

# Estimating the Economic Effects of Opportunity Zones in Georgia

June 2026



Researched and prepared by Keystone Strategy

## ABSTRACT

**The evidence reviewed in this report and the original empirical analysis of the Opportunity Zone program in Georgia demonstrate that the program has improved economic outcomes**, including household income, employment, and unemployment rates, and enterprise sales since its implementation in 2018.

**Economic theory suggests that place-based development policies are most effective when they provide stable, credible, and long-term incentives** that enable private investment, business formation, and labor market adjustments to accumulate and generate economic gains. Related empirical research on place-based policies suggests that gains may fail to persist, or may reverse, when policy support is withdrawn before local economic adjustments have fully taken hold. Consistent with this framework, research on prior large-scale place-based development policies, including Empowerment Zones and the Tennessee Valley Authority, finds that economic gains often emerge gradually over multiple decades.

Given that the OZ program has been in place for less than a decade, the research indicates that the potential of the policy to generate positive economic impacts has not been fully realized and would benefit from decision making which stabilizes the policy over a longer period.

**Redesignating eligible tracts is likely to generate greater long-run benefits than shifting designation to previously non-designated tracts.**

## EXECUTIVE SUMMARY

The Tax Cuts and Jobs Act (TCJA) of 2017 established the Opportunity Zone (OZ 1.0) program, a place-based economic policy designed to encourage long-term private investment in economically distressed communities through preferential capital gains tax treatment. The One Big Beautiful Bill Act (OBBBA) revised the program (OZ 2.0), taking effect in 2027.

OZ 2.0 makes the program permanent and replaces the original one-time designation with rolling 10-year designation cycles. Nominations for the first OZ 2.0 designation cycle are due in August 2026.

Ahead of the OZ 2.0 designation cycle, this report examines how OZ 1.0 has influenced economic activity in Georgia and evaluates the implications of those findings for tract designation decisions under OZ 2.0, including the redesignation of existing Opportunity Zones. Specifically, this report:

- (1) Reviews the academic literature assessing the effects of prior place-based policies in the U.S. and
- (2) Reviews existing research evaluating the economic impact of OZ 1.0.
- (3) Presents original empirical analysis of the economic effects of Opportunity Zone designation on income, employment, and business activity in Georgia.

### **Our review of the economic literature yields three key findings:**

**First, an established body of academic literature finds that stable, credible, and long-term policy frameworks generally produce stronger economic outcomes than discretionary or frequently changing policies.** Consistent with this view, Kydland and Prescott (1977) emphasize the importance of credible policy commitments for long-term investment, while Baker, Bloom, and Davis (2016) find that policy uncertainty reduces investment, hiring, and capital formation. Related research, including Becker et al. (2018), finds that gains from place-based policies may diminish and be undone when policy support is withdrawn before local economic adjustments have become self-sustaining. In other words, investment decisions are long-term and depend not only on current incentives, but also on investors' confidence that those incentives will remain in place over time.

**Second, consistent with the economic theory, the literature on prior large-scale, place-based economic development policies demonstrates that economic gains emerge over long periods of time and that policy persistence supports these gains.**

- **Federal Empowerment Zones (EZs)**, a place-based policy enacted in 1993, provided wage tax credits, block grants, and business incentives to economically distressed urban and rural communities. Busso, Gregory, and Kline (2013) found that the employment and wage gains associated with Empowerment Zones emerged gradually rather than immediately following designation, suggesting that firms and local economies required time to respond to the program's incentives.

- **Tennessee Valley Authority (TVA)**, a New Deal-era regional development program, was created in 1933. Kline and Moretti (2014) studied the impact of the TVA through 2000 and found that although the program’s federal subsidies ended by 1960, manufacturing employment gains persisted for at least the next 40 years after the policy ended. This program suggests that economic transformation often unfolds over decades rather than a few years and that the full effects of place-based policies may not be visible within short evaluation windows.

**Third, consistent with the experience of earlier place-based development policies, the academic literature examining OZ 1.0 found that longer time horizons were necessary to achieve gains in residential development and employment.**

- **Studies examining OZ 1.0 over a period of four years or more identified increases in residential development and employment consistent with the expectation that longer investment horizons are necessary to realize the full potential of the program.** For example, Wheeler (2022) used development project data covering large U.S. cities from 2014 through 2022, finding that Opportunity Zones were significantly more likely to experience new residential and commercial development projects than non-Opportunity Zones. Similarly, Corinth and Feldman (2024) reviewed development data through 2022 and found meaningful increases in multifamily housing investment in Opportunity Zones later in the period. Glasner, Ozimek, and Lettieri (2026) identified that Opportunity Zone tracts had 416,000 additional residential addresses nationwide by early 2025. Arefeva et al. (2024) studied employment data through 2021 and found that Opportunity Zones in metropolitan areas increased employment growth within the first two years of the policy by 3 to 4.5 percentage points relative to comparable tracts, and these gains persisted into 2021. Freedman, Koucheinia, and Neumark (2026) found that increased employment in designated communities came from commuters traveling into the tracts as well as new residents moving into the tracts after investment occurred.
- Studies which covered only the first 1-3 years of OZ 1.0 found limited economic gains, consistent with the broader literature indicating that economic gains from place-based policies often emerge gradually over time. For example, Chen, Glaeser, and Wessel (2023) studied the impact of OZ 1.0 on house prices by end of 2018, just one year after OZ 1.0 was launched, and found no meaningful difference in house prices in Opportunity Zones compared to eligible but not designated tracts. Atkins et al. (2023) analyzed employer hiring activity using online job postings data from January 2016 to March 2020, and similarly found limited effects of OZ designation on labor demand.

**Original empirical analysis of OZ 1.0 in Georgia yields the following findings:**

Consistent with the broader literature, the original empirical analysis in this report finds evidence of economic gains in Opportunity Zones relative to comparable eligible but not designated and ineligible tracts.

**Business activity, as measured by enterprise sales, increased more rapidly in Opportunity Zones.** Enterprise sales, as recorded in the proprietary Data Axle database,

reflect revenues generated by business establishments within a tract and provide a useful indicator of local economic activity.

- Opportunity Zones consistently generated stronger enterprise sales growth at an average annual rate of 1.50 percent between 2017 and 2024 compared to eligible but not designated tracts at 0.56 percent and ineligible tracts at 1.30 percent in the same period.
- Opportunity Zones generated approximately \$11.5 billion in additional enterprise sales between 2017 and 2024. On a per-tract basis, Opportunity Zones generated approximately \$56 million in additional enterprise sales, compared with \$15 million in eligible but not designated tracts—nearly 3.5 times greater growth in enterprise sales per tract.
- Enterprise sales gains observed under OZ 1.0 likely understate the potential long-run benefits that could be realized if eligible Opportunity Zones in Georgia were redesignated under OZ 2.0.

**Opportunity Zones experienced substantially faster household income growth following designation.** For three years prior to OZ 1.0 implementation, future Opportunity Zones exhibited household income growth patterns that were broadly similar to other eligible tracts. Following designation, Opportunity Zone tracts became the strongest-performing group and sustained their advantage through 2024, the most recent period analyzed.

- The strongest and most persistent income gains were observed in urban communities within Georgia, as measured by ACS. For instance, real median household income in urban Opportunity Zones increased from \$26,858 in 2017 to \$33,570 by 2024, representing a gain of \$6,712 in annual household income (25.0 percent increase), while real median household income across all urban zones in Georgia increased by about 12.7 percent.
- Redesignating eligible tracts under OZ 2.0 would allow communities that have already demonstrated strong income growth to continue receiving the policy incentives associated with these outcomes.
- Illustratively, if the household income growth differential observed between urban Opportunity Zones and comparable eligible tracts were to persist over the next decade, with no additional gains from policy persistence or increased investment, real household income would be approximately \$5,300 higher after ten years than it would be absent redesignation.

**Opportunity Zones experienced the largest decline in unemployment rates.** Prior to OZ 1.0 designation, future Opportunity Zones had the highest unemployment rates and some of the weakest employment growth of any tract category. Following designation, Opportunity Zones experienced the largest decline in unemployment through 2024. Significant additional employment growth may be realized within zones through consistent application of the policy.

This pattern is consistent with an early stage of economic development in which income and business activity expand before substantial labor force growth occurs.

- The unemployment rate of tract residents, as measured by ACS, in Opportunity Zone tracts fell from 12.10 percent in 2017 to 7.67 percent in 2024 (4.43 percentage point decline), compared with a decline from 8.93 percent to 5.90 percent in eligible but not designated tracts (3.03 percentage point decline) and from 5.85 percent to 4.32 percent in ineligible tracts (1.53 percentage point decline). This result reflects the fact that employment growth substantially exceeded labor force growth within Opportunity Zone tracts.
- While statewide employment growth in Opportunity Zones was mixed, a comparison restricted to tracts with similar pre-designation income and labor force characteristics found that employment growth between 2017 and 2024 was slightly higher in Opportunity Zones (9.9 percent growth in employment) than in comparable eligible but non-designated tracts (9.4 percent growth in employment).
- Economic activity often requires additional housing, retail services, and complementary development before local labor force growth can catch up to increased business activity and investment. Under this interpretation, the observed employment likely reflects an early stage in which business activity has expanded more rapidly than the local resident workforce. If so, the labor-market effects of Opportunity Zone investment may not yet be fully reflected in the available data, suggesting that continued policy stability through redesignation of eligible Opportunity Zone tracts could allow these adjustments to unfold over a longer horizon.

**Table of Contents**

- I. Background on Opportunity Zones..... 1**
- II. Academic literature on place-based policies in the U.S. indicates that real economic impact requires sustained policy exposure .....3**
- III. Empirical evidence from Georgia Opportunity Zones 1.0 tracts is consistent with higher income, employment, and sales growth relative to comparable tracts ..... 11**
- Appendix.....26**

## I. BACKGROUND ON OPPORTUNITY ZONES

Place-based economic development policies have been a feature of U.S. economic policy for decades, reflecting efforts to address persistent disparities in economic performance across regions and communities.<sup>1</sup> Beginning with initiatives such as the Appalachian Regional Commission in the 1960s and expanding through programs including Enterprise Zones, Empowerment Zones, New Markets Tax Credits, and Opportunity Zones, policymakers have sought to stimulate investment, job creation, and economic growth in areas experiencing chronic economic distress. While these programs have differed in design and objectives, they share a common premise: that targeted incentives may over time influence the geographic distribution of private investment and economic activity, thereby supporting development in regions experiencing persistent economic distress.

