



# International Engagement Ready Communities

## Effective Policies & Practices for Foreign Direct Investment & Export Success

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# Executive Summary

Worldwide economic growth has brought a tremendous increase in international transactions of all kinds. It is essential for communities in the United States (U.S.) to engage with these transactions in order to advance job creation and economic growth. The two most direct forms of engagement are inbound investments into a region from outside the U.S. by international firms, known as Foreign Direct Investment (FDI), and the sale of goods or services from firms located within a particular region to world markets, known as exports. These are critical economic development opportunities for all communities working to increase their competitiveness.

The U.S. Department of Commerce's Economic Development Administration (EDA), in collaboration with the International Trade Administration's (ITA) SelectUSA, and the Trade Promotion Coordinating Committee (TPCC), launched the International Engagement Ready Communities (IERC) initiative to attract FDI and promote exports across the U.S. The goal of the project is to produce a rigorous, validated set of tools that communities across the U.S. can use to bolster international engagement and become more competitive. This report is the first deliverable of the initiative and includes a comprehensive review of the existing literature on FDI and exports to summarize relevant research and identify trends, policies, and outcomes. The review is combined with a mixed methods analysis that consists of two components: a **quantitative analysis** that captures determinants of FDI and export performance across the U.S. using a national dataset, and a **qualitative analysis** that summarizes insights gathered from a robust literature review and interviews with practitioners and experts.

The quantitative analysis is a cross-sectional regression designed to identify the key factors that drive FDI attraction and export promotion at the regional level. The national dataset is large enough to conduct comparative analysis across different types of regions, and a comprehensive set of variables are included to reduce the likelihood of unknown confounding variables. The quantitative analysis identifies patterns of performance, while the qualitative analysis highlights individual policies and actions that may not be quantitatively measurable but are nevertheless essential factors. The qualitative analysis employs an iterative approach in which more than 100 candidate cases were screened based on six key characteristics. This grounded theory method resulted in conceptual findings related to common and effective practices in attracting FDI and expanding regional exports. These findings were confirmed by an extensive review of the literature and supplemental primary research via 40 stakeholder interviews. **Together, this combined quantitative and qualitative approach triangulates the question of FDI attraction and export promotion by capturing both measurable patterns and specific instances of policies and strategies in action.**

Our quantitative and qualitative findings indicate that **increased FDI and/or the growth of successful export capabilities is typically based on the particular combination of assets and liabilities** of a specific location, rather than any single attribute. Economic developers interested in FDI attraction and growth of clusters in the traded goods sector must understand their particular industrial base, as well as the type of economic activity they want to attract or grow. With this in mind, **a community must define its assets with specificity to be**

**meaningful to potential investors**, and to distinguish it from other areas. Differentiated value propositions may include assets such as **regional concentrations of industries, clusters, or supply chains; research and innovative capacity** (including major research institutions); and/or **major companies or original equipment manufacturers** (OEMs). For exporting, this involves identifying individual companies and competitive clusters where international business development can be nurtured.

**Regional connections and relationships to foreign markets** (residents from a particular country, student alumni, sister cities, etc.), **geographic proximity to specific foreign markets, and the number of existing foreign-owned enterprises in an area are especially important assets**. A region's existing international engagements, including the presence of foreign-owned firms, international share of migration, and the foreign-born percent of the population, were positively correlated with FDI and export performance.

**Communities can also leverage (and invest in) assets of value for traditional economic development initiatives in order to attract FDI deals and foster the expansion of exports. Transportation infrastructure**, including passenger airports, air cargo, ports, and railroads, is particularly critical, although differences were detected in the quantitative analysis among specific indicators for types and sizes of regions. **Geographic position** within the country (proximity to customers and transportation distances) also influences investment decisions, including those seeking export platforms.

The quantitative analysis also indicated that foreign investors may locate in (and export from) areas with a supply of underutilized **skilled labor** (as indicated by a high unemployment rate). Several economic development organization (EDO) stakeholders confirmed that factor costs and other operating costs are critical regional assets to consider as well, including **energy, labor, and land**. At the level of state and regional policies and practices, the quantitative analysis also found that regions with a **lower property tax burden and higher levels of R&D spending** (as a portion of state GDP) have higher levels of FDI attraction, and **lower industrial utility rates** are associated with improved export performance.

Effective international engagement requires a **unified and consistent message** to promote a robust regional value proposition and clearly communicate a region's distinct assets.

**Jurisdictions can band together across a region**—sometimes including nearby major metro areas—to combine resources and build the scale necessary to engage in productive FDI marketing and export outreach. These international engagement practices, effectively a subset of broader economic development actions, also include narrower policies and practices relevant only for FDI or for exporters.

In the case of FDI, once a region has determined and advertised its assets to investors, closing deals requires the right mix of **support services and financial and non-financial incentives**. Effective support services include **fostering partnerships** (especially with universities and colleges for training programs and research capabilities), **making a long-term commitment to the delivery of business support services, and ensuring a culturally welcome environment for foreign investors**. Incentives represent an inducement that local, regional, and state governments can offer a prospective business to make it easier to justify a location

choice to corporate boards or stockholders. Incentives are more important as a factor late in the site selection process, although they are rarely the only driving consideration.

Other specialized programs and policies targeting investors, whether domestic or international, can make a difference. EDO stakeholders shared that **investors value the availability of a rapid and smooth operational start-up**. Services that assist with **site readiness** and with engaging and **training workers** are highly valued because they help investors quickly begin operations; training programs also ensure an adequate and qualified labor supply for exporters.

In the case of exporters, all regions can **identify and connect companies with export potential to existing federal and state resources**. Regional EDOs can increase awareness of global market opportunities and available export assistance programs and provide grants or scholarships to offset the costs of export development. Larger and major metro area EDOs have the scale to provide targeted export promotion services and focus on filling in **service gaps**. This might include **identifying regional target sectors/clusters and countries that may require additional attention** beyond what state and federal resources can provide, or offering **education, export planning, or export acceleration programs** that are not provided by other organizations.

Successful FDI attraction and export promotion reinforce the **importance of having in-depth knowledge of, and developing relationships with, the existing base of companies in a region**, especially foreign-owned enterprises and U.S.-owned middle market companies. Existing foreign-owned facilities offer the opportunity for additional investment in expansion and are often platforms to export from the U.S., while existing U.S.-owned companies have export potential and are acquisition targets for foreign enterprises that enter the U.S. market through mergers and acquisitions (M&A). These factors underscore the importance of an **effective business, retention, and expansion (BRE) program and robust FDI aftercare services**.

Finally, communities need to **make international engagement a priority** to attract foreign investment and increase exports. A region must define specific local assets; develop and execute a regional strategy that targets the types of international investment best aligned with regional assets; allocate appropriate resources for economic development activities; and accept a long-term time horizon for payoff on these investments. **When localities understand and emphasize their unique assets, they can focus their activities and investments on a coordinated international marketing and outreach strategy.**

The commingled quantitative and qualitative analyses in this report serve to further demystify the determinants of inbound FDI and outbound exports. This report establishes the foundation for the next phase of the IERC initiative: an international engagement toolkit and guide that will enable communities—regardless of their characteristics or assets—to design and execute effective FDI attraction and export promotion strategies. The IERC initiative report and toolkit will give communities, regional leaders, and policymakers insight into how they can better leverage local assets to bolster international engagement at the regional level and become more competitive in the world market.



# Section I: Project Background

The United States (U.S.) Department of Commerce's Economic Development Administration (EDA) seeks to "lead the federal economic development agenda by promoting innovation and competitiveness, preparing American regions for growth and success in the worldwide economy." As part of that mission, EDA, in collaboration with the International Trade Administration's (ITA) SelectUSA and the Trade Promotion Coordinating Committee (TPCC), has a direct interest in supporting regions across the U.S. as they engage the international economy. The two most direct forms of engagement in the world economy are investments into a region from outside the U.S. by international firms, known as Foreign Direct Investment (FDI), and exports from firms located within a particular region to world markets. Investments into the U.S. by outside firms were almost \$0.5 trillion dollars in 2016 (or 2.5% of GDP), while exports were worth about \$2.2 trillion (or about 12% of GDP).<sup>1</sup>

While these figures are significant in the aggregate, they are even more important in light of the fact that not all regions receive FDI (and only a few benefit from repeated investment events in any particular year) and that while some regions are home to significant export activity, many others are engaged at only a low level (see discussion below in Section II: Aggregate Analysis of FDI & Export Performance).

Many communities across the U.S. are already actively engaged in recruiting FDI and promoting exports. There is, however, a great deal of variation in the way state and local economic development organizations (EDOs) approach both FDI and exports. In order to achieve a significant improvement in regional policies and practices, EDA recently launched the International Engagement Ready Communities (IERC) initiative, in collaboration with ITA's SelectUSA and TPCC. This project combines a quantitative understanding of the determinants of FDI and exports with qualitative analysis, and, based on this understanding, identifies the most effective policies and practices that communities are using to attract FDI and promote exports. The IERC initiative will help communities become competitive in the world market by synthesizing the necessary steps into a solid roadmap to attract FDI, boost exports, and develop relationships with the international business community.

## About FDI and Exports

FDI is highly beneficial to the regional economy in which it is located. It is "inextricably bound up with industry clusters—geographic concentrations of skilled workers, innovation assets, infrastructure, and supply chains. High-quality FDI is drawn to such clusters and strengthens them further with infusions of knowledge, technology, and ideas. Clusters also accelerate spillovers and integrate new investors into the economy...." Put more simply, FDI brings with it well-paid jobs (about 6.8 million across the U.S. economy as a whole), increased productivity, increased R&D, and increased exports.<sup>2</sup>

Firms choose to invest for a variety of reasons—some to do with the character of the firm itself (for example, its inability to take advantage of firm-specific know-how through licensing), and



some to do with locational opportunities (for example, the proximity of a location to large markets).<sup>3</sup> In practice, when a firm has for its own reasons decided to invest overseas, it must still make a choice about location. The attributes of a location matter, to a greater or lesser extent, in most cases. These attributes may be cultivated by regional leaders in order to make their region more attractive. EDA and its partners ITA's SelectUSA and the TPCC have an appropriate role in supporting leaders as they grow their region's advantages.

An important qualification for this discussion is the fact that many investments take the form of mergers or acquisitions (M&A). While important, this activity tends to be driven largely by firm attributes, market pressures, and home country characteristics, rather than by the opportunities offered by locations. Firms may be looking to transfer technology and know-how to a new region in order to grow their business, but they may also be responding defensively to market competition, managing their overall risk profile, seeking opportunities for tax arbitrage or avoidance, responding to financial deepening, or even pursuing anti-competitive activity.<sup>4</sup> Regional leaders have no real control over these possibilities (although good real time intelligence about their local businesses may allow them to anticipate and mitigate the impact of M&A activity), as discussed below in Section II: Aggregate Analysis of FDI & Export Performance. It is for this reason (as well as data limitations), that many studies of cross-border transactions focus on greenfield investment and expansions of existing sites.

Exports are also important to regions. Both exports and FDI are associated with relatively high-performing regional clusters. Clusters are associated with powerful agglomeration effects and “play a fundamental role in driving regional economic competitiveness by encouraging higher rates of job growth, wage growth, new business formation, and innovation in the regions they are located in.”<sup>5</sup> The most valuable clusters are traded clusters; in other words, clusters capable of exporting outside the region and outside the country. Typically, firms co-locate within a cluster in order to benefit from knowledge spillovers. Seen from this perspective, exports, FDI, and overall regional economic performance are knitted together. Policies in support of exports and FDI are a subset of broader economic development policies that target high-value, skill-intensive clusters.

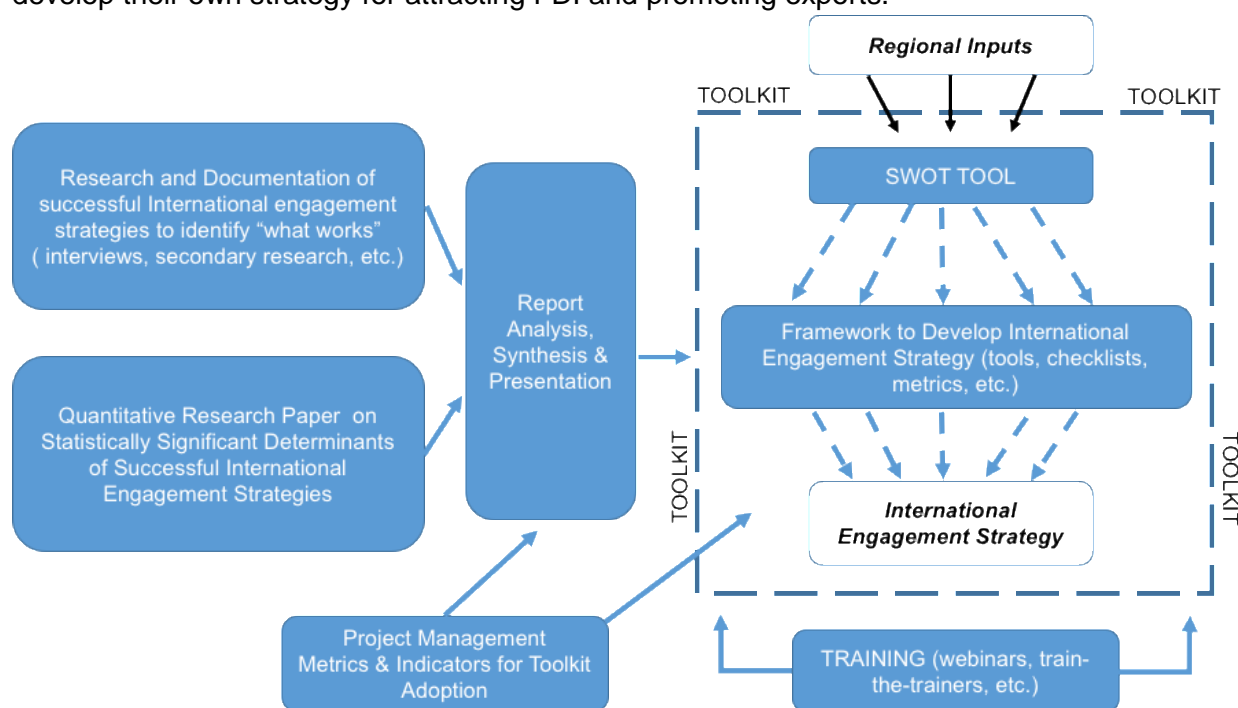
## About This Report

SRI International's Center for Innovation Strategy and Policy (CISP), in conjunction with the Center for Regional Economic Competitiveness (CREC) and Stone & Associates (S&A), is partnering with the EDA to implement the IERC initiative. The goal is to produce a rigorous, validated set of tools for communities across the U.S. to use to attract FDI and increase exports. These tools can help communities across the U.S. engage with the world economy and take advantage of the benefits that flow from FDI and exports.

This report is the first key deliverable of the initiative. It is comprised of an in-depth quantitative and qualitative analysis of successful international engagement strategies. The analyses contained in this report, coupled with inputs from subject matter experts and regional partners, are the basis for the next phase of the IERC initiative: a Best Practices Toolkit and “How-to” Guide. The toolkit and guide will enable regions to develop individual SWOT analyses with

respect to their trade and investment strategy, and to design and execute effective practices in support of international engagement. These practices will be employed as part of a unique regional strategy, using examples, case studies, checklists, and summary briefings on specific topics.<sup>6</sup>

The flow of work in this initiative is outlined below in Figure 1. This report represents the culmination of the first stage of the project. It is a rigorous qualitative and quantitative analysis that reveals a synthetic map of the determinants of success for FDI/exports, combining economic structures with observed policies and practice. The information from this report will then form the basis for the application of a SWOT analysis to the specific regional attributes, with the results constituting the components of a customized international engagement strategy. The final output of this project will include a toolkit and training module based on a vetted international engagement strategy framework that communities across the U.S can use to develop their own strategy for attracting FDI and promoting exports.



**Figure 1. IERC Initiative Overview**

## Research Questions

The quantitative and qualitative research discussed below is designed to explore critical strategic questions that, when taken together, determine what factors drive FDI and export performance in each region. It will also draw out the implications for policies and initiatives intended to enhance regional international engagement. Key questions explored in this report are listed below.

- Do **regional concentrations of companies or expertise**—clusters, major industries, anchor companies, or research/technical expertise and innovative capacity—contribute to success in FDI attraction or regional export performance?

- Can we identify the **successful policies or economic development initiatives** intended to attract FDI and expand exports? Is there a relationship between regional performance and investment/effort in these programs? Can we identify any particular aspects of these policies or programs that seem to have an outsized role in outcomes, such as tax incentives or other tax advantages for foreign investment attraction?
- Do **regional advantages in labor cost, quality, or availability, or other inputs**, such as energy costs and the cost of real estate, have a significant impact on foreign investment decisions?  
How important is **trade infrastructure** to a region's international performance, such as access or proximity to a port? Does proximity to international markets (such as Canada and Mexico) result in particularly strong export performance for some regions? What practices can foster exports even in the absence of such infrastructure?

The goal of this project is to use engagement with the international economy as an opportunity to build a new economic base for regions across the country. It will provide any region or community tools to grow their economy through increased exports and investments that generate wide, positive spillovers. These tools can help close the gap among regions of the country.

## Overall Approach

There are two sections of this report: a quantitative analysis that sifts and identifies the determinants of FDI and export performance in the U.S., and a qualitative analysis that summarizes the insights gathered from a robust literature review and interviews with more than 40 practitioners and experts. The qualitative interviews uniquely capture the “front-line” experiences from regions that have harnessed the power of FDI and exports. The research behind these two sections was conducted in parallel and is presented as a synthesis in Section IV: Conclusion below.

The quantitative analysis is a cross-sectional regression, with model specifications grounded in the relevant literature. The analysis is designed to discover possible determinants of FDI and export success and to flag sectors of importance to communities as they develop strategies to attract FDI and promote exports. Highlights of the quantitative model include a variety of relevant demographic/economic components (education, population, unemployment), fixed assets (transportation, infrastructure, etc.), and policies (tax burden, state expenditures, etc.). The quantitative approach is designed to tease out the most important factors that drive FDI attraction and promote exports at the regional level.

The qualitative analysis employs a staged approach in which more than 100 candidate cases were screened based on six key characteristics. This grounded theory method resulted in conceptual findings related to common and effective practices in attracting FDI and expanding regional exports. These findings were confirmed by an extensive review of the literature and supplemental primary research via 40 stakeholder interviews. The qualitative research gives us the opportunity to understand important factors beyond the measurable variables in the quantitative analysis.

The quantitative and qualitative results work together to yield a combined set of conclusions upon which it will be possible to build robust strategies and practices vetted against nationwide data and confirmed with community success stories. This information will be used to build an interactive toolkit for regions to use as they pursue additional FDI and exports or begin the journey towards international engagement for the very first time.

# Section II: Aggregate Analysis of FDI & Export Performance

The quantitative and qualitative research provide context for each other. While the quantitative work points out patterns of performance, the qualitative work highlights individual policies and actions that may not be possible to detect through statistical analysis, but which are nevertheless important factors for economic developers to consider when customizing strategies to fit the strengths and goals of individual regions. The quantitative model reported in this section is based on a thorough review of the literature on the determinants of FDI and exports into the U.S., while interviews with stakeholders, practitioners, and experts were used in the qualitative analysis. The qualitative findings are reported in Section III: FDI & Export Common & Effective Practices.

## Literature Review

This report seeks to answer the questions outlined in Section I: Project Background by using a national dataset of regions across the U.S. and building a model that captures variables in a full range of categories, including geography, economy, and policy. The literature discussed below offers insight into each of these elements.

A great deal of empirical analysis has been done to identify regional characteristics that are important for FDI and export performance. Our literature review found only a few elements that are significant in most quantitative models, while many other elements do not show consistently significant findings. This can be attributed in part to the fact that FDI is a complicated phenomenon, yet is often treated in an undifferentiated way. For example, some investors pursue low-cost locations, some seek to be close to rich consumer markets, and some investors seek specialized clusters in order to benefit from spillovers. This variety is hard to capture using aggregate measures. Inconsistency in findings is also due in part to the difficulty of developing a relatively complete model. For example, there have been studies of investments in specific regions and in specific sectors (often the automotive sector), as well as many studies that seek to explain a selected set of variables chosen based on the interests characteristic of different areas of research.<sup>7</sup> Furthermore, different fields of study emphasize different variables and model structures. Economists tend to focus on the structure of regional economies and their associated attributes, while regional studies and business studies focus on policy and firm level variables. This difference in emphasis can explain the differences in findings.

## ***Key Variables with Relationships to FDI***

The studies that are the most applicable to our research goals address investment decisions below the national level. There are important national factors that will cause a firm to invest in the U.S. as opposed to elsewhere in the international economy, such as the size of the national market, tariff and non-tariff barriers, etc. However, the starting point for this study is after a firm has decided to invest in the U.S., taking account of these national attributes. There is a broad

range of locations to choose from across the U.S. The question to be answered is a comparative one—why do some regions of the U.S. attract more investment than other regions?

A recent comprehensive analysis of 153 studies captures two broad approaches—cross-sectional and longitudinal—as well as approaches that seek to explain either new investment events (the flow of investment) or existing investments (the stock of investments)<sup>8</sup>. Many U.S.-focused studies use a cross-sectional approach due to data limitations. In this approach, the flow or stock of investment is compared across regions. This is helpful because data on a large set of jurisdictions are available for study at the sub-national level (states and regions). There is only limited longitudinal data available on FDI activity, and it is typically only available at the state level. As outlined below, this study employs a relatively novel and comprehensive national dataset that captures FDI events at the regional level.

Analysis of patterns of FDI across the European Union (EU) tend to employ a different quantitative approach. The quality of data over time and by country is high, and the institutional differences across countries are also high. As a result, pooled time series analysis is often employed, with fixed effects used to account for variation across member states. However, many of the findings are similar to the findings discussed below. For example, proximity to markets and access to workforce have a significant influence on FDI decisions.<sup>9</sup>

The comprehensive analysis discussed above organizes the variables that are significant for FDI into sets of economic, institutional, industrial cluster, and global cities (agglomeration effects) factors, as well as firm-specific characteristics (including country of origin of investment). This report clusters the quantitative analysis into three groups of variables (geography, economy, and policy) that capture most of those addressed above, except for institutional factors. This is because the political system and political culture within the U.S. are hard to measure and do not vary significantly. The quantitative analysis in this report also does not address the point of origin of an investment since the dataset used does not provides this information.

Causality is hard to establish in this kind of analysis, but such challenges can be mitigated by research design. For example, when the existing stock of FDI is taken as the dependent variable, it is hard to know whether it is the product of a high-quality regional workforce, or the cause. Researchers have addressed this problem by taking a baseline of conditions and analyzing subsequent investments, an approach that goes some way to disentangling causality from correlation. Another approach is to use instrumental variables in combination with a two-stage or three-stage model.<sup>10</sup> The constraints of time and resources do not allow for that approach in this study, but the FDI event database we use is comprised of investment events that occurred over a period of time after a particular start date.

