# Entrepreneurship's Many Paths to Economic Development

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# Executive Summary

By many measures, Elkhart County, IN, stands out as a regional success story. According to the U.S. Bureau of Economic Analysis, income per capita has increased steadily, reaching $58,662 in 2023, while poverty rates have declined over the past decade. These trends suggest a continuously improving economic well-being and quality of life for many residents. The more difficult and more important question is *why*.

There is no shortage of plausible explanations, all of which build on the assertion that Elkhart County is widely recognized as an entrepreneurial community. However, entrepreneurship in this context is not limited to startups. Rather, it reflects a diverse population of entrepreneurial firms that pursue opportunity through innovation, market expansion, industry specialization, and community engagement.

One potential explanation of Elkhart County's success lies in the presence of highly innovation-driven entrepreneurial firms, apparent in startup activity and patenting. These firms play a critical role in regional change by introducing new products, services, and production processes. Innovation-driven entrepreneurial firms generate employment, stimulate competition, and expand the technological frontier of the local economy. Over time, their activity contributes to productivity growth and upward mobility. In practical terms, innovative entrepreneurship enables regions to adapt to economic disruption rather than remain constrained by existing structures.

Equally important may be Elkhart County's strong base of industry-specific entrepreneurial firms operating within well-developed clusters, most visibly in recreational vehicles and advanced manufacturing. Clusters matter because proximity generates advantages. Firms benefit from shared labor markets, specialized suppliers, and infrastructure tailored to industry needs. Knowledge diffuses more rapidly, collaboration becomes more feasible, and innovation is more easily sustained. Cluster-based entrepreneurial firms also strengthen a region's reputation, reinforcing its ability to attract complementary firms, talent, and investment.

Another contributor may be Elkhart County's international reach. Many local firms participate in exporting, global supply chains, and cross-border partnerships. These firms extend regional opportunities beyond local demand and introduce new technologies, standards, and managerial practices into the local ecosystem. Internationally oriented entrepreneurial firms often serve as bridges between global and local markets, strengthening suppliers, supporting smaller ventures, and elevating regional competitiveness.

Finally, the presence of impact-oriented firms may also contribute to Elkhart County's success. These nonprofits pursue social, environmental, and community goals instead of economic gain. Their contributions are reflected in workforce development, community stability, service provision, and the strengthening of local institutions. Through these mechanisms, nonprofit activity helps ensure that regional prosperity supports broader and more inclusive forms of well-being.

Each of these explanations is compelling on its own. Yet examining them in isolation overlooks a critical insight that is particularly relevant for Elkhart County. Regions do not thrive because of a single type of entrepreneurial firm. They thrive because different forms of entrepreneurial activity coexist and reinforce one another within the same ecosystem.

This study, conducted by researchers at Butler University in collaboration with the Institute for Entrepreneurial Communities, takes an integrated view of economic development. Rather than asking whether innovation, international engagement, industry clustering, or a focus on impact matters, we ask a more practical question: Which combinations of firms are associated with stronger economic outcomes?

Using data from all U.S. counties between 2014 and 2020, we examine how different mixes of innovation-driven, exporting, industry-focused, and impact-oriented firms relate to regional economic well-being. We analyze rural, small metro, and large metro counties separately to ensure relevance for places like Elkhart County.

The goal is not to identify a single "right" development strategy. Instead, the aim is to surface multiple viable strategies for success. For Elkhart County, this approach offers evidence-based insight into how its existing strengths can be aligned more intentionally and how peer regions with similar profiles can serve as benchmarks for learning and collaboration.

In short, understanding Elkhart County's economic success requires moving beyond isolated explanations and toward a clearer picture of how innovation activity, international engagement, industry specialization, and community capacity come together to support long-term prosperity.

# Part 1: Research Brief

This research brief provides an abbreviated summary of the research conducted. For additional details, please contact the authors.

## Introduction

What drives economic development in a region is a central question for scholars and policymakers seeking sustained increases in prosperity and quality of life (Feldman et al., 2016; Leigh & Blakely, 2013). Economic development is associated with improvements in life expectancy, infrastructure, and well-being (Chetty et al., 2016; Czernich et al., 2011; Deaton, 2008) and is a core objective of the United Nations' Sustainable Development Goals (D'Adamo et al., 2022). Despite its importance, identifying the drivers of economic development is challenging due to the complexity of regional environments and difficulties of attribution (Feldman et al., 2016). While firms are widely recognized as key contributors, prior research has tended to examine different types of firms in isolation. We adopt an entrepreneurial lens to integrate multiple firm types and therefore ask: Which configurations of entrepreneurial firms lead to greater economic development in a region?

## Theoretical Framework

### Entrepreneurship and Economic Development

Economic development reflects the expansion of capacities that enable sustainable prosperity and quality of life (Feldman et al., 2016). Per capita income is a widely used indicator of these outcomes (Wennekers et al., 2005), as it correlates with living standards, service access, and economic stability (Chetty et al., 2016; Czernich et al., 2011) and demonstrates individual well-being (Deaton, 2008).

Debates persist regarding which firm types most effectively contribute to development. Schumpeter (1961) emphasized innovation and productivity, whereas Shane and Venkataraman (2000) framed entrepreneurship as an opportunity for discovery and exploitation. Although innovation-driven firms, international firms, industry clusters, and impact-oriented firms have each been linked to development, these perspectives are rarely examined jointly. Therefore, we integrate them under a unified entrepreneurial lens.

### *Innovation-Driven Firms*

Innovation-driven firms contribute to economic development through job creation, productivity gains, and wealth generation (Atems & Shand, 2018; Audretsch & Keilbach, 2004; Fritsch & Mueller, 2004). Startups drive creative destruction by introducing new combinations of products, technologies, and organizational forms (Schumpeter, 1942), facilitating knowledge diffusion and commercialization (Acs & Armington, 2011; Audretsch & Keilbach, 2004).

Existing firms also contribute through corporate entrepreneurship and intrapreneurship (Ben Arfi & Hikkerova, 2021; Bierwerth et al., 2015). Their investments in research and development, patents, and new product development enhance productivity (García-Morales et al., 2014), create jobs, and generate spillover effects (Ireland et al., 2009). Together, startups and established firms reinforce innovation-led regional competitiveness.

### *Industry-Specific Firms*

Industry-specific firms often exist in clusters of interconnected firms in geographic concentrations that generate regional competitive advantage (Delgado et al., 2010; Feldman & Francis, 2006; Porter, 1998; Zhu et al., 2019). Foundational firms attract new entrants and encourage entrepreneurial behavior (Li, 2018).