### A. Opportunity Zones 1.0

Opportunity Zones were introduced as part of the Tax Cuts and Jobs Act of 2017 targeting eligible census tracts identified primarily from 2011–2015 American Community Survey (ACS) data and 2010 census tract boundaries.<sup>2</sup> State governors nominated tracts, and the Treasury Department certified the final designations. Eligible tracts were generally low-income communities that either had poverty rates above 20 percent or median family incomes below 80 percent of surrounding metropolitan or statewide median income levels; a limited number of adjacent non-low-income tracts could also qualify.<sup>3</sup> Governors could generally nominate no more than 25 percent of eligible low-income tracts in their state.<sup>4</sup>

Under OZ 1.0, investors could defer realized capital gains by reinvesting those gains into Qualified Opportunity Funds (QOFs), and deferred gains became taxable on the earlier of sale of the QOF investment or on December 31, 2026.<sup>5</sup> Investors who held QOF investments for at least five or seven years before that recognition date could reduce taxable deferred gains

---

<sup>1</sup> David Neumark and Helen Simpson, *Place-Based Policies*, NBER Working Paper 20049 (Apr. 2014), [https://www.nber.org/system/files/working\\_papers/w20049/w20049.pdf](https://www.nber.org/system/files/working_papers/w20049/w20049.pdf).

<sup>2</sup> Use of the Opportunity Zone Tax Incentive: What the Data Tells Us, Office of Tax Analysis Working Paper 123 (Jun. 2023), <https://home.treasury.gov/system/files/131/WP-123.pdf>.

<sup>3</sup> Public Law 115–97, Congress.gov (De. 22, 2017), <https://www.congress.gov/115/plaws/publ97/PLAW-115publ97.pdf> (“The term ‘low-income community’ has the same meaning as when used in section 45D(e).”); 26 USC 45D: New markets tax credit, United States House of Representatives (Jan. 2, 2001) <https://uscode.house.gov/view.xhtml?req=granuleid:USC-2000-title26-section45D&num=0&edition=2000> (“The term “low-income community” means any population census tract if- (A) the poverty rate for such tract is at least 20 percent, or (B)(i) in the case of a tract not located within a metropolitan area, the median family income for such tract does not exceed 80 percent of statewide median family income, or (ii) in the case of a tract located within a metropolitan area, the median family income for such tract does not exceed 80 percent of the greater of statewide median family income or the metropolitan area median family income.”).

<sup>4</sup> H.R.1 - An act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018, Congress.gov (Dec. 22, 2017), p. 131, <https://www.congress.gov/bill/115th-congress/house-bill/1/text>.

<sup>5</sup> Department of the Treasury Internal Revenue Service 26 CFR Part 1 Investing in Qualified Opportunity Funds, Federal Register (Jan. 13, 2020), p. 1942, <https://www.govinfo.gov/content/pkg/FR-2020-01-13/pdf/2019-27846.pdf>.

through 10 percent or 15 percent basis increases, respectively.<sup>6</sup> Because all deferred gains had to be recognized by December 31, 2026, late investors could no longer fully utilize these step-up provisions. Separately, investors who held QOF investments for at least 10 years could exclude capital gains arising from appreciation of the QOF investment itself, and this 10-year appreciation benefit was not constrained by the December 31, 2026, recognition deadline.

## **B. Opportunity Zones 2.0**

OZ 2.0, enacted through the One Big Beautiful Bill Act, makes the Opportunity Zone program permanent and introduces rolling 10-year designation cycles beginning in 2027.<sup>7</sup> The revised program tightens eligibility standards by requiring Opportunity Zone tracts to be poorer than under OZ 1.0; qualifying tracts must generally have median family incomes below 70 percent of surrounding metropolitan or statewide median income levels, compared to the earlier 80 percent threshold.<sup>8</sup> OZ 2.0 also places greater emphasis on rural investment. Governors may still nominate no more than 25 percent of eligible tracts as Opportunity Zones.<sup>9</sup> Under OZ 2.0, the earlier two-tier 5-year and 7-year basis step-up structure is replaced with a rolling 5-year system.<sup>10</sup> OZ 2.0 provides an additional incentive to investors in rural areas, as investors in standard QOFs receive a 10 percent basis increase after five years, while investors in Qualified Rural Opportunity Funds (QROFs) receive a 30 percent basis increase after five years.<sup>11</sup> Unlike OZ 1.0, these benefits are no longer constrained by a fixed December 31, 2026 deadline.<sup>12</sup> As under OZ 1.0, investors who hold QOF or QROF investments for at least 10 years can exclude capital gains arising from appreciation of the investment itself, while investors exiting before 10 years remain subject to normal capital gains taxation on that appreciation. However, OZ 2.0

---

<sup>6</sup> Department of the Treasury Internal Revenue Service 26 CFR Part 1 Investing in Qualified Opportunity Funds, Federal Register (Jan. 13, 2020), p. 1942, <https://www.govinfo.gov/content/pkg/FR-2020-01-13/pdf/2019-27846.pdf>.

<sup>7</sup> Opportunity Zones Updates, U.S. Department of Housing and Urban Development, <https://www.hud.gov/opportunity-zones/updates> (“Starts January 1, 2027; Permanent with 10 Year Cycles”)

<sup>8</sup> Opportunity Zones Updates, U.S. Department of Housing and Urban Development, <https://www.hud.gov/opportunity-zones/updates> (“Tightened: Must meet either: (i) median family income ≤ 70% of area MFI, or (ii) poverty rate ≥ 20% and MFI ≤ 125% of area median.”)

<sup>9</sup> Opportunity Zones Updates, U.S. Department of Housing and Urban Development, <https://www.hud.gov/opportunity-zones/updates> (“Governors could nominate up to 25% of eligible LIC tracts”).

<sup>10</sup> Opportunity Zones Updates, U.S. Department of Housing and Urban Development, <https://www.hud.gov/opportunity-zones/updates> (“10% (Holding Period: At 5 Years); 30% for QROF Investments in Rural Areas (Holding Period: At 5 Years)”).

<sup>11</sup> Opportunity Zones Updates, U.S. Department of Housing and Urban Development, <https://www.hud.gov/opportunity-zones/updates> (“10% (Holding Period: At 5 Years); 30% for QROF Investments in Rural Areas (Holding Period: At 5 Years)”).

<sup>12</sup> Opportunity Zones Updates, U.S. Department of Housing and Urban Development, <https://www.hud.gov/opportunity-zones/updates> (“Gain Deferred Until 12/31/26 (Fixed Date) 5-Year Rolling Deferral”).

revises this preferential treatment on a rolling, 30-year period, meaning appreciation accruing beyond the 30th year of holding could become taxable.<sup>13</sup>

## **II. ACADEMIC LITERATURE ON PLACE-BASED POLICIES IN THE U.S. INDICATES THAT REAL ECONOMIC IMPACT REQUIRES SUSTAINED POLICY EXPOSURE**

### **A. Economic theory supports the importance of policy continuity**

A consistent theme in economic and public policy research is that policy stability is a necessary condition for long-term policy effectiveness. This conclusion appears repeatedly across multiple strands of literature spanning several decades, including macroeconomics, public policy, institutional design, and investment under uncertainty. The implication is particularly important for place-based development policies such as Opportunity Zones, where the intended effects depend on long-horizon investment decisions, gradual capital accumulation, and expectations about future policy treatment. The emerging empirical evidence on Opportunity Zones, as described below, is broadly consistent with this logic: many investments associated with redevelopment, infrastructure, housing, and business formation require long planning horizons before measurable local economic effects emerge. Similar dynamics have also been observed in earlier place-based development efforts, including Empowerment Zones and the Tennessee Valley Authority (TVA), where economic transformation unfolded over extended periods rather than immediately after policy adoption.

Kydland and Prescott (1977), who later received the 2004 Nobel Prize in Economics in part for this work, developed one of the foundational theoretical arguments for policy stability in modern economics.<sup>14</sup> Studying macroeconomic policy, they showed that discretionary policies that change frequently over time can generate inefficient outcomes even when policymakers act optimally in each individual period. The key insight is that economic agents form expectations about future policy and adjust their current behavior accordingly. As the authors explain, economic planning is not simply a “game against nature” but a dynamic interaction with rational forward-looking agents.<sup>15</sup> If firms or investors believe that a policy may later be reversed, weakened, or allowed to expire, they may delay or avoid investments whose returns depend on long-term policy continuity. Kydland and Prescott therefore argued that credible, rule-based, and stable policy frameworks outperform discretionary or constantly changing policy approaches because stability allows economic actors to make long-term plans with greater confidence. Their

---

<sup>13</sup> Opportunity Zones Updates, U.S. Department of Housing and Urban Development, <https://www.hud.gov/opportunity-zones/updates> (“Gain Elimination Period... Rolling 30-Years”).

<sup>14</sup> Finn E. Kydland and Edward C. Prescott, *Rules Rather than Discretion: The Inconsistency of Optimal Plans*, Vol. 85 *Journal of Political Economy* 473 (Jun. 1977), <https://www.jstor.org/stable/1830193>.

<sup>15</sup> Finn E. Kydland and Edward C. Prescott, *Rules Rather than Discretion: The Inconsistency of Optimal Plans*, Vol. 85 *Journal of Political Economy* 473 (Jun. 1977), <https://www.jstor.org/stable/1830193> (“economic planning is not a game against nature but, rather, a game against rational economic agent”).

framework has since become one of the central theoretical foundations for understanding why credible policy commitment matters for investment behavior.

Baker, Bloom, and Davis (2016) extended this logic empirically through their analysis of economic policy uncertainty.<sup>16</sup> The authors developed a widely used Economic Policy Uncertainty (EPU) index based on newspaper coverage, expiring tax provisions, and disagreement among professional forecasters.<sup>17</sup> Their central finding is that increases in policy uncertainty are associated with significant declines in investment, hiring, output, and employment. The paper emphasizes that firms often postpone or scale back investment activity when future policy treatment becomes uncertain, especially when investments are costly to reverse or require long planning horizons. The authors specifically identify temporary and expiring tax provisions as an important source of uncertainty because businesses do not know whether future benefits will remain available long enough to justify large investments. Their evidence suggests that uncertainty itself can materially weaken economic activity even before any formal policy expiration occurs.

Capano and Woo (2017) examined resilience and robustness in public policy design across a broad range of institutional and policy settings.<sup>18</sup> Their analysis argues that effective policy systems require robustness over time. The authors distinguish between policies that merely react to shocks and policies that are designed to remain functional and credible over long horizons. In their framework, frequent policy redesign or instability weakens policy coherence and reduces effectiveness because actors cannot form reliable expectations about future institutional arrangements. Stable policy environments instead allow organizations, investors, and communities to adapt gradually, learn over time, and commit resources more confidently.

Related empirical work on place-based policy suggests that gains can be fragile when support is withdrawn before local adjustment becomes self-sustaining. Barone et al. (2016) show that after Italy's Abruzzi region exited the EU Objective 1 program<sup>19</sup> without a transitional regime, regional per-capita GDP growth fell relative to the counterfactual, implying that earlier gains did not persist on their own once support ended.<sup>20</sup> Becker et al. (2018), using evidence across four EU programming periods, similarly find that the growth effects of Objective 1 status are positive but not especially durable, and that losing eligibility has negative effects that largely undo earlier gains.<sup>21</sup> In a different but closely related place-based setting, Ku et al. (2019) find that

---

<sup>16</sup> Scott R. Baker, Nicholas Bloom, and Steven J. Davis, *Measuring Economic Policy Uncertainty* (Mar. 2016), [https://www.policyuncertainty.com/media/EPU\\_BBD\\_Mar2016.pdf](https://www.policyuncertainty.com/media/EPU_BBD_Mar2016.pdf).