There are persistent inconsistencies in earlier findings. For example, there is remarkable variation in the findings of different studies regarding wages and taxes. Many are consistent with the hypothesis that FDI seeks out low wages and taxation.<sup>11</sup> However, the reverse is the case in other studies, and the findings on taxes are especially inconsistent.<sup>12</sup> Some findings suggest

educational attainment has no impact, while others disagree. The literature on the use of state promotional policies to recruit FDI is also uncertain.<sup>13</sup>

Recognizing that some variables act in combination to influence location decisions goes some way to addressing these inconsistencies. Different regions are home to different clusters of variables, and we can hypothesize that each cluster is more or less valuable to different kinds of investments. These differences may contribute to the inconsistent findings across the literature and indicate that different policy mixes are utilized by different regions. For example, one mix may be comprised of low wages and low taxes, which appeal to firms seeking cost-based efficiencies. Another mix of policies may be associated with higher wages and higher taxes, in combination with other key attributes such as infrastructure and a skilled workforce; this mix would appeal to firms seeking productivity-based efficiencies.

Beyond the cost and labor market attributes discussed above, researchers have found that agglomeration effects appear to be particularly important. Over 70% of the studies examined by the meta-analysis found that concentrations of firms by sector and by foreign ownership were significant in predicting FDI. This means that denser urban regions home to concentrations of particular sectors tend to flourish. The fact that existing success sets the stage for future success may be discouraging for some regions, but at the same time it may provide policymakers an even greater incentive to use the tools already available, as well as those developed by this initiative, to become ready to compete in the international economy. Initial success can be the source of a virtuous cycle of development. Of particular relevance for this study, there is evidence that FDI seeks growing clusters and denser regions as export platforms.<sup>14</sup>

An intriguing additional element is that unemployment rates are also often significant elements identified by the literature, suggesting an interest by investors in readily available labor, while unionization is sometimes (but not always) negatively associated with investment.<sup>15</sup> Expenditures on education and R&D are also only sometimes significant in the literature, with some firms (but not all) seeking an educated workforce and proximity to research institutions.<sup>16</sup> In summary, investors want readily available labor, but also high-quality labor. This could be a recipe for those heartland regions that are not as expensive and congested as coastal success stories, and which are home to a high-quality workforce. Such regions can build on this advantage through policies in support of FDI attraction, including firm-specific training initiatives and resources spent on promotion and recruitment.<sup>17</sup>

In summary, there are a few elements that play a consistently significant role in determining the location of FDI across U.S. regions. But FDI comes in many shapes and sizes, and the measures employed are imperfect, which fuels the lack of consistency in findings. For example, one study uses population density as a measure of market size.<sup>18</sup> Firms may invest to be near large markets. Another study employs the same measure, population density, as a measure of economic agglomeration.<sup>19</sup> Firms invest to benefit from positive spillovers from the presence of other firms. While the size of market and firm agglomeration may closely correlate, the factors that influence firm behavior in each case are quite different. Using the same measure to capture



these two different processes reflects the fact that the available data are limited, and this limits the reliability of findings.

### ***Key Variables with Relationships to Exports***

Firms export for reasons external to a firm (for example, in order to pursue opportunities in national and world markets) and for reasons internal to a firm (for example, in order to take advantage of scale economies or firm-specific intangible assets, such as know-how embodied in business processes). The analytical focus in the literature has been largely on internal factors, especially management characteristics and firm attributes.<sup>20</sup> This kind of approach yields no findings relating to the external environment. But some analyses do focus on external opportunities. As noted above, FDI is sometimes seeking an export platform, and so regions that are home to businesses that are subsidiaries of foreign firms will tend to export at higher levels. Exports are also likely to be associated with higher skill, technology intensive firms.<sup>21</sup> Economic development policies that broadly foster technology intensive and skill intensive development in traded clusters will also foster exports.<sup>22</sup>

There is some evidence that narrow export promotion policies can contribute to firm success, with the greatest impact on firms new to international markets.<sup>23</sup> Taken together, export capabilities grow as successful clusters grow, and are likely to be the fruit of long-term economic development policies around workforce and R&D in support of a targeted cluster. Agglomeration and cluster development that fuel export performance are clearly consistent with more general findings in the area of regional economic development.<sup>24</sup> Practitioners can expect that economic development policies designed to broadly foster technology intensive and skill intensive development in traded clusters will foster exports.<sup>25</sup> There is some evidence that narrow export promotion policies can contribute to firm success, with the greatest impact on firms new to international markets.<sup>26</sup> Taken together, export capabilities grow as successful clusters grow, and are likely to be the fruit of long-term economic development policies around workforce and R&D in support of a targeted cluster.

Finally, it is important to note that the general economic development literature has findings consistent with success in FDI recruitment and export performance. For example, studies show that regions with overall density, clusters in specialized sectors, a high-quality workforce, and knowledge-based innovation enjoy relatively strong economic performance over time.<sup>27</sup> These variables are also shown to be important in the literature on FDI and exports. International engagement is an important piece of any comprehensive economic development plan, and the strategies and toolkits developed by regional leaders and practitioners to foster FDI and exports will greatly overlap with broader economic development goals and strategies.

### **Data & Variable Descriptions**

To establish the correlates of FDI and export performance across regions, SRI employed a cross-sectional regression analysis for all Core Based Statistical Areas (CBSAs) in the U.S. CBSAs consist of one or more counties anchored by an urban center of at least 10,000 people plus adjacent counties that are socioeconomically tied to the urban center by commuting.

CBSAs cover all metropolitan and micropolitan statistical areas in the U.S.<sup>a</sup> Each metropolitan statistical area has at least one urbanized area of 50,000 or more inhabitants, while each micropolitan statistical area has at least one urban cluster of at least 10,000 people, but less than 50,000.

The cross-sectional regressions presented below attempt to account for fixed natural and man-made assets (including the presence of ports), slower changing regional characteristics (including land prices and population), economic and demographic characteristics (including GDP and industry economic activity), and policy characteristics (including the tax code). The research team selected variables after a review of the academic literature on determinants of FDI and export strength, as well as from insights gained from practitioner interviews.

This approach builds on and adds to the existing literature in two important ways. First, it uses a much larger dataset than employed in other cross-sectional analyses, comprised of a total of 917 regions. This large dataset allows for the metropolitan areas and micropolitan areas to be treated separately, and for the analysis to identify determinants that are distinctive to each kind of region. Secondly, the analysis employs a very comprehensive set of variables and is not restricted to just economic variables or just policy variables. In short, this study rests on a broadly specified model, which reduces the likelihood of significant, unobserved variables confounding the analysis.

In contrast to the cross-sectional approach, there are some benefits to a time-series approach in this kind of analysis, although the literature suggests that this is less often used when examining the U.S. case. A time series allows for better understanding the specific trajectory of individual regions, both successful and less successful ones. Further, the role of unobserved components can be sifted out using fixed effects. However, such models are hard to specify and require strong assumptions to be made about the lags to apply to the independent variables (a large number in this case). Also, data limitations restrict the years available for analysis to the period following the last recession, which greatly reduces the degrees of freedom available for the model. Finally, and most importantly, the research questions outlined above require comparative analysis among and across regions to obtain the most useful answers. As a result, a cross-sectional analysis best meets the needs of the project.

### ***Dependent Variables***

Our dependent variables measure FDI and exports across the U.S between 2009 and 2016.

### **FDI Deals**

Data on FDI came from the FDI Markets database, which is maintained by the Financial Times. FDI Markets has tracked FDI since January 2003 across all markets and sectors globally. The Financial Times assembled this dataset by scraping FDI announcements for greenfield

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<sup>a</sup> Because metropolitan and micropolitan statistical area definitions are not stable, but change over time as area populations change, we had to account for variations in MSA composition over the timespan of our models. To do so, we created a crosswalk between the 2013 MSA definitions and the counties that comprise them and used this crosswalk to aggregate historical county-level data (or sometimes zip-code level data, when necessary) to align with the 2013 definitions, thereby consistently reflecting MSAs across time.

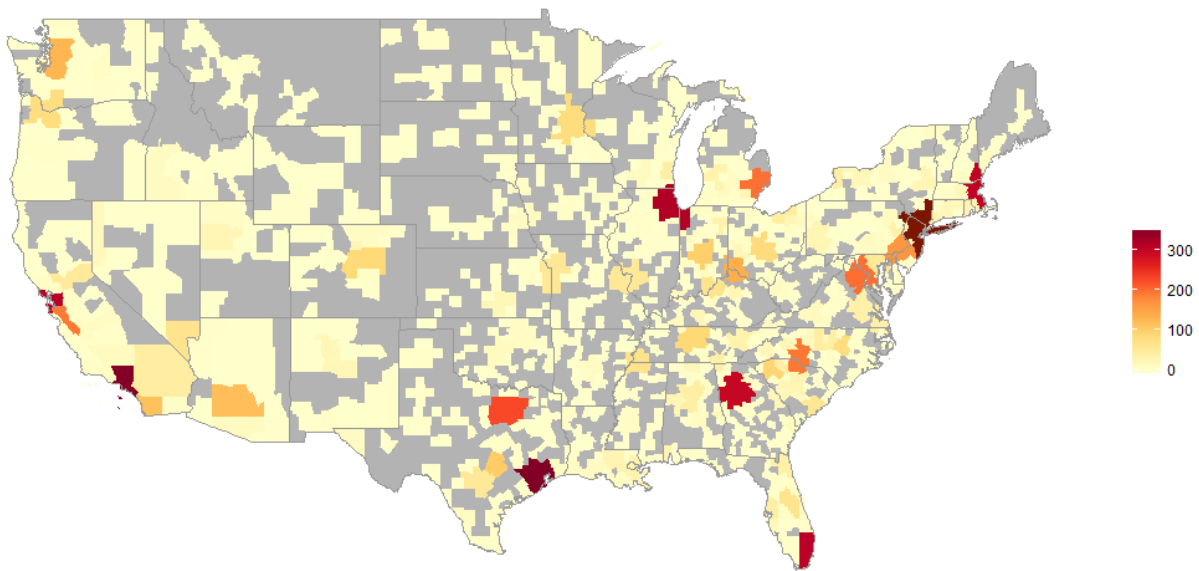
investments and expansions. The dataset includes information on the estimated number of jobs created and estimated capital investment involved per deal. However, since these data are from scraped announcements, the estimated numbers of jobs and capital investment can be inflated. To avoid complications associated with using these estimated numbers, we focused on FDI deals as our dependent variable.

Between 2009 and 2016, we measured 9,010 unique FDI deals, or roughly 1,126 deals per year. These deals are divided between 917 metropolitan and micropolitan regions, yielding an average of just over 1 deal per region per year. As seen in Table 1, while almost 90% of metropolitan regions received FDI during this period, less than 50% of micropolitan regions received FDI. To account for this discrepancy, and to capture a representative picture of FDI activity and the factors associated with it, we aggregated total FDI deals by CBSA between 2009 and 2016.

**Table 1. Number of Metropolitan and Micropolitan Regions Receiving FDI, 2009-2016**

FDI: 2009-2016	Number of Regions Receiving FDI	Percent of all Regions Receiving FDI
Metropolitan Regions	337	86.9%
Micropolitan Regions	250	46.2%

FDI deals are distributed unevenly across the U.S. and concentrated in metropolitan regions. Of the 9,010 deals that occurred between during this time period, 8,435 (93.95%) deals were in metropolitan regions, while only 575 (6.38%) deals were in micropolitan regions. Figure 2 presents the distribution of FDI deals across all types of regions. Regions shaded black were either not part of CBSAs or were not recorded as receiving any FDI between 2009 and 2016. As seen in Figure 2, a few metropolitan regions stand out as especially high performing regions.



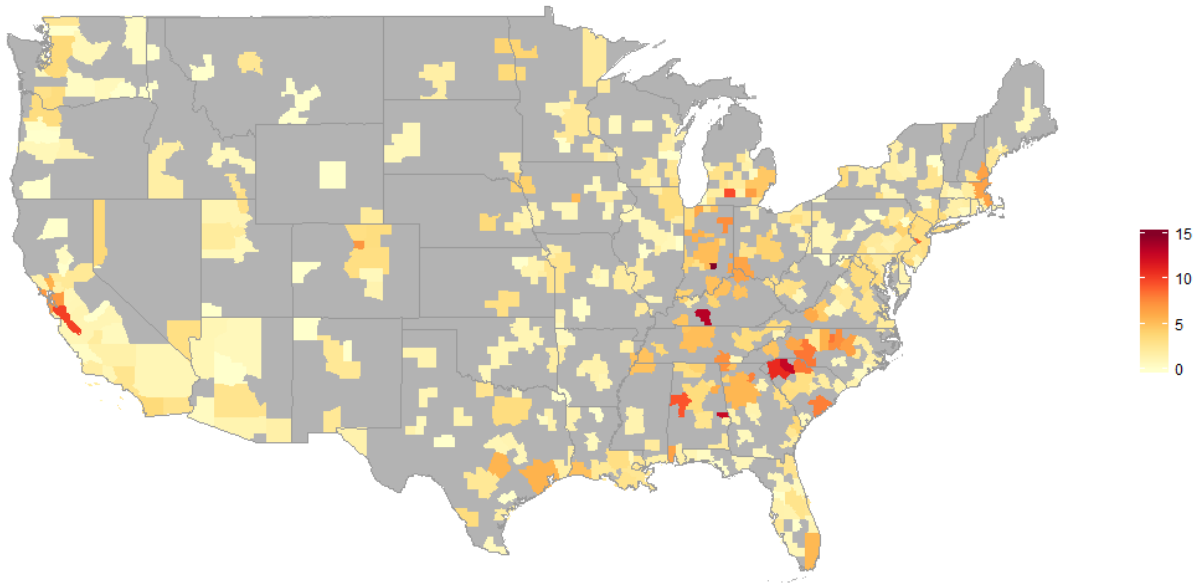
**Figure 2. Total FDI Deals, 2009-2016, Across All Regions**

Almost half of all FDI activity between 2009 and 2016 occurred in just 15 regions, listed below in Table 2. When grouped together, the differences between metropolitan and micropolitan regions are hard to identify. Metropolitan regions received between 0 and 643 total FDI deals between 2009 and 2016, while micropolitan regions saw between 0 and 14 total FDI deals between 2009 and 2016. We separated out the two types of regions to capture the determinants of FDI activity more accurately in light of the large differences in FDI deal spread.

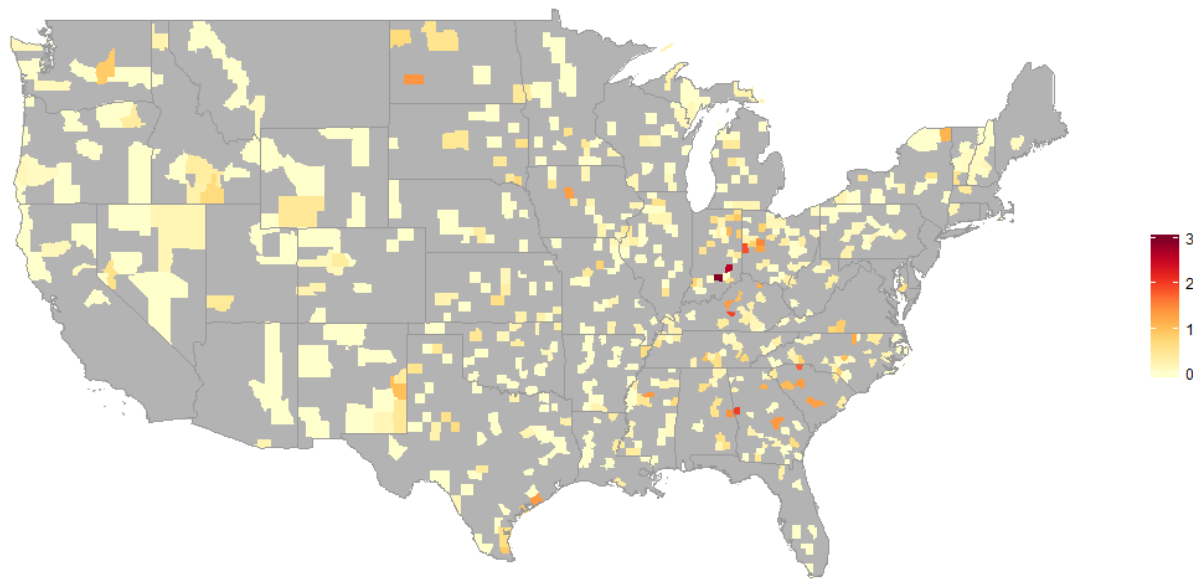
**Table 2. Top 15 Highest Performing Regions for FDI Activity, 2009-2016**

<b>FDI Activity Rank</b>	<b>Region</b>
1	New York-Newark-Jersey City, NY-NJ-PA
2	Houston-The Woodlands-Sugar Land, TX
3	Los Angeles-Long Beach-Anaheim, CA
4	Chicago-Naperville-Elgin, IL-IN-WI
5	San Francisco-Oakland-Hayward, CA
6	Miami-Fort Lauderdale-West Palm Beach, FL
7	Boston-Cambridge-Newton, MA-NH
8	Atlanta-Sandy Springs-Roswell, GA
9	Dallas-Fort Worth-Arlington, TX
10	Washington-Arlington-Alexandria, DC-VA-MD-WV
11	Detroit-Warren-Dearborn, MI
12	Charlotte-Concord-Gastonia, NC-SC
13	San Jose-Sunnyvale-Santa Clara, CA
14	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD
15	Cincinnati, OH-KY-IN

In Figure 3 and Figure 4, FDI activity is normalized by a region's population to give a sense of the true scale of FDI activity across the U.S. Figure 3 presents the distribution of FDI deals per one hundred thousand people in metropolitan regions, and Figure 4 presents the distribution of FDI deals per ten thousand people in micropolitan regions. The difference in scale accounts for the size difference between metropolitan and micropolitan regions.



**Figure 3. FDI Deals per 100K People, 2009-2016, Metropolitan Regions**



**Figure 4. FDI Deals per 10K People, 2009-2016, Micropolitan Regions**

The 381 metropolitan areas can be separated into two groups: large metropolitan areas with populations greater than 250,000; and small metropolitan areas, with populations between 50,000 and 250,000. As seen in Table 3, the majority of international engagement activity is concentrated in large metropolitan areas.

**Table 3. Breakdown of Large and Small Metropolitan Areas**

Category	Large Metropolitan Areas	Small Metropolitan Areas
Number of Regions	184	197
Percent of Metropolitan FDI Deals	93.54%	6.46%
Percent of Metropolitan Export Value	93.47%	6.51%

We are interested in separating out these two groups to determine if small metropolitan areas behave substantially differently than large metropolitan areas.

### **Export Strength**

Data on the export schedule from 2002 to 2016 by CBSA were acquired from the U.S. Census Bureau and only cover goods-producing sectors. Service exports are not addressed in this quantitative analysis. In addition, these data are not differentiated by industry. To ensure that our results are consistent and can be compared, we applied the same methodology to the analysis of both FDI and export performance. As such, a CBSA's export performance is the total dollar value of exports between 2009 and 2016. As seen in Table 4, an average of about 96% of all metropolitan and micropolitan regions demonstrate some level of export activity between 2009 and 2016. However, approximately 99% of all export performance is concentrated in metropolitan regions.

**Table 4. Average Number of Regions with Export Activity, 2009-2016**

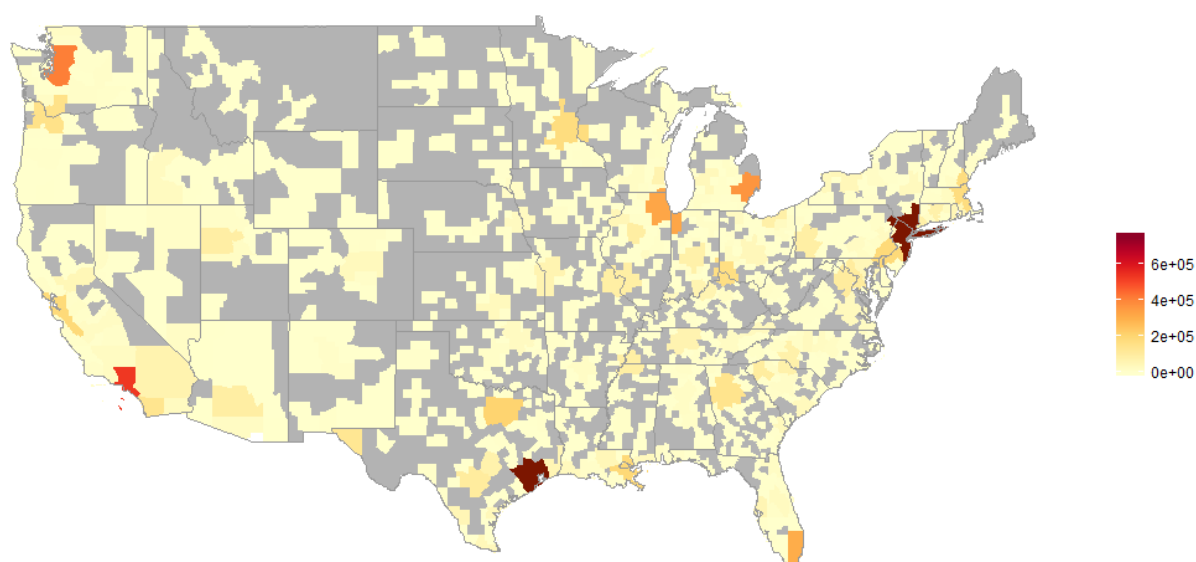
Export Activity: 2009-2016	Average Number of Regions with Export Activity	Percent of all Regions with Export Activity
Metropolitan Regions	373	96.1%
Micropolitan Regions	519	95.9%

The distribution of export performance across the U.S. strongly resembles the distribution of FDI deals. Top-performing regions (listed in Table 5) dramatically outperform the other regions, as seen in Figure 5. Regions shaded black were either not part of CBSAs or were not recorded as exporting any goods between 2009 and 2016.