Clusters promote knowledge spillovers (Acs et al., 1994; Coe & Helpman, 1995; Jaffe et al., 1993), productivity gains through specialized labor and suppliers (Porter, 1998), and firm attraction (Gilbert et al., 2008; Ketels & Memedovic, 2008). These mechanisms create self-reinforcing cycles of innovation and regional growth.

### *International Firms*

International firms pursue entrepreneurial opportunities through exporting and foreign market expansion (Knight & Cavusgil, 2004). Intenationalizaton strengthens competitiveness (Love & Roper, 2015), fosters learning (Johanson & Vahlne, 2017), and stimulates innovation (Alvarez & Robertson, 2004; Golovko & Valentini, 2011; Wu, 2013).

International firms also generate regional spillovers by transferring knowledge, technologies, and best practices (Belitski et al., 2023). As flagship firms within networks, they stabilize regional ecosystems and support supplier growth (Rugman & D'Cruz, 2000). Network participation further enhances innovation through knowledge exchange and access to complementary resources (Gellynck et al., 2007; Ring et al., 2010).

### *Impact-Oriented Firms*

Impact-oriented firms such as nonprofits mobilize resources for public benefit and contribute to development by strengthening human capital, reducing labor barriers, and reinforcing social capital (Dacin et al., 2010). Regional concentration enhances partnerships and workforce development (Bahmani et al., 2012; Unger et al., 2011).

These firms decrease barriers related to childcare, transportation, disability, and incarceration stigma (Snavely & Beck, 2021), thereby fostering inclusive labor participation. They also strengthen social capital and civic infrastructure, consequently improving coordination and collective action (Peredo & Chrisman, 2006; Putnam, 2000).

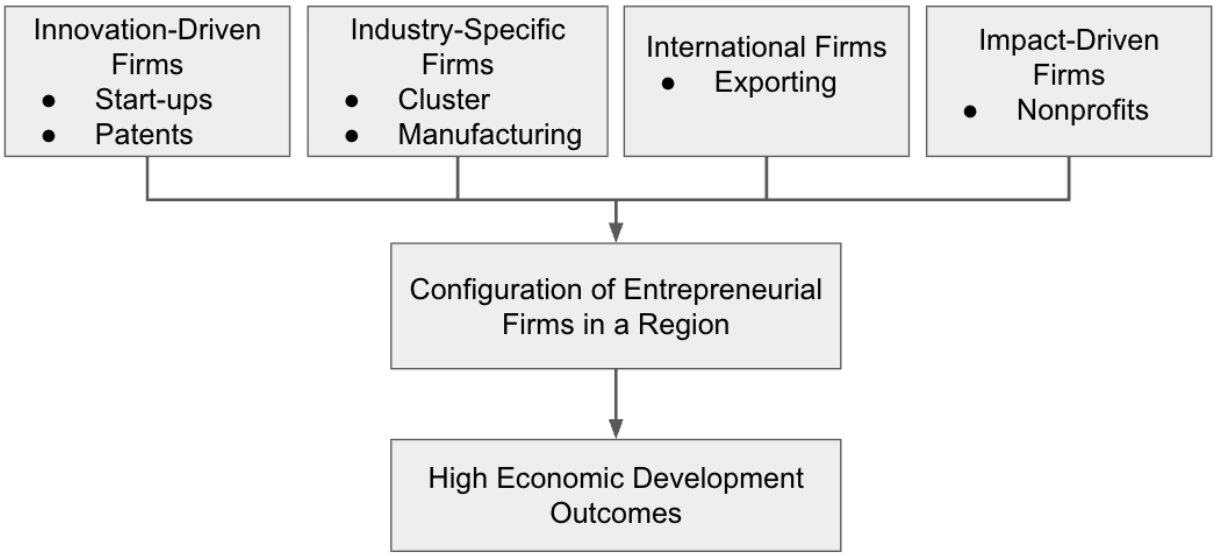
## A Configurational Perspective

While each firm type may influence economic development independently, it is ultimately shaped by the firms' combined presence. In complex environments, outcomes cannot be attributed to any single investment or factor (Feldman et al., 2016). Instead, it is the constellation of entrepreneurial firms that determines regional performance.

Given limited theoretical guidance on which combinations matter most, we adopt an exploratory configurational approach and ask: Which configurations of entrepreneurial firms lead to greater economic development in a region? Our theoretical framework can be found in Figure 1.

**Figure 1**

*Theoretical Framework of Entrepreneurial Firms in a Region and Economic Development*




# Data and Methods

## Sample and Measures

U.S. county-level data from 2014 to 2020 were organized into three regional categories using the U.S. Department of Agriculture Urban Influence Codes: large metropolitan counties (populations of one million or more), small metropolitan counties (fewer than one million residents, and rural counties (nonmetropolitan). The final sample consisted of 18,838 county-year observations, enabling comparison of economic development pathways across regional contexts. An overview of the measures follows in Table 1.

**Table 1**

*Measures, Data Sources, and Descriptive Statistics*

| Construct | Measure | Source | Mean | SD | Min | Max |
|---|---|---|---|---|---|---|
| Economic development | Income per capita | U.S. Bureau of Economic Analysis | 43,243 | 12,279 | 17,933 | 290,674 |
| Innovation-driven firms | Startups per capita | U.S. Census Bureau—Business | 8.30 | 2.45 | 0 | 40 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | Dynamics Statistics | | | | |
| | Patents per capita | U.S. Patent and Trademark Office | 0.0002 | 0.0004 | 0 | 0.0079 |
| Industry-specific firms | Presence of strong cluster | County Business Patterns; U.S. Cluster Mapping Project | 0.22 | 0.41 | 0 | 1 |
| | Percentage of manufacturing employment | County Business Patterns | 0.37 | 0.07 | 0 | 1 |
| International firms | Exports per capita | International Trade Administration | 4,822 | 10,236 | 0 | 476,295 |
| Impact-oriented firms | Nonprofits per capita | Candid | 0.002 | 0.001 | 0 | 0.017 |

## Method

We applied fuzzy-set qualitative comparative analysis (fsQCA) to explore how different combinations of entrepreneurial firm types are associated with economic development outcomes. FsQCA is a set-theoretic approach that enables the identification of multiple, equally valid causal pathways and captures complex interdependencies among conditions (Ragin, 2008).

Calibration transformed raw variables into fuzzy-set membership scores ranging from 0 (full nonmembership) to 1 (full membership) using the direct method (Ragin, 2008). For per capita personal income and all continuous causal conditions (startup rate, patent rate, exports per capita, manufacturing employment share, and nonprofit density), the 75th percentile served as the full membership threshold, the median as the crossover point (0.50), and the 25th percentile as the full nonmembership threshold. Industry clusters were treated as a binary condition, with counties assigned full membership if at least one active cluster was present; otherwise, they were assigned full nonmembership.