<sup>17</sup> Economic Policy Uncertainty Index, Economic Policy Uncertainty, <https://www.policyuncertainty.com/>.

<sup>18</sup> Giliberto Capano and Jun Jie Woo, *Resilience and robustness in policy design: a critical appraisal*, Vol. 50 Springer Society of Policy Sciences 399 (2016), 10.1007/s11077-016-9273-x.

<sup>19</sup> The Objective 1 program (renamed the Convergence Objective for 2007–2013) is an EU regional policy that targets public infrastructure and development transfers to lagging mid-sized administrative regions whose GDP per capita falls below 75% of the EU average.

<sup>20</sup> Barone, Guglielmo, Francesco David, and Guido De Blasio, *Boulevard of broken dreams. The end of EU funding (1997: Abruzzi, Italy)*. *Regional Science and Urban Economics* 60 (2016): 31-38.

<sup>21</sup> Becker, Sascha O., Peter H. Egger, and Maximilian Von Ehrlich, *Effects of EU regional policy: 1989-2013*. *Regional science and urban economics* 69 (2018): 143-152.

abolishing Norway's geographically differentiated payroll-tax incentives reduced employment in the more exposed local labor markets, again indicating that place-targeted gains can weaken when policy support is removed after a short or medium period of time.<sup>22</sup> By contrast, longer-lived interventions can in some cases generate more self-sustaining effects: Kline and Moretti (2014) find that manufacturing gains due to Tennessee Valley Authority Act continued to intensify after federal transfers lapsed; that evidence is discussed further in Section II.B.2.<sup>23</sup>

Taken together, these studies suggest a strong theoretical and empirical case for redesignating Opportunity Zone tracts when possible so that the intended development process has sufficient time and certainty to take hold. Stable and credible continuation of the policy can signal to investors that long-horizon projects will continue to receive favorable treatment, reducing uncertainty and strengthening incentives to invest. This can affect investment along both the intensive and extensive margins. Investors already operating in Opportunity Zones may expand or deepen existing projects if they expect policy continuity, while investors who would otherwise avoid entering due to concerns about future policy expiration may become more willing to commit capital under a stable and credible long-term framework. In this sense, redesignation may matter not only because it extends tax benefits mechanically, but because it reinforces the credibility and durability of the policy itself.

## **B. Observations from prior place-based policies support the importance of assessing long-run effectiveness**

Earlier large-scale, place-based policies provide insight into how the long-run effects of these policies evolve over time.

### 1) Empowerment Zones

One important predecessor to Opportunity Zones was the federal Empowerment Zone (EZ) program created in 1993.<sup>24</sup> The program targeted some of the most economically distressed urban and rural communities in the United States and offered a combination of wage tax credits, capital incentives, and federal block grants intended to attract business investment and stimulate local economic activity. Six major urban areas initially received designation, including Atlanta, Baltimore, Chicago, Detroit, New York City, and Philadelphia/Camden. Although the program was later expanded and repeatedly extended, the original federal Empowerment Zone

---

<sup>22</sup> Ku, Hyejin, Uta Schönberg, and Ragnhild C. Schreiner, *Do place-based tax incentives create jobs?* Journal of Public Economics 191 (2020): 104105.

<sup>23</sup> Patrick Kline and Enrico Moretti, *Local Economic Development, Agglomeration Economies, and the Big Push: 100 Years of Evidence from the Tennessee Valley Authority*, NBER Working Paper 19293 (rev. Jun. 2014), <https://www.nber.org/papers/w19293>.

<sup>24</sup> *Empowerment Zones and Enterprise Communities*, U.S. Department of Housing and Urban Development (Jul. 29, 2025), [https://hudgis-hud.opendata.arcgis.com/datasets/1101a6c1e2364302b70485ca99fc7e69\\_3/about](https://hudgis-hud.opendata.arcgis.com/datasets/1101a6c1e2364302b70485ca99fc7e69_3/about).

designations formally expired in 2025.<sup>25</sup> Literature on Empowerment Zones informs how place-based policies evolve over time.

Ham et al. (2011) examined the effects of state Enterprise Zones, federal Empowerment Zones, and federal Enterprise Communities on local labor market conditions.<sup>26</sup> Using census tract-level data and a flexible matching framework, the authors found that all three programs generated statistically significant improvements in employment-related outcomes, including lower unemployment and poverty rates, higher employment levels, and increased wage and salary income. The estimated effects were strongest for the federal Empowerment Zone program, even though the study only observed the first seven years of the program. Their results suggest that larger and more comprehensive place-based interventions may produce more meaningful local labor market improvements than smaller state-level programs. The study also found some evidence of positive spillovers into nearby areas rather than simply shifting jobs from one neighborhood to another.

Busso, Gregory, and Kline (2013) compared designated EZ neighborhoods to rejected and future applicants and found that Empowerment Zones increased local employment by roughly 12 to 21 percent and raised wages for local workers by approximately 8 to 13 percent.<sup>27</sup> Importantly, the authors found little evidence of corresponding increases in population or rental costs during the study, suggesting that the benefits were not immediately offset through higher local living costs. At the same time, the paper emphasized that many of the economic responses emerged gradually over several years rather than immediately after policy implementation. The authors noted that firm participation in the program increased only slowly over time and that some employment and business outcomes took many years to fully materialize. This timing dynamic is especially relevant for interpreting the still-evolving evidence on Opportunity Zones.

## 2) Tennessee Valley Authority Act

The Tennessee Valley Authority (TVA) was one of the most ambitious place-based development programs in U.S. history. Created in 1933 as part of the New Deal, the TVA invested heavily in dams, electrification, transportation infrastructure, flood control, and regional modernization across the Tennessee Valley.<sup>28</sup> The program targeted an economically lagging region with the explicit goal of catalyzing long-run industrialization and structural transformation.

---

<sup>25</sup> Instructions for Form 8844 (Rev. December 2021), Department of the Treasury Internal Revenue Service (Mar. 2020), <https://www.irs.gov/pub/irs-pdf/i8844.pdf>.

<sup>26</sup> John C. Ham et al., Government programs can improve local labor markets: Evidence from State Enterprise Zones, Federal Empowerment Zones and Federal Enterprise Community, Vol. 95 *Journal of Public Economics* 779 (2011), 10.1016/j.jpubeco.2010.11.027.

<sup>27</sup> Matias Busso, Jesse Gregory, and Patrick Kline, *Assessing the Incidence and Efficiency of a Prominent Place Based Policy*, Vol. 103 *American Economic Review* 897 (2013), 10.1257/aer.103.2.897.

<sup>28</sup> Our History, Tennessee Valley Authority, <https://www.tva.com/about-tva/our-history>.

Kline and Moretti (2014) studied the long-run effects of the TVA and provided one of the most widely cited analyses in the literature on place-based policy effectiveness.<sup>29</sup> Using proposed but ultimately unimplemented regional authorities as comparison regions, they found that the TVA generated large increases in manufacturing employment and income that persisted decades after direct federal transfers had largely ended, suggesting that sufficiently long-lived place-based policies can generate durable economic transformation. By contrast, gains in agricultural employment faded once subsidies declined.

A central contribution of the paper is its emphasis on persistence and duration. The authors distinguish between short-run effects observed within roughly a decade of peak federal investment and long-run effects measured nearly fifty years after the program became financially self-sustaining. The paper argued that durable structural transformation required sustained exposure to the policy. Other literature studying place-based policy impact often emphasizes the importance of persistence, stability, and cumulative investment for successful regional development, but many studies lack evidence on long-run outcomes. Kline and Moretti contribute precisely on this dimension by tracing the effects of the TVA over multiple decades and documenting that the policy's most important impacts emerged gradually and persisted long after the initial intervention period.

#### **A. Opportunity Zone evidence demonstrates the importance of longer evaluation horizons**

Studies on Opportunity Zones 1.0 reflect early-stage outcomes from the policy. Capital flows and development activity are meaningfully impacted starting in year 4 of the available data and the positive impacts grow through year 7. Employment data shows positive growth during this period, but should be expected to more meaningfully respond to the policy in later years as the impacts of enhanced capital flows and development exert their influence on the local labor market.

##### 1) OZ 1.0 tracts began showing gains in employment and development activity at year 4 of the policy

Emerging evidence on OZ 1.0 within the first four to seven years of implementation has focused on job growth within Opportunity Zones and the flow of investment capital into Opportunity Zone tracts. Multiple studies now find evidence of job growth within Opportunity Zones, especially in metropolitan areas and development-related sectors such as construction. Additionally, as more years of post-designation data became available, researchers have increasingly examined whether Opportunity Zones generated new development activity, the kinds of projects that have been financed, and whether investment has concentrated in the most distressed communities or in relatively stronger neighborhoods already positioned for growth. Several studies have found

---

<sup>29</sup> Patrick Kline and Enrico Moretti, Local Economic Development, Agglomeration Economies, and the Big Push: 100 Years of Evidence from the Tennessee Valley Authority, NBER Working Paper 19293 (rev. Jun. 2014), <https://www.nber.org/papers/w19293>.

meaningful increases in residential development and housing construction, particularly in multifamily housing.

Arefeva et al. (2024) provides some of the strongest early evidence that Opportunity Zones generated measurable employment gains.<sup>30</sup> Using establishment-level data from the Your-economy Time Series (YTS) database, they examined employment and establishment growth from 2015 through 2021. They found that, in metropolitan areas, Opportunity Zone designation increased employment growth by roughly 3 to 4.5 percentage points during the program's first two years, with those gains persisting through 2021 rather than fading after the initial post-designation period. The strongest effects occurred in construction, though positive effects also appeared in trade, services, and finance-related industries. The study also found little evidence that Opportunity Zones simply shifted jobs away from nearby areas; instead, adjacent tracts often experienced positive spillover effects as well.

Freedman, Koucheinia, and Neumark (2026) similarly found evidence that Opportunity Zones increased employment within designated areas over a longer time horizon, using LEHD Origin-Destination Employment Statistics (LODES) data through approximately 2022.<sup>31</sup> Consistent with earlier work by Freedman, Khanna, and Neumark (2023), they state that many of the new jobs were likely held either by commuters from outside the tract or by new residents moving into the area after investment occurred.<sup>32</sup> In contrast to Arefeva et al. (2024), this paper identifies evidence of some spatial reallocation, suggesting that a portion of the observed employment growth may have reflected economic activity shifting across neighboring communities. However, the study still found overall employment gains within Opportunity Zones, indicating that any reallocation effects were not large enough to fully account for the observed increase in economic activity.

