across three different types of area and finds business numbers decline over one-year and five-year periods. There are also declines in the retail and service sectors.
- One study finds no effects. 1235 (SMS 3) finds California's EZs have no effects on number of businesses in neighbouring areas.

Nine studies look at effects on employment in nearby areas.

- Three studies find displacement effects on employment.
 - EZ-1 (SMS 4) finds LEGI increases employment in treated areas close to the treatment area boundary and reduces employment in comparison areas just across the boundary, indicating displacement effects on employment.
 - EZ-17 (SMS 3) finds TIF in Polk County, Iowa, have a negative effect on employment growth in nearby areas. After 10 years, areas located within a quarter-mile radius of an 'anchoring parcel' in a TIF district lost a total of 110 jobs per anchoring parcel square mile.
 - 1251 (SMS 3) finds employment tax credits in EmZ and RCs have a positive effect on employment in treated businesses of comparison area residents, suggesting positive spillovers for this group even though businesses cannot claim tax credits for them.
- Two studies find mixed effects.
 - 1263 (SMS 3) finds ZFUs have no spillover effects on employment in surrounding areas (300 metre-wide ring around ZFUs).
 - 1289 (SMS 3) finds EmZs have no effects on employment in nearby areas other than over five years for one type of area.
- Four studies find no displacement or spillover effects on employment.
 - 1225 (SMS 4) finds EmZs have no spillovers or displacement effects on employment in neighbouring areas.
 - 1313 (SMS 4) finds ZRRs have no effects on employment or wages paid by businesses in nearby areas.
 - 1235 (SMS 3) finds California's EZs have no impacts on employment in neighbouring areas.
 - EZ-5 (SMS 3) finds TIF in Chicago has no effects on employment in the vicinity (within a quarter mile) of TIF districts.

When there are displacement effects, positive impacts on businesses that were targeted by the programme may be at the expense of other businesses, so that the lack of aggregate impact on employment or number of businesses in larger spatial units than the EZ area such as municipalities or counties where the EZ area is located) may hide opposite effects on different segments of the

local economy. Three studies (all SMS 3) for EZs in the US consider treatment effects for areas that have an EZ, but where the spatial units are larger than the EZ areas providing indirect evidence on displacement.

- One study finds no effects on business outcomes for larger units. 1265 (SMS 3) evaluates UEZs in six states (California, Florida, New Jersey, New York, Pennsylvania, and Virginia). The study finds similar effects on business outcomes (employment, shipments, and business investment) in close neighbours (within a 5-mile radius of the UEZ) and in distant neighbours (outside the 5-mile radius of the UEZ), suggesting minimal UEZ displacement effects from nearby areas.²³
- Two studies find no effect on employment in larger spatial units.
 - 1217 (SMS 3) examines the effects of state EZs at ZIP code level. As boundaries of ZIP code areas usually do not match those of EZs, the study assesses whether EZs are able to achieve an effect on employment that is noticeable at the level of the ZIP code areas that encompass any portion of the EZ. The study finds no EZ effects on employment at ZIP code area level, suggesting there may be displacement effects within the ZIP code areas.
 - 1256 (SMS 3) assesses the effects of New Jersey's UEZ at municipality level. UEZs are smaller than the municipality and usually include the central business district and about 30 percent of the municipality's land area. The study finds no effect on employment in municipalities containing the UEZ, suggesting there may be displacement within the municipality.

Effects on other outcomes

Four studies look at displacement and spillover effects on other outcomes (unemployment, wages, and poverty) in nearby areas. One scored SMS 4 and three scored SMS 3.

One study finds mixed effects. 1238 (SMS 3) finds EmZs in Chicago have positive effect on poverty reduction in neighbouring areas but have no effect on unemployment or income.

Three studies find no displacement effects.

- 1225 (SMS 4) finds ENTZ, EmZs and ECs have no displacement effects on unemployment, wages, or poverty rates in neighbouring areas, with exception of RCs on poverty rates.
- EZ-14 (SMS 3) finds no spillover effect on unemployment rates for ZFU neighbouring areas.
- 1264 (SMS 3) finds ZFUs in the Paris region have a localised effect on exits from unemployment, with minimal spillover to neighbouring areas.

Overall, across business, employment and other outcomes, there is limited evidence of positive spillovers from EZs on neighbouring areas, and some evidence of displacement. Policymakers should carefully consider the possibility of displacement when estimating the potential benefits of an EZ programme and seek to minimise it through policy design.

Other outcomes

Some outcomes are only included in a small number of studies. The limited nature of the evaluation evidence on these outcomes means findings should be interpreted with particular care.

Two studies look at productivity.

- 1314 (SMS 4) finds the UK's RSA programme has no effect on total factor productivity (TFP).
- 1301 (SMS 3) assess the impact of RSA and the Small Firm Merit Awards for Research and Technology (SMART/SPUR). Following assistance, RSA had a positive effect on plant TFP but SMART/SPUR had no effect. The study finds no effect of RSA or SMART/SPUR when comparing assisted plants with non-assisted plants located in assisted areas only. Effects vary across sectors and ownership.

Five studies look at investment.

- 1314 (SMS 4) finds the RSA programme has a positive effect on business investment.
- EZ-18 (SMS 4) finds OZ designation has no effect on commercial investment.
- EZ-12 (SMS 3) finds that tax credits in Polish Special Economic Zones have a positive effect on fixed assets in treated businesses. These effects are driven by investment tax credits, with employment tax credits having no effect.
- 1265 (SMS 3) finds EZ designation has a negative effect on investment, with capital spending growing more rapidly in establishments located in comparison areas.
- 1288 (SMS 3) finds EZ designation has a positive effect on capital expenditure for both new and existing businesses. Expanding EZ coverage has a negative effect on capital investment for new businesses. Requiring local communities to submit a strategic business development plan as part of the application process for EZ, has a positive effect on capital expenditure for existing establishments.

Two studies looked at shipments.²⁴

- 1265 (SMS 3) finds EZ designation has a positive effect on shipments from new businesses, but a negative effect on shipments from existing businesses.
- 1288 (SMS 3) finds EZ designation has a positive effect on shipments for new businesses but extending EZ coverage has a negative effect. EZ designation has no effect on shipments for existing businesses, but requiring local communities to submit a strategic business development plan as part of the application process has a positive effect.

One study (EZ-3, SMS 3) looks at the effects of TIF on businesses sales and finds no effect.

One study (EZ-18, SMS 4) finds no effect of OZs on the business loan growth rate, commercial diversity, or consumer spending per capita.

One study looks at proxies for 'job quality' and finds positive effects. EZ-14 (SMS 3) finds ZFUs have a positive effect on private sector long-term contracts, suggesting there was also an improvement in job quality in treated areas.

Five studies look at changes in education levels in US EmZ. In many cases, these are likely to reflect changes in the population living in EZ areas.

- 1220 (SMS 3) finds that EmZ designation in Round I and II leads to a 2.3 percent higher share of EmZs residents with college degrees.
- 1230 (SMS 3) finds EmZs have mixed effects on education levels.
- 1236 (SMS 3) finds EmZs and EC have no effect on education levels.
- 1238 (SMS 3) finds EmZ designation has a negative effect on education indicators, particularly the percent of high school graduates in Chicago.

24 Shipments are plant output, measured in total dollar value.

- 1285 (SMS 3) finds EmZs have an impact on the distribution of educational attainment of the population, with an increase in those with degrees.

Two studies look at whether EZs alter the share of residents on benefits (specifically, public assistance programmes in the US).

- 1234 (SMS 3) finds rural EC designation increases the share of residents on benefits. However, it is unclear if in-migration explains this change, or the programme having negative effects.
- 1238 (SMS 3) finds EmZ designation has no effect on the share of local people claiming benefits in Chicago.

Six studies look at demographics.

- EZ-2 (SMS 4) finds weak negative effects of DRA on annual net in-migration as a percentage of total county population.
- 1230 (SMS 3) finds EmZs have mixed effects on population.
- 1236 (SMS 3) finds EmZs have no effect on residential mobility.
- 1258 (SMS 3) finds EmZ have no effects on population.
- EZ-5 (SMS 3) finds no evidence TIF in Chicago led to gentrification based on demographic characteristics.
- EZ-10 (SMS 3) finds no effects of EDPA on population size in Atlanta.

Six studies look at other housing outcomes.

- 1317 (SMS 4) finds NMTC-supported investment increases household turnover rates by around 0.75 percentage points.²⁵
- EZ-15 (SMS 4) finds California's RDAs established in 1990 have no effects on residential rental vacancy rates.
- 1236 (SMS 3) finds EmZs have no effects on residential vacancy rates, home ownership, and residential mobility in treated areas.
- 1230 (SMS 3) finds EmZs have a positive effect on homeownership and room numbers.
- 1245 (SMS 3) finds EmZs have no effect on the value of mortgage loans in six cities (Atlanta, Baltimore, Chicago, Detroit, New York, and Philadelphia). There is a positive effect on the value of business loans in Detroit, a negative effect in Atlanta, and no effect in the other four cities.
- One study (EZ-17, SMS 3) looks at the effects of TIF on residential development in Polk County, Iowa, and finds no effect on the growth rate of residential square footage.

Cost effectiveness

None of the studies considers cost effectiveness.

Annex 1: Evidence on enterprise zones

For this rapid evidence review, we looked for impact evaluations of enterprise zones (EZs), and other area-based initiatives (ABIs) that focus on economic outcomes, such as tax increment financing. We focused on evidence from OECD countries (or similar), published in English. We considered any study providing before-and-after comparisons or cross-sectional studies controlling for differences between areas. We also included more robust studies that compare changes in outcomes in treated areas with changes in outcomes in similar non-treated areas.

We identified 53 studies that met our evidence standards. This includes the 37 studies used in our systematic evidence review published in 2016 and 16 studies published since.^{26,27,28} Eleven studies were scored as SMS 4 and 42 SMS 3. We did not find any studies that scored as SMS 5, reflecting the fact that EZ designation would be difficult to randomise. This annex provides a summary of each study.

Around three-quarters of the studies (39) evaluate US programmes. Seven studies are from France, four from the UK, and three look at policies from other European countries (one each in Italy, Poland, and Sweden). Annex 2 provides an overview of the major programmes included in this evidence review.

Studies

1217 (SMS 3, US) looks at the effects of state-level EZs on local employment in California, Kentucky, New York, Pennsylvania, and Virginia from 1981 to 1994. The study uses postcode-level data from various sources, including state EZ programme and economic development offices, the US Census Bureau and the Department of Housing and Urban Development. The study uses a fixed effects panel and propensity scores to compare ‘zone’ ZIP codes that overlap with any portion of an EZ area (treated areas) with non-zone ZIPs that do not (comparison areas). EZ designation has no effects on employment growth in any of the five states. Estimates for individual programme-specific features, such as the level of monetary value of the incentives offered to EZ businesses, also find no effects on employment.

1219 (SMS 3, US) evaluates the impact of the hiring credit component of California’s EZ programme on the wages and adjusted gross income (AGI) of individuals hired under the programme.²⁹ Data is sourced from individual filed tax forms provided by the California Department of Trade and Commerce (DTC) and the California Franchise Tax Board (FTB). The study focuses on the period 1993-1997. The study uses panel regressions to compare individuals in EZ participating firms (treated group) with two comparison groups i) matched individuals who share similar characteristics as participants in 1995, the base year in which employers were identified as receiving EZ tax credits; and ii) including a sample of non-participants in the programme who have similar characteristics as programme participants in 1993 and 1994 (i.e. before the actual start of the programme). The findings for both wages and AGI are mixed, with positive effects over some time periods for some matches and no effects for others.

26 One study from the original evidence review – 1248 – has been dropped following a review of its SMS score.

27 Earlier versions of studies EZ-1 and EZ-14 were included in our 2016 evidence review (with reference IDs 1315 and 1260 respectively). Studies 1315 and 1260 were working papers, whilst EZ-1 and EZ-14 are articles in peer-reviewed journals.

28 Studies that were included in the 2016 evidence review use the same reference IDs. Studies identified during the search for this update (including two journal articles that replace working papers included in the original review) use the reference structure EZ-1, EZ-2, etc.

29 Under hiring credit employers receive tax credits for each employee that was hired after the designation of the zone, spends at least 90 percent of their work time on activities directly related to the conduct of a trade or business located within a zone, performs at least 50 percent of the work within the boundaries of the zone, and was eligible at the time of hire for participation in the *Job Training Partnership Act*, *Greater Avenues for Independence Act*, or Targeted Jobs Tax Credit programs.