**Table 5. Top 15 Highest Performing Regions for Export Strength, 2009-2016**

Export Performance Rank	Region
1	Houston-The Woodlands-Sugar Land, TX
2	New York-Newark-Jersey City, NY-NJ-PA
3	Los Angeles-Long Beach-Anaheim, CA
4	Seattle-Tacoma-Bellevue, WA
5	Detroit-Warren-Dearborn, MI
6	Chicago-Naperville-Elgin, IL-IN-WI
7	Miami-Fort Lauderdale-West Palm Beach, FL
8	Dallas-Fort Worth-Arlington, TX
9	New Orleans-Metairie, LA

Export Performance Rank	Region
10	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD
11	San Jose-Sunnyvale-Santa Clara, CA
12	San Francisco-Oakland-Hayward, CA
13	Minneapolis-St. Paul-Bloomington, MN-WI
14	Boston-Cambridge-Newton, MA-NH
15	Cincinnati, OH-KY-IN



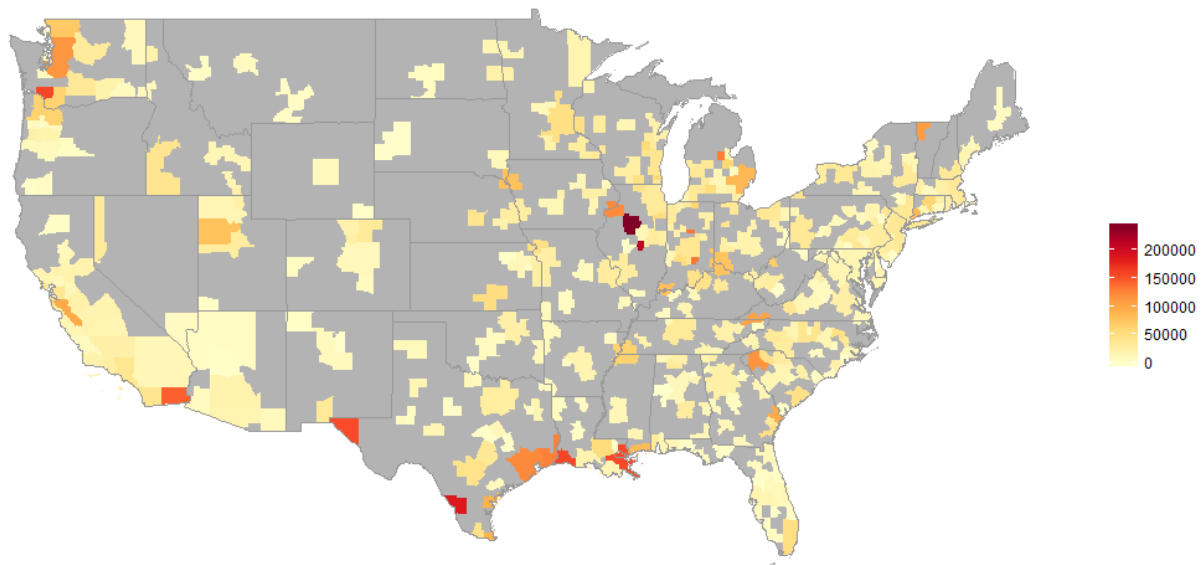
**Figure 5. Export \$ Value (Millions of \$), 2009-2016, Across All Regions**

Of the top 15 metropolitan regions in export performance, only three regions were not in the top 15 for total FDI deals: the Minneapolis-St. Paul-Bloomington, MN-WI Metro area (Rank 13); the New Orleans-Metairie-Kenner, LA Metro Area (Rank 9); and the Seattle-Tacoma-Bellevue, WA Metro Area (Rank 4). New Orleans exports agriculture and petroleum products, while Seattle exports airplanes, and Minneapolis-St. Paul exports manufactured and medical machinery.<sup>28</sup> The three regions that were in the top 15 for total FDI deals and not in the top 15 for export performance are: the Boston-Cambridge-Quincy, MA-NH Metro Area (Rank 7); the Charlotte-Gastonia-Concord, NC-SC Metro Area (Rank 12); and the Washington-Arlington-Alexandria, DC-VA-MD-WV Metro Area (Rank 10). These regions are all major service centers: DC is home to many government contracting companies, Charlotte is a major logistics hub near the textile and auto supply chains, and Boston is a major financial and defense contracting sector. It is possible that these regions are exporting chiefly services, which are not accounted for in our analysis.

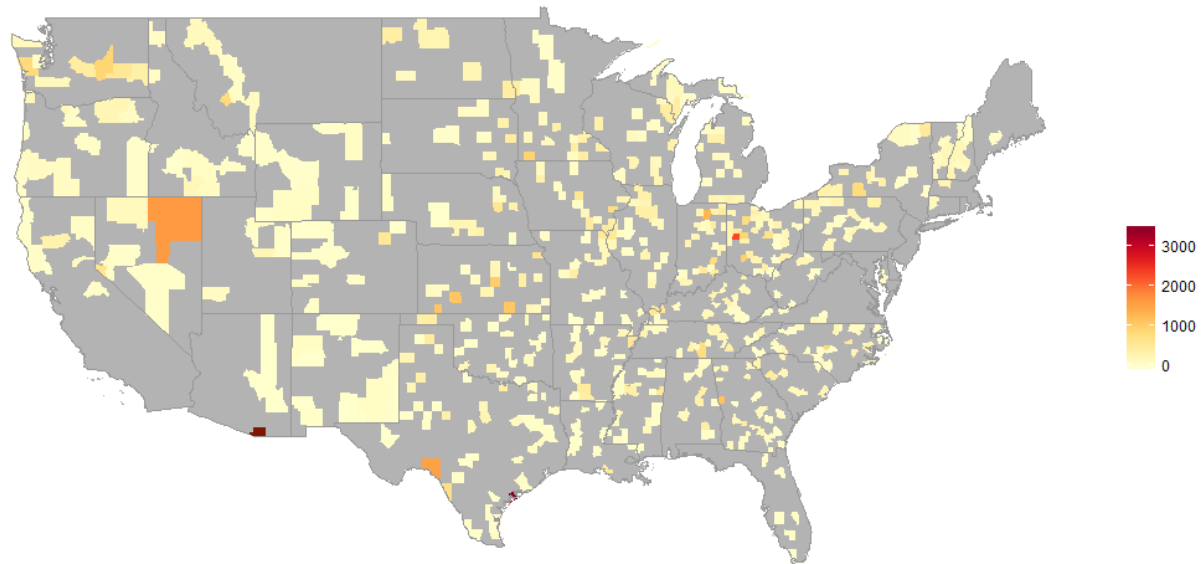
In Figure 6 and Figure 7, export performance is normalized by a region's population to give a better sense of scale of export performance across the U.S. Figure 6 presents the distribution of export dollar value per person in metropolitan regions, and Figure 7 presents the distribution of



export dollar value in hundreds of dollars per person in micropolitan regions. The difference in scale accounts for the size difference between metropolitan and micropolitan regions.



**Figure 6. Export \$ Value per Capita, 2009-2016, Metropolitan Regions**



**Figure 7. Export \$ Value (Hundreds of \$) per Capita, 2009-2016, Micropolitan Regions**

Because FDI deal totals and total export value have logistic distributions, we log-transformed our dependent variables. As such, all coefficients should be interpreted as: a unit increase in the independent variables corresponds to a change of  $100 \times (\text{coefficient})$  percent, while all other variables are held constant. This transformation allows us to account for the unequal distribution across regions and permits for easier interpretation of regression results.

To understand the impact on our analysis of this dramatic difference between top-performing metropolitan regions and the rest of the population, we also ran our results on a subset of metropolitan regions that excludes the 15 top-performing metropolitan areas.

### ***Data Limitations***

We assembled our data from a multitude of different sources. Depending on the source, data were available at the county or state level. As discussed previously, because metropolitan and micropolitan statistical area definitions are not stable but change over time as area populations change, we had to account for variations in CBSA composition over the timespan of our models. To do so, we created a crosswalk between the 2013 CBSA definitions and the counties that comprise them and used this crosswalk to aggregate historical county-level data (or sometimes zip-code level data, when necessary) to align with the 2013 definitions, thereby consistently reflecting CBSAs across time. Some CBSAs span multiple states. Since we have many variables that were reported at the state level, we assigned each of these regions to the state of the city with the greatest population. For example, the New York-Northern New Jersey-Long Island, NY-NJ-PA Metro Area was assigned to New York.

As we assembled the dataset, we had to balance between selecting variables that covered all contextual elements surrounding FDI deals and export performance, while limiting collinearity and maximizing data quality. Accordingly, some variables such as internet connectivity were not included due to poor data quality and the fact that other variables with higher quality standards act as a proxy measure.

### ***Independent Variables***

Throughout the analysis, the impact of more than 30 independent variables were tested on the log of the number of FDI deals and the log of export dollar value (referred to in the remainder of this report as FDI and export performance). Each of these variables was selected based on our extensive review of the literature. Most of these variables had statistically significant correlations with the dependent variables when tested alone, but when combined with other factors, did not always retain this significance. Multiple different permutations and combinations of variables were tested, and the variables listed below represent the factors that best maintained their impact and significance across different iterations of the model. For instance, some variables such as patents per CBSA, business churn rate, and right to work laws were tested at some stages but were not ultimately included in the final list of variables. A complete list of all factors that were explored in some capacity can be found in Appendix C: Complete List of All Factors Explored in the Quantitative Analysis.

The variables fell into three different groups:

1. Basic Economic and Demographic Controls,
2. Fixed Assets and Slow-Changing Properties, and
3. Policy Variables, which are further grouped into:
  - a. Taxes
  - b. Spending

Below, we review which variables belong in each of these categories, as well as our justification for the period of analysis.

### **1. Basic Controls**

These variables served as basic controls on the economic conditions in an area. Demographic variables were averaged over the period between 2010 and 2015, while economic variables were averaged over the period between 2010 and 2013. Manufacturing share was considered a “demographic” variable because it relates to the structure of economic activity within a region, rather than the quality or quantity of that activity. We included time trends for the percent change between 2007 and 2009 in the unemployment rate and state GDP to account for the impact of the Great Recession. These variables are presented in Table 6 and attempt to control for the regional concentrations of industries, clusters, or supply chains; and the availability and quality of labor.

**Table 6. Basic Economic and Demographic Controls**

<b>Basic Control Variables</b>	<b>Description</b>	<b>Source</b>	<b>Level</b>
<b>Population Density</b>	Population Density in 2010	Census Bureau	CBSA
<b>Educational Attainment</b>	Average annual % of the population 25 years and older with a bachelor's degree or higher, between 2010 and 2015	Census Bureau	CBSA
<b>Labor Force Participation Rate</b>	Average annual number of persons in the labor force / population, between 2010 and 2013	Bureau of Labor Statistics (BLS)	CBSA
<b>Unemployment Rate</b>	Average annual unemployment rate, between 2010 and 2013	BLS	CBSA
<b>Earnings Per Person</b>	Average yearly median earnings per person, between 2010 and 2013	QCEW	CBSA
<b>State GDP</b>	Average annual real state GDP, hundreds of thousands of \$, between 2010 and 2013	BEA	State
<b>Total Crime Rates</b>	Average annual total crime rates for all types of crime, between 2010 and 2013	Uniform Crime Reporting Statistics	State
<b>Industry Diversification</b>	Average number of industries that the region has a comparative advantage in, relative to national production (defined as industries with a location quotient greater than 2), between 2010 and 2013	BLS (Quarterly Census of Employment and Wages or QCEW)	CBSA
<b>% Change in Unemployment Rate During the Recession</b>	Percent change in unemployment rate, between 2007 and 2009	BLS	CBSA
<b>% Change in GDP During the Recession</b>	Percent change in state GDP, between 2007 and 2009	BEA	State
<b>Manufacturing Share</b>	Average annual manufacturing share of the economy, between 2010 and 2015	QCEW	CBSA

Because our literature review suggests that foreign firms locate in areas with relative export strength, we also included log exports as an independent variable in our analysis of the determinants of FDI. The variable “industry diversification” reflects the number of industries in which a region has a relative comparative advantage. To calculate this variable, we counted how many industries in a region had a location quotient above a certain threshold. The location quotient compares the economic share of an industry within a specific area to the share of that industry nationwide, which generates a relative measure of industry concentration. For this analysis, industries with a location quotient greater than two was selected as a threshold, which indicates that an industry has a share of regional employment at least twice the national share. To account for the possibility of a non-linear relationship between industry diversity and performance, we include a squared term.

To illustrate, the mean value for this variable across all metropolitan regions was nine, meaning that the average metropolitan region had roughly nine industries in which they had a relative comparative advantage. Detroit, MI, as a relatively specialized metro, had an industry diversification value of three, meaning that there were only three industries in which Detroit had a relative comparative advantage. Thus, we interpret the industry diversification variables as follows: regions with a low value are specialized, while regions with a high value have a diverse industrial base.

## **2. Fixed Assets & Slow-Changing Properties**

Fixed assets refer to physical assets that are either static over long periods of time, change extremely slowly, or serve as a baseline for the analysis. These variables tended to be binary variables and were introduced as dummy variables into the regression model. Slow-changing properties refer to state and local characteristics that do not tend to vary dramatically from year to year, such as the existence of ports, or the number of medium to large passenger airports. These variables are presented in Table 7 and attempt to account for geographic details, existing foreign enterprise in the area and other relationships with foreign markets, and utility and transportation infrastructure. Since our dependent variables are aggregate totals between 2009 and 2016, we do not expect the independent variables in 2016 to have an impact on performance. As such, we do not collect data on independent variables in 2016.

**Table 7. Fixed Assets and Slow-Changing Properties**

<b>Fixed Assets and Slow-Changing Properties Variables</b>	<b>Description</b>	<b>Source</b>	<b>Level</b>
<b>Total Financing Deals</b>	Number of private financing events, such as angel, seed and/or venture capital funding deals, between 2010 and 2013	Pitchbook	CBSA
<b>Has a Port?</b>	Binary variable indicating if there is a port in the CBSA	Department of Transportation	CBSA

<b>Fixed Assets and Slow-Changing Properties Variables</b>	<b>Description</b>	<b>Source</b>	<b>Level</b>
<b>Commercial Air Transportation</b>	Number of airports serving at least 400,000 passengers <sup>b</sup>	Federal Aviation Administration	CBSA
<b>Freight Air Transportation</b>	Landed weight in 2016 from qualifying cargo airports	Federal Aviation Administration	CBSA
<b>Freight Railroad Mileage per Square Mile of Land Area</b>	Miles of freight railroad across all classes of railroad per square mile of land area	Bureau of Transportation Statistics, in Square Miles/Census Bureau	State
<b>Number of Foreign Owned Firms</b>	Number of foreign owned firms in 2007	Bureau of Economic Analysis	State
<b>Foreign-Born %</b>	Average annual % of the population that is foreign born, between 2010 and 2015	Census Bureau	CBSA
<b>International Migration Share</b>	Average annual share of net migration from international migrants, between 2010 and 2015	Census Bureau	CBSA
<b>Cost of Living</b>	Average annual state cost of living, between 2010 and 2015	State Higher Education Executive Officers Association	State
<b>Utility Rates</b>	Average annual state commercial and industrial utility rates, between 2010 and 2015	U.S. Energy Information Association	State
<b>Land Prices</b>	Average annual state land value <sup>c</sup>	Lincoln Institute of Land Policy	State

### **3. Policy Variables**

Our primary policy variables of interest relate to taxes and government spending. Because the details of tax rate schedules differ dramatically among states, we evaluated taxes as the total amount of taxes paid relative to state GDP. We also evaluate several measures of government spending on specific programs. Taxes and spending are assessed at the state level due to data availability. These variables are presented in Table 8.

**Table 8. Policy Variables**

<b>Policy Variables</b>	<b>Description</b>	<b>Source</b>	<b>Level</b>
<b>Corporate Income Tax Burden</b>	Corporation Net Income Taxes as a % of GDP	Census Annual Survey of State Governments Tax Collections	State

<sup>b</sup> Airports serving more than 400,000 passengers include all large and medium hub primary airports, as classified by the FAA. This measure captures most international airports, and airports with customs.

<sup>c</sup> Land value can vary widely within a state, and a measure that captured land value at the CBSA level would have been ideal. However, the measures we found that reported land value at a more granular level only had data for the land value of top metropolitan areas. Since our analysis is an aggregate analysis over all types of metropolitan and micropolitan regions, those measures did not meet our standards for inclusion in the model.

Policy Variables	Description	Source	Level
<b>Individual Income Tax Burden</b>	Individual Income Taxes, as a % of GDP	Census Annual Survey of State Governments Tax Collections	State
<b>Property Tax Burden</b>	Property Tax, as a % of GDP	Census Annual Survey of State Governments Tax Collections	State
<b>Government Highway Spending</b>	State and Local Government Total Highways Direct Expenditure, as a % of GDP, between 2010 and 2013	Census Bureau	State
<b>State Government Debt</b>	State and Local Government Outstanding Debt, Long-Term and Short-Term, as a % of GDP, between 2010 and 2013	Census	State
<b>Government Higher Education Spending</b>	State Support for Public and Independent Higher Education, as a % of GDP, between 2010 and 2013	State Higher Education Officers Association	State
<b>Government R&amp;D Spending</b>	State Support for R&D, as a % of GDP, between 2010 and 2013.	National Science Foundation	State

## Modeling Methodology

To best untangle the relationships between our numerous independent variables and our dependent variables, we used a step-wise approach, as illustrated in Table 9. This means that we added variables to the regression sequentially and analyzed how coefficients and significances changed in each model. In the first stage, we controlled for basic economic and demographic controls. We then added fixed assets and slow-changing properties that were contextually relevant to export or FDI deal performance. Finally, we added policy variables and differentiated between tax variables, spending variables, and specialized expenditures.

**Table 9. Step-Wise Modeling Approach**

Model	Basic Controls	Fixed Assets & Slow-Changing Properties	Policy Variables
<b>Model 1</b>	✓		
<b>Model 2</b>	✓	✓	
<b>Model 3</b>	✓	✓	✓

To best compare our results, when possible we tested the same model for FDI and export performance. We also tested our model on industry specific FDI. FDI occurs in many kinds of industry, with specific industry needs and attributes. To account for variation in the determinants of FDI performance between industries, we analyzed FDI deals in the manufacturing and high-tech sectors. SelectUSA highlighted these two industry groups as areas of FDI interest in two reports: “FDI in Manufacturing: Advancing U.S. Competitiveness in a Global Economy”<sup>29</sup> and “High-Tech Industries: The Role of FDI in Driving Innovation and Growth.”<sup>30</sup> Manufacturing sector FDI is defined as the total number of deals that occurred between 2009 and 2016 in the 3-digit manufacturing sectors (311-339). High-tech sector FDI is defined as the total number of

deals between 2009 and 2016 in the industries specified in Table 10, which was taken directly from SelectUSA's report on High-Tech Industry FDI.

**Table 10. High-Tech Industries**

<b>NAICS</b>	<b>Industry</b>
211	Oil and gas extraction
221	Utilities
324	Petroleum and coal products manufacturing
325	Chemical manufacturing
333	Machinery manufacturing
334	Computer and electronic product manufacturing
335	Electrical equipment and appliance mfg.
336	Transportation equipment manufacturing
486	Pipeline transportation
511	Publishing industries, except internet
517	Telecommunications
518	Data processing, hosting and related services
519	Other information services
541	Professional and technical services

Manufacturing and high-tech FDI make up a large percent of total FDI, as seen in Table 11. To capture which regional characteristics attract manufacturing and high-tech FDI compared to other types of FDI, we defined our dependent variable as the industry specific share of all FDI deals. It should be noted that the manufacturing and high-tech industry groups overlap and do not cover the entirety of FDI across the U.S.

**Table 11. Industry Specific FDI Deals as a Share of all FDI Deals, 2009-2016**

<b>Region Type</b>	<b>Manufacturing Industry Share of All FDI Deals</b>	<b>High-Tech Share of All FDI Deals</b>
<b>Metropolitan Regions</b>	69.3%	54.7%
<b>Micropolitan Regions</b>	77.4%	57.2%
<b>All Regions</b>	72.8%	55.8%

We present the results for FDI and export performance separately, and only present the results for industry-specific FDI from the second model. We tested our model on four different groups: all metropolitan and micropolitan regions, large metropolitan regions only (population greater than 250,000), small metropolitan regions only (population between 50,000 and 250,000), and micropolitan regions only. As stated previously, all dependent variables were log-transformed.

We use the following nomenclature when referring to the different regional groups: “aggregate regions” refers to the total metropolitan and micropolitan population; “all metropolitan regions” refers to the total population of metropolitan regions; “non-top-performing metropolitan regions” refers to the subset of metropolitan regions that excludes the 15 top-performing regions; and



“across all types of regions” refers to results that are significant at every level: the aggregate, all types of metropolitan regions, and micropolitan regions.

### ***Model 1: Basic Controls***

The first model included basic economic and demographic controls, such as: population density, educational attainment, labor force participation rate, unemployment rate, earnings per person, CBSA share of state economy, total crime rates, industry diversification, and state GDP. These variables were selected to determine which of the traditional measures of economic strength are the strongest determinants of FDI and export performance success. To account for the non-linear relationship between educational attainment and both FDI and export performance, we introduced a squared term for educational attainment. To control for the impact of the Great Recession, we included the percent change in unemployment rate and state GDP between 2007 and 2009.

### ***Model 2: Fixed Assets & Slow-Changing Properties***

The next stage introduced fixed assets and more slow-changing properties to control for the presence of ports, the number of medium to large size passenger airports, landed cargo weight, freight railroad mileage per square area of state land, percent of all employees at foreign-owned firms, share of international migrations, percent foreign born, cost of living, commercial and industrial utility rates, and land value.

In this stage, we also ran a set of regressions that separated out large metropolitan areas (metropolitan regions with a population of over 250,000) from smaller metropolitan areas (metropolitan regions with populations between 50,000 and 250,000).

### ***Model 3: Policy Variables: Taxes and Spending***

With controls for economic conditions and fixed assets in place, we introduced our policy variables. Tax and government expenditure variables were the primary policy variables of interest.

## **Results**

The results from the quantitative work point to aggregate determinants of FDI and export performance. We analyzed economic, demographic, geographic, and policy variables, and compared the determinants of industry-agnostic FDI to industry-specific FDI in the manufacturing and high-tech sectors. A large degree of overlap was found among the correlates of FDI and export performance, and FDI performance was strongly correlated with export strength. A summary of the most important factors for FDI and export performance is presented in Table 12.

With both FDI and export performance, determining cause and effect is a difficult task. For example, with both dependent variables, we see evidence that a higher manufacturing share of the economy is correlated with improved performance. However, both FDI and exports are manufacturing-intensive activities. We cannot determine if manufacturing strength causes FDI and export strength, or if manufacturing strength is an effect of FDI and export strength. As

such, when presenting our results, and our discussion of those results, we do not intend to imply causality, and all findings should be interpreted cautiously.

**Table 12. Summary of Quantitative Findings**

Factor	FDI	Exports	Variables Represented By
Urban Concentration Effects	✓	✓	<i>Population Density</i>
			<i>CBSA Share of State Employment</i>
Industrial Concentration Effects	✓	✓	<i>Industrial Diversification</i>
			<i>Manufacturing Share of Economy</i>
			<i>Export Strength</i>
Skilled Labor Supply		✓	<i>Educational Attainment</i>
			<i>Unemployment Rate</i>
			<i>Median Earnings</i>
Existing International Engagement	✓	✓	<i>Base of Foreign-Owned Enterprises</i>
			<i>International Share of Migration</i>
			<i>Foreign Born % of Population</i>
Transportation Infrastructure	✓	✓	<i>Passenger Airports</i>
			<i>Cargo Airports</i>
			<i>Miles of Freight Railroad</i>
			<i>Ports</i>
Innovation Ecosystem	✓		<i>Total Financing Events</i>
Cheap Utility Rates		✓	<i>Industrial Utility Rates</i>
Low Property Tax Burden	✓		<i>Property Taxes as % of GDP</i>
State Support for R&D	✓		<i>State Spending on R&amp;D as % of GDP</i>

The results indicate that foreign firms tend to locate in areas with specific, desirable assets, such as: a healthy innovation economy (captured by a region's total number of financing events), industrial clusters, an existing foreign-owned enterprise (FOE) base, and transportation infrastructure. Regions with export strength tend to have many of the same specific assets, such as existing international connections, transportation infrastructure, and cheap utilities. While transportation infrastructure (as measured by passenger airports, ports, miles of freight railroad, and landed cargo weight) was a key factor for FDI and export performance, the specific indicators of transportation infrastructure that were important differed both between FDI and export performance, as well as between types of regions. Both urban agglomeration effects (as measured by population density, regional share of state employment), and clustering agglomeration effects (as measured by the manufacturing share of the economy), were highly important correlates of both FDI and export performance.

Regions that are specialized around only a few key industries do not see as much FDI, but as the number of industries a region has a comparative advantage in increases, so too does their ability to attract FDI. In the case of FDI, the importance of specific regional assets outweighed

the impact of some basic economic and demographic controls. Conversely, the correlation between basic between economic and demographic factors (such as urban and industrial concentration effects, and an available labor supply) and export strength persisted, even after controlling for specific regional assets.