## Results

Before the main configurational analysis, we tested whether any single condition was necessary for achieving high income per capita. Using a consistency threshold of 0.90, we assessed all conditions and their negations following established fsQCA guidelines (Greckhamer et al., 2018; Ragin, 2008; Schneider & Wagemann, 2012). No condition

met the necessity criterion, indicating that income per capita cannot be explained by any single factor alone and supporting the need for a configurational approach focused on combinations of conditions.

After assessing necessity, we conducted a sufficiency analysis to identify configurations of conditions associated with high economic development. In fsQCA, sufficiency indicates that when a specific combination of conditions is present, the outcome consistently occurs (Ragin, 2008). We constructed truth tables for each regional subgroup using calibrated fuzzy-set data to report observed configurations, case frequencies, and consistency scores.

We applied established thresholds to ensure analytical rigor. A frequency threshold of 1 was used, and configurations were retained only if they met a minimum consistency of 0.80, in line with prior recommendations (Ragin, 2008). We also applied a PRI consistency threshold of 0.50 to ensure that retained configurations that predominantly led to the outcome rather than to its absence. Together, these criteria ensured that the final configurations represented robust and reliable pathways to high economic development.

The results of sufficiency analysis are presented in Table 2.

**Table 2**

*Configurations of Firms in a Region Leading to High Per Capita Income*

| | Rural Counties | | | | | | | Small Metro Counties | | | | | | | | Large Metro Counties | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | R1 | R2 | R3 | R4 | R5 | R6 | R7 | S1 | S2 | S3 | S4 | S5 | S6 | S7 | S8 | L1 | L2 | L3 | L4 | L5 |
| Startups | | ⊗ | ⊗ | | | | ● | | | | | ● | | ● | | | | ● | ● | ⊗ |
| Patents | ● | | | | | | ● | ● | | ● | ● | | ● | ● | | | ● | ● | ● | |
| Exporting | | | ● | | ● | ● | ⊗ | | | | ● | | | | ● | | ⊗ | | | ● |
| Cluster | | ● | | ● | ● | | ● | ● | ● | | ● | ● | ● | | ● | ● | ● | ● | | ● |
| Manufacturing | | | | ● | ● | ● | ⊗ | ⊗ | ⊗ | ⊗ | | | | | | | | | | ⊗ |
| Nonprofits | ● | ● | ● | ● | ● | ● | | | ● | ● | | ● | ● | ● | ● | ● | | | ● | |
| Consistency | 0.83 | 0.87 | 0.84 | 0.88 | 0.92 | 0.84 | 0.86 | 0.92 | 0.91 | 0.87 | 0.88 | 0.93 | 0.91 | 0.90 | 0.90 | 0.88 | 0.90 | 0.90 | 0.95 | 0.87 |
| Raw coverage | 0.49 | 0.04 | 0.29 | 0.07 | 0.04 | 0.32 | 0.02 | 0.13 | 0.14 | 0.28 | 0.24 | 0.23 | 0.33 | 0.34 | 0.22 | 0.57 | 0.32 | 0.38 | 0.35 | 0.08 |
| Unique coverage | 0.19 | 0.00 | 0.04 | 0.00 | 0.00 | 0.03 | 0.00 | 0.01 | 0.01 | 0.07 | 0.03 | 0.01 | 0.03 | 0.03 | 0.01 | 0.19 | 0.01 | 0.04 | 0.06 | 0.01 |
| Solution coverage | 0.62 | | | | | | | 0.63 | | | | | | | | 0.63 | | | | |
| Solution consistency | 0.80 | | | | | | | 0.84 | | | | | | | | 0.86 | | | | |

● present ⊗ not present; blank does not matter

*Note*. In the fsQCA results, symbols show how different conditions relate to high per capita income within each configuration. A solid symbol (●) indicates that the condition is present and plays an important role. A circle with an *x* (⊗) indicates that the condition is absent and that its absence is an important part of the configuration. A blank cell suggests that the factor may be present or absent, but it does not meaningfully influence whether that configuration leads to high per capita income.

In rural counties, seven configurations were sufficient for high economic development. Nonprofits appeared in six of the seven configurations, whereas exporting, clusters, and manufacturing each appeared in three. Early configurations combined nonprofits with patents, clusters, or exporting, often without startups. Other configurations paired nonprofits with manufacturing, with variation in the presence of clusters and exporting. One configuration relied on startups, patents, and clusters but was indifferent to nonprofits. Consistency scores ranged from 0.83 to 0.92.

In small metropolitan counties, eight sufficient configurations emerged. Nonprofits and clusters were present in six configurations, patents in four, and exporting and startups in two. All configurations involved three conditions. Manufacturing was not central in any configuration and was absent in three. Consistency ranged from 0.87 to 0.93 with meaningful coverage, indicating strong explanatory power.

In large metropolitan counties, five configurations were sufficient. Clusters dominated four of the five configurations, whereas nonprofits appeared in only two. Manufacturing was largely irrelevant, and its absence was central in one configuration. The strongest configuration combined clusters and nonprofits. Consistency ranged from 0.87 to 0.95, with raw coverage reaching 0.57.

Across regions, clusters and nonprofits consistently emerged as core drivers of economic development, though nonprofits were more prominent in rural and small metro counties. Patents also played a recurring role, particularly in small and large metropolitan areas. In contrast, startups, exporting, and manufacturing showed region-specific and variable importance. Overall, the results demonstrate that economic development follows multiple, regionally contingent pathways, with flexibility in some conditions and stability in others.

## Discussion

Our results reveal multiple equifinal configurations of entrepreneurial firms that lead to high levels of economic development. Across rural, small metropolitan, and large metropolitan counties, four recurring patterns emerged (see Table 3), each representing a distinct pathway to high per capita income. We next discuss these using the analogy of water to understand them.

The first pattern, **headwaters**, appears only in rural counties and reflects the joint presence of manufacturing firms and nonprofits. These counties combine stable production capacity with strong social infrastructure, creating reliable economic foundations. We refer to this pattern as headwaters, which represent upstream sources that sustain the broader system through reliable flows. Monroe County, FL, illustrates this pattern.

The second pattern, **wetlands**, combines at least one industry cluster with a dense nonprofit presence. Wetlands function as integrative environments that regulate flows, support diversity, and enhance system stability. In this configuration, clusters and nonprofits together create coordination, relational density, and support infrastructure that strengthen the local ecosystem. These counties foster economic vitality by sustaining continuity and adaptability across firms and sectors. Variations of this pattern also include exporting, startups, or patents. New Castle County, DE, exemplifies this pathway.