1220 (SMS 3, US) evaluates the impact of Round I of the federal Empowerment Zone (EmZ) programme in Atlanta, Baltimore, Chicago, Cleveland, Detroit, Los Angeles, New York, and Philadelphia from 1994 to 2000. The study constructs a census tract-level panel dataset combining data from the Neighbourhood Change Database (NCDB) provided by Geolytics and the Urban Institute, data from the County and City Databook, and proprietary EmZ application data from the US Department of Housing and Urban Development (HUD). The study uses difference-in-differences and propensity score matching to compare outcomes for census tracts with a designated EmZ (treated areas) to census tracts rejected in Round I but designated as EmZ in a later round (comparison areas). EmZ designation increases employment rates by 3.8 percentage points, reduces unemployment rates by 4 percentage points and reduces poverty rates by 5 percentage points. Residential rents also increase by approximately 7 percent and the value of owner-occupied housing by approximately 22 percent. The overall effects are accompanied by small changes in the demographic composition of neighbourhoods, but these account for only a small proportion of the estimated effects, suggesting no significant gentrification or displacement (although EmZ designation does lead to a 2.3 percent higher share of residents with college degrees).

1225 (SMS 4, US) evaluates the impact of State Enterprise Zones (ENTZ), federal Empowerment Zones (EmZ), and federal Enterprise Community (EC) programmes on local labour markets. The data comprises census tract level data from the US Census Bureau data for 1980, 1990, and 2000. The study compares outcomes for census tracts designated as ENTZ, EmZ and EC (treated areas) with census tracts in the same state not designated as any of these programmes (comparison areas). A census tract is considered a designated area if the fifty percent or more of it is covered by an ENTZ, EmZ or EC. To avoid the overlapping of programmes the estimation only considered areas designated in the 1990s. The study uses difference-in-differences and instrumental variables, with the 1980 value of one outcome used as an instrument for a second outcome (with 1980 two years before designation).³⁰ ENTZ designation reduces the unemployment and poverty rates at the national level and increases average wage and salary income. It has no effect on employment or the proportion of households with wage and salary income. Effects are mixed at state level. EmZ designation reduces the unemployment rate, increases employment, average wage and salary income, and the proportion of households with wage and salary income at the national level, but has no effect on the poverty rate. EC designation has a positive effect on all five outcomes (unemployment rate, poverty rate, proportion of households with wage and salary income, average wage and salary income, and employment) at the national level. No spillover effects on non-designated neighbouring areas are found in national-level analysis, with the exception of poverty rates for ECs.³¹

1230 (SMS 3, US) evaluates the impact of the federal Empowerment Zone programme (EmZ).³² Data comes from the US Census for 1980, 1990, and 2000, and the Department of Housing and Urban Development (HUD). The study uses difference-in-differences to compare census block-groups with an EmZ designated in Round I (treated areas) to census block-groups with an EmZ designated in Round III and not designated EmZ in Round I (comparison areas). EmZs increase poverty rates by 4 percentage points and increase residential property prices by around 27 percent. There are also positive effects on home ownership and room numbers but mixed effects on education levels and population.

30 The findings discussed here come from the instrumental variable results.

31 Neumark, D. and Young, T. (2019). "Enterprise Zones, Poverty, and Labor Market Outcomes: Resolving Conflicting Evidence" CESifo Working Paper Series, No 7784 revisits the evaluation of State Enterprise Zones (ENTZ), Empowerment Zones (EmZ) and Enterprise Communities (ECs) in Study 1225. We have not included this in our review as it uses a less robust method than the original study and scores lower (SMS 3) than Study 1225 (SMS 4). The study extends the time-period from 1980 to 2000 and emphasizes the significance of addressing selection bias in EZ-designated areas while considering pre-treatment trends.

32 This study includes a model in 'the spirit of instrumental variables' but it does not provide explanation about the instrument and its exogeneity. Thus, it cannot be considered an IV and the study was scored SMS 3.

1232 (SMS 3, US) looks at the impact of Urban EZs in Colorado on employment and payroll per worker in both urban and rural establishments. Data is from the ES-202 databases provided by the Colorado Department of Labor for the period 1990 to 2000. The study uses an establishment-level panel to compare EZ eligible (treated group) and ineligible (comparison group) establishments. There are no overall effects on urban employment and monthly payroll per worker. However, Urban EZs have a large negative effect on employment for the smallest and largest urban establishments. Monthly payrolls per worker are also lower in EZs for the small establishments (less than 3 employees). Data for rural areas is only available for the smallest establishments, for which EZs have small positive employment effects.

1233 (SMS 3, France) assesses the impact of the Round II of the Zones Franches Urbaines (ZFU) programme on firm location decisions, local employment, and wages. The study uses administrative data at city block level from 2002 to 2007 sourced from the DADS and SIRENE datasets and firm-level balance-sheet data from the Bénéfices Industriels et Commerciaux et Bénéfices Réels Normaux (BIC-BRN). Using difference-in-differences, the study compares outcomes between municipalities with ZFUs designated in 2004 (treated areas) and municipalities with ZFUs designated in 2007 (comparison areas). Between 2004 and 2007, ZFUs increase local employment by 24 percent on average. The impact is stronger for low-wage jobs (25.1 percent) than high-wage jobs (10.9 percent). ZFUs contribute to job creation in both incumbent and newly located plants. ZFUs increase both job destruction and job creation, with the effect on creation outweighing that on destruction. ZFUs have no overall impact on individual wages or for low-wage workers but have a negative effect on high-wage workers (a reduction of 2.2 percent). Municipalities hosting a Round II ZFU see higher probabilities of establishments in nearby areas (the non-ZFU part of the municipality) re-locating into ZFU areas, with a substantial marginal effect of 2.4 percentage points. The impact varies based on establishment size, industry characteristics, and establishment mobility, suggesting different responses to ZFU policies.

1234 (SMS 3, US) looks at economic outcomes for rural areas designated as Enterprise Communities (ECs) during the first round of the Empowerment Zone/Enterprise Community programme. The evaluation focuses on the economic impact by 2000 of rural EC selected in 1994, drawing on 1990 and 2000 Census data from the Geolytics Neighborhood Change Database (originally developed with Urban Institute) and Census of Population and County Business Patterns data. The study uses difference-in differences and propensity score matching to compare census tracts with a designated EC (treated areas) to three different comparison groups: i) census tracts from rural communities that are designated as EC or some other federal EZ designation in later years (i.e. EmZ or RC); ii) all census tracts in states hosting an EC; and iii) census tracts that received Champion Community designation after being unsuccessful in bidding for EC designation increases median housing values by 4 percent and payroll per employee by 18 percent compared to Champion Communities and other rural designated communities.³³ There are no effects on unemployment or poverty rates. The share of residents on benefits increases, but it is unclear if the change is explained by in-migration or by negative effects of ECs.

1235 (SMS 3, US) assesses the effectiveness of California's EZs in boosting employment, particularly of lower-wage workers targeted by the incentives. Data comes from the National Establishment Time-Series (NETS) database covering California from 1992 to 2004. Using a difference-in-differences model and detailed street-by-street delineation of EZs, the study compares effects on firm and job

33 Champion Community was an informal programme of the United States Department of Agriculture (USDA) that granted Champion Community status to communities not selected as Enterprise Communities, giving similar but less expertise and preference in grant competition within the USDA and providing some assistance in executing their plans for development. Several designated Champion Communities were selected as Enterprise Communities in later rounds of the programme in 1999 and 2002, and in 1999, the Champion Community programme was formalised allowing any rural community to apply for designation with a developed strategic plan.

creation outcomes between designated EZ areas (treated areas) and areas that were added to the EZs in a later round (comparison areas). EZs marginally decrease the number of firms in treated areas by 2.1 percent. While large zones like Los Angeles and San Francisco individually account for one percent or more of total statewide employment, there is no evidence that EZs boost employment in California. There is no evidence of spillovers as EZs do not affect employment or the number of firms in neighbouring areas.

1236 (SMS 3, US) evaluates the impact of Round I Empowerment Zone (EmZ) and Enterprise Community (EC) in Baltimore, Chicago, Detroit, and New York. The study uses census tract-level data from the US Census Bureau and from reports required by the US Department of Housing and Urban Development (HUD) for 1990 to 2000. The study uses fixed effects regression models and propensity score matching to compare outcomes between EmZ and EC designated census tracts (treated areas) and matched non-EmZ and EC census tracts (comparison areas). EmZ and EC designation has no effect on unemployment, household income, residential vacancy rates, home ownership, residential mobility, or education levels (overall, or by city). There is no overall effect on poverty rates but analysis by city shows the EmZ and EC located in two of the cities (Detroit and Chicago) reduce poverty rates, and no effects in the other two cities (Baltimore and New York).

1238 (SMS 3, US) looks at the effects of Chicago's Empowerment Zone programme (EmZ), launched in 1993, on distressed urban areas and neighbouring regions. Data at census tract level comes from the 1990 and 2000 Census, the US Department of Housing and Urban Development (HUD) 's Office of Policy Development and Research (PD&R) Datasets with LandView - Volume III (2000), and the Geolytics Neighborhood Change Database. The study uses difference-in-differences and propensity score matching to compare outcomes in EmZ designated census tracts (treated areas) with similar non-zone census tracts (comparison areas). EmZs reduce unemployment by 6.75 percent and the number of people under the poverty line by 9.9 percent. Median household income increases by \$10,091. While poverty reductions extended to adjacent EmZ neighbourhoods, this does not occur for unemployment and income. EmZ designation has a negative effect in education indicators, particularly the percent of high school graduates, and no effect on the share of local people claiming benefits.

1245 (SMS 3, US) assesses the effectiveness of the federal Empowerment Zone (EmZ) in revitalizing distressed communities across six cities (Atlanta, Baltimore, Chicago, Detroit, New York, and Philadelphia) during the 1990s. The dataset comprises performance, monitoring, review and management reports for each EmZ city, supplemented by Department of Housing and Urban Development-sponsored evaluations and local field research. The study uses propensity score matching to compare EmZ census tracts (treated areas) to similar non-EmZ census tracts matched from the set of all other eligible tracts within the city (comparison areas). The study considers five outcomes – number of jobs, number of persons unemployed, number of persons with income below the poverty level, value of mortgage loans, and value of business loans. Due to the small number of observations, and the decision to analyse each city individually, there are few statistically significant results. There is a positive effect on poverty in Chicago, and a negative effect in Detroit. There is a positive effect on business loans in Detroit, and a negative effect in Atlanta.

1251 (SMS 3, US) looks at the impact of Empowerment Zone (EmZ), Rounds II and III and Renewal Community (RC). The study uses administrative corporate and individual tax return data from the Internal Revenue Service's Statistics of Income covering tax years 2000 through 2004. Using difference-in-differences and propensity score matching, the study compares outcomes in designated EmZ and RC ZIP codes (treated areas) with similar non-designated ZIP codes (comparison areas). There is no effect on the number of firms employing workers in the ZIP code in EmZs but positive effect (2.6 percent) in RCs. There was no effect on the number of employees living in the ZIP code in

either an EmZ or RC. Total wages paid to employees living in the ZIP code are 12.0 percent higher in EmZs and 7.5 percent in RC, and average wages of employees living in the ZIP code are also higher (10.1 percent in EmZ and 6.1 percent in RCs). The study then analyses the impact of the employment tax credit element of the programme by comparing comparison ZIP code residents working in non-treated firms to i) EmZ or RC ZIP code residents working in treated firms; ii) comparison ZIP code residents working in treated firms; and iii) EmZ or RC ZIP code residents working in non-treated firms. Effects are positive for all four outcomes (total wages, average wages, numbers employed and number of firms employing) for EmZ residents working in treated firms, and positive for all except average wages for RC residents working in treated firms. The positive effects are larger than for EmZ or RC designation alone (for example, with total wages increasing by 21.4 percent in EmZ and 18.7 percent in RC), highlighting the role of employment tax credit in achieving overall EmZ and RC outcomes. The findings are mixed for comparison ZIP code residents working in treated firms, with positive effects on numbers employed and number of firms employing for EmZ and total wages, numbers employed, and number of firms for RC, suggesting that there are some spillover benefits for residents of neighbouring areas even though employers cannot claim tax credit for them. There are no effects for any outcome for EmZ and RC residents working in non-treated firms.