The results indicated export strength is highly correlated with the presence of an available, skilled workforce that is actively searching for work. The importance of an available workforce was reflected by the fact that regions with both high unemployment and higher labor force participation rates had higher levels of export performance. Together, educational attainment and median earnings reflected the importance of a skilled workforce, with educational attainment positively correlated with export performance across all types of regions.

While our initial results demonstrated the significance of some of the structural and economic determinants of export performance (referred to as “fixed assets” and “slow-changing properties” in the way we organize the results below), no policy variables have shown much significance for export performance. In the case of FDI, we found that the property tax burden was negatively correlated with FDI performance, while R&D spending as a portion of state GDP was positively correlated with FDI performance. This was not surprising because export activity is a continuous one, largely shaped by international market forces and the national policy framework of trade and currency policies. FDI, on the other hand, represents a limited number of discrete events in which the value of a fixed asset can be directly affected by the local policy environment.

The quantitative results point to five key policy recommendations. First, to promote FDI and export strength, regions should invest in policies that are designed to build skills and provide incentives for unemployed individuals to remain in the labor force, such as worker training programs. Second, regions should engage in concentrated international outreach and marketing that highlights existing international relationships and assets. Third, regions should take stock of the specific transportation assets they have and seek to develop an international engagement strategy that plays into the value of those existing assets. Fourth, regions should promote urban and industrial concentration effects around key urban centers and critical industrial clusters. Fifth, and finally, regions should work to lower industrial utility rates, reduce the property tax burden, and invest in government support for R&D.

These results demonstrate some of the aggregate regional characteristics that influence FDI and export performance. FDI site selection and export strength are both determined by the unique combination of assets and liabilities that a region offers, including agglomeration effects, demonstrated international engagement, transportation infrastructure, and a skilled labor supply.

### ***Model 1: Basic Controls***

The first stage of the model controls for basic economic and demographic conditions, and FDI and exports are evaluated separately. This model explains more than two-thirds of the variation in FDI deals across the 584 metropolitan and micropolitan regions that saw some FDI activity between 2009 and 2016 and explains more than half of the variation in export performance

across the 905 micropolitan and metropolitan regions that had some export activity between 2009 and 2016. The results are summarized in Table 13, and the detailed results (including coefficient sizes) are presented in Appendix D: Detailed Regression Tables (Appendix Table 1 and Appendix Table 2).

In the first model, urban and industrial concentration and an available labor supply stand out as especially important correlates of international engagement. While this model explains more than 70% of the variation in FDI performance when aggregating across all types of regions and when focusing on all metropolitan regions and large metropolitan regions, it explains less than 40% of the variation in small metropolitan regions, and less than 20% of the variation in FDI performance for micropolitan regions. The lack of results for small metropolitan and micropolitan regions indicates that small metropolitan regions behave similarly to micropolitan regions, and the determinants of FDI in these regions differ from the determinants of FDI in large metropolitan regions. A more specific model may be required to explain variation at the small metropolitan and micropolitan level. The determinants of export performance are more consistent between metropolitan and micropolitan regions.

Urban concentration effects, often referred to as urban agglomeration effects, are captured by two main variables: population density and the CBSA share of state employment. Both measures of urban concentration effects were strongly correlated with improved FDI and export performance, suggesting that foreign and exporting firms locate in areas with a high density of workers.

International engagement is supported by the presence of low-cost but skilled labor. The importance of the availability of low-cost but skilled labor is captured by three sets of variables in this model: unemployment and labor force participation rates, educational attainment, and median earnings. First, regions with exporting strength have high unemployment and labor-force participation rates. Second, export performance was positively correlated with educational attainment, but negatively correlated with the squared term of educational attainment. This relationship indicates that increasing levels of educational attainment are important correlates of export performance, but only up to a certain threshold, beyond which we see diminishing returns to educational attainment.

At the aggregate level and across all types of metropolitan regions, greater increases in the unemployment rate during the Great Recession were positively correlated with FDI performance. While educational attainment was not a significant correlate in this model, earnings also acts as a proxy for skill, and the strong positive correlation between median earnings and FDI performance suggests that foreign firms value skilled labor. Median earnings were also

#### **Workforce Incentives**

The results suggest that regions with unemployed, skilled workers who are actively seeking work tend to be most engaged in the international economy.

Regions interested in boosting international engagement can focus on programs to incentivize unemployed workers to remain in the workforce and develop new skills.

positively correlated with export performance. When combined, these findings suggest that regions with unemployed, skilled workers who are actively seeking work tend to be most engaged in the international economy. To draw a policy implication from these findings, regions can provide incentives for unemployed workers to remain in the workforce to promote international engagement.

Industrial concentration effects, often referred to as cluster agglomeration effects, are captured by three variables: industry diversification, export strength, and manufacturing strength. While there was no strong evidence that industry diversification was an especially important correlate of export performance, industry diversification has a non-linear relationship with FDI performance. Regions that are specialized around only a few key industries do not see as much FDI, but as the number of industries a region has a comparative advantage in increases, so too does their ability to attract FDI.

These results should all be interpreted cautiously, as it is difficult to determine which variables boost international engagement, and which are responses to existing strengths. For example, foreign firms locate in regions with demonstrated export strength, and (for metropolitan regions) a higher manufacturing share of the economy. Because FDI is a manufacturing-intensive activity, we cannot determine if manufacturing strength leads to increased FDI performance, or if manufacturing strength is an effect of FDI performance. Similarly, we found that at the aggregate level, the percent change in unemployment rate during the recession was negatively correlated with export performance. However, this result could be because exporting industries provide jobs, and areas with export strength may have weathered the recession better.

**Table 13. Summary of the Results from Model 1 on FDI and Export Performance.**

“x” denotes a result that is significant at the 0.05 level at least, and “x” denotes a result that is negatively significant at that level.

	Variable	FDI					Exports				
		Aggregate Regions	All Metropolitan Regions	Large Metropolitan Regions	Small Metropolitan Regions	Micropolitan Regions	Aggregate Regions	All Metropolitan Regions	Large Metropolitan Regions	Small Metropolitan Regions	Micropolitan Regions
Model 1: Economic and Demographic Controls	Population Density	x	x	x				x	x	x	x
	Educational Attainment							x	x	x	x
	Educational Attainment Squared							x	x	x	x
	Labor Force Participation Rate							x	x	x	x
	Unemployment Rate							x	x	x	x
	Median Earnings	x						x	x	x	x
	CBSA Share of State Employment	x	x					x	x	x	x
	Real State GDP							x	x	x	
	Total Crime Rate										
	Industry Diversification	x	x					x			
	Industry Diversification Squared Term	x	x					x			
	Recession Unemployment Change	x		x				x			x
	Recession GDP Change	x									
	Export Strength	x	x	x	x	x					
	Manufacturing Share		x	x				x	x	x	x
	Regional Control for Western Regions	x	x					x			
	Regional Control for Northeast Regions	x	x	x							
	Regional Control for Midwest Regions	x	x	x							

## ***Model 2: Adding Fixed Assets and Slow-Changing Properties***

The second model adds controls for fixed assets and slow-changing properties, which are variables that better fit the contextual case for FDI deals and export performance. This model serves as the core of the analysis, explaining three-fourth of the variation in FDI deals, and almost two-thirds of the variation in export performance. This model explains less than 50% of the variation in FDI deals for small metropolitan areas, and around 20% of the variation in FDI deals for micropolitan regions. The addition of some fixed assets and slow-changing properties seems to have captured some of the unique elements that allow small metropolitan regions to attract FDI deals. These results are summarized in Table 14 and detailed results are presented in Appendix Table 3 and Appendix Table 4.

### **Specific Asset Mixtures**

International engagement is boosted by the presence of specific desirable assets. Existing international connections, industrial clusters, and transportation infrastructure were important correlates of both FDI and export performance.

The results from the second model suggest that international engagement is boosted by the presence of specific desirable assets. However, FDI and export performance depend on slightly different sets of asset mixes. Existing international connections, industrial clusters, and

transportation infrastructure are important correlates of both FDI and export performance. The availability of labor and cheap utilities is important for export performance, while the presence of a healthy innovation economy (captured by a region's total number of financing events) is important for FDI performance. Interestingly, while the availability of labor is an important determinant of international engagement across all types of regions, in small metropolitan regions we did not find any correlation between our proxy for skill (median earnings) and FDI or export performance.

Urban and industrial concentration effects and the availability of labor are captured by the same variables as in model 1, and generally the same relationship between these factors international engagement persists. In the case of FDI, the measures of urban concentration effects (population density and CBSA share of state employment) are only significant when aggregating across all types of metropolitan and micropolitan regions, indicating that the importance of specific regional assets may swamp the impact of basic economic and demographic controls seen in the first model. This notion is echoed in the qualitative research (Section III: FDI & Export Common & Effective Practices) and corroborated by statements from interviews with regional economic developers and site selection consultants.

Existing international connections is captured by the base of FOEs, the share of international migration as a percent of all migration, and the foreign-born percent of the population.

### **Industry-Specific FDI**

The results discussed above provide some context about the determinants of FDI as a broad category. With this understanding, we analyzed industry-specific FDI in the manufacturing and high-tech sectors as a first step towards taking account of the fact that FDI is a heterogeneous activity. This model explains less than a fifth of the variation in industry specific FDI, indicating



that the model we use to examine aggregate FDI is not well-suited to capturing the determinants of industry specific FDI. These results are summarized in Table 15 and presented in detail in Appendix Table 5.

The availability of labor, as captured by the unemployment rate and the change in the unemployment rate during the recession, are important correlates of manufacturing sector FDI. These results indicate that, as was the case with export performance, manufacturing sector FDI may locate in regions with an ample supply of labor. A healthy innovation ecosystem (as captured by financing events) and passenger transportation infrastructure are both important correlates of high-tech FDI.

The differences between the determinants of high-tech FDI and manufacturing FDI demonstrate the heterogeneous nature of FDI. In aggregate, foreign firms locate in regions with urban and industrial concentration effects, transportation infrastructure, and other specific assets. However, the model we specified does not capture where specific industries locate.

**Table 14. Summary of Results from Model 2 - Fixed Assets and Slow-Changing Properties on FDI and Export Performance by CBSA**

“x” denotes a result that is significant at the 0.05 level at least, and “x” denotes a result that is negatively significant at that level.

	Variable	FDI					Exports				
		Aggregate Regions	All Metropolitan Regions	Large Metropolitan Regions	Small Metropolitan Regions	Micropolitan Regions	Aggregate Regions	All Metropolitan Regions	Large Metropolitan Regions	Small Metropolitan Regions	Micropolitan Regions
Model 1: Economic and Demographic Controls	Population Density	x					x				
	Educational Attainment						x	x			
	Educational Attainment Squared						x	x			x
	Labor Force Participation Rate						x			x	
	Unemployment Rate						x	x		x	
	Median Earnings	x					x	x	x		x
	CBSA Share of State Employment	x					x	x			x
	Real State GDP					x	x	x	x		
	Total Crime Rate				x						
	Industry Diversification	x	x	x		x	x				
	Industry Diversification Squared Term	x	x	x		x					
	Recession Unemployment Change						x			x	x

	Variable	FDI					Exports				
		Aggregate Regions	All Metropolitan Regions	Large Metropolitan Regions	Small Metropolitan Regions	Micropolitan Regions	Aggregate Regions	All Metropolitan Regions	Large Metropolitan Regions	Small Metropolitan Regions	Micropolitan Regions
	Recession GDP Change										
	Export Strength	x	x	x	x						
	Manufacturing Share		x		x	x	x	x	x	x	x
	Regional Control for Western Regions										
	Regional Control for Northeast Regions										
	Regional Control for Midwest Regions										
Fixed Properties and Slow Changing Assets	Financing Events	x	x	x							x
	Ports					x	x	x	x	x	
	Passenger Airports	x	x	x		x	x	x	x		x
	Landed Cargo Weight	x	x			x					x
	Miles of Freight Railroad		x	x							
	Foreign Owned Establishments	x	x		x		x			x	

	Variable	FDI					Exports				
		Aggregate Regions	All Metropolitan Regions	Large Metropolitan Regions	Small Metropolitan Regions	Micropolitan Regions	Aggregate Regions	All Metropolitan Regions	Large Metropolitan Regions	Small Metropolitan Regions	Micropolitan Regions
	International Share of Migration			x	x		x	x			
	Foreign Born %	x	x		x		x			x	x
	Cost of Living	x	x								x
	Commercial Utility Rate			x							
	Industrial Utility Rate					x	x	x		x	x
	Land Value		x			x					

**Table 15. Summary of Model 2 Results for Industry Specific FDI Deals, 2009-2016, by CBSA**

“x” denotes a result that is significant at the 0.05 level at least, and “x” denotes a result that is negatively significant at that level.

	Variable	Manufacturing				High Tech			
		Aggregate Regions	All Metropolitan Regions	Metropolitan Regions w/o top 15	Micropolitan Regions	Aggregate Regions	All Metropolitan Regions	Metropolitan Regions w/o top 15	Micropolitan Regions
Model 1: Economic and Demographic Controls	Population Density								
	Educational Attainment								
	Educational Attainment Squared								x
	Labor Force Participation Rate								
	Unemployment Rate	x			x				
	Median Earnings					x			
	CBSA Share of State Employment					x			
	Real State GDP	x			x				
	Total Crime Rate								
	Industry Diversification	x							
	Recession Unemployment Change			x	x	x		x	x
	Recession GDP Change								
	Export Strength	x			x				
	Regional Control for Western Regions								

	Variable	Manufacturing				High Tech			
		Aggregate Regions	All Metropolitan Regions	Metropolitan Regions w/o top 15	Micropolitan Regions	Aggregate Regions	All Metropolitan Regions	Metropolitan Regions w/o top 15	Micropolitan Regions
	Regional Control for Northeast Regions								
	Regional Control for Midwest Regions								
Model 2: Fixed Properties and Slow Changing Assets	Financing Events			x					x
	Ports								
	Passenger Airports								x
	Landed Cargo Weight								x
	Miles of Freight Railroad								
	Foreign Owned Establishments								
	International Share of Migration			x				x	
	Foreign Born %								
	Cost of Living								
	Commercial Utility Rate								
	Industrial Utility Rate								
	Land Value								

### **Model 3: Adding Policy Variables**

The impact of policy levers on FDI and export performance tends to depend on specific firm needs and individual incentive packages that local communities offer firms. As such, the quantitative findings are limited. However, the importance and effect of individual incentive packages is explored in further detail in Section III: FDI & Export Common & Effective Practices. These results are summarized in Table 16, and presented in detail in Appendix Table 6. This model explains three-fourths of the variation in FDI deals, suggesting that the addition of policy variables does not add much in terms of explanatory value.

Our results only pertain to the FDI portion of international engagement. We did not find much significance from our policy variables on export performance, which is not surprising given the complexity of the factors that affect exports. Export activity is a continuous one, shaped by international market forces and the national policy framework (trade and currency policies). Export activity is also contingent on individual firm factors, such as export histories, company core competencies, and international demand for a given good. Conversely, FDI represents a limited number of discrete events in which the value of a fixed asset can be directly affected by the local policy environment. Refinements to the model may reveal some additional factors for export performance, but we do not expect to discover many significant policy variables.

We found two key factors were correlated with FDI performance. States with higher property tax burdens saw fewer FDI deals, while states with higher annual expenditures on R&D as a portion of GDP saw more FDI deals.

#### **FDI Boosters**

States with higher property tax burdens saw fewer FDI deals, while states with higher annual expenditures on R&D as a portion of GDP saw more FDI deals.

We did not see any signal on individual income tax burden or corporate income tax burden on FDI performance. However, we did find that government debt as a portion of GDP was positively correlated with FDI performance for micropolitan regions. Since policy data are all at the state level, while FDI totals and export performance are reported at the CBSA level, we may be missing some of the variance in our outcomes that could have been reasonably attributed to the various policy variables.

One possible workaround to this problem would be to analyze the impact of policy variables on aggregate FDI deals and export performance at the state level, rather than at the CBSA level.

**Table 16. Summary of Model 3 Results: Policy Variables on Log Total FDI Deals, 2009-2016, by CBSA**

“x” denotes a result that is significant at the 0.05 level at least, and “x” denotes a result that is negatively significant at that level.

	Variable	FDI				
		Aggregate Regions	All Metropolitan Regions	Large Metropolitan Regions	Smaller Metropolitan Regions	Micropolitan Regions
Model 1: Economic and Demographic Controls	Population Density	x				
	Educational Attainment					
	Educational Attainment Squared			X		
	Labor Force Participation Rate					
	Unemployment Rate					
	Median Earnings	X				
	CBSA Share of State Employment	x		X		
	Real State GDP					
	Total Crime Rate					
	Industry Diversification	x	x	x		x
	Industry Diversification Squared Term	x	x	x		x
	Recession Unemployment Change					



	Variable	FDI				
		Aggregate Regions	All Metropolitan Regions	Large Metropolitan Regions	Smaller Metropolitan Regions	Micropolitan Regions
	Recession GDP Change					
	Export Strength	x	x	x	x	
	Manufacturing Share		x		x	x
	Regional Control for Western Regions					
	Regional Control for Northeast Regions					
	Regional Control for Midwest Regions					
Model 2: Fixed Properties and Slow Changing Assets	Financing Events	x	x	x		
	Ports					x
	Passenger Airports	x	x		x	x
	Landed Cargo Weight	x				x
	Miles of Freight Railroad					
	Foreign Owned Establishments	x	x		x	
	International Share of Migration			x	x	
	Foreign Born %	x	x			

	Variable	FDI				
		Aggregate Regions	All Metropolitan Regions	Large Metropolitan Regions	Smaller Metropolitan Regions	Micropolitan Regions
	Cost of Living	x	x		x	
	Commercial Utility Rate					
	Industrial Utility Rate		x		x	x
	Land Value	x				
Model 3: Policy Variables	Property Tax Burden		x	x		
	Government R&D Spending		x		x	
	Government Highway Direct Expenditure			x		

# Section III: FDI & Export

## Common & Effective Practices

### Qualitative Research Methodology

The research team employed an iterative approach to collect and analyze data, determine common themes, and thereby identify common and effective practices in attracting FDI and expanding regional exports. Using grounded theory and inductive reasoning, the team sought information and supporting data that would illuminate the process by which regions and states develop international engagement plans; determine the factors that determine or influence FDI investor decision-making; identify effective programs, practices, and policies that successfully attract FDI or promote exports; and locate and assess existing tools available to support regions in boosting their ability to attract FDI and promote exports. We anticipated that this bottom-up research would generate the insights that inform the overall theory and broader conclusions about the common and effective practices discussed below.

To that end, the research team conducted an extensive review of the literature and supplemental primary research organizing more than 40 intensive stakeholder and practitioner interviews for this report. For the literature review, the research team methodically scanned publications sourced from the Brookings Global Cities Initiative; associations that represent state and regional economic development organizations and other levels of state and local government; peer-reviewed academic journals; non-governmental research reports; federal documents related to multi-agency economic development initiatives; and press announcements describing individual FDI deals. In total, the team reviewed and gleaned information from over 225 discrete sources. Initial sources of information, including topical experts, led the team to additional sources from which to gather pertinent information.

We sought interview subjects engaged in activities or strategies that went beyond what the industry perceived as common practice to attract FDI and promote exports. We identified interview candidates using several sources: they appeared in the literature review; other researchers, stakeholders, or practitioners reported their extraordinary effort or approach; and/or as we iterated through the process, we identified gaps in our research (geographic variation, differences in strategies, etc.) and sought additional representatives from those regions to fill those gaps. The information from stakeholders included federal agency staff, national and state membership organizations, public interest groups, think tanks, site selection experts, state economic development officials, and overseas representatives and consultants.

In total, the CREC/S&A team received over 100 recommendations for communities/regions engaged in a wide variety of innovative and effective practices. The recommendations described the rationale for nominating each region, supplemented by information from online research of websites, publications, and strategic plans. In considering whom to interview, we

applied the following factors in selecting 40+ communities/regions as interview candidates. Our goal was to balance the following:

- The characteristics of the effective practices that we expect are important (based on the literature and our experience) for which the region was nominated.
- Opportunity to understand important factors beyond variables in the quantitative research findings, as suggested by the quantitative research team and our literature review.
- Capturing information that was previously unreported, undocumented, or less known in economic development professional circles.
- The extent of the region's experience, depth of practice, and history with FDI attraction and export promotion.
- Geographic diversity.
- Variation in the regions' economic characteristics (e.g., size, industry concentrations, etc.).

As conceptual findings began to emerge from the research process, the team captured those in informal working documents and continually refined and expanded the set of findings based on additional information collected and analyzed. Organizing these informal findings aided the team's understanding of the relationships between different elements driving FDI attraction and export promotion. As the research team assessed the information gathered through the expert and practitioner interviews, we compared those insights with the existing literature to generate conclusions about common and effective practices.

In this report, examples cited from the literature and interviews illustrate common and effective practices observed during the qualitative research process. These insights are shared to help the reader understand the general state of activity and practice among local economic development organizations across the many elements of a comprehensive regional approach to FDI attraction and export promotion. The inclusion of a specific practice or individual region does not necessarily indicate that the practice is by itself a sufficient driver of high performance or that the region is a high performer overall. Overall high performance on FDI attraction or export promotion depends on a combination of factors, as described in more detail below.

## **Qualitative Findings**

There are four categories of effective practices that apply to both FDI attraction and export promotion: strategy and planning, outreach and marketing, support services and incentives. Aftercare of investors is also especially significant for FDI attraction and is covered separately below. Because the qualitative work focused on the strategic decisions that individual firms make, these categories differ from the categories of quantitative variables, but ultimately address many of the same themes. The relationships between the qualitative and quantitative findings are synthesized below in Section IV: Conclusion.

Below, Table 17 provides a succinct synopsis of common and effective practices in attracting FDI and expanding regional exports revealed by the abovementioned interviews and literature, highlighting the importance of recognizing and defining assets, enacting and implementing

appropriate policies and programs, and maintaining a focus on existing foreign-owned and middle market firms.

**Table 17. Summary of Qualitative Findings**

Finding	FDI	Exports	Examples
<b>Regional Assets</b>			
A region must define its assets with specificity to be meaningful to investors and to distinguish it from other regions.	✓		Regional concentrations of industries, clusters, or supply chains; research institutions; major companies or OEMs.
Regional connections and relationships to foreign markets are especially important regional assets.	✓	✓	Residents from a particular country, student alumni, sister cities, geographic proximity to specific foreign markets, and the number of existing foreign-owned enterprises.
The same assets valued in domestic business attraction are relevant to attracting FDI and promoting exports.	✓	✓	Transportation infrastructure, geographic position near customers, the availability of skilled labor, and low factor or operating costs, such as labor, energy, and land.
<b>Regional Policies and Programs</b>			
Closing deals requires the right mix of support services as well as financial and non-financial incentives.	✓		Welcoming environment, training programs, partnerships with colleges and universities, soft landings programs, tax abatements, and infrastructure improvements.
Foreign investors value the availability of a rapid and smooth start-up.	✓		Information on site availability, certified site programs, rapid start up programs.
Jurisdictions can band together across a region to build the scale to engage in effective FDI attraction and export promotion.	✓	✓	Multiple counties coordinating FDI attraction together; outlying areas collaborating with major metros, benefitting from their brand and driver industries.
Regions can identify and connect companies with export potential to existing federal and state resources.		✓	BRE activities, including talking to region's companies about exporting and federal/state resources.
Larger EDOs have the scale to provide targeted export promotion services that fill service gaps.		✓	Supporting exports in target sectors/clusters and sales to specific countries (beyond what state and federal resources can provide).
Collaboration between regional EDOs and state and federal programs is critical to provide complementary services and avoid duplication of effort.	✓	✓	Coordination in planning for outreach, tradeshow, trade mission, and training.