Using development project data covering large U.S. cities from roughly 2014 through 2022, Wheeler (2022) examined whether OZ designation increased the likelihood of new construction activity.<sup>33</sup> The study found that Opportunity Zone tracts became significantly more likely to experience new residential development projects after implementation of the policy, with smaller positive effects observed for commercial development. Importantly, the study suggested that Opportunity Zones did not simply raise property prices without increasing supply; rather, the policy appeared to stimulate actual physical development activity, especially in housing markets capable of expanding construction.

Corinth and Feldman (2024) argued that the structure of the Opportunity Zone incentive naturally favored investments with relatively predictable long-run returns, especially residential

---

<sup>30</sup> Alina Arefeva et al., The Effect of Capital Gains Taxes on Business Creation and Employment: The Case of Opportunity Zones, Vol. 71 Management Science (Jun. 2025), 10.1287/mnsc.2022.03223.

<sup>31</sup> Matthew Freedman, Noah Arman Koucheinia, and David Neumark, *Understanding the Employment Effects of Opportunity Zones*, NBER Working Paper 34589 (rev. Jan. 2026), 10.3386/w34589.

<sup>32</sup> Matthew Freedman, Shantanu Khanna, and David Neumark, *JUE Insight: The Impacts of Opportunity Zones on Zone Residents*, NBER Working Paper No. 28573 (rev. Nov. 2021), 10.3386/w28573.

<sup>33</sup> Harrison Wheeler, *Locally Optimal Place-based Policies: Evidence from Opportunity Zones*, Job Market Paper, (Nov. 2022), [https://hbwheeler.github.io/files/JMP\\_HW.pdf](https://hbwheeler.github.io/files/JMP_HW.pdf).

real estate.<sup>34</sup> Using commercial real estate transaction data and regression discontinuity methods, the authors reported meaningful increases in multifamily housing investment in Opportunity Zones, in later years of the program. By contrast, they found little evidence that Opportunity Zone designation increased commercial real estate investment more broadly.

More recent evidence suggests that these residential development effects may have become economically substantial over time. Glasner, Ozimek, and Lettieri (2026) examined quarterly housing supply data from 2015 through the first quarter of 2025 using U.S. Department of Housing and Urban Development (HUD) and USPS address records.<sup>35</sup> Their study estimated that Opportunity Zone designation led to an estimated 416,000 additional residential addresses nationwide by early 2025, implying a large increase in net housing supply attributable to the policy. The authors argued that the results reflected genuine new construction rather than merely shifting development activity from nearby neighborhoods into Opportunity Zones. They also emphasized that effects grew gradually over time, becoming much larger several years after implementation as projects moved through financing, permitting, and construction stages. The strongest gains appeared in urban areas and multifamily housing markets, reinforcing the broader conclusion emerging in OZ 1.0 literature that Opportunity Zones have been successful at stimulating residential real estate development and that broader labor market transformation will require more time.

2) Early evidence evaluating periods prior to the fourth year of OZ 1.0 implementation found limited short run effects

Studies that examined Opportunity Zones 1.0 in the first one to three years of the program's implementation generally found limited short-run effects on local economic conditions. Across studies examining housing markets, resident outcomes, and employer hiring activity, researchers have found limited evidence of the policy producing broad-based neighborhood transformation. At the same time, many authors emphasized that longer-run effects could emerge later.

Chen, Glaeser, and Wessel (2023) studied whether Opportunity Zone designation increased residential housing prices by end of 2018, only one year into OZ 1.0, reasoning that if investors and households expected substantial neighborhood revitalization, those expectations should be reflected in higher property values.<sup>36</sup> Comparing OZ tracts to similar eligible but not designated tracts, they found no meaningful difference in housing prices. The authors argued that this lack of price appreciation suggested that buyers did not anticipate OZs to dramatically alter neighborhood economic trajectories at the time they published their research. They also proposed that any positive investment demand effects may have been offset by increased

---

<sup>34</sup> Corinth and Feldman, *Are Opportunity Zones an Effective Place-Based Policy?*, Vol. 38 Journal of Economic Perspectives 113 (2024), 10.1257/jep.38.3.113.

<sup>35</sup> Benjamin Glasner, Adam Ozimek, and John Lettieri, *The Impact of Opportunity Zones on Housing Supply*, Economic Innovation Group Working Paper (Feb. 2026), <https://eig.org/opportunity-zones-housing-supply/>.

<sup>36</sup> Jiafeng Chen, Edward L. Glaeser, and David Wessel, *The (Non-) Effect of Opportunity Zones on Housing Prices*, NBER Working Paper No. 26587 (Dec. 2019), <https://www.nber.org/papers/w26587>.

housing supply, since subsidized development can expand construction and place downward pressure on existing home prices in highly residential areas.

Freedman, Khanna, and Neumark (2023) examined whether residents of Opportunity Zones experienced measurable improvements in employment, earnings, or poverty.<sup>37</sup> Using restricted-access American Community Survey data from 2013-2019, they showed that many Opportunity Zones were already improving before designation, meaning that simple before-and-after comparisons could exaggerate the program's effects. After adjusting for these pre-existing trends through matching methods, they found little evidence that tracts materially improved resident outcomes in the early years following designation. Employment rates were essentially unchanged, estimated earnings gains were small, and poverty rates showed no meaningful decline.

Atkins et al. (2023) analyzed employer hiring activity using online job postings data from January 2016 to March 2020.<sup>38</sup> Their study similarly found limited overall effects from Opportunity Zone designation on labor demand. The authors did identify modest positive effects in some urban areas and in neighborhoods with larger Black populations, but the economic magnitude of these gains remained small.

Coyne and Johnson (2023) used IRS tax return data from Qualified Opportunity Funds and investors for tax years 2018 through 2020 and found that investment was heavily concentrated in Opportunity Zone tracts that already exhibited relatively stronger economic characteristics, including higher median incomes, higher educational attainment, lower unemployment, and higher home values. Roughly 84 percent of all Opportunity Zone investment through 2020 was concentrated in only about 10 percent of all designated Opportunity Zone tracts. However, by the end of 2020, about 48 percent of all Opportunity Zone tracts had received some qualified investment. Every state received investment, and many tracts received funding from multiple investment funds rather than a single isolated project. These findings indicate that private investment induced by large-scale economic development policies tends to emerge gradually and may be concentrated in a relatively small subset of eligible areas.

Taken together, the literature presents a more positive assessment of Opportunity Zones than the studies covering just the first one to three years of the policy. The emerging employment literature suggests that Opportunity Zones generated real labor market activity, especially in urban areas and development-related sectors. The evidence also increasingly suggests that Opportunity Zone designation is associated with substantial private investment, particularly in residential development projects. The contrast between these two sets of findings is consistent with the broader literature reviewed above: economic effects that are modest during the first few years may become more prominent in later years as private investment accumulates.

---

<sup>37</sup> Matthew Freedman, Shantanu Khanna, and David Neumark, *JUE Insight: The Impacts of Opportunity Zones on Zone Residents*, NBER Working Paper No. 28573 (Mar. 2021), <https://www.nber.org/papers/w28573>.

<sup>38</sup> Rachel M. B. Atkins, et al., *JUE Insight: What is the Impact of Opportunity Zones on Job Postings?* Vol. 136 *Journal of Urban Economics* 1 (Feb. 2023), 10.1016/j.jue.2023.103545.

### **III. EMPIRICAL EVIDENCE FROM GEORGIA OPPORTUNITY ZONES 1.0 TRACTS IS CONSISTENT WITH HIGHER INCOME, EMPLOYMENT, AND SALES GROWTH RELATIVE TO COMPARABLE TRACTS**

This section analyzes economic outcomes across three categories of census tracts in Georgia: (i) tracts designated as Qualified Opportunity Zones, (ii) tracts that met Opportunity Zone eligibility criteria but were not designated, and (iii) tracts that were not eligible for designation.

Economic theory suggests that new investment is likely to affect different economic indicators at different speeds. Initial investment activity is expected to appear first in measures of business activity, such as enterprise sales. As investment generates additional demand for goods and services, gains may subsequently appear in household income. Employment effects often emerge more gradually, as firms typically increase utilization of existing workers and productive capacity before expanding headcount. Consistent with this framework, the analysis begins with enterprise sales, then examines household income, and finally evaluates employment and unemployment outcomes.

The analysis evaluates three measures of economic performance: enterprise sales; median household income; unemployment and enterprise employment. Enterprise employment and sales growth are analyzed over the post-designation period (2017-2024) using proprietary data from Data Axle. Income growth and unemployment are analyzed during a pre-designation period (2014-2017) and two post-designation periods (2017-2022 and 2017-2024) using ACS data.

#### **A. Data and Methodology**

The original analysis in this report leverages proprietary enterprise-level employment and sales data obtained from Data Axle and publicly available American Community Survey (ACS) data.<sup>39</sup> Data Axle data is used to measure enterprise employment and enterprise sales activity while ACS data is used to evaluate changes in median household income and unemployment of tract residents. Together, these data provide complementary measures of household economic conditions and local business activity in Georgia before and after OZ 1.0 went into effect. Because OZ 1.0 was enacted in December 2017 and became effective on January 1, 2018, this report treats 2018 as the beginning of the post-OZ 1.0 period (“post-OZ”). Accordingly, the analysis distinguishes between a pre-OZ 1.0 period represented by ACS datasets with year-end dates prior to 2018 and a post-OZ period represented by datasets with year-end dates beginning in 2018.

The enterprise-level employment and sales data are obtained from Data Axle, which compiles business information from public records, business filings, self-reported information, and proprietary modeling methodologies. The data set provides annual estimates of employment

---

<sup>39</sup> Data Axle (formerly Infogroup) is a commercial provider of establishment-level business data covering millions of U.S. business locations. The database includes geographic identifiers, employment, and sales estimates and has been widely used in academic research, including the Arefeva et al. (2024) study of Opportunity Zones.

and sales for individual business establishments together with geocoded business locations. Using the geocoded business locations, each business location is mapped to a 2010 Census tract, allowing employment and sales measures to be aggregated at the census tract level.

The resulting employment and sales measures should not be interpreted as complete counts of tract-level employment. For example, this dataset might not account for tract residents working in a different tract or workers commuting into the tract. Likewise, aggregated sales figures do not represent gross domestic product (GDP) at the census tract level. However, these measures provide useful indicators of formal business activity and local economic activity. This report uses Data Axle data to evaluate sales growth and changes in enterprise employment across census tracts grouped by Opportunity Zone designation, eligibility status, and rural/urban tract groupings.

The ACS is an annual survey conducted by the U.S. Census Bureau that collects economic information from a representative sample of U.S. households. Because census tract-level estimates are based on relatively small populations, the Census Bureau publishes many tract-level measures, including median household income, as rolling five-year estimates. For example, the ACS estimate reported for 2014 reflects survey responses collected between 2010 and 2014, while the estimate reported for 2017 reflects responses collected between 2013 and 2017. This report uses ACS median household income and unemployment estimates for Georgia census tracts from the 2014, 2017, 2022, and 2024 ACS five-year datasets. The 2014 and 2017 datasets are used to characterize conditions before OZ 1.0 took effect because their survey periods end before January 1, 2018. The 2022 dataset reflects survey responses collected between 2018 and 2022 and therefore captures economic conditions during the first five years following implementation of OZ 1.0. The 2024 dataset reflects survey responses collected between 2020 and 2024 and represents the most recent post-OZ period available at the time of analysis.