1254 (SMS 3, Italy) looks at the impact of the Patti Territoriali (Territorial Pacts, TPs) programme on participating municipalities. Established by the 1997 National Budget Law (Law 662/1996) and targeted to underdeveloped areas, the TP programmes consist of an agreement signed by local governments and representatives of civil society (such as entrepreneurs and trade unions) that includes a fully-fledged development plan covering both private and public investments. The study focuses on the period 1996 to 2007 and uses census data from the Italian Statistical Office (Istat) from 1996 to 2006 combined with data from the ASIA-UL archive (statistical archive for active firms-plants) for 2007. Using a difference-in-differences model combined with propensity score matching, the study compares employment and number of plants between eligible municipalities (treated areas) and ineligible municipalities (comparison areas). There are no effects on employment or the number of plants.

1255 (SMS 3, US) evaluates the effects of EZs in Colorado between 1990 and 2000. There are 16 EZs in Colorado, which offer tax credits for investment and job creation in disadvantaged areas. The study uses establishment-level data from the ES-202 database, using the EZ border to compare areas within a quarter mile of the EZ border, with those inside the border being treated areas and areas outside the EZ border comparison areas. Matching on land use is used to improve the specifications. The results are also compared to those achieved from propensity score matching, a more common but less robust method.³⁴ There is no effect on the number of new establishments, or on number of establishments lost in either 1990 to 1995, or 1996 to 2000. EZs have a positive impact on job creation in new establishments, with around 1.5 more employees, but no effect on existing establishments.³⁵ Additional tax credits are available for agriculture, manufacturing, mining, and research and development activities. There were no effects on new establishments for agriculture, positive effects for manufacturing and negative effects for mining. There is positive effect on jobs created in both new establishments and existing establishments for agriculture and manufacturing, but only for existing establishments for mining. Findings for other sectors are mixed.

1256 (SMS 3, US) evaluates the impacts of the Urban Enterprise Zone (UEZ) programme in northern and central New Jersey, from 1982 to 1990. Data for the 28 eligible municipalities comes from the New Jersey Department of Labor's Annual Municipality Report, and the New Jersey Urban Enterprise Zone Authority. Fourteen out of the 29 eligible municipalities applied for UEZs and only seven were

³⁴ The findings discussed here come from the border neighbours plus land use matching specifications.

³⁵ If just border neighbours (without matching on land use) were used, there was a positive effect on existing establishments of 0.28 more employees.

awarded. UEZs are smaller than the municipality and usually include the central business district and about 30 percent of the municipality's land area. The study uses difference-in-differences and fixed effects models to compare municipal level outcomes for UEZ areas (treated areas) to non-UEZ areas (comparison areas). There are no effects on municipal employment, sectoral employment or property values.

1257 (SMS 3, France) looks at the effects of the Zones Franches Urbaines (ZFU). The study focuses on the period 2002 to 2007 (Round II). Data is drawn from the SIRENE and INSEE. Using a differences-in-differences approach, the study compares 51 ZFU neighbourhoods (treated areas) with 292 ZRU (Zones de Revitalisation Urbaine) neighbourhoods. Over the three years 2004 to 2006, ZFU increases the annual establishment inflow rate (both births and relocations) by 8.5 percent. The relocation of existing establishments suggests displacement. Effects are larger (16.3 percent) for ZFUs that are in more spatially integrated neighbourhoods (with better transportation and market access). Establishment inflows in more spatially isolated areas are due to relocations. ZFU also has a positive impact on number of jobs, with an annual growth rate 8.5 percent higher in treated areas over a four-year period (2003 to 2006), with this driven by spatially connected ZFUs (where growth is 11.4 percent higher). ZFU have no overall effect on total hours worked, but there is an increase in hours worked in more spatially isolated neighbourhoods. ZFUs have no overall effect on wages, although they do have a small positive effect in more isolated areas.³⁶ Results for a number of outcomes appear to be driven by the medical services sector (consistent with findings for study 1262).

1258 (SMS 3, US) evaluates the impact of Round I of the federal Empowerment Zone (EmZ) programme in the US. It uses household and establishment level microdata from the Decennial Census for 1980, 1990 and 2000, combined with the Standard Statistical Establishment List and the Longitudinal Business Database for the period 1987 to 2002. Data is supplemented with city-level covariates from the County and City Databook for 1980 and 1990. Using a difference-in-differences model, the study looks at outcomes at census tract level, comparing census tracts with designated EmZ (treated areas) to similar census tracts with rejected areas and those designated as EmZ in later rounds (comparison areas). Over the period 1992 to 2000, the number of establishments is four percent higher in EmZ designated areas. Employment in treated areas is 18 percent higher, with increases in both employment of non-resident commuters and of local residents living in the EmZ (with the latter effect larger than the former). Weekly wages are 12 percent higher for EmZ residents employed within the EmZ area, compared to a 4.5 percent increase for EmZ residents employed in comparison areas. There are no effects on population. Results suggest that both EmZ wage credits and block grants play crucial roles in enhancing employment, particularly at large establishments. EmZs also increase overall house values by 28 percent.

1262 (SMS 3, France) evaluates the effectiveness of the Zone Franches Urbaines (ZFU) programme. The study is for the period 1995 to 2013. Using two administrative databases– the French business register (Système Informatique pour le Répertoire des ENtreprises et des Etablissemments, SIRENE) and the employment database (Déclarations Annuelles de Données Sociales, DADS), the study compares outcomes in municipalities with ZFUs (treated areas) and municipalities with Zones de Revitalisation Urbaine (ZRUs), the non-beneficiary areas most similar to ZFUs (comparison areas).³⁷ The study combines difference-in-differences and propensity score matching. After 5 years, the number of businesses in a ZFU is around two times higher than it would have been without the

36 The study reconciles these two findings by noting that jobs do not need to be full time so a compositional shift towards jobs with fewer hours could result in an increase in the number of jobs, with no corresponding changes in hours.

37 ZUS areas comprise the 757 most deprived areas in France (including overseas Départments), ZRUs comprise the 436 most deprived ZUSs based on unemployment rates, skills profile, proportion of young people and potential tax revenues.

policy.³⁸ Relocations account for a larger share of this increase than firm creations. After 5 years, the number of salaried employees in ZFU businesses is 2.6 times higher than it would have been without the policy. Although these positive effects persist to 15 years (the end of the study period) there is no further growth in the number of businesses or in employment at ZFU businesses after 5 years (which coincides with the point at which businesses that were the first to locate in ZFUs no longer benefit from full tax exemptions). ZFUs also increase resident employment, but at a slower rate than the non-resident employment in the ZFUs. As a result, after 15 years, the share of resident employment in treated areas decreases from 30 percent to 26 percent.

1263 (SMS 3, France) evaluates the impact of the Zone Franches Urbaines (ZFU) programme. The study focuses on the period 2002 to 2007 (Round II). The study combines data from several administrative databases including SIRENE, DADS, and other data from the National Institute of Economics and Statistics (INSEE) and the 1999 census. Using a difference-in-differences model combined with propensity score matching and drawing on areas classified as Zones de Revitalisation Urbaine (ZRU) in 1997, the study compares outcomes at the business level for 51 ZRU areas that became ZFU in 2004 (treated group) to those in 284 areas that remained ZRU (comparison group). From 2004 to 2007, the growth rate of total number of businesses in the treated areas is 5 to 7 percentage points per year higher than in comparison areas. Over the same period, the new businesses rate – the ratio of new businesses to the existing business stock – is 5 to 8 percentage points higher per year, with contributions from both business births and relocations. Births matter more at the beginning of the period and relocations at the end and the proportionate effect of relocations is much larger than of births. There is also a positive effect of ZFU on the growth rate of employment in a single year (2007). In 300-meter-wide rings of land around all the ZFUs, there is a 6 percentage point decrease in the annual growth rate of businesses, and a 4 percentage point decrease in the new businesses rate. There are no employer spillovers effects.

1264 (SMS 3, France) assesses the effects of the Zone Franches Urbaines (ZFU) in the Paris region from 1993 to 2003. Data comprises historical individual-level data from the National Agency for Employment (ANPE). The study uses difference-in-differences and propensity score matching to compare outcomes in municipalities hosting a ZFU (treated areas) to similar municipalities without ZFUs (comparison areas). For municipalities with ZFUs the rate of exits from unemployment increases by 3 percent, which translates to about 10 extra job exits per six-month period in treated areas. These effects are localised, with minimal spillover to neighbouring areas.

1265 (SMS 3, US) looks at the impact on business activity and employment in the manufacturing sector of urban enterprise zones (UEZs) located in six states (California, Florida, New Jersey, New York, Pennsylvania, and Virginia). Data for the period 1984 to 1993 is drawn from the Bureau of Census' Longitudinal Research Database, combined with UEZ primary and secondary data from state coordinating agencies and documents from the Department of Housing and Urban Development. The study uses a difference-in-differences model and propensity score matching to compare outcomes before and after zone designation for US postal ZIP codes overlapping any portion of designated UEZs (treated areas) with similar postal ZIP codes without UEZs (comparison areas). UEZ designation has no impact on overall employment. Faster employment growth for new firms is offset by slower growth for existing firms. UEZ designation has a positive effect on firm births rates and payroll and shipments (i.e. plant output, measured in total dollar value) from new firms. Conversely, UEZ designation has negative effects on existing establishments, with employment, shipments, payroll, and capital spending all growing more rapidly in comparison areas. There are no substantial differences between firm outcomes (employment, shipments, and firm investment) for close neighbours (within a

38 These effects are driven by the number of services, trade, and health businesses with no effects on other sectors. The way the study reports the estimates in the original paper makes the magnitudes hard to interpret, so we only report the relative size and sign of the effects.

5-mile radius of the UEZ) and distant neighbours (outside the 5-mile radius of the UEZ), suggesting minimal displacement of economic activity from nearby areas.

1267 (SMS 3, US) looks at the impacts of wage tax credits in the federal Empowerment Zones (EmZ) across different industries.³⁹ The study uses fourth quarter data from Dun and Bradstreet's Marketplace from 1994, 1996, and 2000. The data is aggregated at ZIP code level and mapped to census tracts. Using a difference-in-differences model and instrumental variables, the study compares changes in the number of firms and employment between EmZ areas (treated areas) and Enterprise Community (EC) areas not designated as EmZs (comparison areas). The areas are defined by census tract boundaries and a given area consists of a group of several census tracts (the exact number varies by zone). EmZ wage tax credits have no effect on employment and mixed effects on establishment location across sectors. In the short term, EmZ increases the share of firms in manufacturing and retail (by 0.13 percentage points and 0.49 percentage point respectively), decreases the share of firms in transportation and construction (by 0.64 percentage points and 0.4 percentage points respectively). There is no short-term effect on the share of firms in services. In the long term, there is a shift in the composition of firms in treated areas. An EmZ increases the share of firms in manufacturing (by 0.16 percentage points), reduces the share of firms in transportation (by 0.71 percentage points) and has no effects on the share of firms in construction, retail, and services. These results suggest that firms in industries experiencing a larger total cost reduction from the tax incentives benefit at the expense of those with a smaller cost reduction.

1285 (SMS 3, US) assesses the effects of the federal Empowerment Zone programme (EmZ) from 1980 to 2000. Data comes from the US Census for 1980, 1990 and 2000. The study uses difference-in-differences and propensity score matching to compare census tracts that received EmZ designation (treated areas) to areas that qualified and applied for the EmZ but were rejected and received EC instead (comparison areas). After 10 years, EmZ increases average (mean) annual household income by around \$2,000 (11 percent), gross rent by \$33 per month, and house values by around \$27,000 more than in comparison areas. There were no effects on the poverty rate. The study also looks at the median treatment effects on household incomes, gross rents, and house values, with only house values positive (but with a smaller coefficient than mean). This suggests that the average treatment effects may be driven by improvements at the top of the distribution. Looking into the distribution in more detail confirms this with an increase in the density of individuals in household with incomes above twice the poverty line (and below half poverty line), and declines in density of individuals in households in all groups between half and 1.5 times the poverty line. Findings on the distribution of educational attainment of the population (with an increase in those with degrees) are consistent with this interpretation.