Finding	FDI	Exports	Examples
<b>Focus on Existing Base of Companies</b>			
Relationships with the existing base of regional companies may be the most critical factor in international engagement.	✓	✓	Aftercare for foreign enterprises, export promotion for middle market companies with global growth potential.

### **Strategy and Planning**

Based on our experience and a review of Comprehensive Economic Development Strategy (CEDs) plans<sup>31</sup> submitted to EDA, most regions do not prepare international engagement plans that articulate the role of FDI attraction or export promotion in their region's broader economic development strategy. A *formal* international engagement plan is neither necessary nor sufficient for a region to experience success with FDI or exports. Most regions appear to engage in activities that are reactive or opportunistic, responding to inquiries from potential investors and leveraging existing or informal relationships between existing companies, state trade officials, and investors. Thoughtful strategies can target resources, streamline tactics, uncover new opportunities, and accelerate results. But formal plans are not as essential to a region's success as other factors described below, which is discussed in more detail below.

Regions that develop a strategy start with a rationale for why international engagement is important to the economic success of the region.<sup>32</sup> These regions conduct a comprehensive market assessment, which provides information on the current state of foreign engagement across many measures, regions' strengths and weaknesses, and opportunities worth pursuing. The region can identify and propose strategies and actions that flow from findings of the assessment.

Some of the most complete and compelling plans are found in materials from the Brookings' Global Cities Initiative.<sup>33</sup> Some examples include: Portland, Oregon; Columbus, Ohio; Upstate South Carolina; and Syracuse, New York. These communities incorporate rigorous data analysis using primary and secondary research to identify strengths, opportunities, and weaknesses as part of a comprehensive market assessment, which engages stakeholders and community leaders in the development of the plan. They identify a few key goals, then define strategies and tactics—which all flow from market assessment findings—to advance progress toward the goals if successfully executed. Milestones and performance measures are defined to track progress against the plan. This work is supported by a broader communications strategy to inform and engage others in the work.

However, having a complete and compelling plan alone does not guarantee success with international engagement nor does a plan ensure that impacts will be realized. Success depends on many factors, including the extent to which the plan's strategies are implemented, and the region's effectiveness in executing recommended strategies.

Several themes emerged from interviews and secondary research regarding ingredients for a

successful international engagement initiative, regional strengths that matter, and strategies that are effective for FDI attraction and export promotion. These themes are discussed below.

### **Ingredients for Success – International Engagement Strategy and Planning**

Our research identified several “ingredients” for success in the planning and strategy process. First, a region must make global engagement a priority, which includes the need for a sustained commitment, appropriate funding for these activities, and a long-term time horizon for payoff on these investments (as it can take years for FDI and export activities to come to fruition). Strong political and organizational leadership underpins all these requirements.

#### **Global Cities Initiative (GCI)**

GCI provides an invaluable resource for this research through participants’ extensive documentation of their plans, methods, and lessons learned. Brookings and JPMorgan Chase developed GCI to help leaders in U.S. metropolitan areas reorient their economies toward greater engagement in world markets. A five-year effort, GCI helped city leaders learn new strategies for expanding their global economic reach, using original research and trend analysis, focused planning, and peer-to-

Success is more likely if a region's economic development and related organizations are collaborative and aligned. This is important to provide consistent, seamless support for increasing exports and FDI and to address business challenges and support the growth of companies in target industries.

Finally, regions need to reconsider the relationship between international engagement strategy and BRE programs. Success with the former depends on knowing your base of middle market companies and leveraging that knowledge to support export growth, expansion of existing FOEs, and capturing leads for new FDI.

### **Assessing Regional Assets**

An assessment of regional assets is an important initial step in developing effective strategies for FDI recruitment and export promotion. This effort should develop an understanding of the regional base of companies, key competitive strengths and existing international connections and relationships, including such elements as:

- The *regional base of companies and institutions*. This includes: local concentrations of major industries, clusters, or supply chains; research and innovative capacity (e.g., major research institutions); and major companies or original equipment manufacturers (OEMs). To foreign investors, this base of companies represents potential customers, suppliers, sources of skilled labor, and research and development partners.<sup>34</sup> For export promotion, the major sectors and clusters identified in this regional assessment are a priority focus for services like tradeshow
  - To be effectively build strength in international engagement (particularly for FDI recruitment, but also for exports), a region must clearly define its assets—such as clusters— in a manner that differentiates them from other regions. This involves defining *specifically* what types of companies, sub-clusters, or research is occurring in the region, and pinpointing unique specializations so a potential investor will understand what assets are valuable to them, and how.<sup>35</sup> For

example, Great Falls, Montana, hired industry experts to define and refine their particular industry expertise. Rather than food processing, industry experts helped the region articulate expertise in pulse crop fractionation (dried beans, chickpeas, lentils, and peas), wheat, and barley ingredient processing, and others.<sup>36</sup>

- The *regional base of existing foreign-owned enterprises*. Up to 70% of new investment is linked to the existing investment base.<sup>37</sup> As a result, aftercare and relationship building with existing FOEs can be a critical part of FDI strategy to capture expansions and leads for new investment. Our quantitative findings also support this conclusion, as we saw evidence that a one percent increase in the number of employees in FOEs as a share of all employment was correlated with approximately a 10% increase in total FDI deals between 2009 and 2016.
- Existing *connections and relationships with specific foreign country markets*. Examples include: top destination countries for regional exports (and major sources of regional imports); countries where existing foreign investors are located,<sup>38</sup> concentrations of local residents from foreign markets, foreign student alumni,<sup>39</sup> proximity to a foreign market,<sup>40</sup> and sister city relationships.<sup>41</sup> These assets—related to familiarity—influence investors from these countries toward these regions. It makes sense to target these countries in FDI marketing and lead generation activities. It also may make sense (when combined with other considerations discussed below) to target these countries for export promotion efforts.
  - A corollary to this conclusion is that being a border region near Mexico or Canada can be a particularly potent asset, for both FDI recruitment and exporting, as in the case of San Diego’s proximity to the Baja/Tijuana industrial base or Detroit and southwest Ontario.<sup>42</sup> San Diego’s proximity to Baja/Tijuana may contribute to its ranking of 63 out of 381 metro areas analyzed in FDI deals per capita.
- Regions may find it especially helpful to *develop their “brands” and strategies around multiple jurisdictions*, not one county or narrowly defined area that many foreign investors will not recognize. Regions band together—often including nearby major metro areas—to combine assets and build the scale necessary to engage in effective international marketing and outreach, achieve international brand awareness, and enhance their collective strengths. Interviews with numerous economic development practitioners from around the country informed the above findings.

A thorough understanding of these assets enables a region to make informed strategic decisions about setting priorities among sectors/clusters and geographic regions with export potential or opportunities to attract inbound investment.

### **FDI Attraction Strategy**

An FDI location decision is high risk for a foreign-owned enterprise (FOE) and therefore complex as entities consider locations that will best address their goals and objectives while minimizing cost, uncertainty, and risk. Interviewees made clear that site selection is typically based on a *package* of strengths and weaknesses offered by one location over another.



Furthermore, the objectives of investors, the factors they consider, and their relative importance, can vary widely among competitors.<sup>43</sup> As a result, it is impossible to know ahead of time which factors will ultimately make the difference in closing a deal. This lack of absolutes, and the variety of potential investor decision-making factors, are good news for regions that do not have obvious strengths (like major clusters or research institutions) because they can promote themselves based on a variety of potential strengths.

However, a region must offer a strong value proposition that *distinguishes* its package of strengths and assets for prospective foreign investors.<sup>44</sup> Understanding and leveraging the region's strengths contributes to articulating the region's brand and can attract additional investment. The foundation for a region's value proposition is the assessment of key assets defined above – regional concentrations of companies and institutions in specific sectors or supply chains, research capacity, existing foreign investors, and connections in specific foreign country markets. A practitioner interview reinforced the point that the Milwaukee region's well-known brand and assets in water and water technology was one of the key factors considered by Foxconn in their recent decision to locate a liquid crystal display (LCD) facility nearby. The facility is expected to require 7 million gallons of water per day once it is fully operational.

FDI attraction is also based on some of the same decision factors as domestic business attraction, and thus regions can leverage the same strengths that are emphasized in general business attraction, such as:

- *Factor input costs relative to competitors.* These can be described in terms of labor rates, unionization levels, land costs and availability, overall tax burden, and regulatory costs.
- *General labor availability and quality.* This is especially important as the U.S. unemployment rate has dropped, increasing the value of training programs that can contribute to the supply of workers desired by a foreign investor or growing exporter. The Golden Triangle area of Mississippi, which ranks 45th in FDI deals per capita among 536 micropolitan regions, illustrates the value of this type of program for FDI. The success of this rural area in attracting large investments, including billion-dollar FDI, can be attributed in part to the local training program.
- *Programs or practices that provide fast start-up or site readiness.* These reduce the risk (and cost) of site development and can be critical to companies under pressure to get operations up and running. A foreign company selected a Rhode Island location for its investment partly due to this factor. The CEO articulated a clear need to build quickly because of commercial pressures on the company to launch operations.<sup>45</sup>
- Other well-documented factors that are important for domestic business attraction and FDI include available incentives, infrastructure (including transportation and trade infrastructure, such as seaports, rail links, interstate highways, and inland ports), and geographic location to effectively serve target markets across the country,<sup>46</sup> to name a few.

Since mergers and acquisitions (M&A) make up the vast majority of foreign investment (98% in 2016<sup>48</sup>), some regions are now considering a strategy for this type of FDI. For foreign investors, M&As provide a lower risk path into a geographic market,<sup>49</sup> which means that although there may not be an immediate hiring of additional workers, the transaction may afford some of the same types of benefits as greenfield FDI, such as future expansion opportunity and the potential to attract other FOEs from the same country. Furthermore, M&A can provide valuable infusions of investment capital for struggling firms as well as startups or gazelles.<sup>50</sup> Historically, EDOs did not attempt to support M&As because they do not immediately impact jobs and because M&A can result in consolidation that relocates operations outside the region. But given the potential benefits of FDI M&A, this has started to change. Some of the trade and investment plans developed as part of the Global Cities Initiatives addressed M&A, including the San Diego plan—which incorporated a strategy to connect acquired firms with key regional research assets and relationships to discourage foreign parent firms from relocating operations outside of the region.<sup>51</sup>

#### **Golden Triangle Development LINK**

The Golden Triangle illustrates the success of a rural area in attracting large foreign investments due in part to a local training program. In an interview with a public radio program, the head of the Workforce Development department at East Mississippi Community College (EMCC) said, “When Joe Max Higgins (CEO, Golden Triangle Development LINK) brings around prospective companies, often his first stop is at EMCC, and many times the final decisions are made in its conference room.” In 2013, Yokohama Tire announced a \$300 million greenfield investment and EMCC told Marketplace, “Even though the dirt is still being churned at the site of the future Yokohama Tire plant, [EMCC is] already training a pool of workers... Even though they only need 500 employees, they'll have 5,000 ready to go before Yokohama ever opens its doors.”<sup>47</sup>

### **Export Strategy**

Our research discovered several key themes related to the successful development of a regional export promotion strategy derived from knowledge about the regional economy:

- *Effective regional EDOs strive to fill in gaps, and not develop programs and services that duplicate existing state and federal programs.* This will be discussed in more detail below in the support services section, but regional EDOs are valued in their role of connecting exporters with existing state and federal export promotion programs. Some larger regional EDOs, often located in major metro areas, also offer their own export promotion programs. To be effective, regions should coordinate these efforts with state and federal trade programs and design them to fill gaps (e.g., supporting tradeshow or trade missions in sectors or countries that are important to the region, but do not duplicate state efforts). Several interviews highlighted the challenges of regional EDOs engaging in export promotion, and the need for regions to focus and coordinate with state and federal partners to optimize results.
- *Regional EDOs can identify the base of existing exporters and export-ready companies and foster development of a pipeline of companies that are becoming export-ready.* Again, a regional EDO should collaborate federal and state partners to develop plans to

mobilize and educate regional companies about export opportunities and support programs.<sup>52</sup> Interviews highlighted the value of regional EDOs being able to talk with companies in their region about exporting and referring them to state and federal resources.

- *Regional export strategy relies on identifying key target sectors or clusters* (discussed above) as a basis for developing plans for support services, such as training or tradeshow support (and ensuring that regional, state, and federal programs support these key regional clusters).<sup>53</sup>
- *Regions can identify high potential export countries* based on the needs of exporters in the region, state target industries, an analysis of current export sales, and existing relationships between a region and its base of companies and clusters and specific foreign markets. The goal is to foster and leverage connections to these markets.<sup>54</sup>

Finally, most export promotion services are aimed at small and mid-sized companies; however, the existence—or attraction—of large global companies can have a major impact on a region's export performance. Large companies (over 500 employees) represent 67% of U.S. merchandise export value, and large manufacturers represent 80% of manufactured export value.<sup>55</sup> This has implications for measurement, as a major driver of regional export performance is the region's ability to attract larger exporting facilities, while much of export promotion is focused on small and middle-market firms, which are only a portion of regional export sales.

### **FDI and Export Synergy**

Export promotion and FDI attraction overlap in important ways: both depend heavily on an understanding of the regional economy and unique assets, and both reinforce the benefit of developing relationships with *existing companies* in a region, including foreign-owned enterprises. Existing companies have export potential and are potential acquisition targets for foreign enterprises. Existing foreign-owned facilities offer the opportunity for additional investment for expansion, can help to attract additional foreign investors, and are often export platforms from the U.S. All these factors underscore the importance of aftercare, and as discussed below, an effective business, retention, and expansion (BRE) activity.<sup>56</sup>

### ***FDI Attraction***

#### **Outreach and Marketing**

States and regions engage in myriad activities to reach foreign investors and effectively market their location for FDI choices. The literature and interviews reveal that common practices include conducting foreign missions, establishing foreign offices or representatives, hiring international strategic marketing firms, participating in trade shows and other international events, cultivating a creative web and media presence, collaborating with site selection consultants, and building on cultural relationships. Regions employ these methods to ensure a unified and consistent message<sup>57</sup> as they craft a strong international image.<sup>58</sup> Metrics for assessing progress of these activities include the number of missions conducted, number of foreign offices established, actionable leads generated, and social media traffic on a specific topic or marketing effort. These tend to be mechanisms for shaping how the region is perceived

among FOEs and for identifying potential leads, but the “sales” process is completed separately from these efforts.

The literature and interviews with state trade experts suggest the importance of interagency, interorganizational, and even multi-jurisdictional partnerships in generating leads and attracting

#### **Milwaukee 7**

The Milwaukee 7 identified a regional strength in fresh water technology and established the Water Council, an organization to provide resources and expand the region’s water industry. Milwaukee received an official UN Designation in recognition of its sector specialization in fresh water technology,<sup>59</sup> which further enhanced the region’s international brand. Milwaukee 7’s efforts began to generate positive outcomes when it sent a trade delegation with the Water Council to attend a trade fair in Munich that focused on water issues and water technologies. Following an initial meeting in Munich, The Water Council signed an MOU with the German Water Partnership, committing to promoting economic development and assisting companies seeking to establish and expand their presence in each other’s markets.<sup>60</sup>

FDI. Also, the regions recognized as effective in marketing and outreach for FDI have clearly defined their assets, particularly sector and sub-sector strengths, in order to distinguish themselves from other regions. As illustrated in the box on the left, Milwaukee 7 linked specific technological innovation in water technology with targeted market opportunities to generate more favorable results than attendance at a more general trade show.<sup>61</sup> The success of this and other trips taken by the Milwaukee 7 delegation was predicated on the development and execution of a deliberate and unified messaging campaign.<sup>62</sup>

As the Milwaukee 7 case demonstrates, a region’s recognition of sub-sector specializations can enable strategic marketing and outreach to attract foreign investments that complement the regional economy. Other interviews with practitioners revealed numerous innovative examples. For example, an EDO in Great Falls, Montana, hired agriculture industry experts to understand their particular industry expertise, which set them apart from the crowd in their marketing and branding efforts. Instead of citing generic expertise in broad industries such as food processing, their industry experts helped them identify, define, and articulate expertise in pulse crop fractionation (dried beans, chickpeas, lentils, and peas), wheat and barley ingredient processing, and others.<sup>63</sup> This has contributed to the attraction of FOEs such as Nippon Flour Mills and Malteurop North America. Similarly, the state of Maryland has leveraged the strength of its internationally recognized cyber technology sector to establish a reciprocal soft-landing and incubator program with cyber technology firms in Netherlands. As of December 2017, two Dutch companies have established operations at the cyber incubator, and the program aims to continue growing in coming years.

According to our interviews and the literature, regions that have a strong understanding of their respective sector specializations and other unique assets can be intentional and creative in their outreach to potential leads. An example of creative lead generation comes from the state of Washington, which has invited international leaders in targeted industries to attend a sector-

specific summit to understand the state's industry characteristics and potential opportunities for investing.<sup>64</sup> An EDO in Los Angeles capitalized on its geographic location by inviting potential investors from Asia en route to the annual U.S. Department of Commerce SelectUSA Investment Summit to showcase the region's assets and potential investment opportunities. Pennsylvania economic development officials leverage the brand of the Philadelphia Symphony Orchestra and universities to establish relationships with potential foreign investors. Additionally, Pittsburgh and San Diego<sup>65</sup> offer examples of how regions have engaged potential investors with the establishment of a strong web presence. EDOs in micropolitan and rural regions such as Columbus, Mississippi, and Fulton County, New York<sup>66</sup>, have shown the capacity to generate leads and attract foreign investment by establishing strategic partnerships with site selection consultants and state agencies, respectively. Since locating in Fulton County, FAGE USA has invested over \$200 million and created more than 200 jobs in the region.<sup>67</sup> The Gloversville micropolitan statistical area, which includes Fulton County, ranked 67<sup>th</sup> out of 536 regions analyzed in FDI deals per capita.

### **Support Services**

When deciding whether to make a business investment in a new foreign location, investors consider many potential costs and benefits. Some of those considerations relate to the ease with which they can obtain valuable information and useful business contacts in a new territory.<sup>68</sup> Our research, including interviews with experts and practitioners, shows there are numerous common practices that state and regional economic development organizations use to reduce these costs to foreign investors. These include preparing sites for commercial and industrial development; connecting to community and technical colleges and universities for customized training programs; facilitating introductions to local professional services firms—such as attorneys, accounting and tax firms, immigration experts, and engineers—and business accelerators; providing opportunities to support soft landings;<sup>69</sup> assisting with cultural adjustments and family needs, such as housing search, international school search, spousal employment search, and language learning; facilitating introductions to university labs and innovation centers;<sup>70</sup> and delivering data on the local economy and labor force.

States and regions sometimes offer these services in the form of incubators and soft-landing centers, providing a one-stop shop for international investors. For example, the Virginia-Israel Biosciences Commercialization Center is an international soft landings initiative that focuses on the local bioscience cluster in Richmond, Virginia. In 2007, the center implemented the Gateway America initiative that met with 30 Israeli startups in the life sciences field, all of which were at an advanced stage of development and needed assistance in capital acquisition to enter the U.S. market. The center provided services such as business and marketing assistance, connections with hospitals and distributors, clinical-trial access, and financial capital. Furthermore, these engagements and display of dedication resulted in long-term relationships that served as a source for qualified referrals without further extensive outreach.<sup>71</sup>

The keys to success for delivering effective support services entail fostering partnerships (especially with universities and colleges), a long-term commitment to the delivery of useful services, up-to-date and actionable local economic and industry information, and a welcoming environment that is aware and accepting of foreign cultures. A notable example of these tenets comes from Georgia and its Quick Start Employee Training Program. Quick Start partners with the Technical College System of Georgia in offering pro bono assistance to foreign firms in finding, recruiting, and training their workforce.

Under the Quick Start program in 2014, Athens Technical College partnered with Hitachi to deliver customized training for precision measurement and manufacturing processes. Additionally, the school created an internship program for students and a training program to prepare a team of incumbent workers to study the implementation of an innovative technology overseas.<sup>73</sup>

The MEP National Network<sup>TM</sup> is another resource that regions can often tap to deliver critical support services to FIEs. Through collaborations with federal, state and local partners, Manufacturing Extension Partnership (MEP) Centers work with manufacturers to identify and qualify suppliers, assist with plant layouts, obtain required quality certifications, expand and diversify markets, and adopt new technologies.

### **Incentives**

Companies looking to relocate or expand into new markets often do so to increase their market access, competitiveness, and productivity, while also controlling costs.<sup>74</sup> Firms expanding a facility or relocating an operation face significant costs associated with the location decision and a risk that the decision will not reap the benefits anticipated, that costs will exceed expectations or that the investment could have a significant short-term impact on the firm's bottom line. Incentives are one way that regions can help companies reduce costs associated with the location decision. Incentives are economic development tools that governments frequently use to either mitigate a company's unusually difficult operational issues or decrease the cost of establishing the business in a specific community.<sup>75</sup>

Savvy foreign investors consider many factors in determining which regions deliver a "good fit" for the operations over time. Firms typically conduct in-depth comprehensive location analyses that consider a variety of location factors that ultimately match or fulfill a company's intent find a new location. Many factors, such as physical proximity to suppliers, access to the appropriately trained workforce, available infrastructure, and other regional assets or even quality of life advantages, influence the FDI decision.

#### **Georgia MEP (GaMEP)**

Yamaha Company, a vehicle manufacturer operating in Newnan, Georgia, worked with GaMEP staff to implement an updated OHSAS 18001-safety management system in which they leveraged the expertise of Georgia Tech/GaMEP staff to streamline the procedure for the yearly internal compliance audits. Through its interaction with GaMEP, Yamaha increased production capacity and improved labor utilization, which resulted in reduced cycle time, a 61 percent risk reduction, and a total cost savings of \$87,000 per year.<sup>72</sup>

Once a company has narrowed its search to a few suitable locations that best match their needs, discussions of available or customized incentives begin. Savvy regions recognize that incentives are best used to supplement the region's competitive position once the location list has been narrowed significantly.

Incentives alone rarely drive the decision to make an expensive and disruptive move or to make an investment into a new market. Governments offer incentives to firms with the expectation that 1) the community where the investment will be made will benefit from the addition of the company and 2) that the company will benefit from being located within that specific community.

Incentives offered to FOEs are usually the same programs and types of incentives that are available for domestic company attraction, relocation, or expansion deals. Incentives for FDI include both direct financial support to the company as well as indirect financial assistance, which covers the expenses for third parties to provide resources to the firm. Often, incentive packages include a combination of state and regional incentives and typically include a mix of financial and non-financial benefits.

"Financial" incentives refer to tax abatements and exemptions on personal, property, or corporate income taxes and grant programs or subsidized loans for land or equipment. These incentives provide a realized asset that is recognized on the company's financial statement. "Non-financial" incentives are inducements that benefit the company but are often provided by a third party—a training organization, an economic development organization, the region, or some other group—that provides goods or services that the firm might otherwise have to purchase. Non-financial incentives might include a specialized worker training program offered for free by the community college or a concierge service that expedites government permit approvals or technical assistance in helping to vet potential local suppliers.<sup>76</sup> States and regions can also offer non-financial incentives to reduce the cost of preparing the facility so that it is ready for the company to begin operations as soon as possible such as addressing infrastructure limitations (e.g., lack of highway access) unique to the site.