The third pattern, **freshwater springs**, is observed across all county sizes, with greater prevalence in large metropolitan areas. These counties exhibit high startup and patent activity supported by clusters, nonprofits, or both. Freshwater springs emerge where underlying structures allow water to surface in consistent and localized flows. Likewise, these counties exhibit visible and ongoing innovation activity that is reinforced by supportive institutional and industrial foundations. San Francisco County, CA, serves as a representative case.

The fourth pattern, **spawning pools**, consists of strong industry clusters combined with high patenting activity. In natural systems, spawning pools concentrate resources and interactions in ways that enable repeated reproduction. In a similar matter, this configuration creates dense, interaction-rich environments that consistently generate innovation. It appears across all county types, indicating a scalable pathway to economic development. Some variations also include startups or exporting. An example of this pattern includes Elkhart County.

**Table 3**
*Firm Patterns Across Counties with High Levels of Per Capita Income*

| Pattern No. | Configurations | Pattern Label | Pattern | Exemplar Counties |
|---|---|---|---|---|
| 1 | R4, R5, R6 | Headwaters | A **rural** county that has high levels of **manufacturing** and **nonprofit** firms. | Monroe, FL; Kittson, MN; Steele, ND |
| 2 | R2, R4, R5, R6, S2, S5, S6, S8, L1 | Wetlands | A county that has at least one **cluster** and a high level of **nonprofit** firms. | Dubois, IN; Coconino, AZ; New Castle, DE |
| 3 | R7, S7, L3, L4 | Freshwater springs | A county that has a high level of **startups** and | Boulder, CO; San Francisco, |

| | | | | |
|---|---|---|---|---|
| | | | **patents**, and that is supported via having at least one **cluster** or **nonprofits**. | CA;<br>Fulton, GA |
| 4 | R7, S1, S4, S6, L2, L3 | Spawning pool | A county that has at least one **cluster** and a high level of **patenting**. | Laramie, WY;<br>Elkhart, IN;<br>Williamson, TX |

Together, these four patterns demonstrate that economic development does not follow a single trajectory. Instead, counties achieve high income through distinct but repeatable configurations that reflect regional context, institutional support, and industry structure.

## Conclusion

The findings show that high economic development can be achieved through multiple, region-specific configurations of entrepreneurial firms rather than a single universal pathway. Policymakers should therefore tailor strategies to their county type and existing assets instead of adopting standardized models. While counties differ in their development pathways, common patterns reveal that regional context plays a central role in shaping economic outcomes.

# Part 2: Implications for Elkhart County

## Introduction

Using the findings from our research, we next examine the specific implications for Elkhart County. We begin by presenting the data that define its entrepreneurial profile, followed by an analysis of the firm configurations (patterns) associated with its economic development outcomes. We then identify counties across the United States that share similar profiles and discuss how these insights may be leveraged.

## Entrepreneurial Profile of Elkhart County

According to the U.S. Census Bureau, Elkhart County's population in 2024 was 207,436. This population has remained relatively stable over the period of our study, with 201,446 residents in 2014 and 206,161 in 2020. Based on these figures, Elkhart County is classified as a small metropolitan county by the U.S. Department of Agriculture's Economic Research Service, which defines small metropolitan areas as those with fewer than one million residents.

Table 4 compares the entrepreneurial profile of Elkhart County to other similarly sized counties in the United States based on the average data in the years of our study.

**Table 4**
*Entrepreneurial Profile of Elkhart County*

| | 2014–2020 Average Data | |
|---|---|---|
| | Elkhart County | All Small Metro Counties in the United States |
| Startup per capita | 7.09 | 8.53 |
| Patents per capita | 0.000235 | 0.000229 |
| Exports per capita | $4,618 | $3,821 |

| | | |
|---|---|---|
| Presence of at least one strong cluster | 1.00 | 0.36 |
| Percentage of manufacturing employment | 0.55 | 0.03 |
| Nonprofits per capita | 0.0015 | 0.0016 |
| Income per capita | $49,934 | $43,565 |

Elkhart County has a lower number of startups per capita (7.09) than the average small metropolitan county in the United States (8.53). This rate tends to fluctuate over the years of the study, reaching a high of 8.28 in 2015 and a low of 6.68 in 2019. A lower-than-average startup rate may reflect the maturity of Elkhart County's entrepreneurial ecosystem, in which many successful firms are no longer classified as startups because they have grown into large, established companies. For example, the top three major employers identified by the Economic Development Corporation of Elkhart County began as new ventures and expanded substantially over time. Thor Industries was founded in 1980 by Peter B. Orthwein and Wade F. B. Thompson and went public in 1984. Forest River was founded in 1996 by Peter J. Liegl and was acquired by Berkshire Hathaway in 2005. Lippert Components was founded in 1956 by Larry Lippert and continues to grow.

At the same time, Elkhart County exhibits a higher-than-average patent rate, suggesting that firms in the county continue to engage in meaningful innovation. Elkhart County also has significantly higher exports per capita than the average, further indicating the presence of mature firms that are actively competing in national and international markets.

With respect to industry-specific clusters, the average cluster score for small metropolitan counties is 0.36, meaning that 3% of these counties have at least one strong cluster present. Elkhart County has a score of 1.00, indicating the presence of at least one cluster. However, this understates the strength of Elkhart County's cluster environment. Using the methodology of the U.S. Cluster Mapping Project, which defines a strong cluster as one ranking in the top 20% of location quotients based on local employment concentration relative to national employment in an industry, Elkhart County has four and, more recently, five strong clusters. These clusters, as labeled by the U.S. Cluster Mapping Project, include:

- Distribution and electronic commerce
- Automotive
- Furniture
- Plastics

- Trailers, motor homes, and appliances

Another strong distinguishing feature of Elkhart County is its reliance on manufacturing. The percentage of manufacturing employment in the county (55%) is significantly higher than that of the average small metropolitan county (3%). Indeed, manufacturing has long been a tradition in Elkhart County. The Economic Development Corporation of Elkhart County identifies 7 of the 10 leading employers in the county as manufacturers: Thor Industries, Forest River, Lippert Components, Patrick Industries, Winnebago, Gulf Stream Coach, and Utilimaster. The other three are educational services and health care.

The nonprofits per capita in Elkhart County (0.0015) is slightly below the average for all small metropolitan counties (0.0016). That said, if we consider the assets held by the nonprofits, Elkhart County ($16,939) has a higher level than the average ($11,712). This suggests that although Elkhart County may have fewer nonprofits, the ones they do have are larger. According to Candid's GuideStar, some of the largest nonprofits and/or foundations in terms of assets currently in Elkhart County include the Interra Credit Union, the Community Foundation of Elkhart County, and the Goshen Hospital Association.