ACS income estimates are reported in inflation-adjusted dollars corresponding to the end year of the survey period. For example, median household income reported in the 2017 ACS dataset reflects income measured over the 2013–2017 survey period and is expressed in 2017 dollars. To ensure comparability across time, all ACS income estimates used in this report are converted to constant 2017 dollars using the Consumer Price Index for All Urban Consumers (CPI-U) published by the Bureau of Labor Statistics (BLS). As a result, all reported income growth measures represent real rather than nominal changes in household income.

Income growth is reported on an annualized basis so that growth rates can be compared across periods of different lengths. For example, an annualized income growth rate of 3.51 percent between 2017 and 2022 indicates that median household income increased at an average compounded rate of 3.51 percent per year over that five-year period. Annualization allows this figure to be compared directly with the 3.34 percent annualized income growth rate measured over the longer 2017-2024 period.

Census tract boundaries change periodically, particularly following the decennial census. ACS data prior to 2020 are reported using 2010 census tract boundaries, while ACS data after 2020 are reported using 2020 census tract boundaries. To ensure comparability over time, all

geographic data used in this report are mapped to 2010 census tract boundaries using Census Bureau tract crosswalk files.<sup>40</sup> Because this mapping process inevitably introduces some approximation, the analysis is limited to data beginning in 2014, which reflects survey responses collected between 2010 and 2014. Any earlier data would require an additional mapping from the 2000 census tract geography, introducing further imprecision. At the other end of the sample period, the analysis uses 2024 ACS data, which is the most recent ACS data published by the Census Bureau at the time of this report.

Each 2010 census tract in Georgia is classified as (i) a Qualified Opportunity Zone (“Opportunity Zone”), (ii) a tract that met Opportunity Zone eligibility criteria but was not designated (“eligible but not designated”), or (iii) a tract that was not eligible for designation (“ineligible”), using OZ 1.0 designation and eligibility data from the U.S. Department of the Treasury.<sup>41</sup> Census tracts are also classified as rural or urban using Census Bureau geographic classifications. Income and enterprise employment, as well as enterprise sales as measures of economic activity are analyzed across Opportunity Zone eligibility categories and rural-urban status.<sup>42</sup>

One important consideration when interpreting post-designation growth rates is the impact of the COVID-19 pandemic. The pandemic and associated economic disruptions affected employment, business activity, and household incomes throughout Georgia and the broader United States during portions of the post-OZ designation period. As a result, observed growth rates will differ from those that would have occurred under the counterfactual – in the absence of the pandemic. However, because all Opportunity Zone eligibility categories were exposed to the same broad macroeconomic shock, differences in growth rates across tract types remain informative when evaluating relative economic performance.

A separate consideration relates to the timing of employment effects. Firms often respond to increased demand by expanding utilization of existing workers and productive capacity before increasing headcount.<sup>43</sup> As a result, enterprise sales and household income may respond more quickly to new economic activity than employment measures. The seven-year post-designation period examined in this report may therefore capture only part of the employment response associated with OZ 1.0.

---

<sup>40</sup> U.S. Census Bureau, 2010–2020 Census Tract Relationship Files, <https://www.census.gov/geographies/reference-files/time-series/geo/relationship-files.html> (last accessed May 26, 2026). These files provide area-based correspondence between 2010 and 2020 Census tract geographies and are used to allocate data reported under 2020 Census tract boundaries back to 2010 Census tract boundaries.

<sup>41</sup> Opportunity Zone Resources, Community Development Financial Institutions Fund (Apr. 6, 2026), <https://www.cdfifund.gov/opportunity-zones>.

<sup>42</sup> Urban and rural classifications are based on the 2010 U.S. Census tract-level population data. The Census Bureau reports the number of residents living in “urban” and “rural” areas within each census tract. In this report, tracts are classified according to where a majority of residents reside: tracts with a majority urban population are classified as urban, while those with a majority rural population are classified as rural. Although some sources use the term “non-rural,” this report refers to non-rural tracts as “urban” for simplicity.

<sup>43</sup> See, Oi, Walter, *The fixed employment costs of specialized labor, The measurement of labor cost*. University of Chicago Press, (1983) 63-122; and Garin, Andrew, and Filipe Silvério, *How responsive are wages to firm-specific changes in labour demand? Evidence from idiosyncratic export demand shocks* Review of Economic Studies 91.3 (2024): 1671-1710.

## **B. Enterprise sales growth was strongest in Opportunity Zones following designation**

The following analyses rely on proprietary enterprise-level sales data from Data Axle. The dataset covers a large number of business establishments across Georgia and is compiled from multiple sources, including public records, business filings, and tax-related information. In some cases, employment or sales figures reported at a local business address may reflect broader corporate-level activity rather than strictly local operations, potentially creating extreme observations at the census tract level.<sup>44</sup> To reduce the influence of such outliers, employment and sales growth are first calculated at the tract level, and the top 1 percent and bottom 1 percent of growth observations are excluded from the analysis.<sup>45</sup>

Because the outlier filter removes a small number of census tracts exhibiting extreme employment or sales growth rates, aggregation of the Data Axle data at highly localized geographic levels can become sensitive to the inclusion or exclusion of individual tracts. In particular, the exclusion of one or more tracts may materially affect county-level employment and sales estimates, especially in counties containing few Opportunity Zone census tracts. Accordingly, county-level analyses are not presented for the Data Axle employment and sales data.

After excluding outlier observations, enterprise-level employment and sales data are aggregated to the census tract level and, where relevant, to broader geographic groupings, including Opportunity Zone designation categories and rural–urban classifications. This section examines growth in total enterprise sales within each geographic grouping. Growth rates are calculated over the 2017-2024 period to align with the post-designation income growth analysis and are reported as annualized rates to facilitate comparison across measures and time horizons.<sup>46</sup>

---

<sup>44</sup> For example, the dataset contains instances where a local business address is associated with employment and sales figures that appear to represent enterprise-wide activity rather than activity at the specific establishment. In one case, a Delta Air Lines location in Census Tract 13121011900 (Fulton County, Georgia) is associated with approximately 80,000 employees and \$56 billion in sales. Observations of this type can materially influence tract-level and county-level growth measures and motivate the exclusion of extreme growth observations from the analysis.

<sup>45</sup> Among the excluded observations, estimated sales growth often exceeds 1,000% or reflects declines greater than -90%, while estimated employment growth frequently exceeds 300% or reflects declines greater than -90%. Such extreme changes are likely to reflect data anomalies, reporting issues, or unusual establishment-level events rather than broad changes in local economic activity.

<sup>46</sup> This analysis examines the OZ1.0 post-period as December 31, 2017, to December 31, 2024.

**Table 1: Annualized growth in sales by OZ 1.0 eligibility category and by rural-urban status**

Tract Type [A]	Business Sales Growth			
	Post-OZ 1.0: 2017 -24			
	Tracts [B]	Urban [C]	Rural [D]	Total [E]
[1] Opportunity Zone	260	2.06%	0.61%	1.50%
[2] Eligible - Not Designated	779	0.56%	0.55%	0.56%
[3] Ineligible	933	1.50%	-0.52%	1.30%
[4] <b>Grand Total</b>	<b>1,972</b>	<b>1.23%</b>	<b>0.31%</b>	<b>1.05%</b>

*Sources & Notes:*

Figures are derived from the enterprise sales data from Data Axle and aggregated at the Census tract level. Census tracts in the top of bottom 1% of both employee and sales growth are excluded from this analysis.

Estimates reported in Table 1 indicate that Opportunity Zones experienced stronger enterprise-level sales growth than any other tract category.<sup>47</sup> Opportunity Zones recorded average annual enterprise sales growth of 1.50 percent, compared with 0.56 percent in eligible but not designated tracts and 1.30 percent in ineligible tracts. While the difference relative to ineligible tracts is modest, Opportunity Zones outperformed both comparison groups and generated sales growth approximately three times greater than that observed in eligible but not designated tracts.

The stronger sales growth provides additional evidence that business activity expanded more rapidly in Opportunity Zone tracts following designation, suggesting that local businesses benefited from increased economic activity and market demand. While enterprise sales do not measure profitability or GDP directly, they provide a useful indicator of business performance, investment activity, and local economic momentum. The next analysis examines enterprise-level employment and sales growth separately for urban and rural census tracts to assess whether these statewide patterns differ across community types.

Among urban tracts, Opportunity Zones recorded the strongest performance of any tract category, with annual sales growth of 2.06 percent, compared with 0.56 percent for eligible but not designated tracts and 1.50 percent for ineligible tracts. The magnitude of this difference is economically meaningful, with urban Opportunity Zones generating sales growth nearly four times greater than comparable eligible communities. This result is consistent with the strong income-growth trends observed elsewhere in urban Opportunity Zones and suggests that designated communities may be experiencing increased business activity and customer demand.

<sup>47</sup> See Appendix E for an analysis of the changes in the number of jobs and dollar amounts of sales across enterprises by eligibility category.

Rural results are more modest but generally positive. Rural Opportunity Zones recorded annual sales growth of 0.61 percent, slightly exceeding the 0.55 percent growth observed in eligible but not designated tracts and substantially outperforming ineligible rural tracts, which experienced annual sales declines of 0.52 percent. While the differences are smaller than those observed in urban areas, the results suggest that Opportunity Zone designation may be supporting business activity in rural communities even where employment growth remains limited.

**C. Opportunity Zone tracts experienced materially higher growth in median household income than comparable tracts following designation**

This section examines changes in inflation-adjusted median household income using census tract level ACS five-year estimates. Census tracts are classified as Opportunity Zones, eligible but not designated, or ineligible based on OZ 1.0 eligibility and designation status. For each tract category, median household income is determined, and growth rates are calculated. The analysis compares income growth before OZ 1.0 was implemented (2014–2017) with income growth after OZ 1.0 was implemented (2017–2022 and 2017–2024).<sup>48</sup>

Table 2 reports annualized growth rates of median household income before and after OZ 1.0 was implemented.

**Table 2: Annualized growth rate of median household income by OZ 1.0 eligibility category**

Tract Type	Tracts	Pre-OZ 1.0	Post-OZ 1.0	
		(3yr: 2014-17)	(5yr: 2017-22)	(7yr: 2017-24)
[A]	[B]	[C]	[D]	[E]
[1] Opportunity Zone	260	1.47%	3.51%	3.34%
[2] Eligible - Not Designated	779	1.92%	2.56%	2.16%
[3] Ineligible	933	1.08%	1.91%	1.47%
[4] <b>Grand Total</b>	<b>1,972</b>	<b>1.46%</b>	<b>2.38%</b>	<b>1.99%</b>

*Sources & Notes*

Income figures are derived from the American Community Survey ("ACS") 5-year estimates and are presented in inflation-adjusted 2017 dollars.