Michigan is an example of how a state has used financial incentives that are available for domestic businesses to attract foreign -owned car companies. In 2016, Zhongding USA Cadillac, a manufacturer of rubber auto components and subsidiary of China-based Anhui Zhongding Sealing Parts Company, announced that the company would expand its facility to Cadillac, Michigan. Expected to create 125 new associate positions and generate \$4.3 million in total investment, the deal included a \$600,000 performance-based grant through the Michigan Business Development Program (MBDP).<sup>77</sup> That same year, Karma Automotive LLC, also Chinese-owned, announced it would set up an engineering and sales office in Troy, Michigan. Michigan also used a \$450,000 MBDP performance-based grant, and the city of Troy provided promotional assistance to leverage \$3.6 million in new investment that would result in 150 new jobs.<sup>78</sup> These examples illustrate how the direct financial incentives helped the two companies reduce risk by providing state funds to help offset a share of the company's total costs. In both cases, the state was willing to share in the risk by providing grants that totaled about 11 to 12

percent of the project cost in exchange for a commitment to bring the project to the respective communities and to create a certain number of well-paying jobs.

Yet, financial incentives do not drive every FDI decision. While Karma Automotive LLC accepted incentive funds from Michigan for the facility in Troy, the company turned down incentives from numerous other states and locations to set up a factory in Moreno Valley, California. Karma's Chief Marketing Officer indicated that while other locations offered cash and tax incentives, they chose Moreno Valley due to factors that the company believed would attract the best engineers and designers, including the good climate and access to cultural amenities.<sup>79</sup>

It cannot be definitively proven that the incentives that Zhongding USA Cadillac and Karma received from Michigan finalized the deal, though Michigan is a top destination for Chinese investment.<sup>80</sup> While there is evidence that Chinese investment finds Michigan attractive because of the concentration of U.S. automobile companies and that investors want to locate close to auto suppliers, Michigan also pursues other ways to attract Chinese investment. In 2016 the Michigan Strategic Fund Board, part of the Michigan Economic Development Corporation, approved a \$5 million grant to set up the Michigan-China Innovation Center in Detroit and to support other activities to attract Chinese investors.<sup>81</sup>

Practices among regions that have effectively incorporated incentives into FDI attraction packages include:

- *Offering non-financial incentives as part of the incentive packages as opposed to relying solely on financial incentives.* This would include more workforce training<sup>82</sup> or infrastructure improvements instead of relying disproportionately on financial incentives. Some companies are better served by non-financial incentives, but the investor must also be educated on the value proposition associated with these services.
- *Building in greater accountability when using financial incentives.* Public scrutiny of incentive deals continues to rise, and it is a priority for states or regions to ensure that there is a clear and measurable benefit to the community that results from the public investment. Performance agreements between the company and the community articulate the firm's commitment to provide required deliverables (e.g., jobs created, payroll generated, investment leveraged, etc.) as well as a timeline for delivering them. Furthermore, partial payment schedules for providing the incentive based on meeting intermediate performance goals are also common.<sup>83</sup>
- *Including clawbacks in incentive agreements.* Clawbacks are terms within the performance agreement that state that, if the investment or number of jobs is not achieved as outlined in the agreement and an incentive has already been provided, the government is legally able to request those funds back or no longer offer that incentive (in the case of tax abatements).<sup>84</sup> These are necessary when the public incentives are provided before the company provides the expected deliverable. For example, a firm may receive funds to help leverage private equity investment in the project, but a clawback provision would be invoked if the company is unable to attract the private investment or ultimately decides not to do the project.



- *Including performance measures beyond traditional measurements of jobs or investment into agreements.* Traditionally, incentives measured two key factors: the number of jobs created, or the amount of private dollars invested/leveraged. As the economy and community priorities change; however, the community may demand different types of benefits from their incentive investments. For instance, states and regions are increasingly incorporating alternative metrics into performance agreements that reflect a desire to create better paying jobs or direct fiscal benefits (e.g., future tax payments) to the state or region.<sup>86</sup>

#### Utah GOED

Since 2006, the Utah Governor's Office of Economic Development has published an Incentives Dashboard that tracks the issuance of state business incentives, so users can search corporate incentives by recipient company, year, and month. All incentives are awarded on a post-performance basis so that companies must meet specific milestones before the incentive is disbursed.<sup>85</sup>

- *Focusing on "target industries."* Often, states and regions determine their economic strengths and key industry sectors (or "industry clusters") as part of a broader economic development strategy, and they focus incentives on companies in those particular sectors or clusters. Certain types of incentives are reserved for companies in the target industries because the spin-off benefits from investing in companies from those industries are more likely to drive growth in the region's economy and are aligned with economic development goals.
- *Providing greater transparency to stakeholders about the incentives.* The public is now asking state and regional governments about the rationale for making an investment, the expected outcomes and whether or not the outcomes were realized. This has led states and regions to create better analytics and more visible dashboards that convey openness about the contents of incentive deals once they have been negotiated and to convey how incentives are being used, for what purposes, and the benefits. For example, Indiana created a Transparency Portal that provides specific data about each individual deal,<sup>87</sup> and Tennessee created a Performance Metrics platform under Governor Haslam's Transparent Tennessee initiative to provide the public with information about the success of incentives and to search how the state is investing funds.<sup>88</sup>

### **Aftercare**

Most FDI is generated from the base of existing foreign-owned firms,<sup>89</sup> which implies that quality aftercare services are critical to boosting a region's total FDI. Many regions interviewed suggested that, once operating, they incorporated foreign-owned investors quickly into their existing programs for business retention and expansion (BRE). For maximum impact, existing BRE efforts must go beyond narrowly-crafted business visits and services to help navigate local government. The high-value BRE programs build on those efforts but include engaging the FOE in the full range of services available through the region's ecosystem of business assistance programs. The most robust BRE programs coordinate widely to engage regional economic and workforce development organizations, MEP Centers, Small Business Development Centers,

export promotion entities, universities and federal labs, and other resources that can inform the wide range of business needs and remove obstacles to success and potential growth.

The literature indicates that common aftercare practices employed by regions to expand investments from existing foreign investors fall into three broad categories: operational (e.g., addressing infrastructure needs, encouraging local supply chains, tracking legislative threats and opportunities), start-up (e.g., assisting with visas, expediting building permits, promoting local hiring), and strategic expansion (e.g., appointing FDI executives to local leadership boards, recognizing FDI firms' community involvement, promoting export opportunities).<sup>90</sup> A linchpin of delivering effective aftercare services revolves around having a single point of contact to navigate the dozens of federal, state, and local regulations, approvals, and permits needed to successfully invest in a foreign market.<sup>91</sup>

A noteworthy example comes from Investissement Québec, a Canadian EDO that has provided a dedicated contact to facilitate networking opportunities with government officials and provide strategic advice. Working with Morgan Stanley, Investissement Québec kept firm leadership aware of changes to relevant policies and programs. Investissement Québec also facilitated meetings with local companies, which contributed to the firm's decision to expand in the local market by hiring additional developers and engineers.<sup>93</sup> By the end of 2016, Morgan Stanley employed nearly 1,000 people at its Montreal facility, more than twice the number they initially projected for the location.<sup>94</sup>

#### **GKN America Corp**

In Newtown, North Carolina, GKN America Corp (the U.S. subsidiary of United Kingdom-based GKN PLC) announced a \$100 million expansion of their automotive supply manufacturing center motivated in part by appreciation for a liaison who kept the company apprised of relevant developments such as proposed legislation, changes in incentive programs, and organizational changes occurring at the state Commerce agency.<sup>92</sup> State and local economic developers also worked with GKN to act on their desire to seek opportunities to serve on local organizations boards, participate in roundtable discussions, and offer business advice to other prospective investors in order to build a stronger community network.

Siemens has expanded its operations in North Carolina numerous times, attributing those decisions in part to its collaborative partnership with the state and local EDOs. With each expansion in Charlotte, the complexity of complying with regulation increased, yet the state EDO was prompt in responding to company questions regarding these changes. The company found the continuous communication by the state incentive compliance organization and recognition of the evolution of its investment projects helpful. This history of successful incentive support directly assisted in the state landing projects that otherwise could have gone to locations not only outside North Carolina, but outside the U.S.<sup>95</sup> The Charlotte workforce development board also assisted Siemens with their hiring process by creating a database to screen candidates. The company sought to hire 300 workers and received 10,000 applications. State and local workforce partners conducted skill verification workshops to further narrow the candidate pool to the most qualified individuals. These effective aftercare practices

may contribute to Charlotte being ranked 11<sup>th</sup> in FDI deals per capita, out of 381 metropolitan areas analyzed.

Another innovative example of aftercare that emerged during interviews is a Saturday school in Mississippi for children of foreign workers at nearby Nissan, Toyota, and Yokohama manufacturing plants aimed at ensuring the children have a means of keeping their Japanese language skills fresh. The regional EDO in this case ensures that leadership at Japanese FOEs were aware of the Saturday school during the selection process and actively connected the families of new Japanese executives to the school once they settled in the area. Finally, celebrating the success of FOEs in a region is an important and low-cost activity. For instance, Maine's Trade Office issues an award for the Top Foreign Investor annually, which provides recognition of success and the winner's contributions to the region.

### ***Export Promotion***

While there are synergies between FDI attraction and export promotion, export-related outreach and marketing, support services, and grants are distinct from the FDI attraction activities discussed above.

### **Outreach and Marketing**

Based on the research team's project experience, export promotion organizations employ a standard set of outreach and marketing practices, including events and conferences (such as annual conferences related to World Trade Week), seminars/training, eblasts and eNewsletters, individual outreach and company visits, partner or multiplier referrals, and social media. Often these marketing activities are driven by recruitment for specific programs, such as tradeshow, trade missions, or events. Many of the interviews highlighted the importance of collaboration in outreach and promotion among organizations in the export ecosystem, including promotion of each other's events and programs, participation in joint company visits, and making referrals to partner services and programs. Awareness of global opportunities and export programs is communicated with particular effectiveness by peer companies through testimonials, company-speaking opportunities at events, and success stories. However, despite all these efforts, there is a perception that U.S. companies are not adequately aware of export promotion programs and how to navigate them.<sup>96</sup>

### **Support Services**

Common export promotion services are well-established, cover a wide range of functions, and are generally perceived to be effective.<sup>97</sup> Most of these services are delivered by federal government and state (or state-funded) organizations. The role of regional EDOs, and whether they can be effective, depends on their size/scale, expertise, and coordination with the rest of the export ecosystem.

Smaller regional EDOs (and some smaller states) generally do not have the scale, funding, or expertise to effectively provide their own export promotion services, and as a result tend to rely on federal and state partners. Furthermore, several interviews suggested that attempts by regional EDOs (even some larger ones) to implement export promotion programs have been challenging and yielded disappointing results, because of a lack of expertise in trade and the

tendency to prioritize business attraction activities. Consequently, interviews and research suggest that the primary role for smaller regional EDOs (or those with limited resources) should be the following:<sup>98</sup>

- *Connecting* exporters and potential exporters with existing federal and state export promotion programs, which includes building strong relationships with regional companies and initiating discussion about international opportunities and needs. (This role reinforces the importance of strong BRE and aftercare programs that engage regional companies and foreign enterprises.)
- *Creating awareness* about global opportunities and the programs available to support companies.
- *Mobilizing or convening* regional stakeholders to make trade a greater regional economic development priority.
- Providing *grants or scholarships* for companies in the region to take advantage of federal and state programs.

On the other hand, larger regional or major metro area EDOs have the scale to offer some of their own export promotion activities, in addition to the roles of connection and creating awareness outlined above. However, it is critical that that they be coordinated with state/federal export programs and are striving to fill program and service gaps that are important for regional businesses. Table 18 below shows common export assistance services that are provided by federal and state programs, as well as some regional EDOs. Larger regional or major metro EDOs may be able to offer some of the services shaded below. If coordinated, these services can complement federal and state programs. The other services listed tend to require funding for overseas offices/consultants or require trade expertise that is often not realistic for most regional EDOs. Specifically, the services that larger regional and metro EDOs are positioned to deliver include the following:

- *Education and training programs* (again, if coordinated with state and federal trade organizations).
- *Export planning and acceleration programs*, which help companies develop export plans, provide trade education, and connect companies with the various trade promotion resources available from state, federal, and private sector entities. An example is Chicago Regional Growth Corporation's Metro Chicago Exports Program "Pitch Competitions" (and their leadership in the delivery of ExporTech in collaboration with the Illinois Manufacturing Extension Center [IMEC], the U.S. Commercial Service and other partners).<sup>99</sup>
- *Programs focused on building relationships with specific foreign markets* that are important for the region, such as sister city relationships, initiatives to promote cross border trade between border states and Mexico (see examples in the table below), or trade missions (that do not duplicate state and federal trade missions, but rather focus effort on specific countries that offer opportunity for regional exporters).
- *Programs focused on supporting important regional industries or clusters* that may benefit from additional attention, beyond what state and federal trade programs offer.

**Table 18. Common Export Promotion Services and the Role of Regional EDOs**

Common Export Promotion Services	Examples of Federal and State Offerings in this Service Category	Role of Regional or Metro EDOs (sub-state) in this Area
Trade Missions · Matchmaking with potential partners, market briefings, counseling, networking	· U.S. Commercial Service (USCS) / International Trade Administration · 95% of SIDO members surveyed offer trade missions <sup>100</sup>	· Smaller regions typically do not offer trade missions or tradeshow support · Some larger regional or major metro area organizations engage in these activities, usually in partnership with federal and state programs
Tradeshow Support, Delegations · Shared booth space, matchmaking w/potential partners, market briefings and counseling	· USCS / International Trade Administration · 90% of SIDO members surveyed offer tradeshow support / delegations	
Finding & Evaluating Distributor, Rep, Agent Partners; Market Entry Strategy Development	· USCS: Gold Key Service, International Partner Search, International Company Profile · 83% of SIDO members surveyed offer market entry strategy · 63% of SIDO members surveyed offer agent & distributor searches · 51% of SIDO members surveyed offer foreign company background checks	· Requires overseas offices, reps, or consultants, which regional EDOs (below the state level) rarely have · Regional EDOs may host in-bound delegations, but would probably not be able to organize an in-bound trade mission without foreign reps or consultants
Inbound Buying Missions / Reverse Trade Missions	· U.S. Trade and Development Agency Reverse Trade Missions · 63% of SIDO members surveyed offer or host inbound buying missions	
Market Research	· USCS foreign offices / posts: Customized Market Research, Initial Market Check · USCS Country Commercial Guides, ITA Top Markets Reports, <a href="http://www.export.gov">www.export.gov</a> · 76% of SIDO members surveyed offer market research · DOC / MBDA Business Centers offer market research and identification	· On the ground market information requires foreign offices and consultants · Secondary research on international requires specific skills and databases · Few regional EDOs have these assets

<b>Common Export Promotion Services</b>	<b>Examples of Federal and State Offerings in this Service Category</b>	<b>Role of Regional or Metro EDOs (sub-state) in this Area</b>
Client Export Counseling, Referrals to Other Organizations	<ul style="list-style-type: none"> <li>· USCS / U.S. Export Assistance Center Trade Specialists and Foreign Post Commercial Specialists</li> <li>· SBDCS / SBDC International Trade Centers</li> <li>· District Export Council Mentoring Programs</li> <li>· 90% of SIDO members surveyed offer export counseling</li> <li>· DOC / MBDA Business Centers offer consulting and referrals</li> </ul>	<ul style="list-style-type: none"> <li>· Regional EDOs generally do not have the expertise</li> </ul>
Training, Education and Events	<ul style="list-style-type: none"> <li>· USCS offers or partners on a wide range of programs and events (e.g., Basics of Exporting, Discover Global Markets, Export University, ExporTech, World Trade Week events)</li> <li>· SBDCs / SBDC International Trade Centers</li> <li>· 88% of SIDO members surveyed offer training and education</li> <li>· 73% of SIDO members surveyed offer export readiness training</li> </ul>	<ul style="list-style-type: none"> <li>· Regional EDOs often partner on export training/events</li> <li>· Major metro area EDOs (particularly those dedicated to trade) may take the lead on some educational programs</li> </ul>
Planning and Strategy, Structured Export Acceleration Programs	<ul style="list-style-type: none"> <li>· ExporTech – MEP National Network and USCS (in collaboration with numerous state trade organizations and other partners)</li> <li>· GlobalTarget Program – Cleveland State University, USCS, Ohio SBDCs, and SBA</li> <li>· Florida SBDC Export Marketing Plan Service</li> <li>· Selected state programs, e.g., Virginia's VALET program</li> </ul>	<ul style="list-style-type: none"> <li>· Some major metro region EDOs offer these types of programs, such as the Metro Chicago Exports' Pitch Competitions (and their leadership of the ExporTech program in Chicago, in collaboration with IMEC and USCS)</li> </ul>
Programs to Develop Business Relationships in Specific Foreign Markets/Regions	<ul style="list-style-type: none"> <li>· USCS California/Mexico Baja Trade Office</li> <li>· Baja California Industrial Supplier Trade Tour, coordinated by the state of CA funded San Diego Center for International Trade Development and CMTC, the MEP National Network representative in California, and SEDECO (Baja Economic Development)</li> </ul>	<ul style="list-style-type: none"> <li>· Regional EDOs (particularly larger regions or major metros) engage in programs to create opportunities in specific markets, most commonly through trade missions (discussed above), and sister city relationships</li> </ul>

Common Export Promotion Services	Examples of Federal and State Offerings in this Service Category	Role of Regional or Metro EDOs (sub-state) in this Area
Cluster or Sector Specific Programs	<ul style="list-style-type: none"> <li>· Numerous federal and state funded regional cluster programs with an export component (often funded by SBA, EDA, NIST and the ITA Market Development Cooperator Grant program)</li> <li>· State export promotion organizations target specific sectors and clusters for tradeshow, trade missions, other services</li> </ul>	<ul style="list-style-type: none"> <li>· Many of the federal and state funded cluster initiatives supported local or region EDOs</li> <li>· An example would be the Chicago Metro Metal Consortium, which identifies exports as a priority activity.</li> </ul>
<b>Sources:</b> Compiled by Stone & Associates, based on project experience with ExporTech and the International Trade Administration, along with the following sources: State International Development Organization (SIDO) 2017 Survey Results; Georgia Tech Enterprise Innovation Institute (2013), Best Practices in Foreign Investment and Exporting Based on Regional Innovation Clusters, Prepared for EDA; Stone & Associates (2013), On the Threshold: Refocusing U.S. Export Assistance Strategy for Manufacturers, Prepared for NIST MEP; websites from the individual programs and state trade organization websites mentioned above.		

Metro Chicago Exports (MCE), a program of the Chicago Regional Growth Corporation (CRGC), is a good example of a regional EDO service offering that complements existing resources and connects exporters with state and federal programs. CRGC is a collaboration among the seven counties in Northeastern Illinois (Cook, DuPage, Kane, Kendall, Lake, McHenry and Will) and the City of Chicago. Its MCE program offers grant programs, funded by JP Morgan Chase, to offset the costs of export development. In 2017 MCE offered up to \$5,000 per company, reimbursing 50% of eligible expenses, which included business development expenses (such as the fee for matchmaking or Gold Key services), compliance-related expenses (such as audits and international certifications), marketing, travel, and some finance-related expenses. MCE also runs export Pitch Competitions, where companies present their export plans and compete for prizes. They also lead the Chicago region's ExporTech program, in collaboration with the Illinois Manufacturing Extension Center (IMEC), the U.S. Commercial Service, the Illinois Department of Commerce and other regional partners. All of these programs mobilize regional exporters, create awareness of existing resources, and offset the costs of participating in state, federal and private sector export.<sup>101</sup> They also fill in gaps, by providing export planning and acceleration programs (that are not provided by other organizations) and by providing grant funds (which were not available from the state of Illinois during its budgetary crisis).

### **Incentives/Grants**

States offer grants to offset the costs of export development, generally funded by the federal SBA State Trade and Export Promotion (STEP) program, but also supported by state funds. Examples include the Wisconsin International Market Access Grant, Global NY Grant Program, and ExportMD in Maryland.<sup>102</sup> The STEP and state grants are typically used to offset a portion of the costs (usually up to a certain maximum) of export development, such as tradeshow and trade mission expenses, U.S. Commercial Service fee-based services (such as Gold Key Service and International Partner Search), website globalization, compliance

assistance/consulting, training, and translation.<sup>103</sup> Data reported to the STEP program suggests that substantial export sales are generated because of these grants, demonstrating a very high return on investment.<sup>104</sup>

Like the SBA, the Economic Development Administration offers grants to EDOs to support economic development activities, including fostering exports. In 2017, for example, the World Trade Center of Greater Philadelphia received a \$1 million grant to support their metro export plan.<sup>105</sup>

Some major metros also offer grants or scholarships—often funded by JP Morgan Chase—to offset the cost of export development, facilitating companies' participation in federal and state programs. Example cities include: Chicago, Louisville, San Diego, and Milwaukee.<sup>106</sup> These grants make it easier for regional companies to invest in export development, while leveraging existing federal and state programs.

In addition to grants, there are other export financing programs. At the federal level, SBA and the Export-Import Bank offer programs such as export receivables insurance, loan guarantees to encourage banks to provide working capital for export sales or to finance export business development expenses, and buyer financing (particularly for purchases of capital equipment).<sup>107</sup> Several states also offer financing programs designed to supplement SBA and Export-Import Bank programs, including Florida and Massachusetts.<sup>108</sup>



# Section IV: Conclusion

The quantitative results highlight patterns at the aggregate level, while the qualitative findings provide examples that contextualize those patterns. More explicitly, the qualitative work highlights specific tools and techniques that policymakers and economic development organizations can use in preparing their communities for international engagement. By combining the quantitative results with the qualitative results, we can begin work on a toolkit for international engagement that can be customized to fit specific regional assets and goals. A summary of the combined quantitative and qualitative findings from this report is presented in Table 19 below.

**Table 19. Summary of Quantitative and Qualitative Findings**

Finding	FDI	Exports	Examples
<b>Regional Assets</b>			
A region must define its assets with specificity to be meaningful to investors, to distinguish it from other regions, and to support cluster growth.	✓	✓	Regional concentrations of industries, clusters, or supply chains; an innovation economy; research institutions; major companies or OEMs.
Regional connections and relationships to foreign markets are especially important regional assets.	✓	✓	Residents from a particular country, student alumni, sister cities, geographic proximity to specific foreign markets, and the number of existing foreign-owned enterprises.
The assets valuable for domestic business growth, retention, and attraction are also relevant for attracting FDI and promoting exports.	✓	✓	Transportation infrastructure, geographic position near customers, the availability of underutilized skilled labor, and low factor or operating costs, such as labor, energy (including utility rates), and land.
<b>Regional Policies and Programs</b>			
Jurisdictions can band together across a region to build the institutional scale necessary to engage in effective FDI attraction and export promotion.	✓	✓	Multiple counties coordinating FDI attraction together; outlying areas collaborating with major metros, benefitting from their brand and driver industries.
Collaboration between regional EDOs and state and federal programs is critical to provide complementary services and avoid duplication of effort.	✓	✓	Coordination in planning for outreach, tradeshow, trade mission, and training.
Closing deals requires the right mix of support services as well as financial and non-financial incentives.	✓		Welcoming environment, training programs, partnerships with colleges and universities, soft landings programs, tax abatements (including lower property taxes overall), state R&D spending, and infrastructure improvements.