1286 (SMS 3, US) looks at the effects of the New Markets Tax Credit (NMTC) programme on labour market outcomes.⁴⁰ The programme, launched in 2000, subsidises private investment in neighbourhoods below a threshold of median family income (MFI) by providing tax credits to investors who make equity investments in Community Development Entities, which in turn invest in designated low-income census tracts. The study focuses on 2002 to 2009. Data on NMTC-subsidised investments information provided by the CDFI Fund at the US Treasury is combined with census tract-level data from the 2000 Decennial Census and data from the OnTheMap database produced by the Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) programme. The study uses a regression discontinuity model to compare employment outcomes in eligible census tracts just below an MFI threshold (treated areas) with census tracts just above the threshold, which are not eligible for NMTC (comparison areas). NMTC investment has no effect on total workplace or

39 This study scored SMS 3 as IV estimations have some problems that are recognised by the authors of the study.
40 This study covers the same programme as 1317, uses the same method and data sources, and is by the same author. This study covers the period 2002 to 2009, whilst 1317 covers the period 2000 to 2009.

resident employment, but the fraction of resident workers (individuals living and working in the same treated area) declines by 0.5 percent and the average commute distance of workers in a treated area increases by 3 percent. NMTC investment changes the composition of jobs in treated areas (more medium- and high-wage jobs) and reduces the share of employment taken by residents, likely due to a decline in the share of low-wage jobs.

1288 (SMS 3, US) looks at the effects of Enterprise Zone programmes (EZ) in California, Kentucky, New York, Pennsylvania, and Virginia between 1982 and 1992. The study uses EZ information provided by state EZ programme administrators, US 1980 Census, and the US Census Bureau Longitudinal Research Database (LRD). ZIP code areas are encoded as zone-ZIPs (treated areas) if EZ boundaries overlap any portion of the ZIP code area. The study uses propensity score matching, and estimates the effects of EZ designation on employment, value of shipments (plant output, measured in total dollar value) and capital expenditures for birth-establishments (businesses with positive employment during the programme implementation, but zero employment prior) and existing establishments (positive employment before and after implementation), and vanishing establishments (zero employment in the current year, but positive employment in previous years). Effects vary across type of establishments. For birth-establishments, EZ designation has positive effects on the 5-year growth rate of employment, shipments, and capital expenditure, whilst extending EZ coverage has negative effects on all three outcomes. For existing establishments, EZ designation only has a positive effect on capital expenditure, with no effect on employment or shipments. The effect of EZ coverage changes is not examined for existing establishments. The monetary value on incentives has no effect for either existing or new establishments. Two additional levers are examined for existing establishments, with both finding positive effects. Tax incentives for hiring have a positive effect on employment, and requirement to submit a strategic business plan as part of the EZ application has a positive effect on both shipments and capital expenditures.

1289 (SMS 3, US) looks at the effects of federal Empowerment Zone (EmZ) and Enterprise Community (EC) programmes on the number of establishments and employment. Data comes from the Dun and Bradstreet Marketplace database, which consists of fourth quarter survey data from 1994, 1996, and 2000 aggregated to the ZIP code level, and EmZ and Enterprise Communities (EC) census tract data provided by the Department of Housing and Urban Development. Spillover effects are assessed using a difference-in-difference design that compares outcome between areas sharing a census tract border with a designated EmZs (treated areas) and areas sharing a census tract border with rejected EmZ that were designated as EC instead (comparison areas). Spillovers are also examined in areas that qualified but were not part of the local application and in areas that were identified as being similar based on propensity score matching (PSM). The number of establishments declines in all three types of area after one year, and in all except similar based on PSM over five years. Looking at retail and service sectors, the number of establishments declines for all three areas over five years and declines over one year in those that shared a border with an EmZ and those that are in areas that qualified but were not part of the application. There are no spillover effects on the number of employees with exception of over five years for areas that qualified but were not part of local application. There are spillover effects on the number of employees in the retail and service sector over one year for areas that share a border with EmZ, and over one and five years for those that qualified but were not part of application.

1290 (SMS 3, US) assesses the impact of the federal Empowerment Zone programme (EmZ) from 1990 to 2000. The study uses triple difference-in-difference-in-differences and an instrumental variable (IV) to compare outcomes in census tracts with an EmZ (treated areas) to census tracts that applied

and qualified for EmZ status but were rejected and awarded Enterprise Community status instead.⁴¹ The IV uses membership of the Ways and Means Committee of the 103rd US Congress and length of membership at the time of EmZ designation as instruments, with EmZ designation having potentially been used as a way of securing the support of influential members for a Budget Reconciliation Bill. IV estimates suggest no effects on employment and poverty rates, but a positive effect on median property values, which increase by over \$100,000 (nominal).

1292 (SMS 3, Sweden) assesses the impact of Swedish regional investment grants on firm performance from 1990 to 1999. Using firm-specific data from MM-Partner covering annual reports of limited firms and data from Statistics Sweden, the study uses difference-in-differences and propensity score matching to compare outcomes for grant-recipient firms (treated group) to similar non-recipient firms (comparison group). There are no effects on return on equity or employment over the whole period, but some positive effects at the end of the Swedish recession (1993 to 1995). Effects vary across years and grant sizes.

1294 (SMS 3, US) evaluates the impact of three types of neighbourhood-based tax incentives (commercial EZs, housing EZs, and job tax credits) on employment in Atlanta. Commercial EZs provide property tax abatements for commercial and industrial properties located in census tracts designated as depressed. Housing EZs extend these abatements to housing construction and rehabilitation. Job tax credits allow manufacturing firms in depressed counties to claim a credit against their annual state income tax obligation for each new job created. The study focuses on the period 1985 to 1997 and uses data from the Atlanta Regional Commission (ARC). Using a 12-year neighbourhood-level panel at census tract level the study estimates panel models with fixed effects to analyse the impact of these different interventions in the annual change in census tract shares of regional employment. Commercial EZs have a small positive effect on the tract's share of total private employment (equivalent to 80 more jobs per year). Housing EZs have no effect. Job tax credits also have a small positive effect, but this is only statistically significant for some models. Job tax credits have a small positive effect on the tract's share of regional manufacturing employment (equivalent to 32 additional jobs per year). Commercial and housing EZs have no effect on manufacturing employment.

1298 (SMS 3, UK) looks at the impact of the Regional Selective Assistance (RSA) scheme on the location of new plants. The scheme offered grants to firms (foreign-owned multinationals or existing UK-owned firms) setting up plants in designated low per-capita income 'assisted areas'. The study uses establishment-level data from the Office for National Statistics Annual Respondents Database (ARD) for Great Britain over the period 1986 to 1992, combined with data from the Department of Trade and Industry containing all grant offers of £75,000 and more. The study uses a fixed effects conditional logit model to estimate the determinants of a grant offer and generate expected grants which are then used to examine the effect of expected grants and co-location effects on firm location choices between counties and Scottish regions with assisted areas (treatment areas) and counties and Scottish regions with non-assisted areas (comparison areas). RSA grants have a small positive effect on firm location choices. Tax incentives appear to be more effective when offered in areas with additional localisation benefits, as firms in more agglomerated industries tend to locate new plants near existing plants in the same industry. Firms appear to be less responsive to government subsidies in areas where there are fewer existing plants in their industry.

41 This study scored SMS 3 as it recognises potential biases in the IV estimations. Although the IV results may have some imprecision, we use the IV results in this review because the IV regressions take the zone designation process into account and remove the assignment bias from the estimation providing closer results to the causal effect of the programme.

1301 (SMS 3, UK) evaluates the impact of Regional Selective Assistance (RSA) and the Small Firm Merit Awards for Research and Technology (SMART/SPUR) on UK manufacturing plant-level total factor productivity (TFP) from 1990 to 1998. The RSA programme aims to safeguard and create employment opportunities in designated Assisted Areas, through offering a discretionary subsidy to plants in the form of a capital grant. The SMART/SPUR programme is aimed at encouraging innovative activity in the SME sector and began in 1986. Data combines records from the DTI SAMIS database and the Annual Respondents Database (ARD). The study uses panel data and General Method of Moments to compare assisted plants (treated group) with non-assisted plants in Great Britain (comparison group). RSA assistance increases plant total factor productivity (TFP) by 2.5 percent compared to all plants. SMART/SPUR-assisted plants have nearly 8 percent higher productivity pre-assistance, but assistance has no effect on TFP. Neither RSA nor SMART/SPUR have any effects when comparing assisted plants with non-assisted plants located in assisted areas only. Sector-specific effects are mixed, with some sectors showing TFP improvements post-assistance in certain regions, particularly for foreign-owned plants.

1313 (SMS 4, France) evaluates the impact of the Zones de Revitalisation Rural (ZRR), a tax credit programme, targeted at low population density areas, that mainly consists of a payroll tax exemption for employers. The study focuses on the period 1996 to 2004 (first round) and 2005 to 2009 (second round). It uses two administrative datasets, the French business register SIRENE and the employee database DADS. Data is aggregated at cantonal level for different sub-groups of firms. Using a fuzzy regression discontinuity design that takes advantage of the eligibility rule introduced by a 1995 law (which targeted areas with a population density below 31 per square kilometre in 1990), the study estimates the impact of the ZRR on local employment, the number of firms and wages. There are no effects on total employment, wages, and number of businesses in treated areas, and no evidence of displacement or spillover effects on employment or wages paid by firms in nearby areas. Comparing ZRR with its urban counterpart (ZFU) the study suggests that the ineffective targeting of ZRR may have been partly to blame for the lack of impact, as coverage was too broad, did not do enough to exclude business relocations, and restricted the more generous financial incentives to sectors that may be less responsive to them.

1314 (SMS 4, UK) looks at the effects investment subsidies from the UK's Regional Selective Assistance (RSA) programme on job creation and unemployment reduction. The study focuses on the period 1997 to 2004. Data comes from the Selective Assistance Management Information System (SAMIS), the Interdepartmental Business Register (IDBR), and the Annual Respondents Database (ARD). The study compares outcomes in RSA eligible wards (treated areas) with RSA eligible wards (comparison areas), using changes in area specific eligibility criteria as an instrument. Areas eligible for higher investment subsidies experience smaller declines in manufacturing employment and faster reductions in unemployment compared to ineligible areas. A 10-percentage point increase in the maximum investment subsidy rate is associated with a 1.2 percent increase in employment, and a 4.2 percent decrease in unemployment. The shares of manufacturing jobs and firm investment also increase in eligible areas. These positive effects persist even when controlling for other policies like EU structural funds. There are no effects on total factor productivity.

1317 (SMS 4, US) looks at the effects of the New Markets Tax Credit (NMTC) programme.⁴² The programme, launched in 2000, subsidises private investment in neighbourhoods below a threshold of median family income by providing tax credits to investors who make equity investments in Community Development Entities, which in turn invest in designated low-income census tracts. The study focuses on the period 2000 to 2009. Data is sourced from the CDFI Fund at the US Treasury,

42 This study covers the same programme as 1286, uses the same method and data sources, and is by the same author. This study covers the period 2000 to 2009, whilst 1286 covers the period 2002 to 2009.

the 2000 Decennial Census, the 2005 to 2009 American Community Survey (ACS) small area estimates, and the Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) programme. Using a fuzzy regression discontinuity approach that takes advantage of the formula used to designate areas as low-income, the study estimates the causal effect of the programme by comparing those neighbourhoods that just received assistance (just below the income threshold) with those that just missed out (just above). NMTC reduces unemployment rates by 0.3 percentage points per \$1 million of NMTC-supported investment. Poverty rates are reduced by about one percentage point per \$1 million of investment and household turnover rates (defined as the percentage of households in a different residence than one year ago) increase by about 0.75 percentage points. There are no effects on residential property prices.

EZ-1 (SMS 4, UK) evaluates the impact of England's Local Enterprise Growth Initiative (LEGI) programme, that operated from 2006 to 2009 in disadvantaged areas.⁴³ Data is from the UK Census and the Business Structure Database and Neighbourhood Statistics database, at the Lower Layer Super Output Areas (LSOA) level, with geocoding performed using shapefiles from the UK Borders database to precisely identify treated areas within local authority boundaries. Using difference-in-differences and fuzzy regression discontinuity at the eligibility cut-off (which was determined by a predetermined index of local deprivation) the study compares changes in employment, number of businesses and unemployment between areas located within the boundaries of a Local Authority receiving LEGI funding (treated areas) and nearby untreated areas (comparison areas). The study finds positive effects close to the area boundary, displacement effects from nearby areas and limited impacts overall. When looking at 1 km treatment and comparison rings either side of the treatment area boundary, employment in LEGI-funded areas increases 34.1 percent between 2004 and 2009. However, there is no effect on employment when comparing 1km treatment rings to 2 to 3km comparison rings, suggesting that the employment effects in the 1km ring come at the expense of displacement from the comparison ring. LEGI has no effect on unemployment (based on residential rather than workplace location). There is no effect on the number of business when comparing to the 1km comparison ring, but a negative effect when comparing to the 2 to 3km comparison ring.