Finally, Elkhart County's per capita income ($49,934), our measure of economic development, is significantly higher than the small metropolitan average ($43,565).

The map in Figure 2 identifies all small metropolitan counties in the United States that were identified as having high per capita income. The colors represent their membership, or the variance within the high per capita income category.

Figure 3 presents a close-up of the state of Indiana, in which Elkhart County has one of the highest per capita income levels.

Taken together, these indicators suggest that Elkhart County is among the small metropolitan counties that have achieved strong economic development outcomes.

**Figure 2**
*Membership of Small-Metro Counties in High Per-Capita Income*

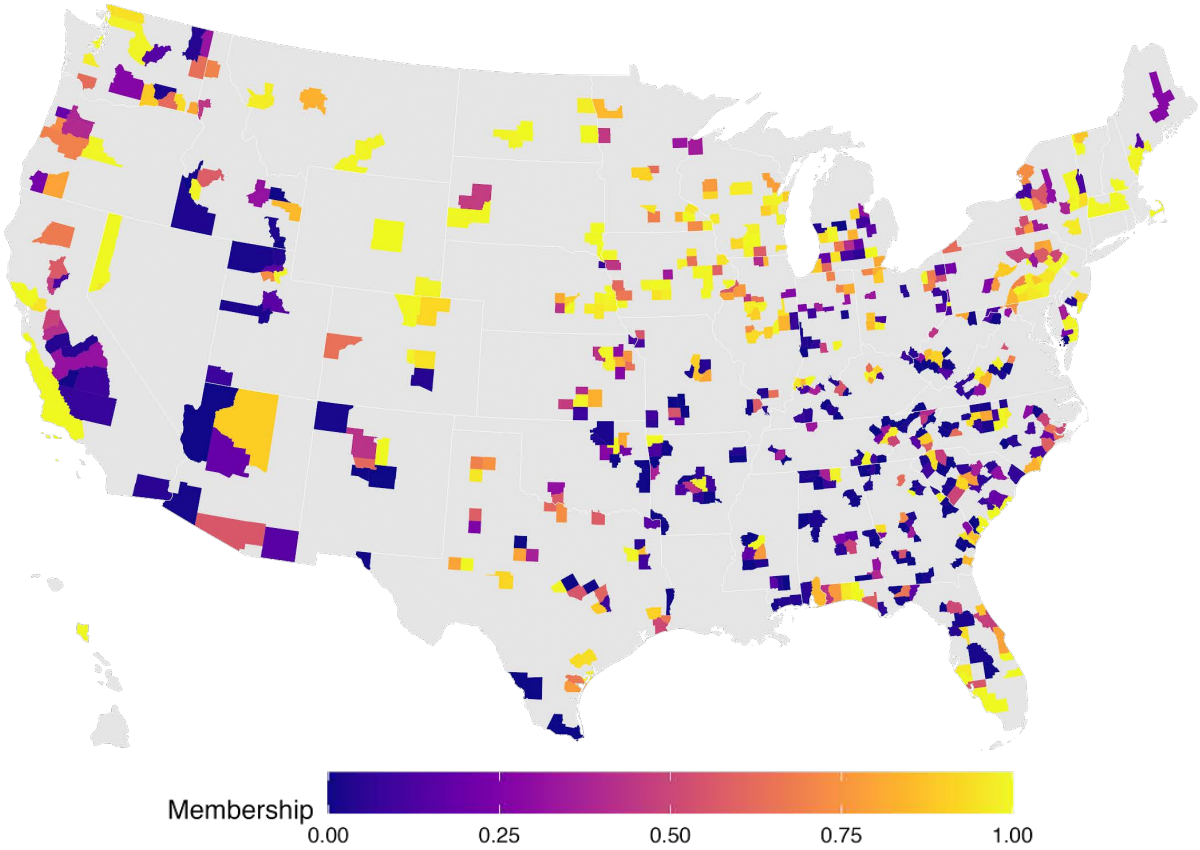
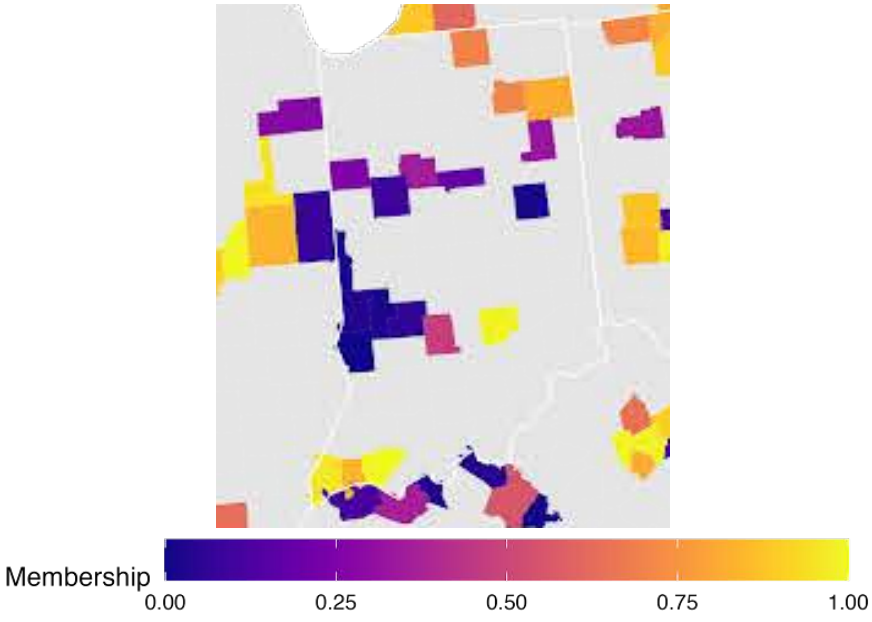



**Figure 3**
*Membership of Small-Metro Indiana Counties in High Per-Capita Income*



# Configuration of Firms Leading to Elkhart County's High Per Capita Income

Our study examined how different combinations of entrepreneurial firms are associated with high per capita income across rural, small metropolitan, and large metropolitan counties. Because Elkhart County falls into the small metropolitan category, the findings for this group are the most directly relevant.

## Results for Small Metropolitan Counties

Among small metropolitan counties, we identified eight distinct combinations of firms that were associated with high levels of economic development, measured by per capita income. Importantly, this suggests that counties similar in size to Elkhart County can achieve strong economic outcomes in more than one way, rather than needing to follow a single prescribed model. These configurations are presented in Table 5.