Finding	FDI	Exports	Examples
Foreign investors value the availability of a rapid and smooth start-up and targeted training programs	✓		Information on site availability, certified site programs, rapid start up programs, and targeted workforce programs.
Regions can identify and connect companies with export potential to existing federal and state resources.		✓	BRE activities, including talking to region's companies about exporting and federal/state resources.
Larger EDOs have the scale to provide targeted export promotion services that fill service gaps.		✓	Supporting exports in target sectors/clusters and sales to specific countries (beyond what state and federal resources can provide).
<b>Focus on Existing Base of Companies</b>			
Relationships with the existing base of regional companies may be the most critical factor in international engagement.	✓	✓	Aftercare for foreign enterprises, export promotion for middle market companies with global growth potential.

Our results indicate that the best economic development strategies to promote international engagement seek to amplify the comparative advantage of individual regions. A region must define its assets with enough specificity to be meaningful to potential investors and to distinguish it from other regions.

Basic economic and demographic factors, such as urban and industrial concentration effects and an available supply of skilled labor, are important correlates of FDI and export performance. Regions with a strong base of companies and institutions, including concentrations of industry sectors, clusters and supply chains, offer foreign-owned enterprises (FOEs) potential customers, suppliers, sources of skilled labor, and research and development partners.<sup>109</sup> To boost FDI performance, regions can specifically focus on improving the health of the innovation economy and developing a comparative advantage across multiple industrial sectors. Transportation infrastructure is another crucial regional asset; however, the specific indicators of transportation infrastructure that are important differ between FDI and export performance, as well as by region type.

Existing connections and relationships with specific foreign markets can be extraordinarily helpful to a region seeking to increase its international engagement. This includes countries where existing foreign investors are located,<sup>110</sup> concentrations of local residents from foreign markets, foreign student alumni,<sup>111</sup> proximity to a foreign market,<sup>112</sup> and sister city relationships.<sup>113</sup>

Coordinated activity among the economic development community can supplement and enhance existing assets. Jurisdictions can band together across a region—sometimes including nearby major metro areas—to combine resources and build the scale necessary to engage in effective international marketing and outreach. Based on our stakeholder interviews, we would expect to see a (modest) positive impact on FDI attraction if a region engaged in a significant,

sustained, and collaborative effort to mobilize regional assets to develop and execute an FDI strategy built around regional assets.

Once a region has determined and advertised its assets to foreign investors, advancing from leads to closing deals requires the right mix of support services as well as financial and non-financial incentives. Foreign investors value the availability of a rapid and smooth operational start-up. Services that assist with site readiness and with engaging and training workers are valued because they speed the time to launch. Our qualitative analysis indicates that a company will decide on whether the financial incentives being offered by a jurisdiction are truly beneficial once the firm has narrowed its choices to a few best options and is conducting a detailed financial analysis of the investment requirements specific to each location.

In the case of exporters, all regions can identify and connect companies with export potential to existing federal and state resources. Regional EDOs can increase awareness of global market opportunities and available export assistance programs and provide grants or scholarships to offset the costs of export development. Larger and major metro area EDOs have the scale to provide targeted export promotion services and focus on filling in service gaps. This might include identifying regional target sectors/clusters and countries that may require additional attention beyond what state and federal resources can provide, or offering education, export planning, or export acceleration programs that are not provided by other organizations.

Successful FDI attraction and export promotion reinforce the importance of having in-depth knowledge of, and developing relationships with, the existing base of companies in a region, especially FOEs and U.S.-owned middle market companies. The base of existing FOEs is critical to FDI recruitment strategy, as up to 70% of new investment is linked to the existing investment base.<sup>114</sup> Existing foreign-owned facilities offer the opportunity for additional investment in expansion and are often platforms to export from the U.S., while existing U.S.-owned companies have export potential and are acquisition targets for foreign enterprises that enter the U.S. market through mergers and acquisitions (M&A). These factors underscore the importance of an effective business, retention, and expansion (BRE) program and robust FDI aftercare services.

## **Next Steps & Policy Implications**

It is our hope that the combined quantitative and qualitative analyses serve to further demystify the determinants of inbound FDI and outbound exports and give regional leaders insights into how they can better leverage local assets to bolster international engagement for their communities. The insights from this report will be used to develop a Best Practices Toolkit and “How-to” Guide. The toolkit and guide will enable regions of all sizes to design and execute effective practices in FDI attraction and export promotion using examples, case studies, checklists, and summary briefings on specific topics.

However, some policy implications can be drawn from the findings in this report, albeit with appropriate attention to the inevitable limitations of this kind of analysis:

- Invest in policies, such as worker training programs, that are designed to build skills and incentivize unemployed individuals to remain in the labor force.
- Engage in concentrated international outreach and marketing that highlights existing international relationships and assets.
- Promote urban and industrial concentration effects around key urban centers and critical industrial clusters.
- Manage property tax burden and cost of utilities for commercial and industrial property to reduce the need for incentives to offset costs.
- Tailor incentive offerings to the needs of targeted FOEs (based on regional attributes) rather than create broad and relatively costly incentive packages.
- Improve and invest in transportation infrastructure for international cargo (goods-producing firms) and passengers (service firms).
- Invest in regional assets that are important to high-value FDI, including talent and R&D capabilities.

## Future Research

The research reported above was the result of a focused, time-limited effort by a team from SRI, CREC, and Stone & Associates. The results have yielded clear guidance to regional leaders across the U.S. who seek to make international engagement a key element in their economic development strategy. However, many opportunities for expanding on this research still remain.

- In the area of quantitative analysis, we believe that focusing on specific business sectors in greater detail could yield useful additional findings. The analysis above sifts the results for FDI investment based on the technology intensity of the sector, which is important. But more granular distinctions across different kinds of FDI, based on business sector, is likely to provide regional leaders with guidance more tailored to their needs.
- Another path to greater refinement in the analysis is to dive more deeply into variation in the institutional characteristics of regions. This is assumed to be important in studies that focus on the EU, as noted in the Section II: Aggregate Analysis of FDI & Export Performance literature review. U.S. regions do not diverge in their institutions to the same extent as EU member states, but their differences in tax policies, systems of intergovernmental finance, etc. may be consequential. These differences, if properly incorporated into the analysis, may highlight important elements not captured by the analysis up to this point.
- More detailed analysis of this kind could be achieved through a time-series analysis, with fixed effects. The FDI dataset employed in this project goes back at least two decades and should be amenable to such an approach. This could yield lessons from specific interventions, as it could be possible to capture the impact on performance (increased/decreased FDI) for regions subject to state-level changes in taxes.
- While some international examples are explored in the qualitative analysis, it would be interesting to further investigate additional examples of FDI and export policies used outside of the U.S. This expanded comparative analysis is likely to uncover novel examples of strategies used to increase international engagement that could be helpful for regional policymakers.

# Appendices

## Appendix A: Useful Terms & Definitions

### Cluster

An economic cluster is a dense network of companies and institutions in a certain geographic sphere. The cluster is composed of production companies, raw materials suppliers, services providers, companies in related fields, and public institutions (such as research, training and standardization institutions).<sup>115</sup> The cluster contains three types of connections: (1) Vertical, a connection between provider and manufacturer along the production line; (2) Horizontal, a connection between manufacturers of complementary products; (3) Institutional connection, a connection between companies and public institutions.<sup>116</sup>

### Agglomeration Effects, including Urban and Cluster Agglomeration Effects

Agglomeration effects refer to the economic benefit that comes when firms and people locate near one another in cities and industrial clusters. Urban agglomeration effects refer to the economic benefits that come when people and firms locate in close proximity to one another, while cluster agglomeration effects refer to the economic benefits of interrelated industrial clusters.

### Clawback

A clawback, or recapture provision, is a clause of a subsidy law or contract that simply says that a company must uphold its end of the bargain or else taxpayers have some money-back protection. When a company signs a subsidy deal, it typically promises to deliver a set of public benefits. For example, a company may state on its subsidy application that it will invest \$1 million in a new plant projected to employ 100 people full time at \$20 per hour. If that company fails to follow through on the investment, number of jobs, employment hours, or wage rate in a specified amount of time, if the subsidy deal has a clawback provision, the company must forfeit or repay all or part of its subsidies to the state or local government that awarded them. Many clawback laws are written so that different penalties apply depending on how badly a company fails to meet its targets.<sup>117</sup>

### Core-Based Statistical Area (CBSA)

CBSAs consist of one or more counties anchored by an urban center of at least 10,000 people plus adjacent counties that are socioeconomically tied to the urban center by commuting. CBSAs cover all metropolitan and micropolitan statistical areas in the U.S.

### Gazelle

A gazelle is an extremely fast-growing company, which maintains consistent expansion of both employment and turnover over a prolonged period. There is no single definition of what constitutes an “exceptional” growth rate, but 20% and more per annum is a common definition. As very small companies are almost bound to grow fast from a tiny base, they are usually

excluded from discussions of gazelles. Some consider as potential gazelles only fast-growing companies which have already reached some turnover threshold, for example, \$10m.<sup>118</sup>

### **Incentive<sup>119</sup>**

Companies looking to relocate or expand into new markets often seek to increase their market access, competitiveness, and productivity, while also controlling costs. Firms planning to invest in expanding a facility or relocating an operation recognize that there are significant costs associated with the decision, but the company is still taking a risk that the decision will not reap the benefits anticipated or that costs will be higher than expected. The one-time expansion or relocation investment can also have a significant short-term impact on the firm's bottom line. Consequently, firms seek out ways to offset costs associated with the location decision. Incentives represent an inducement that governments (local, regional, and state) can offer a prospective business that can help to make the decision to locate to a community easier to justify to corporate boards or stockholders.

### **Metropolitan Area**

The general concept of a metropolitan or micropolitan statistical area is that of a core area containing a substantial population nucleus, together with adjacent communities having a high degree of economic and social integration with that core. Currently delineated metropolitan and micropolitan statistical areas are based on application of 2010 standards (which appeared in the Federal Register on June 28, 2010) to 2010 Census and 2006-2010 American Community Survey data, as well as 2015 Population Estimates Program data. Current metropolitan and micropolitan statistical area delineations were announced by OMB effective August 2017. A metropolitan statistical area has at least one urbanized area of 50,000 or more inhabitants.

### **Micropolitan Area**

A micropolitan statistical area is an area that has at least one urban cluster of at least 10,000 people, but less than 50,000.

### **Industry Diversification**

The variable "industry diversification" reflects the number of industries that a region in which a region has a relative comparative advantage. To calculate this variable, we counted how many industries in a region had a location quotient above a certain threshold. The location quotient compares the economic share of an industry within a specific area to the share of that industry nationwide, so generating a relative measure of industry concentration. The threshold we defined is industries with a location quotient greater than two, which indicates that an industry has a share of regional employment twice that of the national share.

As an illustrative example, the mean value for this variable across all metropolitan regions was nine, meaning that the average metropolitan region had roughly nine industries in which they had a relative comparative advantage. Detroit, MI, as a relatively specialized metro, had an industry diversification value of three, meaning that there were only three industries in which Detroit had a relative comparative advantage. Thus, we interpret the industry diversification

variables as follows: regions with a low value are specialized, while regions with a high value have a diverse industrial base.

### **Original Equipment Manufacturer (OEM)**

An original equipment manufacturer (OEM) makes equipment or components that are then marketed by its client, another manufacturer or a reseller, usually under that reseller's own name. An OEM may make complete devices or just certain components, either of which can then be configured by the reseller. An example of this relationship would be a large automobile manufacturer that uses an OEM's components in the production of the cars it makes and sells. Originally OEM was an adjective only used to describe a company that produced items, usually hardware or component parts, to be marketed under another company's brand. Although this is still the norm, OEMs have begun in recent years to sell their products more widely and in some cases, directly to the public. Developments within the computer industry have played a role in this expansion.<sup>120</sup>

### **Rural**

The choice of a rural definition should be based on the purpose of the application, whether that application is for research, policy analysis, or program implementation. Studies designed to track and explain economic and social changes often choose to use the metro-nonmetro classification, because it reflects a regional, labor-market concept and allows the use of widely available county-level data.<sup>121</sup> In 2013, OMB defined metropolitan (metro) areas as broad labor-market areas that include: central counties with one or more urbanized areas; urbanized areas (described in the next section) are densely-settled urban entities with 50,000 or more people; and outlying counties that are economically tied to the core counties as measured by labor-force commuting. Outlying counties are included if 25 percent of workers living in the county commute to the central counties, or if 25 percent of the employment in the county consists of workers coming out from the central counties—the so-called "reverse" commuting pattern. Nonmetro counties are outside the boundaries of metro areas and are further subdivided into two types: micropolitan (micro) areas, which are nonmetro labor-market areas centered on urban clusters of 10,000-49,999 persons and defined with the same criteria used to define metro areas; and all remaining counties, often labeled "noncore" counties because they are not part of "core-based" metro or micro areas.

## **Appendix B: Commonly Used Acronyms**

**BRE:** business retention and expansion

**CISP:** SRI International's Center for Innovation Strategy and Policy (CISP)

**CREC:** Center for Regional Economic Competitiveness

**EDA:** U.S. Department of Commerce's Economic Development Administration

**EDO:** economic development organization

**FDI:** Foreign Direct Investment

**FOE:** foreign-owned enterprise

**GDP:** gross domestic product

**IERC:** International Engagement Ready Communities Initiative

**ITA:** International Trade Administration

**M&A:** mergers and acquisitions

**R&D:** research and development

**S&A:** Stone & Associates

**SBA:** Small Business Administration

**TPCC:** Trade Promotion Coordinating Committee



## **Appendix C: Complete List of All Factors Explored in the Quantitative Analysis**

- Metropolitan or Micropolitan Status
- Regional Location (Northeast, Midwest, South, West)
- Ports
- Air Transportation
- Rail
- Minimum Wage
- Right to Work
- Coastal Status
- Number of Foreign Owned Firms
- Utility Rates
- Land Prices
- State and Local Tax Burden
- Corporate Tax Rate
- State Income Tax
- Property Taxes
- Government Debt
- Patents
- Financing Events
- Business Churn Rate
- Right to work laws
- Primary and Secondary School Spending
- R&D spending
- Higher Education Spending
- Population
  - Count
  - Density
- Labor Force Participation
  - Unemployment
  - Employment
- Educational Attainment
- Industry Activity
  - Earnings
  - Employment
  - Number of Establishments
  - Industry Diversity/Complexity
  - Industry Labor Productivity
- Labor Productivity
- GDP
  - State
  - Estimation of MSA GDP

- Crime Rates
- Migration
- Measures of Foreignness
- Unionization

## Appendix D: Detailed Regression Tables

**Appendix Table 1. Basic Controls on Log Total FDI Deals, 2009-2016, by CBSA**

	(1) All Regions	(2) Metropolitan Regions	(3) Large Metropolitan Regions	(4) Small Metropolitan Regions	(5) Micropolitan Regions
Population Density	0.00106*** (0.000155)	0.000773*** (0.000151)	0.000581*** (0.000167)	0.000819 (0.000586)	0.000637 (0.000942)
Mean % Population with Bachelor's Degree or More, 2010-2015	-0.422 (2.068)	2.093 (2.743)	2.326 (4.041)	1.519 (3.767)	-0.627 (2.996)
Educational Attainment, Squared	2.400 (3.526)	-1.029 (4.432)	0.379 (5.360)	-1.288 (6.357)	0.224 (5.628)
Mean Labor Force Participation Rate, 2010-2013	-0.648 (0.947)	-0.704 (1.562)	2.225 (2.579)	-2.150 (1.649)	0.769 (1.105)
Mean Annual Unemployment Rate, 2010-2013	0.00303 (0.0159)	0.00642 (0.0178)	0.0589* (0.0343)	0.0000849 (0.0228)	0.0179 (0.0244)
Mean Annual Median Earnings, 2010-2013	0.0000237*** (0.00000745)	0.0000238*** (0.00000871)	0.0000162 (0.0000133)	0.00000575 (0.0000115)	0.0000133 (0.00000966)
Mean CBSA Share of State Employment, Local Total, 2010-2013	2.066** (0.834)	1.897** (0.745)	1.716** (0.838)	4.196** (1.967)	-1.897 (3.698)
Mean Real State GDP, Hundreds of Thousands of \$, 2010-2013	-3.65e-08 (7.99e-08)	-6.46e-08 (8.63e-08)	-2.94e-08 (0.000000121)	-2.75e-08 (0.000000143)	-0.000000122 (0.000000116)
Mean Total Crime Rate, 2010-2013	0.0000199 (0.0000367)	-0.00000954 (0.0000444)	0.0000510 (0.0000626)	-0.0000678 (0.0000729)	0.0000247 (0.0000556)
Industry Diversification	-0.179*** (0.0369)	-0.146*** (0.0413)	-0.191*** (0.0690)	0.0157 (0.0797)	-0.204* (0.110)
Industry Diversification Squared Term	0.00721*** (0.00162)	0.00635*** (0.00207)	0.0109** (0.00438)	-0.00147 (0.00325)	0.00784* (0.00414)
% Change in Unemployment Rate Between 2007 and 2009	0.331*** (0.0853)	0.351*** (0.133)	0.339* (0.185)	0.291** (0.132)	0.232* (0.118)
% Change in State GDP Between 2007 and 2009	2.046** (0.934)	1.628 (1.210)	-0.310 (1.817)	2.818* (1.602)	1.474 (1.154)

	(1) All Regions	(2) Metropolitan Regions	(3) Large Metropolitan Regions	(4) Small Metropolitan Regions	(5) Micropolitan Regions
Log Export Value, 2009-2016	0.387*** (0.0294)	0.528*** (0.0353)	0.621*** (0.0481)	0.259*** (0.0552)	0.110** (0.0451)
Mean Manufacturing Share, 2010-2015	0.461 (0.425)	1.319** (0.640)	2.141** (1.014)	2.179*** (0.756)	0.793 (0.502)
West	-0.340*** (0.111)	-0.368*** (0.134)	-0.549*** (0.187)	-0.108 (0.168)	-0.232 (0.178)
Northeast	-0.500*** (0.130)	-0.568*** (0.165)	-0.542** (0.229)	-0.443** (0.222)	-0.0812 (0.195)
Midwest	-0.320*** (0.101)	-0.492*** (0.145)	-0.445** (0.208)	-0.264 (0.191)	-0.212* (0.126)
Constant	-7.325*** (0.848)	-10.94*** (1.040)	-15.15*** (1.638)	-4.325*** (1.293)	-1.709 (1.306)
Observations	584	336	184	152	248
Adjusted $R^2$	0.725	0.773	0.762	0.349	0.140

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

**Appendix Table 2. Basic Controls on Log Total Export Value, 2009-2016, by CBSA**

	(1) All Regions	(2) Metropolitan Regions	(3) Large Metropolitan Regions	(4) Small Metropolitan Regions	(5) Micropolitan Regions
Population Density	0.00180*** (0.000328)	0.00135*** (0.000313)	0.000716** (0.000318)	-0.000893 (0.000783)	0.00455*** (0.00108)
Mean % Population with Bachelor's Degree or More, 2010-2015	22.11*** (3.287)	15.84*** (4.348)	6.104 (6.483)	2.864 (4.882)	7.264** (3.511)
Educational Attainment, Squared	-36.24*** (5.848)	-25.63*** (6.411)	-16.47* (8.845)	-3.668 (7.603)	-16.48** (6.474)
Mean Labor Force Participation Rate, 2010-2013	3.645** (1.741)	5.813** (2.785)	2.823 (4.463)	7.465** (2.872)	4.226** (1.874)
Mean Annual Unemployment Rate, 2010-2013	0.143*** (0.0273)	0.127*** (0.0365)	-0.0143 (0.0603)	0.150*** (0.0373)	0.0872*** (0.0335)
Mean Annual Median Earnings, 2010-2013	0.0000722*** (0.0000129)	0.0000644*** (0.0000195)	0.0000932*** (0.0000228)	0.0000207 (0.0000222)	0.0000412*** (0.0000145)
Mean CBSA Share of State Employment, Local Total, 2010-2013	6.153*** (2.293)	3.800** (1.863)	2.392 (1.864)	1.675 (3.857)	21.76*** (5.786)
Mean Real State GDP, Hundreds of Thousands of \$, 2010-2013	0.000000405*** (0.000000123)	0.000000401** (0.000000167)	0.000000496** (0.000000228)	0.000000111 (0.000000158)	0.000000269 (0.000000171)
Mean Total Crime Rate, 2010-2013	0.0000589 (0.0000572)	0.000149* (0.0000768)	0.000122 (0.0000973)	0.0000450 (0.000103)	0.0000209 (0.0000752)
Industry Diversification	-0.310*** (0.0648)	-0.114 (0.0811)	0.0380 (0.114)	0.165 (0.159)	-0.111 (0.129)
Industry Diversification Squared Term	0.00848*** (0.00286)	-0.000369 (0.00420)	-0.00841 (0.00760)	-0.00826 (0.00728)	0.00462 (0.00500)
% Change in Unemployment Rate Between 2007 and 2009	-0.297** (0.120)	-0.316 (0.209)	0.130 (0.271)	-0.303 (0.235)	-0.329** (0.145)
% Change in State GDP Between 2007 and 2009	0.905 (1.304)	1.802 (1.703)	3.475 (2.434)	0.203 (2.179)	-0.934 (1.646)
Mean Manufacturing Share, 2010-2015	6.822*** (0.577)	6.105*** (1.119)	4.903*** (1.527)	6.193*** (1.147)	6.224*** (0.599)

	(1) All Regions	(2) Metropolitan Regions	(3) Large Metropolitan Regions	(4) Small Metropolitan Regions	(5) Micropolitan Regions
West	-0.361** (0.160)	-0.355* (0.200)	-0.424 (0.283)	-0.216 (0.254)	-0.114 (0.229)
Northeast	-0.171 (0.194)	-0.423* (0.245)	-0.409 (0.310)	-0.257 (0.298)	0.115 (0.261)
Midwest	-0.0914 (0.135)	-0.0413 (0.183)	0.244 (0.237)	0.224 (0.232)	0.0522 (0.159)
Constant	13.27*** (1.265)	12.78*** (1.837)	16.10*** (2.608)	13.69*** (2.061)	14.37*** (1.660)
Observations	905	380	184	196	525
Adjusted $R^2$	0.590	0.533	0.414	0.347	0.364