EZ-2 (SMS 4, US) assesses the economic impact of the Delta Regional Authority (DRA) a federal-state regional commission in the lower Mississippi River Valley founded in 2000 to improve the livelihood of 252 historically poor counties. DRA provided funding for infrastructure, business and entrepreneurship development, and job training from 2002 to 2015. The study uses a panel dataset for US counties, covering the period from 1997 to 2016. The study combines Census databases, Small Area Income and Poverty Estimates (SAIPE), County Population by Characteristics Database, and Census Bureau Statistics and Bureau of Labor Statistics with data from the DRA Year in Review, ARC website, and TVA data. The study uses a combination of instrumental variable and propensity score matching to compare outcomes in DRA counties (treated areas) with non-DRA counties (comparison areas) DRA increases self-employment by 2.2 percent and reduces unemployment rates by 1.3 percentage points. The DRA also increases average county median household income by approximately 8.2 percent and decreases total poverty rates by 1.2 percentage points, although the impact on child poverty rates is mixed. There are also weak negative effects of DRA on annual net in migration (as a percentage of total county population).

EZ-3 (SMS 3, US) assesses the impact of a tax increment financing (TIF) programme in Kansas City and St. Louis (both Missouri) on employment, firm births, and sales over the period 1990 to 2012. The study uses a panel dataset at the US Census Bureau 2010 block group level by combining data on TIF districts from the Missouri Department of Economic Development and the Kansas City Office of Economic Development with business establishment data from the National Establishment Time

Series (NETS) database and 1990 US Census Bureau data at the block group level.⁴⁴ The study uses propensity score matching and a difference-in-differences model to estimate the effect of TIF designation, comparing census block groups that receive TIF designation (treated group) with similar census block groups that are never designated (comparison group). There are no effects of TIF designation on employment, firms' births or sales.

EZ-4 (SMS 3, US) assesses the early impacts of the Opportunity Zone (OZ) programme on residents. The study uses microdata from the American Community Survey (ACS) and data on tracts eligible and designated as OZs from the Community Development Financial Institutions (CDFI) over the period 2013 to 2019. Using difference-in-differences combined with a propensity score matching approach, the study compares census-tract level changes in employment, earnings, and poverty for residents of designated OZs (treated areas) to those for residents in eligible but not designated areas (comparison areas) with similar pre-designation trends. They find no effect on employment levels, resident employment rates, average earnings or poverty rates. Effects without matching were more mixed but are considered less robust, as they are driven, in part, by differences between treated and comparison census tracts pre-designation.

EZ-5 (SMS 3, US) evaluates the effects of a tax increment financing (TIF) programme in Chicago, introduced in 1983. The study focuses on the period 2002 to 2017 and uses census block-level data from the Chicago Department of Planning and Development, the 2002 to 2017 Longitudinal Employer-Household Dynamics (LEHD) surveys, the 1990 and 2000 waves of the US Census, and the 2018 wave of the American Community Survey (ACS). The study uses difference-in-differences and propensity score matching to estimate the effect of TIF designation on employment growth and residential employment by comparing census blocks with TIF districts (treated areas) with census blocks without TIF districts (comparison areas). Overall, employment is on average 15.2 percent higher after 5 years, relative to one-year prior to designation. The positive effect on employment particularly benefits African American and Hispanic workers (with a rise in employment of over 20 percent for African Americans and 10 percent for Hispanics) and is driven by private rather than public sector employees. There are no effects on employment levels for residents within TIF districts, no effects on employment in the neighbouring areas (within a quarter mile of TIF districts), and no evidence of neighbourhood gentrification (based on demographic characteristics).

EZ-6 (SMS 4, US) assesses the impact of the Louisville EZ, part of the Kentucky EZ programme, on employment growth in several industries over the period 1980 to 2000. The study uses data from the 1980 Urban Transportation Planning Package (UTPP) and the 1990 and 2000 Census Transportation Planning Package (CTP). Using modified traffic analysis zones (MTAZs) as spatial units, the study combines difference-in-differences and instrumental variables to analyse how different industries are affected by the EZ programme, with the estimated probability of a MTAZ being designated as an EZ used as the instrument. The EZ has large effects on manufacturing and smaller positive effects on services growth.⁴⁵ There are no effects on employment growth rates in agriculture, trade, and public administration.

EZ-7 (SMS 3, US) evaluates the impact of five of New Jersey's Urban Enterprise Zones (UEZ) designated in the 2000s on local payroll employment.⁴⁶ Using data from the US Census Bureau the study creates synthetic control ZIP codes (comparison areas) for each UEZ ZIP code (treated areas). UEZs have no effect on employment growth and all treated areas, except for one, underperform their synthetic controls.

44 Census block groups are the smallest geographic unit for which the Census Bureau publishes data. They are smaller than a census tract but larger than blocks.

45 The way the study reports the estimates makes the magnitudes hard to interpret, so we only report the relative size and sign of the effects.

46 These are Bayonne, Gloucester City, New Brunswick, Roselle Borough, and The Wildwoods.

EZ-8 (SMS 3, US) evaluates the effects of the Opportunity Zones (OZ) programme. The study combines data from the American Community Survey (ACS) five-year estimates, and job posting data from Burning Glass Technologies from January 2016 to March 2020. The study maps census tracts to postal ZIP codes. A ZIP code is considered a treated area if at least one of the census tracts within the ZIP code is designated as an OZ. Comparison areas are similar ZIP codes without OZs that are located in the same state. The study uses difference-in-differences and propensity score matching. OZs have no overall effects on jobs postings, with heterogeneous effects by industry, population density, and across states.

EZ-9 (SMS 3, US) looks at the effects of tax increment financing (TIF) adoption in Illinois. The study uses municipal-level data from the Illinois Department of Employment Security (IDES), and TIF district adoption and classification data from the Illinois Department of Commerce and Community Affairs (DCCA). The study uses panel fixed effects models at municipality level. TIF adoption has no effect on employment growth in municipalities with TIF districts (treated areas). A one percentage point increase in the municipal property tax rate decreases employment growth in treated areas by approximately 0.7 percentage points.⁴⁷ TIFs supporting industrial development have a positive effect on employment, whereas TIF supporting retail have a negative effect on employment.

EZ-10 (SMS 3, US) looks at the neighbourhood effects of Economic Development Priority Areas (EDPA) in Atlanta, Georgia, implemented in 2005 to revitalize designated areas through tax abatements and subsidies. Data for 2000 to 2010 comes from the Decennial Census and real estate transactions. The study defines neighbourhoods as 0.25-mile-radius circles evenly distributed across Atlanta. The study uses difference-in-differences and propensity score matching to compare outcomes for neighbourhoods within a 0.25-mile distance of an EDPA (treated areas) to non-EDPA neighbourhoods (comparison areas). EDPA designation significantly reduces poverty by 5.9 percent and increases housing prices by 7.2 percent, especially in low-income areas. There are no effects on employment, household income or population size.

EZ-11 (SMS 3, US) evaluates the effects of tax increment financing (TIF) designation in Indiana on property values and employment growth from 2004 to 2013. The study uses parcel-level data provided by TIF management, a database maintained by the Indiana Department of Local Government Finance, and school district level data provided by the National Center for Education Statistics School District Demographics System. The study uses difference-in-differences and propensity score matching to compare outcomes in TIF parcels (treated areas) with similar non-TIF parcels (comparison areas). TIF designation increases assessed property values by 13 percent, or approximately \$14,700. TIF designation has no effect on job creation.

EZ-12 (SMS 3, Poland) assesses the impact of regional tax credits in Special Economic Zones (SEZ) on firm outcomes from 2007 to 2017. The study uses administrative firm-level data from the Polish Ministry of Development, financial statement data from the Amadeus database, and state aid data from the Polish Office for Competition and Consumer Protection. The study uses a difference-in-differences model to compare outcomes for firms located in SEZ (treated group) to firms in non-SEZ areas (comparison group). SEZ' regional tax credits have a positive effect on fixed assets of in treated firms, in the year of announcement, two years after announcement, and three years after announcement. Two types of tax credit were used – investment tax credits and employment tax credits. Investment tax credits had an impact on fixed assets in year of announcement, and at two years and three years after announcement. Employment tax credits had no effect. There are no effects – from either regional tax credits as a whole, or investment tax credits and employment tax credits individually – on the number of employees (although caution is needed as employment data is incomplete).

47 One model uses two separate dummies variables for TIF adoption in the previous year and adoption two years previous, while the other uses one dummy variable for TIF adoption in either of the previous two years.

EZ-13 (SMS 4, US) looks at the effects of EZs in Texas on employment outcomes from 2002 to 2009. Census block groups in which 20 percent or more of the residents had incomes below the federal poverty level were automatically designated as EZs.⁴⁸ To be eligible for benefits, a business located in an EZ had to ensure that 25 percent of its new employees met economically disadvantaged or EZ residence requirements. The study uses census block group level data from the Economic Development and Tourism Division of the Texas Office of the Governor, the Department of Housing and Urban Development, the 2000 Decennial Census, the US Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) programme and the 2005 to 2009 American Community Survey. The study uses a regression discontinuity design to compare census blocks just above the poverty threshold in 2000 (treated) to census blocks just below (comparison) focusing on census blocks with poverty rates between 18 percent and 22 percent (inclusive). EZs result in an additional 6 resident jobs per designated treated area per year, for a total of about 42 additional resident jobs over the full seven years considered. There is also a significant increase in both low-wage (< \$15,000 per year) and medium-wage (< \$40,000 per year) resident employment, with the largest effect observed for medium-wage jobs. Effects are positive for various industries, including construction, manufacturing, wholesale trade, retail trade, transport and storage, and health care. There are no effects in higher-wage and more skill-intensive industries such as information, finance and insurance, and professional services.

EZ-14 (SMS 3, France) looks at the effects of Round I (1997) Zone Franches Urbaines (ZFU) on labour markets for 1993 to 2007.⁴⁹ Data at census block level comes from the French Labour Force Survey. The study uses difference-in-differences, to compare labour market outcomes for ZFU residents (treated group) to residents of ZRU not designated as ZFU and not in the same urban unit as ZFUs (comparison group).⁵⁰ There is a positive effect on resident employment during the first years of the programme. Unemployment rates also fall by eleven percentage points (9.5 percentage points when excluding Paris). The unemployment effect is 7.6 percentage points higher after ZFU hiring conditions tightened in 2002. However, this effect is primarily due to changes in the social composition of the zones rather than an increase in job opportunities for original residents, especially those residents with lower employability. ZFUs increase the share of long-term private sector contracts amongst 26- to 65-year-olds, suggesting an improvement in job quality. The study highlights the role of residential mobility and composition effects as the programme attracts residents with higher education levels. Positive effects are initially concentrated on low-degree residents but shift to high-degree residents after 2002. There are no spillover effects on the unemployment rate in neighbouring areas.

EZ-15 (SMS 4, US) looks at the effects of California's Redevelopment Areas (RDA), the state's primary tax increment financing programme, from 1980 to 2000. The study combines digitalised maps of California's RDA, US Census Bureau demographic data for 1980, 1990 and 2000, and the 2009 National Establishment Time Series (NETS), derived from Dun and Bradstreet. The study uses difference-in-differences and instrumental variables to compare outcomes in RDA census tracts (treated areas) with two types of comparison areas i) census tracts contiguous or closest to an RDA tract, and ii) other non-RDA census tracts in the state of California. RDAs established in 1990 have no effect on unemployment, wages, household income, poverty rates, average monthly rents, or rental vacancy rates for residential properties. When compared to all other census tracts in the state, RDAs established before 1990 have positive effects on poverty, unemployment, wages, household income

48 In 2000, census block groups in Texas had a median population of 1,180 and a median area of 1.2 square kilometres.

49 An earlier versions of study EZ-14 was included in our 2016 evidence review, with reference ID 1260.

50 Zones Urbaine Sensible (ZUS) areas comprise the 757 most deprived areas in France (including overseas Départements). ZRUs comprise the 436 most deprived ZUSs based on unemployment rates, skills profile, proportion of young people and potential tax revenues.

and monthly rents. When compared to the closest non-RDA census tract or all adjacent census tracts, RDAs established before 1990 have no effect on outcomes, except for a negative effect on household income.