**Table 5**
*Configurations Leading to High Per-Capita Income among Small Metro Counties*

| | Configurations: Small Metropolitan Counties | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | S1 | S2 | S3 | S4 | S5 | S6 | S7 | S8 |
| Startups | | | | | ● | | ● | |
| Patents | ● | | ● | ● | | ● | ● | |
| Exporting | | | | ● | | | | ● |
| Cluster | ● | ● | | ● | ● | ● | | ● |
| Manufacturing | ⊗ | ⊗ | ⊗ | | | | | |
| Nonprofits | | ● | ● | | ● | ● | ● | ● |
| Consistency | 0.92 | 0.91 | 0.87 | 0.88 | 0.93 | 0.91 | 0.90 | 0.90 |
| Raw coverage | 0.13 | 0.14 | 0.28 | 0.24 | 0.23 | 0.33 | 0.34 | 0.22 |
| Unique coverage | 0.01 | 0.01 | 0.07 | 0.03 | 0.01 | 0.03 | 0.03 | 0.01 |
| Solution coverage | 0.63 | | | | | | | |
| Solution consistency | 0.84 | | | | | | | |

● present ⊗ not present; blank does not matter

The eight configurations (S1–S8) illustrate multiple pathways through which small metropolitan counties achieve high per capita income. Across these pathways, nonprofits and industry clusters emerge as the most consistent and influential conditions, appearing in the majority of configurations. This suggests that strong nonprofit activity and the presence of at least one industry cluster are foundational elements of successful local economies in counties of this size. Innovation also plays an important role, though in different forms: Patenting activity is present in several configurations, whereas startup activity appears in fewer but distinct pathways, indicating that some counties rely more on formal innovation outputs, while others benefit from startups.

Exporting appears in only two configurations, suggesting that although access to external markets can support high income levels, it is not a necessary condition across most pathways. Manufacturing shows a notably different pattern than in rural counties. Its absence is a defining feature in the first three configurations, demonstrating that high per capita income can be achieved without a manufacturing-heavy base. In the remaining configurations, manufacturing is a “don’t care” condition, meaning counties may or may not have manufacturing activity, but its presence does not shape whether these particular pathways lead to strong economic outcomes.

Together, these configurations apply to 63% of the high-income small metropolitan counties in the sample, with strong consistency scores across all pathways. This reinforces the central insight that there is no single formula for economic success in small metropolitan areas; instead, counties achieve strong outcomes through different combinations of entrepreneurial activity, innovation, and institutional support.

## Configurations Relevant to Elkhart County

For each of the eight identified configurations of entrepreneurial conditions associated with high per capita income among small metropolitan counties, membership scores were calculated to indicate the degree to which a given county belongs to each configuration. These scores range from 0 to 1, with values closer to 1 indicating stronger membership in the set and values closer to 0 indicating weaker membership. The scores are based on calibrated conditions and reflect how closely a county aligns with the overall configuration associated with the outcome, rather than the influence of any single condition in isolation.

The average membership scores for Elkhart County from 2014 to 2020, the years of our study, are provided in Table 6.

**Table 6**
*Membership Score for Elkhart County in the Configurations leading to High Income Per-Capita Among Small Metro Counties*

| | Configurations: Small Metropolitan Counties | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | S1 | S2 | S3 | S4 | S5 | S6 | S7 | S8 |
| Elkhart County: Membership score | 0.00 | 0.00 | 0.00 | 0.95 | 0.09 | 0.52 | 0.09 | 0.52 |

Elkhart County received a membership score of 0 for the first three configurations (S1, S2, and S3). This reflects a lack of alignment with these pathways, which include the absence of manufacturing as a defining condition. Because manufacturing remains an important component of Elkhart County's economic structure, these configurations are not a good fit.

Elkhart County received low membership scores of 0.09 for two configurations (S5 and S7). Because these scores are well below 0.50 and are indeed close to 0, they indicate only minimal alignment and suggest that these pathways are not particularly relevant for Elkhart County.

Three configurations appear to be highly relevant for Elkhart County: S4, S6, and S8. Elkhart County received a membership score of 0.95 for S4, indicating a very strong match with this configuration, which includes the presence of patents, exporting, and clusters.

Elkhart County shows partial membership in configurations S6 and S8, with membership scores of 0.52 for each. Configuration S6 combines patents, clusters, and nonprofits, whereas configuration S8 combines exporting, clusters, and nonprofits.

Notably, all configurations with membership scores above 0.50 include the presence of industry clusters, suggesting that clusters are a central element of the configurations most relevant to Elkhart County.