Before OZ 1.0 was implemented (2014-2017), median household income grew at relatively modest rates across all tract categories. Opportunity Zones exhibited annualized real median income growth of 1.47 percent, trailing eligible but not designated tracts (1.92 percent) but outperforming ineligible tracts (1.08 percent). During this period before OZ 1.0, the median income for future Opportunity Zones was \$27,599, and \$40,382 and \$66,671 for eligible but not

<sup>48</sup> This report examines two post-OZ 1.0 implementation periods: 2017-2022 and 2017-2024. This analysis allows us to examine the velocity of median income growth before and after policy implementation.

designated and ineligible tracts respectively.<sup>49</sup> In other words, tracts that were eventually designated as Opportunity Zones were not, prior to designation, the strongest-performing communities in terms of income growth rates and had the lowest median incomes compared to the other two eligibility categories prior to program implementation.

After OZ 1.0 went into effect, growth of median household income accelerated across all tract groups, but the increase was most pronounced in Opportunity Zones. Between 2017 and 2022, Opportunity Zones recorded annualized real median income growth of 3.51 percent or an additional \$5,195, substantially exceeding growth in eligible but not designated tracts (2.56 percent or an additional \$5,445) and ineligible tracts (1.91 percent or an additional \$6,617). This shift moved Opportunity Zones from the middle-performing group to the strongest-performing group after designation.

The pattern remained intact over the longer 2017 to 2024 period. Opportunity Zones continued to post the highest annualized growth rate of real median household income at 3.34 percent (or an additional \$7,131), compared to 2.16 percent (or an additional \$6,513) for eligible but not designated tracts and 1.47 percent (or an additional \$7,154) for ineligible tracts. While growth rates moderated slightly compared to the 2017-2022 period, the decline was smallest in Opportunity Zones, indicating that the gains observed in the initial post-designation years have largely been sustained. Over the seven-year period, the real dollar income gains in Opportunity Zones were nearly as large as those in ineligible tracts, despite starting from a significantly lower income base.

From an economic development perspective, these results are encouraging. Opportunity Zones not only experienced the strongest acceleration in the growth of median household income following designation but also maintained their relative advantage over time. Although the post-designation period remains short relative to the timelines typically associated with large-scale community investment and redevelopment, the available evidence suggests that OZ 1.0 has contributed to positive economic momentum in designated Opportunity Zone tracts.

The analysis next examines growth in median real household income separately for urban and rural census tracts to assess whether Opportunity Zone median income outcomes differed by rural-urban status. Consistent with the distribution of designated tracts in Georgia, the majority of Opportunity Zones are located in urban areas (218 urban tracts, compared with 42 rural Opportunity Zone tracts).<sup>50</sup>

---

<sup>49</sup> See Appendix A for an analysis of the real dollar changes in median household income by OZ 1.0 eligibility category.

<sup>50</sup> Note: Three tracts could not be identified as rural or urban in the census mapping file and are thus excluded from Table 3.

**Table 3: Annualized growth in real median household income by rural-urban status**

Tract Type	Urban Tracts	Pre-OZ 1.0	Post-OZ 1.0	
		(3yr: 2014-17)	(5yr: 2017-22)	(7yr: 2017-24)
[A]	[B]	[C]	[D]	[E]
[1] Opportunity Zone	218	1.62%	3.00%	3.24%
[2] Eligible - Not Designated	533	2.08%	2.67%	2.02%
[3] Ineligible	702	1.60%	2.17%	1.40%
[4] <b>Grand Total - Urban</b>	<b>1,453</b>	<b>1.78%</b>	<b>2.48%</b>	<b>1.90%</b>

Tract Type	Rural Tracts	Pre-OZ 1.0	Post-OZ 1.0	
		(3yr: 2014-17)	(5yr: 2017-22)	(7yr: 2017-24)
[A]	[B]	[C]	[D]	[E]
[1] Opportunity Zone	42	-0.51%	3.95%	2.04%
[2] Eligible - Not Designated	246	1.69%	2.49%	2.28%
[3] Ineligible	228	0.46%	1.43%	1.23%
[4] <b>Grand Total - Rural</b>	<b>516</b>	<b>0.97%</b>	<b>2.14%</b>	<b>1.80%</b>

*Sources & Notes*

Income figures are derived from the American Community Survey ("ACS") 5-year estimates and are presented in inflation-adjusted 2017 dollars.

Among urban tracts before designation, future Opportunity Zone tracts did not demonstrate the highest growth in real median household income prior to designation. Between 2014 and 2017, annualized growth in urban Opportunity Zones was 1.62 percent, below eligible but not designated tracts (2.08 percent) and roughly in line with ineligible tracts (1.60 percent). During this three-year period before OZ 1.0 in urban tracts, the median income in future Opportunity Zones was \$26,858, compared with \$40,585 in eligible but not designated tracts and \$72,467 in ineligible tracts.<sup>51</sup>

Following implementation of OZ 1.0, however, urban Opportunity Zones emerged as the strongest-performing group. Annualized income growth accelerated to 3.00 percent, corresponding to a real increase of \$4,276 in median household income between 2017 and 2022. This exceeded the growth observed in both eligible but not designated tracts (2.67 percent or an additional \$5,723) and ineligible tracts (2.17 percent or an additional \$8,208).

Importantly, this relative advantage of urban Opportunity Zones persisted through 2024. Opportunity Zone tracts recorded annualized income growth of 3.24 percent, corresponding to a cumulative increase of \$6,712 in real household income. By comparison, annualized growth slowed to 2.02 percent (or an additional \$6,110) in eligible but not designated tracts and 1.40

<sup>51</sup> See Appendix B for an analysis of the real dollar changes in median household income by rural-urban status and OZ 1.0 eligibility category.

percent (or an additional \$7,414) in ineligible tracts, despite both groups starting from substantially higher median household income. The widening performance gap suggests that urban Opportunity Zones not only experienced faster growth following designation but were also able to sustain and build upon those gains over time. Additionally, the real dollar gains in income in Opportunity Zones were greater than in eligible but not designated tracts despite starting from a substantially lower income base, consistent with designation being associated with stronger income growth in urban tracts.

Rural Opportunity Zone tracts experienced strong gains in the initial post-designation period, although those gains moderated when measured over the longer seven-year horizon. Prior to OZ 1.0 implementation, rural tracts that would become Opportunity Zones underperformed both comparison groups, recording annualized income growth of -0.51 percent between 2014 and 2017, compared with 1.69 percent for eligible but not designated tracts and 0.46 percent for ineligible tracts. During this three-year period before OZ 1.0 in rural tracts, the median income in future Opportunity Zones was \$31,522, and \$40,078 and \$53,645 in eligible but not designated and ineligible tracts, respectively.

Following designation, rural Opportunity Zones experienced a substantial acceleration in income growth between 2017 and 2022, reaching 3.95 percent (or an additional \$6,738), which was the highest growth rate among all rural tract categories. While growth moderated to 2.04 percent (or an additional \$4,781) over the longer 2017–2024 period, rural Opportunity Zones continued to outperform ineligible rural tracts (1.23 percent or an additional \$6,861), although they trailed eligible but not designated rural tracts (2.28 percent or an additional \$4,800). These results suggest that rural tracts did not sustain their initial growth from the first five years following designation in the longer seven-year period following designation.

Taken together, the results suggest that Opportunity Zone designation has been associated with particularly strong and durable income growth in urban communities, where Opportunity Zone tracts moved from middle-of-the-pack performers before designation to clear leaders after implementation. Rural Opportunity Zones also demonstrated meaningful post-designation improvement, especially during the program's initial years, although the relative advantage was less persistent over the longer period. Given the long investment horizons typically associated with large-scale economic development, these findings provide encouraging evidence that Opportunity Zone designation may be contributing to sustained economic gains, particularly in Georgia's urban markets.

Whether the same tracts are redesignated in 2027 as Opportunity Zones may have real effects on tract residents. As an illustration, consider a resident of an urban Opportunity Zone tract earning \$35,000 annually in 2026. If the tract is redesignated as an Opportunity Zone in 2027 and household income grows at the 3.24 percent annual rate observed in urban Opportunity Zone tracts in 2024, that resident's income would be projected to exceed \$48,000 by 2036.<sup>52</sup> By contrast, if the tract is not redesignated and income instead grows at the 2.02 percent annual

---

<sup>52</sup> The rate in this assumption is taken from the 3.24% growth rate observed in urban Opportunity Zone census tracts in Georgia during the 2017-2024 period.

rate observed in eligible but not designated urban tracts in 2024, projected income would reach approximately \$42,700 by 2036.<sup>53</sup> Under these assumptions, redesignation would be associated with a real income level roughly \$5,300 higher after ten years.

Given the strong income growth observed in urban Opportunity Zones, the analysis next focuses specifically on the Atlanta metropolitan area, which is Georgia's largest concentration of population, economic activity, and Opportunity Zone investment. As such, it provides an important case study for evaluating whether the stronger performance observed in urban Opportunity Zones is evident within the state's largest metropolitan area. This analysis examines median household income growth across the region's counties by Opportunity Zone eligibility category. The Atlanta metropolitan area consists of eleven counties – Cherokee, Clayton, Cobb, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, and Rockdale – which together contain 783 of the 1,972, or 39.7 percent, tracts in the 2010 census tract boundaries in Georgia.<sup>54</sup>

**Table 4: Annualized growth in real median household income across Atlanta metropolitan counties**

County Name	Tracts	Opportunity Zone			Eligible - Not Designated			Ineligible		
		Pre-OZ 1.0	Post-OZ 1.0		Pre-OZ 1.0	Post-OZ 1.0		Pre-OZ 1.0	Post-OZ 1.0	
		(3yr: 2014-17)	(5yr: 2017-22)	(7yr: 2017-24)	(3yr: 2014-17)	(5yr: 2017-22)	(7yr: 2017-24)	(3yr: 2014-17)	(5yr: 2017-22)	(7yr: 2017-24)
[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]
[1] Cherokee	26	n/a	n/a	n/a	0.47%	4.84%	3.96%	1.43%	2.14%	2.40%
[2] Clayton	50	2.59%	1.31%	0.19%	1.62%	0.45%	0.58%	0.23%	0.15%	-0.67%
[3] Cobb	120	0.96%	4.11%	5.16%	1.78%	1.65%	2.24%	0.40%	1.05%	2.18%
[4] DeKalb	145	0.23%	3.37%	2.58%	0.79%	1.50%	2.33%	1.02%	2.49%	2.70%
[5] Douglas	20	1.98%	2.09%	3.03%	-1.41%	0.11%	1.25%	1.20%	0.73%	1.14%
[6] Fayette	20	n/a	n/a	n/a	n/a	n/a	n/a	0.54%	1.86%	1.38%
[7] Forsyth	45	n/a	n/a	n/a	2.47%	6.00%	7.36%	0.70%	3.07%	3.06%
[8] Fulton	204	1.26%	3.55%	4.35%	1.49%	4.28%	4.31%	1.13%	1.94%	2.07%
[9] Gwinnett	113	-0.76%	2.93%	2.15%	1.40%	1.42%	1.40%	0.35%	1.25%	1.31%
[10] Henry	25	n/a	n/a	n/a	1.30%	1.16%	0.28%	0.65%	0.12%	1.05%
[11] Rockdale	15	n/a	n/a	n/a	-0.25%	2.28%	4.33%	-0.95%	0.83%	0.41%
[12] Grand Total	783	-0.35%	4.25%	4.69%	0.72%	2.32%	2.46%	0.89%	1.88%	1.75%

*Sources & Notes*

Income figures are derived from the American Community Survey ("ACS") 5-year estimates and are presented in inflation-adjusted 2017 dollars.