EZ-16 (SMS 4, US) looks at tax increment financing (TIF) effects on the value of industrial properties in Chicago. The programme targets urban redevelopment in blighted areas to boost property values and create jobs. Data comes from Experian Inc for 1976 to 2001 and CoStar Comps from 1999 to 2002. The study uses a multinomial logit-based two-stage estimation and instrumental variables (IV) to compare the value of industrial parcels in TIF districts (treated areas) with that of similar industrial parcels not in TIF districts (comparison areas). The instrument is a binary variable of whether a parcel is located within an industrial corridor (based on Chicago's Model Industrial Corridor Program). Industrial parcels located in mixed use TIF districts (i.e. districts that also have commercial or residential properties) have higher values (11.5 percent higher for vacant parcels and 23 percent for improved parcels) than parcels in comparison areas. In contrast, there is no effect on the value of industrial parcels in an industrial (only) TIF districts.

EZ-17 (SMS 3, US) assesses the impact of tax increment financing (TIF) districts in Polk County, Iowa, on employment and residential development from 1999 to 2011. Data comprises a parcel-level panel dataset that combines biennially assessed values and parcel characteristics for all properties in Polk County with business establishment data from the National Establishment Time Series (NETS) dataset. The study uses difference-in-differences and propensity score matching to compare growth in outcomes for areas within a quarter-mile radius of 'anchoring parcels' in TIF districts (treated areas) and anchoring parcels located beyond half a mile from any TIF parcel, that have never been designated as TIF (comparison areas). TIF has a negative impact on employment growth within a quarter-mile radius of TIF districts. After 10 years, areas located within a quarter-mile radius of an 'anchoring parcel' in a TIF-district lost a total of 110 jobs per anchoring parcel square mile. TIF designation has no effect on residential development (i.e. residential square footage).

EZ-18 (SMS 4, US) assesses the effects of Opportunity Zone (OZ) designation on investment and economic outcomes. The data consists of tract-level data from the American Community Survey (ACS), transaction-level investment data from Real Capital Analytics and tract-level credit-card and point-of-interest (POI) data from Mastercard. The study uses a multivariate regression discontinuity that exploits the programme eligibility criteria (poverty rate over 20 percent) or median family income below 80 percent of the county area median) to compare outcomes in eligible and ineligible census tracts close to the threshold. OZ eligibility and OZ designation have no effect on commercial investment (probability of investment, number of investments or dollar amount of investments), on new business growth rates, business loan growth rates, commercial diversity or consumer spending per capita.

Annex 2: Enterprise zone programmes

For this rapid evidence review, we looked for evaluations of enterprise zones (EZs) and similar policies from OECD countries. The review includes 53 studies, covering 17 policies listed below (with the number of times these are covered by a study reported in brackets).

- US policies⁵¹
 - Empowerment Zones (12)
 - Enterprise Community (4)
 - Renewal Communities (1)
 - State Enterprise Zones (9)
 - Tax increment financing (7)
 - Urban Enterprise Zones (4)
 - Opportunity Zones (3)
 - New Markets Tax Credit (2)
 - Economic Development Priority Areas, Atlanta (1)
 - Delta Regional Authority (1).
- Non-US policies
 - Zone Franches Urbaines, France (6)
 - Zones de Revitalisation Rural, France (1)
 - Regional Selective Assistance, UK (3)
 - Local Enterprise Growth Initiative, UK (1)
 - Territorial Pacts, Italy (1)
 - Special Economic Zones, Poland (1)
 - Regional Investment Grants, Sweden (1).

This annex provides an overview of all policies that are included in three or more studies, plus all UK policies.

51 Five studies (1225, 1236, 1248, 1251, 1289) evaluate multiple US programmes and so have been counted more than once.

US policies

Empowerment Zones⁵²

The Empowerment Zone (EmZ) programme is a federal initiative launched in the 1990s to revitalise economically distressed urban and rural communities in the US. The EmZ programme is administered at federal level and involves a standardised package of fiscal benefits applied to neighbourhoods defined using 1990 census tracts.

Aim

Stimulate economic growth, create jobs, and enhance the quality of life for residents by encouraging private investment, fostering community development, and involving local residents in planning and implementation efforts.

Main policy components

- *Wage credits:* Businesses operating within EmZs are eligible for the Empowerment Zone Employment Credit, providing a 20 percent tax credit on the first \$15,000 of wages paid to qualifying employees who lived and worked in the zone.
- *Capital spend deductions:* Businesses could immediately expense up to \$35,000 of qualifying investments, such as equipment and machinery, encouraging capital investment by reducing upfront costs.
- *Grants:* Funds were available for qualifying projects on business support, infrastructure investment, physical development, training programmes, youth services, promotion of home ownership, and emergency housing assistance. Grants were only available in Rounds I and II (see below).

Eligibility

EmZs were selected through a competitive application process based on criteria including high poverty rates (generally over 20 percent), high unemployment rates, and other indicators of economic distress (such as underemployment, deteriorating infrastructure, and limited access to quality education and healthcare). Eligible communities had to have clearly defined geographic boundaries and submit comprehensive strategic plans demonstrating a commitment to sustainable development beyond federal support.

Implementation

The programme was implemented in multiple rounds:

- *Round I (1994):* After a round of bidding by local governments in 1994, six urban EmZs (Atlanta, Baltimore, Chicago, Detroit, New York City, and Philadelphia and Camden) plus two Supplemental EmZs and three rural EmZs were designated by the federal government, whilst 49 unsuccessful areas were also granted smaller Enterprise Community status (discussed later), entitling them to a reduced set of benefits.
- *Rounds II and III (1998 and 2001):* Two further rounds of designation took place in 1998 and 2001, resulting in a further 23 EmZs and 80 Enterprise Communities, plus a set of 28 urban and 12 rural areas being given Renewal Community status, entitling them to a similar magnitude of benefits as EmZs.

52 Information on the policy comes from the studies and a number of additional references including Congressional Research Service (2011). "Empowerment Zones, Enterprise Communities, and Renewal Communities: Comparative Overview and Analysis". <https://crsreports.congress.gov/product/pdf/R/R41639/5>; Bloomberg Tax. <https://irc.bloombergtax.com/public/uscode/toc/irc/subtitle-a/chapter-1>; and District of Columbia. "Enterprise and Empowerment Zones (EntZonePly)". <https://dcatlas.dcgis.dc.gov/metadata/EntZonePly.html>. Study 1217 provides a particularly useful summary of how EmZ, EC, and RC programmes differ

Enterprise Community⁵³

The Enterprise Community (EC) programme is a federal initiative launched in the 1990s as part of the broader Empowerment Zone and Enterprise Community initiative.

Aim

Stimulate economic growth, create jobs, improve living conditions, and revitalise economically distressed urban and rural communities across the US by fostering partnerships among federal, state, and local governments, businesses, and community organisations.

Main policy components

- *Investment tax incentives:* While ECs did not receive as extensive tax benefits as EmZs, businesses in these communities could benefit from certain federal tax incentives, such as allowing immediate deduction of equipment purchases.
- *Grants:* Funds for qualifying projects on business support, infrastructure investment, physical development, training programmes, youth services, promotion of home ownership, and emergency housing assistance.

Eligibility

EC eligibility focused on economic distress indicators such as high poverty and unemployment rates, low median incomes, and signs of underdevelopment (for example, deteriorating infrastructure, limited access to quality education and healthcare). A central requirement was community commitment, with applicants required to submit a strategic plan developed with significant input from residents, outlining goals and proposed activities that demonstrated a dedication to sustainable development.

Implementation

The programme was implemented in two rounds:

- *Round I (1994):* Designated a total of 95 ECs – 65 urban and 30 rural areas nationwide.
- *Rounds II (1998):* Expanded the programme to include additional urban and rural zones.

Examples of urban ECs include parts of Los Angeles, California; Cleveland, Ohio; and Miami, Florida. Rural ECs were designated in regions such as the Mississippi Delta and Appalachia, areas known for persistent poverty and economic hardship.

State Enterprise Zones⁵⁴

State Enterprise Zones (ENTZ) in the US are designated by states hoping to stimulate economic growth and revitalise distressed communities. As they are designated at the state level, they are more diverse than federal level EZs (EmZ, EC, and RC).

Aim

Encourage private sector investment and development, attract businesses, create jobs, boost local economies, and enhance the quality of life for residents of areas suffering from high unemployment rates, low-income levels, and underinvestment.

53 Information on the policy comes from the studies and a number of additional references including Congressional Research Service (2011). "Empowerment Zones, Enterprise Communities, and Renewal Communities: Comparative Overview and Analysis". <https://crsreports.congress.gov/product/pdf/R/R41639/5>; Bloomberg Tax. <https://irc.bloombergtax.com/public/uscode/toc/irc/subtitle-a/chapter-1>; and District of Columbia. "Enterprise and Empowerment Zones (EntZonePly)". <https://dcatlas.dcgis.dc.gov/metadata/EntZonePly.html>. Study 1217 provides a particularly useful summary of how EmZ, EC, and RC programmes differ.

54 Information on the policy comes from the studies and a number of additional references including Bloomberg Tax. <https://irc.bloombergtax.com/public/uscode/toc/irc/subtitle-a/chapter-1>; and Good Jobs First. "State Enterprise Zones". <https://goodjobsfirst.org/enterprise-zones/>

Main policy components

A mix of policy levers are used, with variations across states. This could include:

- *Wage credits:* Tax credits based on the number of jobs created or wages paid to employees living within the zone.
- *Investment tax credits and exemptions:* Tax credits for investments in machinery, equipment, and real estate development to lower the cost of capital expenditures.
- *Employment support:* Grants and subsidies to support workforce development initiatives to enhance the skills of local workers.
- *Financial assistance:* Low-interest loans, loan guarantees, and grants to support business expansion and new ventures.
- *Regulatory relief:* Simplified permitting processes and relaxed zoning regulations reduce bureaucratic hurdles for businesses.
- *Infrastructure improvements:* States may invest in upgrading transportation, utilities, and communication networks within the zones.

Eligibility

The eligibility criteria vary by state, but generally, they are designed to target economically distressed areas.

Implementation

States began enacting ENTZs in the early 1980s though some places have since eliminated them. Over 36 states have implemented them, tailoring them to local needs and resulting in variations in the number of zones, types of incentives, and targeted industries.

For example, before its programme ended in 2014, California had 42 ENTZs focusing on job creation through hiring tax credits and sales tax credits on equipment purchases. In Texas, ENTZ are nominated by municipalities and approved by the state, offering tax refunds of up to \$1.25 million over five years on qualifying expenditures on machinery and equipment, building materials, electricity and natural gas, and construction labour with an emphasis on job creation and capital investment, targeting economically distressed areas in both urban and rural communities. Florida had 65 enterprise zones before the programme expired in 2015, providing tax credits for job creation, sales tax refunds on building materials, and property tax credits.

Tax increment financing⁵⁵

Tax increment financing (TIF) is a geographically targeted public financing programme used by municipalities across the US to encourage economic development and redevelopment in designated areas. TIF capture the increase in property taxes, and sometimes other taxes, resulting from new development, diverting the revenue to subsidise development and stimulate private investment in areas that might not attract development without financial incentives.

Aim

Revitalise targeted areas by improving infrastructure, attracting businesses, creating jobs, and expanding the tax base.

55 Information on the policy comes from the studies and a number of additional references including Good Jobs First. "Tax Increment Financing (TIF)". <https://goodjobsfirst.org/tax-increment-financing/>; and US Department of Transport - Federal Highway Administration "Tax Increment Financing". https://www.fhwa.dot.gov/ipd/fact_sheets/value_cap_tax_increment_financing.aspx

Main policy components

The main components of TIF involve capturing the incremental increase in property tax revenue that results from the rise in property values within the designated TIF district. The revenues finance development projects such as infrastructure or direct subsidies to developers.