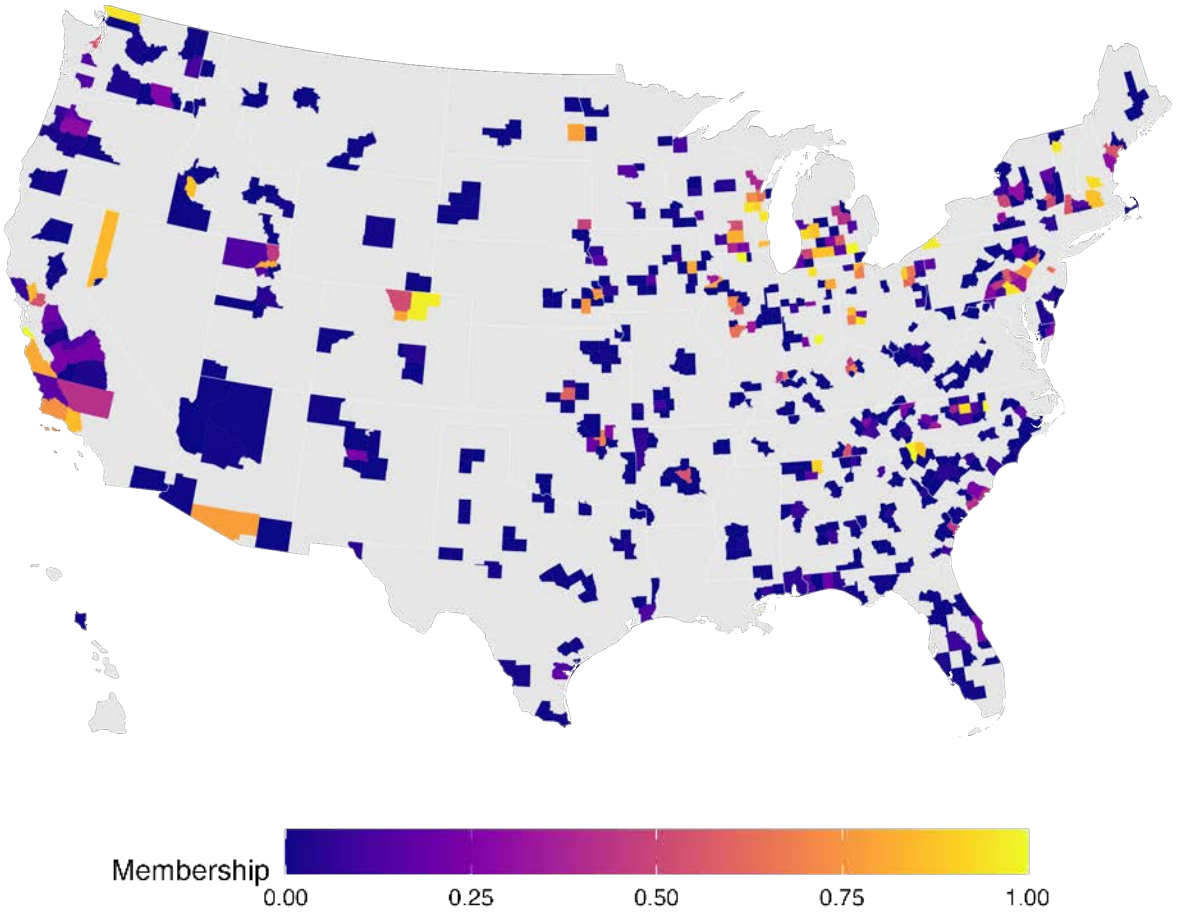
# Counties Similar to Elkhart County

To explore which counties have the most similar approach to that of Elkhart County, leading to high economic development outcomes, we next explore the counties with similar membership scores to the relevant configurations.

## Configuration S4 (patents, exports, cluster)

Within Configuration S4, counties achieve high per capita income through a combination of firms with high levels of patents, exporting, and at least one strong cluster. This was the configuration that had the greatest match for Elkhart County, with a membership score of 0.95. Figure 4 presents a map of all small metropolitan counties that achieved high per capita income through this configuration.

**Figure 4**
*Membership of Small-Metro Counties using Configuration S4 Leading to High Per-Capita Income*



The **top 10 U.S. counties** with the highest membership score in **Configuration S4** appear in Table 7.

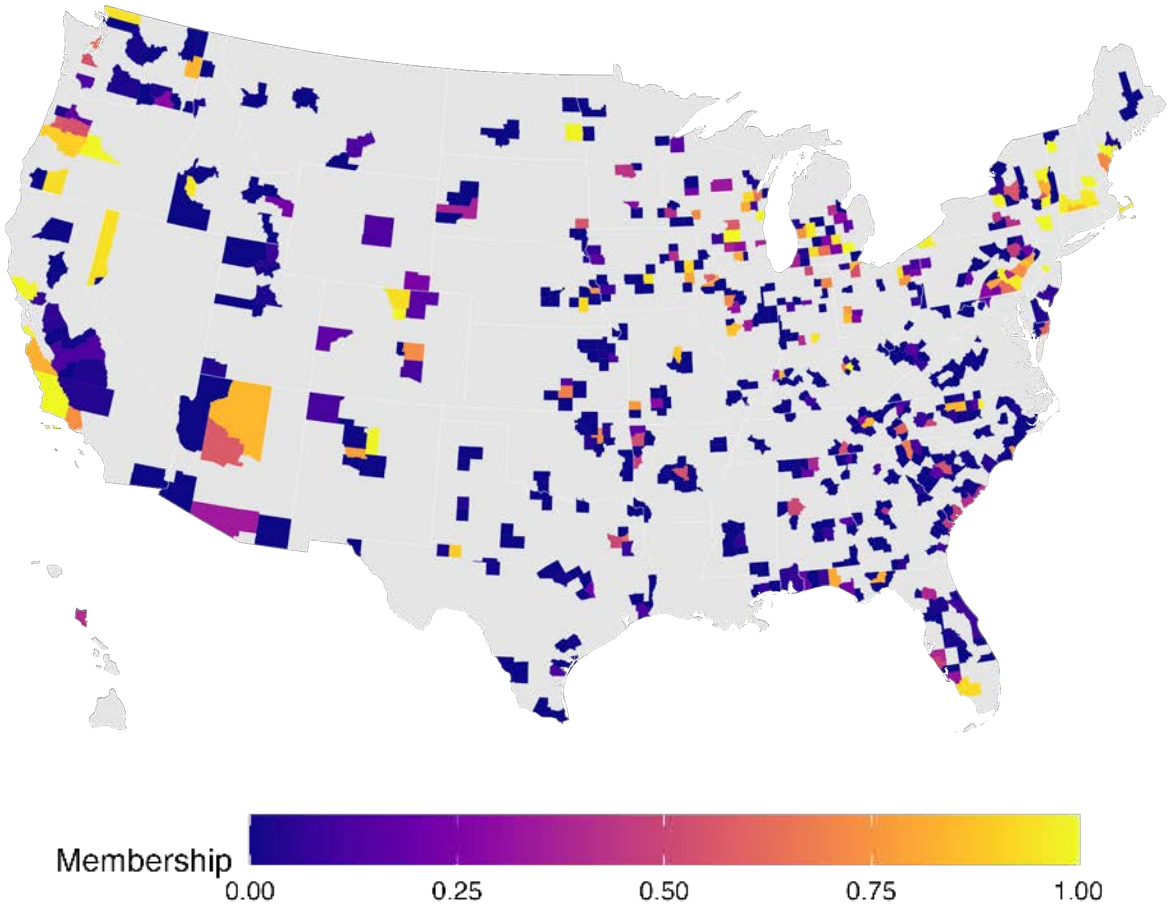
**Table 7**
*Top 10 U.S. Small Metro Counties using Configurate S4 Leading to High Income Per-Capita*

| | |
|---|---|
| Durham, NC | 1.00 |
| Greenville, SC | 1.00 |
| Bartholomew, IN | 1.00 |
| Washtenaw, MI | 1.00 |
| Winnebago, IL | 1.00 |
| Lehigh, PA | 0.97 |
| Erie, PA | 0.97 |
| Sheboygan, WI | 0.96 |
| Chittenden, VT | 0.96 |
| Whatcom, WA | 0.95 |

## Configuration S6 (patents, nonprofits, cluster)

Within Configuration S6, counties with high per capita income relied on a combination of firms with high levels of patents, nonprofits, and that represent at least one strong cluster. Elkhart County had a membership score in S6 of 0.52, meaning that it was a good fit, although not as high as that of S8. Figure 5 presents a map of all small metropolitan counties that achieved high per capita income through this configuration.