Prior to Opportunity Zone designation, household median income growth was relatively similar across what would become designated Opportunity Zones and eligible but not designated tracts. Between 2014 and 2017, annualized real median income growth averaged 1.04 percent in future Opportunity Zones and 0.99 percent in eligible but not designated tracts, while ineligible tracts recorded slower growth of 0.67 percent. These results suggest that Opportunity Zone tracts were not materially outperforming comparable eligible communities before the program took effect.

<sup>53</sup> The rate in this assumption is taken from the 2.02% growth rate observed in eligible but not designated urban census tracts in Georgia during the 2017-2024 period.

<sup>54</sup> Metropolitan Atlanta counties are defined using the Georgia Department of Economic Development's Metro Atlanta region. See Georgia Department of Economic Development, Metro Atlanta Region, <https://georgia.org/why-georgia/regions-georgia/metro-atlanta>.

Following OZ 1.0 implementation, however, a clear divergence emerged. Between 2017 and 2022, annualized real median income growth accelerated to 3.51 percent in Opportunity Zones, substantially exceeding the 2.28 percent growth rate observed in eligible but not designated tracts and the 1.44 percent growth rate observed in ineligible tracts. Opportunity Zones in the Atlanta metropolitan area therefore transitioned from performing roughly in line with comparable eligible communities before designation to becoming the strongest-performing tract category afterward.

Importantly, this advantage persisted over the longer 2017–2024 period. Opportunity Zones maintained annualized income growth of 4.69 percent, compared with 2.46 percent in eligible but not designated tracts and 1.75 percent in ineligible tracts. While growth moderated somewhat across all tract categories relative to the initial post-designation period, Opportunity Zones continued to generate the strongest income growth within the Atlanta metropolitan area.

Taken together, these findings suggest that Opportunity Zone designation is associated with meaningful and sustained income gains within Atlanta's urban communities. The fact that Opportunity Zone tracts performed similarly to eligible but not designated tracts prior to designation but materially outperformed them afterward is particularly noteworthy, given the similarities in their underlying economic characteristics. Although the analysis does not establish causality, the magnitude and persistence of the post-implementation divergence are consistent with Opportunity Zone designation contributing to stronger household income growth in Atlanta-area communities. Moreover, the sustained advantage observed through 2024 suggests that the economic benefits associated with Opportunity Zone investment may continue to accrue over longer development and investment horizons.

#### **D. Opportunity Zones experienced strong labor market improvements following designation**

This section examines changes in labor force participation, employment, and unemployment among residents of Opportunity Zone and comparison tracts using ACS data. It also evaluates enterprise employment using proprietary Data Axle data. These measures capture labor market outcomes for residents living within each census tract. This section also examines enterprise-level employment outcomes from proprietary Data Axle data, which track employment at business establishments located within each tract. Unlike resident-based measures, enterprise-level employment reflects jobs located within a tract and held by both local residents and workers who commute into the tract from surrounding areas.

Unemployment rates computed from ACS labor and employment data provide evidence of improving labor market conditions in Opportunity Zone tracts. As seen in Table 5, Opportunity Zone tracts experienced the largest decline in unemployment rates following designation. The unemployment rate in Opportunity Zone tracts fell the fastest, from 12.10 percent in 2017 to 7.67 percent in 2024, a decline of 4.43 percentage points. By comparison, unemployment in eligible but not designated tracts declined from 8.93 percent to 5.90 percent, a decline of 3.03 percentage points, while the statewide unemployment rate declined by 2.35 percentage points, from 7.48 percent to 5.13 percent.

**Table 5: Unemployment rate by OZ 1.0 eligibility category**

Tract Type	Tracts	Pre-OZ 1.0		Post-OZ 1.0	
		(2017)	(2022)	(2024)	(2024)
[A]	[B]	[C]	[D]	[E]	[E]
[1] Opportunity Zone	260	12.10%	7.77%	7.67%	7.67%
[2] Eligible - Not Designated	779	8.93%	6.21%	5.90%	5.90%
[3] Ineligible	933	5.85%	4.29%	4.32%	4.32%
[4] <b>Grand Total</b>	<b>1,972</b>	<b>7.48%</b>	<b>5.25%</b>	<b>5.13%</b>	<b>5.13%</b>

*Sources & Notes*

Employment and labor force figures are derived from the American Community Survey ("ACS") 5-year estimates.

Employment growth among tract residents is more modest. This result is not unexpected. As discussed above, firms often respond to increased economic activity by expanding utilization of existing workers before increasing headcount. Moreover, in the short run, new employment opportunities generated within a tract may be filled by workers commuting from other areas for two reasons. First, local workers may require time to acquire the skills needed for new jobs associated with Opportunity Zone-induced investment. Second, even when employment opportunities are available, local housing and supporting infrastructure may not have expanded sufficiently to accommodate the in-migration of new workers and their households.<sup>55</sup> As a result, some employment gains may initially be captured by commuters rather than reflected in the resident labor force. The tables in Appendix C show modest resident employment growth, exceeding additional labor force growth.

One limitation of the preceding comparison is that Opportunity Zone tracts and eligible but not designated tracts differ materially in their initial economic conditions. In 2017, median household income in Opportunity Zone tracts was approximately \$27,600, compared with approximately \$40,400 in eligible but not designated tracts.<sup>56</sup> Similarly, available labor force differed across the two groups (average of approximately 1,661 vs. 2,266 available labor force, respectively).<sup>57</sup> As a result, the average comparison does not isolate outcomes differences among tracts that were most similar at the time of designation.

To address this issue, a supplemental analysis restricts the eligible but not designated sample to tracts with 2017 median household income and labor force levels falling within the interquartile range observed among Opportunity Zone tracts in 2017. This produces a

<sup>55</sup> The tables in Appendix C, demonstrates that the labor force residing in Opportunity Zone tracts increased by only 9,203 individuals between 2017 and 2024, while employment increased by 27,635, approximately 3 times the increase in the labor force. In contrast, eligible but not designated tracts experienced labor force growth of 137,473 individuals and employment growth of 182,932, with employment growth amounting to only 1.3 times the labor force growth.

<sup>56</sup> See Appendix A.

<sup>57</sup> Appendix C shows 2017 labor force for 260 Opportunity Zones tracts at 431,786 and for 779 Eligible but not designated tracts labor force was 1,765,520.

comparison group of 73 eligible but not designated tracts that more closely resembles the 77 interquartile Opportunity Zone tracts in terms of underlying economic conditions just before OZ 1.0 was implemented in 2018. These results are shown in Table 6 below.

**Table 6: Change in civilian employment by OZ 1.0 eligibility category in matching tracts**

Tract Type	Tracts	Employment		Employment Change (2017-2024)		
		Pre-OZ.1: 2017	Post-OZ.1: 2024	Net Change	Growth Rate	Annualized Growth
[A]	[B]	[C]	[D]	[E]	[F]	[G]
[1] Opportunity Zone	77	108,046	118,773	10,727	9.93%	1.36%
[2] Eligible - Not Designated	73	99,520	108,914	9,394	9.44%	1.30%
[3] <b>Grand Total</b>	<b>150</b>	<b>207,566</b>	<b>227,688</b>	<b>20,122</b>	<b>9.69%</b>	<b>1.33%</b>

*Sources & Notes:*

Employment figures are derived from the American Community Survey ("ACS") 5-year estimates.

As seen in Table 6, among these more comparable tracts, employment growth between 2017 and 2024 was slightly higher in Opportunity Zone tracts (9.93 percent) than in eligible but not designated tracts (9.44 percent). This contrasts with the broader statewide comparison, in which eligible but not designated tracts exhibited somewhat stronger employment growth. The result suggests that when economically similar tracts are compared, Opportunity Zone tracts experienced at least comparable, and potentially stronger, employment growth following designation.

The combination of modest employment growth and a sharp decline in unemployment is not necessarily contradictory. These results suggest that employment gains in Opportunity Zone tracts were accompanied by relatively limited growth in the resident labor force, allowing unemployment rates to decline more rapidly than in comparison tracts.

An alternative measure of employment comes from proprietary Data Axle data. Whereas ACS employment data tracks the employment status of residents living within a tract, regardless of where they work, Data Axle tracks employment at business establishments located within a tract, regardless of where the worker resides. Using this measure, enterprise employment in Opportunity Zones grew at an average annual rate of 0.27 percent between 2017 and 2024, compared with -0.10 percent in eligible but not designated tracts and 0.50 percent in ineligible tracts. These growth rates correspond to approximately 10,732 additional enterprise jobs in Opportunity Zone tracts statewide.<sup>58</sup>

Most of these gains occurred in urban Opportunity Zone tracts. Enterprise employment in urban Opportunity Zone tracts grew by 0.43 percent annually, outperforming eligible but not designated tracts, which experienced a decline of 0.22 percent, but slightly trailing ineligible

<sup>58</sup> See Appendix E.

tracts, which grew by 0.49 percent. Over the seven-year period after OZ 1.0, these growth rates translate to an additional 9,850 jobs in Opportunity Zones in urban areas.<sup>59</sup>

**Table 7: Annualized growth in enterprise employment by OZ 1.0 eligibility category and by rural-urban status**

Tract Type	Tracts	Enterprise Employment Growth		
		<i>Post-OZ 1.0: 2017 -24</i>		
[A]	[B]	Urban	Rural	Total
[A]	[B]	[C]	[D]	[E]
[1] Opportunity Zone	260	0.43%	0.05%	0.27%
[2] Eligible - Not Designated	779	-0.22%	0.23%	-0.10%
[3] Ineligible	933	0.49%	0.62%	0.50%
[4] <b>Grand Total</b>	<b>1,972</b>	<b>0.23%</b>	<b>0.29%</b>	<b>0.24%</b>

*Sources & Notes:*

Figures are derived from the enterprise employment data from Data Axle and aggregated at the Census tract level. Census tracts in the top of bottom 1% of both employee and sales growth are excluded from this analysis.