- *Designation of TIF districts:* Municipalities identify and designate specific areas that would benefit from redevelopment.
- *Baseline tax assessment:* The current property tax revenue (base value) within the TIF district is established.
- *Tax increment capture:* As redevelopment occurs, property values within the district increase, leading to higher property tax revenues. The difference between the new tax revenue and the baseline is the 'tax increment'.
- *Financing mechanisms:* The anticipated tax increments are used to finance redevelopment projects. This can be done through issuing bonds backed by future tax increments or by reimbursing developers directly for eligible expenses.
- *Eligible projects:* Funds can be used for a variety of projects, including infrastructure improvements (roads, utilities, public facilities), site remediation, land acquisition, and (in some cases) direct subsidies to developers.
- *Developer agreements:* Municipalities may enter into agreements with developers outlining the use of TIF funds, project timelines, and performance benchmarks.

Eligibility

Areas eligible for TIF designation typically have dilapidated buildings, inadequate infrastructure, high vacancy rates, or declining property values. The profile of TIF sites includes both urban and non-urban areas. In urban centres, TIF districts are commonly used to redevelop ageing downtown districts, industrial sites, or to promote mixed-use developments. In suburban and rural settings, TIF is generally employed to develop commercial centres, industrial parks, or to revitalise main streets.

Implementation

TIF is widely adopted across the US (49 states have authorised them), with each state setting its own specific laws and regulations for creating and administering TIF districts. There are thousands of TIF districts nationwide. For example, Chicago has over 140 active TIF districts, covering a significant portion of the city.

Urban Enterprise Zones⁵⁶

Urban Enterprise Zones (UEZs) in the US are state programmes established to revitalise economically distressed urban areas and address issues such as high unemployment, poverty, and urban decay in inner-city neighbourhoods.

Aim

Stimulate private investment and economic growth, attract new businesses, encourage the expansion of existing businesses, create job opportunities for local residents, and improve the overall quality of life in communities.

Main policy components

UEZ programme incentives vary by state, but generally include a combination of:

- *Wage credits:* Tax credits based on the number of jobs created or wages paid to employees living within the zone.

56 Information on the policy comes from the studies.

- *Investment tax credits and exemptions:* Tax credits for investments in machinery, equipment, and real estate development to lower the cost of capital expenditures.
- *Grants:* Funds for qualifying projects on business assistance, infrastructure investment, physical development, and training.
- *Tax benefits:* Including sales tax exemption, corporate business tax credits, and unemployment insurance tax benefits.
- *Infrastructure incentives:* States may invest in upgrading transportation, utilities, and communication networks within the zones.
- *Reduce regulation:* Simplified permitting processes and relaxed zoning regulations reduce bureaucratic hurdles for businesses.

Eligibility

UEZs were designated based on economic criteria such as high unemployment rates, low median incomes, declining property values, and visible economic distress like abandoned buildings and underutilised land. Local governments applied for UEZ designation by submitting comprehensive economic development plans demonstrating community need and potential for revitalisation.

Implementation

The UEZs had clearly defined geographic boundaries within urban settings, ranging from specific neighbourhoods to larger districts encompassing multiple communities. Over 30 states implemented their own UEZ programmes, each tailored to specific economic conditions and policy preferences, resulting in variations in the number of zones and incentives offered. For example, in 1983 New Jersey established 37 zones across 32 municipalities, offering incentives including sales tax exemptions, corporate business tax credits, unemployment insurance rebates, and reduced energy costs. New York's Empire Zones, established in the late 1980s and ending in 2010, comprised over 80 zones, providing tax credits, property tax abatements, and utility discounts. California's programmes, from 1984 until 2014, involved 42 enterprise zones, offered hiring tax credits and other support.

Opportunity Zones⁵⁷

The Opportunity Zones (OZ) programme was established by the *Tax Cuts and Jobs Act* of 2017 to stimulate economic development and job creation in economically distressed communities across the US.

Aim

Encourage long-term private investments in low-income urban and rural areas by offering significant tax incentives. Spur economic growth, reduce poverty, and revitalise neighbourhoods that had been historically underinvested in.

Main policy components

The OZ programme uses tax incentives as the main mechanism to attract investment.

- *Capital gains tax deferral:* Investors can defer taxes on any prior capital gains invested in a Qualified Opportunity Fund (QOF) until the investment in the QOF is sold or exchanged, or December 31, 2026 (whichever is earlier).
- *Basis step-up:* If the investment in the QOF is held for at least five years, the basis of the original investment increases by 10 percent, allowing investors to exclude 10 percent of the

57 Information on the policy comes from the studies and a number of additional references including Bloomberg Tax. <https://irc.bloombergtax.com/public/uscode/toc/irc/subtitle-a/chapter-1>; and IRS. "Opportunity zones" <https://www.irs.gov/credits-deductions/businesses/opportunity-zones>

deferred gain from taxation. If held for seven years, the basis increases by an additional 5 percent, totalling a 15 percent exclusion.

- *Permanent exclusion of gain:* Capital gains accrued from investments in a QOF may be permanently excluded from taxable income if the investment is held for at least 10 years. This exclusion applies to the gains realised from the appreciation of the Opportunity Zone investment itself, not the original deferred gains.

Eligibility

OZs were designated from census tracts that qualify as low-income communities, defined by a poverty rate of at least 20 percent or a median family income less than 80 percent of the area median. Governors of each state and territory nominated up to 25 percent of eligible low-income census tracts in their jurisdictions, and the US Department of the Treasury certified these nominations to finalise the list.

Implementation

There are 8,764 designated OZs across all 50 states, the District of Columbia, and five US territories, including Puerto Rico and the US Virgin Islands. These zones encompass areas with significant economic challenges and include a mix of urban, suburban, and rural communities. Examples include parts of Baltimore, Maryland; Detroit, Michigan; and Los Angeles, California, which aim to revitalise neighbourhoods through investments in housing, businesses, and infrastructure. Rural zones include communities in Mississippi, Alabama, and the Appalachia regions, targeting improvements in agriculture, manufacturing, and access to services.

Non-US policies

Zone Franches Urbaines⁵⁸

Zone Franches Urbaines (ZFU, translated as Urban Free Zones) were established in France in 1996 as part of the *Pacte de Relance pour la Ville* (Urban Renewal Pact) to revitalise economically distressed urban areas characterised by high unemployment, social exclusion, and economic decline. ZFUs are the smallest spatial unit of a three-tier system, comprising Zones Urbaine Sensible (ZUS, Sensitive Urban Zones), Zones de Redynamisation Urbaine (ZRU, Urban Renewal Zones), and ZFU.⁵⁹

Aim

Stimulate economic activity, attract businesses, and create jobs within marginalised neighbourhoods. By offering fiscal incentives and reducing labour costs, ZFU intended to encourage businesses to set up operations in zones, promoting local employment, and economic development.

Main policy components

The ZFU programme employed a mix of fiscal incentives and regulatory relief to attract businesses.

- *Payroll taxes exemptions:* Businesses were eligible for an exemption from payroll taxes if they employed at least 33 percent of their employees from within the ZFU area (the threshold

58 Information on the policy comes from the studies and a number of additional references including Decree No. 2006-930 of July 28, 2006 (In French) <https://www.legifrance.gouv.fr/loda/id/JORFTEXT0000000790611>; and Decree No. 96-1155 of December 26, 1996 (in French) <https://www.legifrance.gouv.fr/loda/id/JORFTEXT0000000747184>

59 ZUS areas comprise the 757 most deprived areas in France (including overseas Départments), ZRUs comprise the 436 most deprived ZUSs based on unemployment rates, skills profile, proportion of young people and potential tax revenues. ZFUs in turn comprise the 100 most deprived ZRUs with a population over 10,000 and are selected using the same criteria as the ZRUs. Tax cuts are in place in all three tiers of intervention, however ZFUs provide the most generous incentives. In rural areas, the French government implemented the designation of Zones de Revitalisation Rurale (ZRR), providing financial incentives to struggling rural communities based upon population density and socio-economic structural disadvantages.

was initially 20 percent but was later increased). The benefits of the ZFU programme were primarily targeted at businesses with between 4 and 49 employees and with an annual turnover of less than €10 million.

- *Social security contribution relief:* Employers received exemptions from employer-paid social security contributions for employees working in the ZFU, provided certain conditions were met. This relief applied to employees earning up to 1.4 times the minimum wage, significantly reducing labour costs and incentivising the hiring of local residents.
- *Tax exemptions:* Companies operating in ZFUs benefited from full exemption from corporate income tax for the first five years, followed by a partial exemption decreasing over the next nine years. Businesses were also exempt from local taxes including the business tax and property taxes for up to five years. Businesses could also benefit from exemptions on other taxes, including the apprenticeship tax and vocational training contributions, further reducing operational expenses.
- *Simplified administrative procedures:* The programme aimed to reduce bureaucratic hurdles by streamlining administrative processes for businesses establishing themselves in ZFUs.

Current incentives are different, focusing on corporate and income tax exemptions.

Eligibility

ZFUs were designated based on socio-economic indicators such as high unemployment rates, low economic activity, significant social challenges, and a high proportion of residents under 25 years old. The designated areas were characterised by economic deprivation, low educational attainment, and issues related to social cohesion. The focus was on areas where targeted fiscal incentives and support could effectively stimulate economic activity, attract businesses, create jobs, and improve the quality of life for residents in these disadvantaged urban communities.

Implementation

The programme was implemented in three rounds.

- *Round I (1997):* 44 ZFU were established in urban neighbourhoods across France facing severe economic and social difficulties. 416 other territories were labelled Zones de Redynamisation Urbaine (ZRU). ZFUs provided the most generous incentives.
- *Round II (2004):* 41 new ZFUs were established, all selected from the pool of the designated ZRUs.
- *Round III (2006):* Expanded the programme by 15 ZFU.

In 2007, 31 existing ZFU were expanded. ZFU were distributed throughout metropolitan areas and smaller cities, including parts of Paris, Marseille, Lyon, and Lille, as well as overseas departments like Guadeloupe and Réunion.

Regional Selective Assistance⁶⁰

Regional Selective Assistance (RSA) was a UK government grant scheme designed to stimulate economic development in disadvantaged regions by encouraging business investment and job creation. At the time of publication, only Scotland continued to use RSA.

⁶⁰ Information on the policy comes from the studies and a number of additional references including Criscuolo, C. and Martin, R. (undated). Longitudinal Micro Data Study of Regional Selective Assistance in Wales. <https://www.gov.wales/sites/default/files/statistics-and-research/2018-12/081106-analysis-regional-selective-assistance-scheme-stage-one-en.pdf>.

Aim

Reduce regional economic disparities by attracting new businesses and supporting the expansion of existing businesses in areas with high unemployment and economic challenges.

Main policy components

The main policy component of RSA was the provision of capital grants to businesses undertaking investment projects in designated 'Assisted Areas'. The assistance reduced the cost of capital investment for businesses, acting as an incentive to invest in supported areas.

Eligibility

The programme targeted specific regions classified as Assisted Areas under European Union state aid rules, which permitted higher levels of government support due to their economic needs. Eligibility was determined by factors such as the project location, the size of the business (with higher aid intensities for small and medium-sized enterprises), and the expected impact on employment. Grants were selective and based on project potential to create or safeguard jobs and contribute to regional development.

Implementation

RSA was first introduced in the 1970s. Grants were targeted at designated low per capita income 'Assisted Areas'. Projects had to meet multiple criteria – including being within designated areas, involve capital investment, lead to the creation or protection of jobs, have good prospects of viability, would not go ahead without the grant, and is not eligible for other support. It is a rolling programme (i.e. applications could be made at any time, with no rounds). Given the long-time period involved, the awarding organisations have varied but have included central government (predecessors to Department for Business and Trade), devolved administrations and their agencies (for example, Scottish Enterprise), and regional bodies (for example, Regional Development Agencies). RSA has supported hundreds of projects across the UK, particularly in Scotland, Wales, Northern Ireland, and the north of England.

Local Enterprise Growth Initiative⁶¹

The Local Enterprise Growth Initiative (LEGI) was a UK government programme launched in 2005 to stimulate economic development and entrepreneurship in the most deprived areas of England.

Aim

Reduce regional economic disparities by fostering an entrepreneurial culture, supporting small businesses, and creating sustainable employment opportunities within disadvantaged communities.

Main policy components

The main policy components involved providing targeted funding to local authorities to implement strategies that encouraged enterprise. This included offering business support services, start-up grants, affordable business premises, and skills development programmes. LEGI also emphasised promotion of entrepreneurship through education and community initiatives, aiming to build local capacity and encourage long-term economic regeneration.