**Figure 5**
*Membership of Small-Metro Counties using Configuration S6 Leading to High Per-Capita Income*




The **top 10 U.S. counties** with the highest membership score in **Configuration S6** appear in Table 8.

**Table 8**
*Top 10 U.S. Small Metro Counties using Configurate S6 Leading to High Income Per-Capita*

| | |
|---|---|
| Chittenden, VT | 1.00 |
| Dane, WI | 1.00 |
| Mercer, NJ | 1.00 |
| Albany, NY | 1.00 |
| Fayette, KY | 1.00 |

| | |
|---|---|
| Ulster, NY | 1.00 |
| Washtenaw, MI | 1.00 |
| Deschutes, OR | 0.99 |
| Hillsborough, NH | 0.99 |
| Onondaga, NY | 0.99 |

## Configuration S8 (exporting, nonprofits, cluster)

Within Configuration S6, counties with high per capita income relied on a combination of firms with high levels of patents, nonprofits, and that represent at least one strong cluster. Elkhart County had a membership score in S6 of 0.52, meaning that it was a good fit, although not as high as that of S8. Figure 6 presents a map of all small metropolitan counties that achieved high per capita income through this configuration.

**Figure 6**
*Membership of Small-Metro Counties using Configuration S6 Leading to High Per-Capita Income*

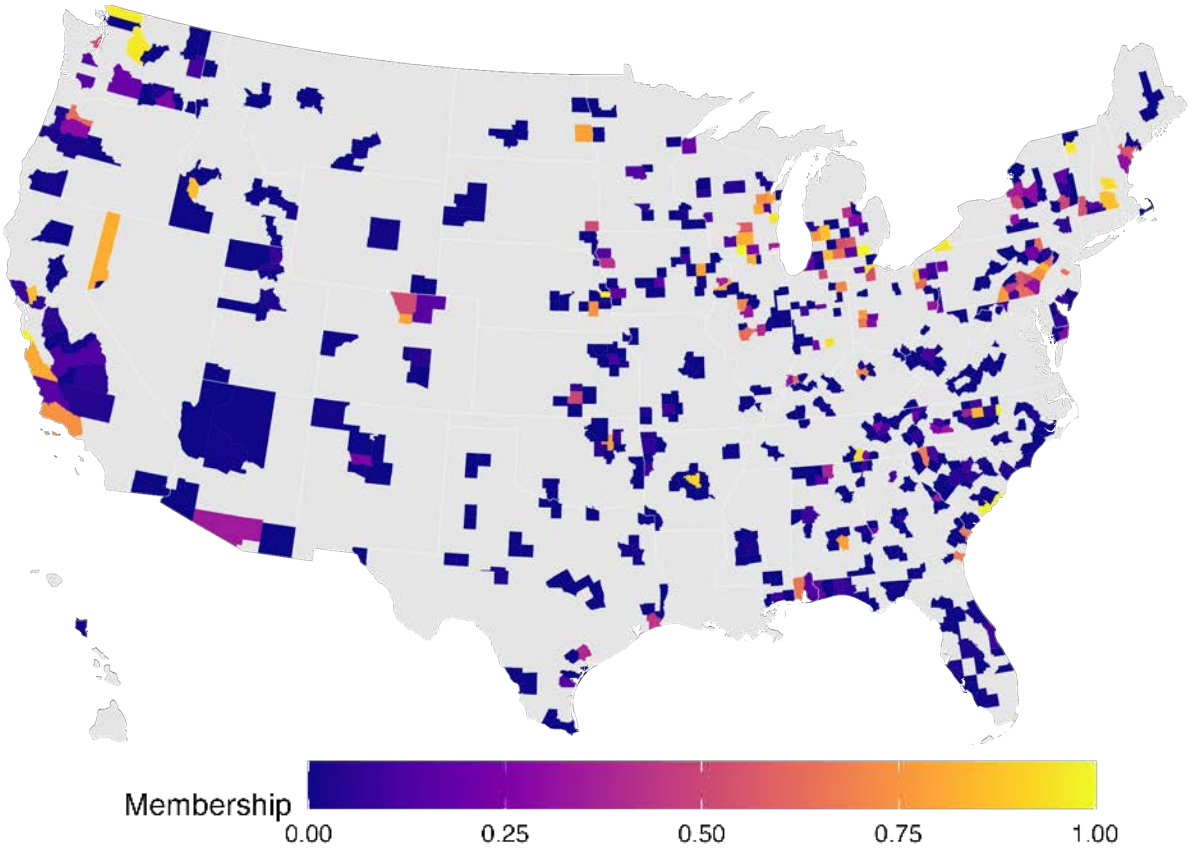


Table 9 presents the **top 10 U.S. counties** with the highest membership score in **Configuration S8**.

**Table 9**
*Top 10 U.S. Small Metro Counties using Configurate S8 Leading to High Income Per-Capita*

| | |
|---|---|
| Washtenha, MI | 1.00 |
| Charleston, SC | 0.99 |
| Green, WI | 0.99 |
| Durham, NC | 0.98 |
| Whatcom, WA | 0.97 |
| Douglas, NE | 0.97 |
| Erie, PA | 0.97 |
| Sheboygan, WI | 0.96 |
| Chelan, WA | 0.96 |
| Chittenden, VA | 0.96 |

## Combinations

There are various ways to analyze the data to best understand which combinations of entrepreneurial firms that lead to high per capita income are most similar to the approach seen in Elkhart County.

In the following analysis, we considered small metropolitan counties that had membership scores that were (a) greater than 0.90 for Configuration S4, (b) greater than 0.50 for Configurations S6 and S8, and (c) less than 0.25 on all other configurations. We thus identified the following counties as particularly relevant:

- Bartholomew, IN
- Winnebago, IL
- Erie, PA
- Sheboygan, WI
- Winnebago, WI
- York, PA

# How Might Elkhart County Use This Data?

Given these findings, how might Elkhart County use this data? There are three main avenues with which to do so.

First, Elkhart County can use this data to **enhance storytelling**. In talking with individuals early on in this project, it was clear that Elkhart County is a success story through the many examples that they shared. Concrete expands on anecdotal evidence to clearly demonstrate what makes Elkhart County's entrepreneurial path unique.

Second, the data can be used to **prioritize investment and initiatives** that reinforce Elkhart County's distinctive path. For example, there is a need to protect and encourage continued growth and innovation within its industry-specific clusters. However, our research shows that a sole focus here is not sufficient, and that exporting, patents, and nonprofits are just as important.

Third, and perhaps most interestingly, Elkhart County can **draw lessons from other counties** that are pursuing a similar strategy. This could even evolve into a collaborative network where business, nonprofit, and economic development professionals team up and share insights with each other.

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