These estimates should be considered conservative measures of employment growth. While Data Axle provides broad coverage of business establishments, it does not capture all economic activity, including employment outside an enterprise location. For example, because Data Axle assigns employment to business establishments, employment associated with mobile workforces—such as construction, transportation, field services, and utilities—may not always be attributed to the location where the underlying economic activity occurs. Similarly, informal work and self-employment may not be fully captured. For example, an Uber driver may spend most of the day transporting passengers within an Opportunity Zone but would not necessarily appear as employment at a business establishment in that tract. In addition, a small number of tracts with extreme growth observations were excluded as part of the outlier-adjustment process. As a result, the reported enterprise employment gains likely understate the total employment associated with economic activity in Opportunity Zone tracts.

Taken together, the ACS and Data Axle analyses suggest that Opportunity Zone tracts experienced meaningful improvements in economic conditions following designation. Opportunity Zone tracts recorded the strongest income growth and the largest decline in unemployment rates among the tract categories examined. While resident employment growth was more modest in the aggregate data, employment growth in Opportunity Zone tracts was comparable to, and in some cases exceeded, growth in economically similar eligible but not designated tracts. Collectively, these results are consistent with Opportunity Zone designation being associated with increased economic activity, rising incomes, and improving labor market conditions.

<sup>59</sup> See Appendix F.

One interpretation of these results is that Opportunity Zone tracts remain in a relatively early stage of economic adjustment. Rising incomes, declining unemployment, and increasing enterprise employment suggest that economic activity has expanded following designation. However, complementary investments in housing, retail services, transportation infrastructure, and other local amenities may take longer to materialize than initial business investment. To the extent that labor force growth and residential development lag business activity, the full labor-market effects of Opportunity Zone investment may not yet be reflected in the available data. This possibility is consistent with the broader place-based development literature, which finds that economic gains often emerge over extended periods. Under this interpretation, redesignation of Opportunity Zone tracts that remain eligible under OZ 2.0 is supported by the available evidence.

## APPENDIX

### Appendix A: Change in real median household income by OZ 1.0 eligibility category

Tract Type	Tracts	Pre-OZ 1.0 (2014-17)		Post-OZ 1.0 (2017-22)		Post-OZ 1.0 (2017-24)	
		Median Income	Income Change	Median Income	Income Change	Median Income	Income Change
[A]	[B]	[C]	[D]	[E]	[F]	[G]	
[1] Opportunity Zone	260	\$ 27,599	\$ 5,195	\$ 32,794	\$ 5,195	\$ 34,730	\$ 7,131
[2] Eligible - Not Designated	779	40,382	5,445	45,827	5,445	46,895	6,513
[3] Ineligible	933	66,671	6,617	73,288	6,617	73,825	7,154
[4] <b>Grand Total</b>	<b>1,972</b>	<b>\$ 47,682</b>	<b>\$ 6,333</b>	<b>\$ 54,015</b>	<b>\$ 6,333</b>	<b>\$ 55,109</b>	<b>\$ 7,427</b>

*Sources & Notes*

Income figures are derived from the American Community Survey ("ACS") 5-year estimates and are presented in inflation-adjusted 2017 dollars.

### Appendix B: Change in real median household income by OZ 1.0 eligibility category and rural-urban status

Tract Type	Urban Tracts	Pre-OZ 1.0 (2014-17)		Post-OZ 1.0 (2017-22)		Post-OZ 1.0 (2017-24)	
		Median Income	Income Change	Median Income	Income Change	Median Income	Income Change
[A]	[B]	[C]	[D]	[E]	[F]	[G]	
[1] Opportunity Zone	218	\$ 26,858	\$ 4,276	\$ 31,133	\$ 4,276	\$ 33,570	\$ 6,712
[2] Eligible - Not Designated	533	40,585	5,723	46,308	5,723	46,695	6,110
[3] Ineligible	702	72,467	8,208	80,675	8,208	79,881	7,414
[4] <b>Grand Total - Urban</b>	<b>1,453</b>	<b>\$ 50,838</b>	<b>\$ 6,345</b>	<b>\$ 57,183</b>	<b>\$ 6,345</b>	<b>\$ 57,824</b>	<b>\$ 6,986</b>

Tract Type	Rural Tracts	Pre-OZ 1.0 (2014-17)		Post-OZ 1.0 (2017-22)		Post-OZ 1.0 (2017-24)	
		Median Income	Income Change	Median Income	Income Change	Median Income	Income Change
[A]	[B]	[C]	[D]	[E]	[F]	[G]	
[1] Opportunity Zone	42	\$ 31,522	\$ 6,738	\$ 38,260	\$ 6,738	\$ 36,303	\$ 4,781
[2] Eligible - Not Designated	246	40,078	5,250	45,328	5,250	46,939	6,861
[3] Ineligible	228	53,645	3,954	57,598	3,954	58,444	4,800
[4] <b>Grand Total - Rural</b>	<b>516</b>	<b>\$ 43,783</b>	<b>\$ 6,188</b>	<b>\$ 49,971</b>	<b>\$ 6,188</b>	<b>\$ 50,658</b>	<b>\$ 6,875</b>

*Sources & Notes*

Income figures are derived from the American Community Survey ("ACS") 5-year estimates and are presented in inflation-adjusted 2017 dollars.

### Appendix C: Change in civilian employment and labor force by OZ 1.0 eligibility category

Tract Type	Tracts	Pre-OZ 1.0 (2017)		Post-OZ 1.0 (2022)		Post-OZ 1.0 (2024)	
		Employment	Change (2017-22)	Employment	Change (2017-22)	Employment	Change (2017-24)
[A]	[B]	[C]	[D]	[E]	[F]	[G]	
[1] Opportunity Zone	260	379,537	26,483	406,020	26,483	407,172	27,635
[2] Eligible - Not Designated	779	1,607,832	138,464	1,746,296	138,464	1,790,764	182,932
[3] Ineligible	933	2,618,960	298,141	2,917,101	298,141	3,015,921	396,961
[4] <b>Grand Total</b>	<b>1,972</b>	<b>4,606,329</b>	<b>463,089</b>	<b>5,069,418</b>	<b>463,089</b>	<b>5,213,857</b>	<b>607,528</b>

Tract Type	Tracts	Pre-OZ 1.0	Post-OZ 1.0		Post-OZ 1.0			
		(2017)	(2022)	Change (2017-22)		Change (2017-24)		
[A]	[H]	Labor Force	Labor Force	[J]	[K]	Labor Force	[L]	[M]
[1] Opportunity Zone	260	431,786	440,249	8,463		440,989	9,203	
[2] Eligible - Not Designated	779	1,765,520	1,861,956	96,436		1,902,993	137,473	
[3] Ineligible	933	2,781,604	3,047,864	266,260		3,152,079	370,475	
[4] <b>Grand Total</b>	<b>1,972</b>	<b>4,978,910</b>	<b>5,350,069</b>	<b>371,159</b>		<b>5,496,061</b>	<b>517,151</b>	

*Sources & Notes*

Employment and labor force figures are derived from the American Community Survey ("ACS") 5-year estimates.

### **Appendix D: Annualized growth in employment by OZ 1.0 eligibility category**

Tract Type	Tracts	Pre-OZ 1.0	Post-OZ 1.0	
		(3yr: 2014-17)	(5yr: 2017-22)	(7yr: 2017-24)
[A]	[B]	[C]	[D]	[E]
[1] Opportunity Zone	260	1.76%	1.36%	1.01%
[2] Eligible - Not Designated	779	2.48%	1.67%	1.55%
[3] Ineligible	933	2.31%	2.18%	2.04%
[4] <b>Grand Total</b>	<b>1,972</b>	<b>2.32%</b>	<b>1.93%</b>	<b>1.79%</b>

*Sources & Notes*

Employment and labor force figures are derived from the American Community Survey ("ACS") 5-year estimates.

### **Appendix E: Change in enterprise employment and sales by OZ 1.0 eligibility category**

Tract Type	Tracts	Employment			Sales		
		Pre-OZ 1.0: 2017	Post-OZ 1.0: 2024	Change	Pre-OZ 1.0: 2017	Post-OZ 1.0: 2024	Change
[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]
[1] Opportunity Zone	260	560,260	570,992	10,732	\$ 105,470,796	\$ 117,068,411	\$ 11,597,615
[2] Eligible - Not Designated	779	1,641,848	1,630,157	(11,691)	309,554,636	321,883,522	12,328,886
[3] Ineligible	933	2,057,860	2,131,630	73,770	392,417,673	429,598,494	37,180,821
[4] <b>Grand Total</b>	<b>1,972</b>	<b>4,259,968</b>	<b>4,332,779</b>	<b>72,811</b>	<b>\$ 807,443,105</b>	<b>\$ 868,550,427</b>	<b>\$ 61,107,322</b>

*Sources & Notes*

Derived from proprietary data provided by Data Axle. Census tracts in the top or bottom 1% of both employment and sales growth are excluded from this analysis. Sales are reported in thousands of U.S. dollars (USD).

### **Appendix F: Change in enterprise employment and sales by OZ 1.0 eligibility category and rural-urban status**

Tract Type	Urban Tracts	Employment			Sales		
		Pre-OZ 1.0: 2017	Post-OZ 1.0: 2024	Change	Pre-OZ 1.0: 2017	Post-OZ 1.0: 2024	Change
[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]
[1] Opportunity Zone	218	323,923	333,773	9,850	\$ 63,717,131	\$ 73,502,273	\$ 9,785,142
[2] Eligible - Not Designated	533	1,232,871	1,214,424	(18,447)	227,035,547	236,132,199	9,096,652
[3] Ineligible	702	1,823,005	1,886,325	63,320	351,223,094	389,870,464	38,647,370
[4] <b>Grand Total - Urban</b>	<b>1,453</b>	<b>3,379,799</b>	<b>3,434,522</b>	<b>54,723</b>	<b>\$ 641,975,772</b>	<b>\$ 699,504,936</b>	<b>\$ 57,529,164</b>

Tract Type	Rural Tracts	Employment			Sales		
		Pre-OZ 1.0: 2017	Post-OZ 1.0: 2024	Change	Pre-OZ 1.0: 2017	Post-OZ 1.0: 2024	Change
[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]
[1] Opportunity Zone	42	236,337	237,219	882	\$ 41,753,665	\$ 43,566,138	\$ 1,812,473
[2] Eligible - Not Designated	246	408,977	415,733	6,756	82,519,089	85,751,323	3,232,234
[3] Ineligible	228	234,855	245,305	10,450	41,194,579	39,728,030	(1,466,549)
[4] <b>Grand Total - Rural</b>	<b>516</b>	<b>880,169</b>	<b>898,257</b>	<b>18,088</b>	<b>\$ 165,467,333.0</b>	<b>\$ 169,045,491.0</b>	<b>\$ 3,578,158.0</b>

*Sources & Notes*

Employment and sales data derived from proprietary data provided by Data Axle. Census tracts in the top or bottom 1% of both employment and sales growth are excluded from the analysis. Sales are reported in thousands of U.S. dollars (USD).