Eligibility

Participation was determined through a competitive bidding process where local authorities applied for LEGI funding. The programme targeted the most deprived areas, characterised by high

61 Information on the policy comes from the studies and a number of additional references including Centre for Local Economic Strategies. (2011). "Bulletin No. 33 The Local Enterprise Growth Initiative (LEGI)". <https://cles.org.uk/wp-content/uploads/2011/01/No.-33-Local-Enterprise-Growth-Initiative.pdf>.

unemployment rates and limited economic opportunities.

Implementation

Initially, 10 areas were selected as pathfinders, with additional areas added later, bringing the total to 20.

References

- [1217] Bondonio, D. and Engberg, J. (2000). "Enterprise zones and local employment: evidence from the states' programs". *Regional Science and Urban Economics*, vol. 30(5), pp. 519-549.
- [1219] Bostic, R.W. and Prohofsky, A.C. (2006). "Enterprise Zones and individual welfare: A case study of California". *Journal of Regional Science*, vol. 46(2), pp. 175-203.
- [1220] Busso, M. and Kline, P. (2008). "Do local economic development programs work? Evidence from the federal Empowerment Zone program". Cowles Foundation Discussion Paper No. 1638, Yale Economics Department Working Paper No. 36
- [1225] Ham, C.H., Swenson, C., Imrohorglu, A. and Song, H. (2011). "Government programs can improve local labor markets: Evidence from state Enterprise Zones, federal Empowerment Zones and federal Enterprise Community". *Journal of Public Economics*, vol. 95(7-8), pp. 779-797.
- [1230] Krupka, D.J. and Noonan, D. S. (2009). "Neighborhood dynamics and the housing price effects of spatially targeted economic development policy". IZA Discussion Papers 4308, Institute of Labor Economics (IZA).
- [1232] Lynch, D. and Zax, J.S. (2011). "Incidence and substitution in Enterprise Zone programs: The case of Colorado". *Public Finance Review*, vol. 39(2), pp. 226-255.
- [1233] Mayer, T., Mayneris, F. and Py, L. (2017). "The impact of Urban Enterprise Zones on establishment location decisions and labor market outcomes: Evidence from France". *Journal of Economic Geography*, vol.17(4), pp. 709-752.
- [1234] Montgomery, N (2010). "The effect of Enterprise Community designation for rural areas". University of Michigan PhD Thesis.
- [1235] Neumark, D. and Kolko, J. (2010). "Do enterprise zones create jobs? Evidence from California's Enterprise Zone program". *Journal of Urban Economics*, vol. 68(1), pp. 1-19.
- [1236] Oakley, D. and Tsao, H.S. (2006). "A new way of revitalizing distressed urban communities? Assessing the impact of the federal Empowerment Zone program". *Journal of Urban Affairs*, vol. 28(5), pp. 443-471.
- [1238] Oakley, D. and Tsao, H. (2007). "Socioeconomic gains and spillover effects of geographically targeted initiatives to combat economic distress: An examination of Chicago's Empowerment Zone". *Cities*, vol. 24(1), pp. 43-59.
- [1245] Rich, M.J. and Stoker, R.P. (2010). "Rethinking empowerment: Evidence from local Empowerment Zone programs". *Urban Affairs Review*, vol. 45(6), pp. 775-796.
- [1251] Tong, P. and Zhou, L. (2014). "The impact of place-based employment tax credits on local labor: Evidence from tax data". Working Papers 2014-6, University of Alberta, Department of Economics.
- [1254] Accetturo, A. and De Blasio, G. (2012). "Policies for local development: An evaluation of Italy's "Patti Territoriali". *Regional Science and Urban Economics*, vol.42 (1-2), pp. 15-26.
- [1255] Billings, S. (2009). "Do Enterprise Zones work? An analysis at the borders". *Public Finance Review*, vol. 37(1), pp. 68-93.
- [1256] Boarnet, M.G. and Bogart, W.T. (1996). "Enterprise Zones and employment: Evidence from New Jersey". *Journal of Urban Economics*, vol. 40(2), pp. 198-215.
- [1257] Briant, A., Lafourcade, M. and Schmutz, B. (2015). "Can tax breaks beat geography? Lessons from the French Enterprise Zone experience". *American Economic Journal: Economic Policy*, vol. 7(2),

pp. 88–124.

[1258] Busso, M., Gregory, J. and Kline, P. (2013). “Assessing the incidence and efficiency of a prominent place based policy.” *American Economic Review*, vol. 103(2), pp. 897–947.

[1262] Givord, P., Quantin, S. and Trevien, C. (2018). “A long-term evaluation of the first generation of French urban enterprise zones”. *Journal of Urban Economics*, vol. 105(C), pp.149-161.

[1263] Givord, P., Rathelot, R. and Sillard, P. (2013). “Place-based tax exemptions and displacement effects: An evaluation of the Zones Franches Urbaines program”. *Regional Science and Urban Economics*, vol. 43(1), pp. 151-163.

[1264] Gobillon, L., Magnac, T. and Selod, H. (2012). “Do unemployed workers benefit from enterprise zones? The French experience”. *Journal of Public Economics*, vol. 96(9–10), pp. 881-892.

[1265] Greenbaum, R. T., and Engberg, J. B. (2004). “The Impact of State Enterprise Zones on urban manufacturing establishments”. *Journal of Policy Analysis and Management*, vol. 23(2), pp. 315–339.

[1267] Hanson, A. and Rohlin, S. (2011). “The effect of location-based tax incentives on establishment location and employment across industry sectors”. *Public Finance Review*, vol. 39(2), pp. 195-225.

[1285] Lockwood Reynolds, C., and Rohlin, S.M. (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*, vol. 88, pp. 1-15.

[1286] Freedman, M. (2015). “Place-based programs and the geographic dispersion of employment”. *Regional Science and Urban Economics*, vol. 53, pp. 1-19.

[1288] Bondonio, D. (2002). “Evaluating decentralized policies: A method to compare the performance of economic development programmes across different regions or states”. *Evaluation*, vol. 8(1), pp. 101-124.

[1289] Hanson, A. and Rohlin, S. (2013). “Do spatially targeted redevelopment programs spillover?”. *Regional Science and Urban Economics*, vol 43(1), pp. 86-100.

[1290] Hanson, A. (2009). “Local employment, poverty, and property value effects of geographically targeted tax incentives: An instrumental variables approach”. *Regional Science and Urban Economics*, vol. 39(6), pp. 721-731.

[1292] Ankarhem, M., Daunfeldt, S., Quoreshi, S. and Rudholm, N. (2010). “Do regional investment grants improve firm performance? Evidence from Sweden”. *Technology and Investment*, vol. 1, pp 221-227.

[1294] Bollinger, C.R. and Ihlanfeldt, K.R. (2003). “The intraurban spatial distribution of employment: which government interventions make a difference?”. *Journal of Urban Economics*, vol. 53(3), pp. 396-412.

[1298] Devereux, M.P., Griffith, R. and Simpson, H. (2007). “Firm location decisions, regional grants and agglomeration externalities”. *Journal of Public Economics*, vol. 91(3–4), pp. 413-435.

[1301] Harris, R. and Robinson, C. (2004). “Industrial policy in Great Britain and its effect on total factor productivity in manufacturing plants, 1990–1998”. *Scottish Journal of Political Economy*, vol. 51(4), pp. 528-543.

[1313] Behaghel, L., Lorenceau, A. and Quantin, S. (2015). “Replacing churches and mason lodges? Tax exemptions and rural development”. *Journal of Public Economics*, vol. 125, pp. 1-15.

[1314] Criscuolo, C., Martin, R., Overman, H.G, and Van Reenen, J. (2019). “Some causal effects of an industrial policy.” *American Economic Review*, vol. 109(1), pp. 48–85.

- [1317] Freedman, M. (2012). "Teaching new markets old tricks: The effects of subsidized investment on low-income neighborhoods". *Journal of Public Economics*, vol. 96(11–12), pp. 1000-1014.
- [EZ-1] Einiö, E. and Overman, H.G. (2020). "The effects of supporting local business: Evidence from the UK". *Regional Science and Urban Economics*, vol. 83 (C).
- [EZ-2] Morin, T. and Partridge, M. (2019). "The economic impact of small regional commissions: Evidence from the Delta Regional Authority", MPRA Paper, University Library of Munich, Germany.
- [EZ-3] El-Khattabi, A.R. and Lester, T. W. (2019). "Does tax increment financing pass the "but-for" test in Missouri?". *Economic Development Quarterly*, vol. 33(3), pp. 187-202.
- [EZ-4] Freedman, M., Khanna, S. and Neumark, D. (2021). "The impacts of Opportunity Zones on zone residents". Working Paper CES 20-12, U.S. Census Bureau, Center for Economic Studies.
- [EZ-5] Czurylo, T. (2023). "The effect of tax increment financing districts on job creation in Chicago". *Journal of Urban Economics*, vol. 134(C).
- [EZ-6] Zhang, S. (2015). "Impacts of Enterprise Zone policy on industry growth". *Economic Development Quarterly*, vol. 29(4), pp. 347-362.
- [EZ-7] Scavette, A. (2023). "The impact of New Jersey's Urban Enterprise Zones on local employment: A synthetic control approach". *Economic Development Quarterly*, vol. 37(2), pp. 127-142.
- [EZ-8] Atkins, R.M.B., Hernández-Lagos, P., Jara-Figueroa, C. and Seamans, R. (2023). "JUE Insight: What is the impact of Opportunity Zones on job postings?". *Journal of Urban Economics*, vol. 136(C).
- [EZ-9] Byrne, P.F. (2010). "Does tax increment financing deliver on its promise of jobs? The impact of tax increment financing on municipal employment growth". *Economic Development Quarterly*, vol. 24(1), pp. 13-22.
- [EZ-10] Luo, Y., Zhang, Z., Zheng, J. and Hite, D. (2021) "The neighborhood effects of a place-based policy. Causal evidence from Atlanta's Economic Development Priority Areas". *Sustainability*, vol. 13(12), pp. 1-16.
- [EZ-11] Yadavalli, A. and Landers, J. (2017). "Tax increment financing: A propensity score approach". *Economic Development Quarterly*, vol 31(4), pp. 312-325.
- [EZ-12] Dugiel, W., Golejewska, A., Skica, T., Zamojska, A. and Yaghi, A.Z-A. (2022). "Firm-level additionality effects of investments and employment tax credits in Polish Special Economic Zones". *Post-Communist Economies*, vol. 34(8), pp. 1137-1152.
- [EZ-13] Freedman, M. (2013). "Targeted business incentives and local labor markets". *Journal of Human Resources*, vol. 48(2), pp. 311-344.
- [EZ-14] Charnoz, P. (2018). "Do Enterprise Zones help residents? Evidence from France". *Annals of Economics and Statistics*, vol. 130, pp. 199-225.
- [EZ-15] Swenson, C. W. (2015). "The death of California Redevelopment Areas". *Economic Development Quarterly*, vol. 29(3), pp. 211-228.
- [EZ-16] Weber, R., Bhatta, S.D. and Merriman, D. (2003). "Does tax increment financing Raise Urban Industrial Property Values?" *Urban Studies*, vol. 40(10), pp. 2001-2021.
- [EZ-17] Funderburg, R. (2019). "Regional employment and housing impacts of tax increment financing districts". *Regional Studies*, vol. 53(6), pp. 874-886.
- [EZ-18] Corinth, K. and Feldman, N. (2022). "The impact of Opportunity Zones on commercial

investment and economic activity". IZA Discussion Papers No 15247, Institute of Labor Economics (IZA).

This work is published by the What Works Centre for Local Economic Growth, which is funded by a grant from the Economic and Social Research Council, the Department for Business and Trade, the Ministry of Housing, Communities and Local Government, and the Department for Transport. The support of the Funders is acknowledged. The views expressed are those of What Works Growth and do not represent the views of the Funders.

Every effort has been made to ensure the accuracy of the report, but no legal responsibility is accepted for any errors omissions or misleading statements.

The report includes reference to research and publications of third parties; What Works Growth is not responsible for, and cannot guarantee the accuracy of, those third party materials or any related material.

May 2025

What Works Centre for Local
Economic Growth

info@whatworksgrowth.org
@whatworksgrowth

www.whatworksgrowth.org

© What Works Centre for Local
Economic Growth 2025



HM Government



Economic
and Social
Research Council