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

**Appendix Table 3. Fixed Assets and Slow-Changing Properties on Log Total FDI Deals, 2009-2016, by CBSA**

	(1) All Regions	(2) Metropolitan Regions	(3) Large Metropolitan Regions	(4) Small Metropolitan Regions	(5) Micropolitan Regions
Population Density	0.000538*** (0.000189)	0.000298 (0.000213)	0.000193 (0.000255)	0.000700 (0.000621)	-0.0000987 (0.00108)
Mean % Population with Bachelor's Degree or More, 2010-2015	-0.485 (2.150)	-1.144 (2.844)	-5.829 (3.992)	3.166 (3.803)	-2.194 (2.980)
Educational Attainment, Squared	1.891 (3.820)	3.244 (4.635)	11.57** (5.130)	-5.123 (6.314)	4.760 (5.442)
Mean Labor Force Participation Rate, 2010-2013	-0.0113 (0.900)	0.363 (1.503)	3.712 (2.306)	-1.120 (1.863)	0.541 (1.157)
Mean Annual Unemployment Rate, 2010-2013	-0.00349 (0.0159)	-0.0133 (0.0176)	0.0251 (0.0352)	-0.0443* (0.0266)	-0.00676 (0.0263)
Mean Annual Median Earnings, 2010-2013	0.0000142** (0.00000691)	0.00000996 (0.00000818)	0.00000579 (0.0000122)	0.00000691 (0.0000119)	0.0000167* (0.00000988)
Mean CBSA Share of State Economy, 2010-2013	2.384*** (0.744)	1.676 (1.099)	1.788 (1.122)	2.179 (2.748)	5.794 (4.484)
Mean Real state GDP, Hundreds of Thousands of \$, 2010-2013	-0.000000117 (8.83e-08)	-0.000000202* (0.000000106)	-0.000000207 (0.000000167)	-0.000000160 (0.000000183)	-0.000000277** (0.000000138)
Mean Total Crime Rate, 2010-2013	-0.0000231 (0.0000376)	-0.0000604 (0.0000490)	0.0000271 (0.0000745)	-0.000169** (0.0000803)	0.00000545 (0.0000557)
Industry Diversification	-0.144*** (0.0355)	-0.120*** (0.0421)	-0.216*** (0.0641)	0.0302 (0.0804)	-0.243** (0.105)
Industry Diversification Squared Term	0.00544*** (0.00157)	0.00498** (0.00218)	0.0134*** (0.00423)	-0.00216 (0.00337)	0.00948** (0.00392)
% Change in Unemployment Rate Between 2007 and 2009	0.123 (0.0889)	0.0888 (0.122)	0.168 (0.184)	-0.0236 (0.164)	0.129 (0.131)
% Change in State GDP Between 2007 and 2009	0.470 (1.014)	0.172 (1.420)	-2.363 (2.224)	2.920 (1.876)	-0.526 (1.370)
Log Export Value, 2009-2016	0.327*** (0.0290)	0.476*** (0.0364)	0.553*** (0.0632)	0.251*** (0.0564)	0.0823* (0.0442)

	(1) All Regions	(2) Metropolitan Regions	(3) Large Metropolitan Regions	(4) Small Metropolitan Regions	(5) Micropolitan Regions
Mean Manufacturing Share, 2010-2015	0.524 (0.398)	1.279** (0.613)	1.262 (0.954)	2.537*** (0.692)	1.157** (0.512)
West	-0.0147 (0.193)	0.217 (0.230)	-0.131 (0.376)	0.516* (0.301)	-0.433 (0.313)
Northeast	0.0215 (0.228)	-0.0978 (0.303)	-0.661 (0.582)	-0.109 (0.411)	-0.213 (0.355)
Midwest	-0.000856 (0.151)	-0.122 (0.198)	-0.515 (0.357)	0.0788 (0.269)	-0.267 (0.233)
Total Financing Events, 2010-2013	0.000634*** (0.000194)	0.000520*** (0.000167)	0.000426*** (0.000149)	-0.00360 (0.00239)	-0.00566 (0.00494)
Has a Port	-0.0213 (0.0574)	-0.0322 (0.0593)	-0.123* (0.0669)	0.313 (0.218)	-0.342** (0.148)
Total Airports Serving More than 400K Passengers	0.452*** (0.108)	0.406*** (0.104)	0.361*** (0.130)	-0.00266 (0.224)	-1.329*** (0.454)
Airports - Landed Weight (lbs.) of Cargo	4.79e-11*** (1.23e-11)	2.50e-11** (1.05e-11)	1.13e-11 (1.10e-11)	7.90e-10 (1.02e-09)	6.17e-09*** (2.08e-09)
Freight Railroad Mileage per Square Area of Land	2.267 (1.426)	4.758** (1.956)	8.383*** (3.080)	3.386 (2.719)	4.141* (2.124)
Foreign Owned Establishments - Employees, Percent	0.0892*** (0.0270)	0.104*** (0.0336)	0.0658 (0.0474)	0.158*** (0.0502)	0.0223 (0.0386)
Average Share of International Migration, 2010-2015	0.0000757 (0.000952)	-0.000250 (0.000985)	-0.00209** (0.000911)	0.00497*** (0.00153)	0.0126* (0.00731)
Mean % Foreign Born, 2010-2015	-0.000000877*** (0.000000305)	-0.000000660** (0.000000264)	-0.000000434* (0.000000230)	0.0000191** (0.00000955)	0.0000221 (0.0000193)
Mean Cost of Living, 2010-2015	-3.417*** (1.272)	-4.806*** (1.600)	-2.292 (3.014)	-4.370* (2.216)	-0.299 (1.967)
Mean Commercial Utility Rate, 2010-2015	0.0287 (0.0289)	0.0569 (0.0369)	0.137*** (0.0490)	0.0262 (0.0471)	0.0714 (0.0478)
Mean Industrial Utility Rate, 2010-2015	-0.0368 (0.0303)	0.0327 (0.0376)	-0.0541 (0.0470)	0.0511 (0.0551)	-0.156*** (0.0537)



	(1) All Regions	(2) Metropolitan Regions	(3) Large Metropolitan Regions	(4) Small Metropolitan Regions	(5) Micropolitan Regions
Mean Land Value, 2010-2015	0.00000252*** (0.000000895)	0.00000155 (0.00000103)	0.000000289 (0.00000156)	0.000000298 (0.00000150)	0.00000423** (0.00000190)
Constant	-3.159** (1.231)	-5.788*** (1.739)	-11.41*** (3.570)	-1.276 (2.327)	-0.226 (1.882)
Observations	583	335	183	152	248
Adjusted $R^2$	0.757	0.805	0.803	0.415	0.183

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

**Appendix Table 4. Fixed Assets and Slow-Changing Properties on Log Total Export Value, 2009-2016, by CBSA**

	(1) All Regions	(2) Metropolitan Regions	(3) Large Metropolitan Regions	(4) Small Metropolitan Regions	(5) Micropolitan Regions
Population Density	0.00121*** (0.000382)	0.000544* (0.000319)	-0.000238 (0.000385)	-0.000545 (0.000786)	0.000982 (0.00121)
Mean % Population with Bachelor's Degree or More, 2010-2015	19.38*** (3.087)	9.941** (4.157)	-0.364 (6.082)	4.740 (4.802)	6.562* (3.342)
Educational Attainment, Squared	-31.38*** (5.349)	-14.37** (5.936)	-1.197 (7.655)	-8.261 (7.678)	-15.19*** (5.837)
Mean Labor Force Participation Rate, 2010-2013	3.511** (1.657)	4.102 (2.791)	-0.343 (3.944)	5.184** (2.539)	1.968 (1.904)
Mean Annual Unemployment Rate, 2010-2013	0.131*** (0.0288)	0.145*** (0.0352)	0.0281 (0.0553)	0.112** (0.0454)	0.0553* (0.0329)
Mean Annual Median Earnings, 2010-2013	0.0000612*** (0.0000118)	0.0000430** (0.0000175)	0.0000641*** (0.0000172)	0.00000546 (0.0000202)	0.0000485*** (0.0000137)
Mean CBSA Share of State Economy, 2010-2013	6.690*** (2.033)	5.165*** (1.749)	3.585* (1.876)	4.576 (4.302)	19.03*** (6.073)
Mean Real state GDP, Hundreds of Thousands of \$, 2010-2013	0.000000552*** (0.000000139)	0.000000653*** (0.000000188)	0.000000584** (0.000000252)	0.000000113 (0.000000228)	-8.77e-08 (0.000000178)
Mean Total Crime Rate, 2010-2013	-0.0000156 (0.0000577)	0.00000177 (0.0000732)	-0.00000916 (0.0000897)	-0.000132 (0.0000976)	-0.0000663 (0.0000704)
Industry Diversification	-0.172*** (0.0621)	0.0108 (0.0732)	0.138 (0.102)	0.133 (0.154)	-0.0310 (0.116)
Industry Diversification Squared Term	0.00309 (0.00271)	-0.00509 (0.00362)	-0.0115* (0.00689)	-0.00653 (0.00691)	0.00143 (0.00441)
% Change in Unemployment Rate Between 2007 and 2009	-0.377*** (0.124)	-0.335* (0.175)	-0.0368 (0.253)	-0.450** (0.196)	-0.386*** (0.147)
% Change in State GDP Between 2007 and 2009	0.154 (1.536)	0.619 (1.818)	0.770 (2.579)	0.587 (2.597)	-0.0720 (1.849)
Mean Manufacturing Share, 2010-2015	6.527*** (0.553)	5.703*** (0.948)	4.132*** (1.540)	5.138*** (0.979)	6.157*** (0.579)

	(1) All Regions	(2) Metropolitan Regions	(3) Large Metropolitan Regions	(4) Small Metropolitan Regions	(5) Micropolitan Regions
West	-0.124 (0.317)	0.0904 (0.375)	0.288 (0.417)	0.142 (0.452)	-0.652 (0.411)
Northeast	-0.184 (0.376)	0.279 (0.405)	1.055 <sup>*</sup> (0.569)	-0.596 (0.480)	-0.717 (0.505)
Midwest	-0.164 (0.254)	0.328 (0.253)	0.873 <sup>**</sup> (0.398)	0.191 (0.327)	-0.375 (0.339)
Total Financing Events, 2010-2013	0.0000909 (0.000261)	0.000186 (0.000286)	0.000166 (0.000265)	0.00701 (0.00444)	0.0129 <sup>**</sup> (0.00633)
Has a Port	0.505 <sup>***</sup> (0.101)	0.569 <sup>***</sup> (0.0949)	0.437 <sup>***</sup> (0.0951)	0.853 <sup>***</sup> (0.279)	0.329 <sup>*</sup> (0.192)
Total Airports Serving More than 400K Passengers	0.965 <sup>***</sup> (0.181)	0.790 <sup>***</sup> (0.186)	0.645 <sup>***</sup> (0.191)	0.0884 (0.429)	2.126 <sup>**</sup> (0.881)
Airports - Landed Weight (lbs.) of Cargo	1.58e-11 (3.39e-11)	2.63e-11 (2.73e-11)	3.12e-11 (2.06e-11)	-1.45e-09 (1.44e-09)	-1.33e-08 <sup>***</sup> (4.29e-09)
Freight Railroad Mileage per Square Area of Land	2.063 (2.109)	-0.124 (3.043)	1.403 (3.900)	2.470 (3.702)	4.781 <sup>*</sup> (2.655)
Foreign Owned Establishments - Employees, Percent	0.0940 <sup>**</sup> (0.0421)	0.0973 <sup>*</sup> (0.0580)	0.0689 (0.0749)	0.140 <sup>*</sup> (0.0747)	0.0830 (0.0532)
Average Share of International Migration, 2010-2015	0.00474 <sup>***</sup> (0.00130)	0.00436 <sup>***</sup> (0.00116)	0.00257 <sup>*</sup> (0.00131)	0.00308 (0.00198)	-0.0128 (0.00788)
Mean % Foreign Born, 2010-2015	-0.00000103 <sup>***</sup> (0.000000380)	-0.000000727 <sup>*</sup> (0.000000409)	-0.000000308 (0.000000384)	0.0000282 <sup>**</sup> (0.0000127)	0.000174 <sup>***</sup> (0.0000309)
Mean Cost of Living, 2010-2015	1.453 (2.073)	-1.544 (2.368)	-5.219 (3.349)	1.676 (2.755)	5.015 <sup>*</sup> (2.688)
Mean Commercial Utility Rate, 2010-2015	-0.0151 (0.0423)	-0.0565 (0.0520)	-0.0659 (0.0720)	0.0579 (0.0602)	0.0556 (0.0571)
Mean Industrial Utility Rate, 2010-2015	-0.167 <sup>***</sup> (0.0452)	-0.112 <sup>**</sup> (0.0525)	-0.0187 (0.0650)	-0.225 <sup>***</sup> (0.0634)	-0.255 <sup>***</sup> (0.0664)
Mean Land Value, 2010-2015	-6.23e-08 (0.00000171)	-2.94e-08 (0.00000183)	0.00000127 (0.00000212)	-0.00000181 (0.00000239)	-0.000000321 (0.00000220)

	(1) All Regions	(2) Metropolitan Regions	(3) Large Metropolitan Regions	(4) Small Metropolitan Regions	(5) Micropolitan Regions
Constant	13.02*** (1.902)	17.07*** (2.327)	24.19*** (3.470)	14.96*** (3.093)	11.42*** (2.436)
Observations	904	379	183	196	525
Adjusted $R^2$	0.629	0.649	0.611	0.464	0.450

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

**Appendix Table 5. Industry Specific FDI Deals, 2009-2016, by CBSA**

	(1) Manufacturing All	(2) Manufacturing All Metro	(3) Manufacturing Large Metros	(4) Manufacturing Small Metros	(5) Manufacturing Micro	(6) High Tech All	(7) High Tech All Metro	(8) High Tech Large Metros	(9) High Tech Small Metros	(10) High Tech Micro
Population Density	0.0000811 (0.0000757)	0.0000736 (0.0000798)	0.0000157 (0.0000881)	0.000718* (0.000367)	-0.000151 (0.000622)	-0.0000856 (0.0000877)	-0.0000956 (0.0000878)	0.0000234 (0.0000927)	-0.0000878 (0.000456)	-0.000867 (0.000730)
Mean % Pop with Bach Degree or More, 2010-2015	-0.574 (0.924)	-1.296 (1.298)	-1.507 (1.628)	-1.883 (2.136)	1.067 (2.079)	0.122 (1.090)	-0.205 (1.400)	0.0569 (1.842)	-0.712 (2.414)	4.616* (2.498)
Educational Attainment, Squared	0.681 (1.499)	1.977 (1.838)	1.410 (1.989)	3.637 (3.343)	-2.918 (4.239)	-0.0991 (1.778)	1.113 (2.091)	-0.238 (2.412)	2.826 (3.893)	-10.09** (4.924)
Mean Lbr Force Participation Rate, 2010-13	0.715 (0.480)	1.083 (0.785)	0.0233 (0.772)	2.133* (1.198)	0.779 (0.643)	-0.718 (0.542)	-1.125 (0.832)	-0.949 (0.971)	-1.276 (1.210)	-1.235 (0.834)
Mean Annual Unemp Rate, 2010-2013	0.0216*** (0.00786)	0.0121 (0.00994)	0.00651 (0.0124)	0.0255 (0.0189)	0.0252** (0.0128)	-0.00850 (0.00947)	0.00303 (0.0101)	-0.00875 (0.0138)	0.0177 (0.0166)	-0.0242 (0.0170)
Mean Annual Median Earnings, 2010-2013	-0.000000802 (0.00000304)	-0.000000949 (0.00000369)	0.000000997 (0.00000331)	-0.000000544 (0.00000963)	0.00000142 (0.00000555)	0.0000101*** (0.00000313)	0.00000705* (0.00000399)	0.00000788* (0.00000409)	0.00000562 (0.00000879)	0.00000914 (0.00000643)
Mean CBSA share of State Emp, 2010-2013	-0.217 (0.280)	-0.217 (0.269)	-0.529** (0.248)	-2.426 (1.738)	-2.303 (3.260)	-0.566** (0.255)	-0.241 (0.227)	-0.538** (0.252)	-1.549 (1.601)	-2.261 (3.250)
Mean Real state GDP, Hundreds of Thousands of \$, 2010-2013	- 0.000000102** (4.47e-08)	-2.19e-08 (5.04e-08)	- 0.000000162*** (5.04e-08)	8.71e-08 (0.000000115)	- 0.000000289*** (9.08e-08)	1.89e-09 (4.65e-08)	6.24e-08 (5.18e-08)	-3.29e-08 (5.91e-08)	0.000000155 (0.000000115)	- 0.000000113 (9.81e-08)
Mean Total Crime Rate, 2010- 2013	-0.0000127 (0.0000181)	0.0000146 (0.0000248)	-0.0000198 (0.0000226)	0.0000338 (0.0000451)	-0.0000231 (0.0000280)	0.0000222 (0.0000218)	0.0000222 (0.0000258)	-0.0000181 (0.0000262)	0.0000497 (0.0000456)	0.0000421 (0.0000349)
Industry Diversification	0.0135*** (0.00469)	0.0114* (0.00599)	0.00239 (0.00678)	0.00866 (0.0114)	0.0210** (0.00839)	-0.00916* (0.00551)	-0.0119* (0.00638)	-0.00726 (0.00765)	-0.0267** (0.0107)	-0.0176* (0.0103)

	(1) Manufacturing All	(2) Manufacturing All Metro	(3) Manufacturing Large Metros	(4) Manufacturing Small Metros	(5) Manufacturing Micro	(6) High Tech All	(7) High Tech All Metro	(8) High Tech Large Metros	(9) High Tech Small Metros	(10) High Tech Micro
% Change in Unemployment Rate Between 2007 and 2009	0.0708 <sup>*</sup> (0.0365)	0.0907 <sup>**</sup> (0.0450)	0.135 <sup>**</sup> (0.0540)	-0.00731 (0.0851)	0.126 <sup>**</sup> (0.0589)	0.0430 (0.0463)	0.0839 (0.0522)	0.0497 (0.0682)	0.0543 (0.101)	0.0136 (0.0811)
% Change in State GDP Between 2007-09	0.360 (0.510)	1.125 <sup>*</sup> (0.615)	0.815 (0.560)	2.186 <sup>**</sup> (1.079)	-0.857 (0.895)	0.815 (0.584)	1.075 (0.666)	0.136 (0.757)	2.309 <sup>*</sup> (1.215)	0.182 (1.089)
Log Export Value, 2009-2016	0.0317 <sup>**</sup> (0.0128)	0.0141 (0.0180)	0.0266 (0.0240)	0.0220 (0.0363)	0.0490 <sup>**</sup> (0.0241)	0.00222 (0.0135)	0.0154 (0.0187)	-0.0114 (0.0261)	0.0671 <sup>*</sup> (0.0342)	0.00204 (0.0249)
West	-0.121 (0.0959)	-0.0255 (0.114)	0.0234 (0.0992)	0.284 (0.224)	-0.237 (0.189)	0.0761 (0.105)	-0.0934 (0.115)	0.0744 (0.105)	0.00614 (0.215)	0.0880 (0.204)
Northeast	-0.0252 (0.138)	0.0333 (0.153)	0.135 (0.157)	0.173 (0.195)	0.0733 (0.260)	0.0365 (0.129)	-0.193 (0.146)	-0.0220 (0.161)	-0.0848 (0.220)	0.328 (0.267)
Midwest	0.105 (0.0784)	0.149 <sup>*</sup> (0.0877)	0.217 <sup>**</sup> (0.0918)	0.242 <sup>*</sup> (0.134)	0.0819 (0.143)	0.0374 (0.0815)	-0.00396 (0.0945)	0.0429 (0.111)	0.0566 (0.158)	0.0412 (0.157)
Total Financing Events, 2010- 2013	-0.0000492 (0.0000411)	-0.0000722 <sup>*</sup> (0.0000385)	-0.0000144 (0.0000338)	-0.000448 (0.00169)	-0.000369 (0.00270)	-0.0000202 (0.0000375)	-0.0000342 (0.0000416)	0.0000103 (0.0000333)	0.000602 (0.00171)	0.0111 <sup>***</sup> (0.00339)
Has a Port	-0.0343 <sup>*</sup> (0.0184)	-0.0177 (0.0194)	-0.0123 (0.0186)	-0.0541 (0.115)	-0.0221 (0.0708)	-0.00632 (0.0225)	-0.00202 (0.0221)	0.00649 (0.0184)	0.0468 (0.118)	-0.00338 (0.116)
Total Airports w/ more e than 400K Psngrs	-0.0291 (0.0444)	0.0110 (0.0462)	-0.0574 (0.0470)	0.447 <sup>*</sup> (0.234)	-0.587 <sup>*</sup> (0.302)	-0.0418 (0.0414)	-0.0152 (0.0438)	-0.0136 (0.0497)	0.153 (0.184)	0.963 <sup>***</sup> (0.368)
Airports - Landed Weight (lbs.) of Cargo	-7.79e-12 (5.51e-12)	-8.41e-12 (7.01e-12)	-6.54e-12 (4.52e-12)	2.81e-10 (9.90e-10)	2.62e-09 <sup>*</sup> (1.38e-09)	-6.68e-12 (5.91e-12)	-7.78e-12 (6.97e-12)	-3.35e-12 (4.15e-12)	-2.07e-10 (7.60e-10)	-4.81e-09 <sup>**</sup> (1.86e-09)
Freight Railroad Mlg per Sq Area of Land	0.227 (0.724)	0.604 (0.828)	-0.502 (0.818)	0.700 (1.502)	-0.209 (1.274)	-0.226 (0.866)	0.0291 (1.001)	-1.167 (0.995)	-0.0434 (1.752)	-0.439 (1.543)
Foreign Owned Estabs - Employees, %	0.00545 (0.0121)	0.00175 (0.0148)	0.00823 (0.0165)	0.0254 (0.0280)	-0.00119 (0.0205)	0.00939 (0.0144)	0.00214 (0.0180)	0.00855 (0.0192)	0.0191 (0.0350)	0.0248 (0.0235)

	(1) Manufacturing All	(2) Manufacturing All Metro	(3) Manufacturing Large Metros	(4) Manufacturing Small Metros	(5) Manufacturing Micro	(6) High Tech All	(7) High Tech All Metro	(8) High Tech Large Metros	(9) High Tech Small Metros	(10) High Tech Micro
Avg Share of Intl Migration, 2010-2015	-0.000385 (0.000241)	-0.000307 (0.000255)	-0.000108 (0.000243)	-0.00139*** (0.000438)	0.00820 (0.00626)	-0.000300 (0.000413)	-0.000264 (0.000425)	0.00000883 (0.000261)	-0.00245*** (0.000477)	-0.00215 (0.00485)
Mean % Foreign Born, 2010- 2015	3.15e-08 (6.26e-08)	1.69e-08 (5.80e-08)	2.16e-08 (5.79e-08)	-0.00000986* (0.00000594)	-0.00000779 (0.0000133)	6.11e-08 (5.94e-08)	4.01e-08 (6.46e-08)	-4.42e-08 (5.35e-08)	-0.00000999* (0.00000594)	-0.00000766 (0.0000129)
Mean Cost of Living, 2010- 2015	-0.423 (0.732)	-0.625 (0.813)	-1.522* (0.843)	-1.456 (1.190)	-0.683 (1.277)	0.170 (0.717)	1.581* (0.817)	0.174 (0.928)	1.237 (1.407)	-0.849 (1.394)
Mean Commercial Utility Rate, 2010-2015	0.0270* (0.0140)	0.0338** (0.0156)	0.0450*** (0.0156)	0.0295 (0.0297)	0.0144 (0.0285)	0.00844 (0.0163)	-0.00811 (0.0188)	0.0153 (0.0201)	-0.0333 (0.0358)	0.00521 (0.0316)
Mean Industrial Utility Rate, 2010-2015	-0.0303* (0.0169)	-0.0235 (0.0177)	-0.0132 (0.0187)	-0.0291 (0.0359)	-0.0280 (0.0363)	0.0134 (0.0175)	0.0103 (0.0199)	-0.00761 (0.0225)	0.0587 (0.0391)	0.00951 (0.0366)
Mean Land Value 2010-2015	-2.50e-08 (0.000000677)	-0.000000247 (0.000000711)	0.000000191 (0.000000520)	-3.03e-08 (0.00000116)	0.000000303 (0.00000118)	-0.00000115** (0.000000510)	-0.00000110* (0.000000571)	-0.000000734 (0.000000627)	-0.00000114 (0.000000884)	- 0.000000540 (0.00000121)
Constant	-0.140 (0.722)	0.106 (0.937)	1.424* (0.851)	0.00313 (1.399)	-0.343 (1.161)	0.142 (0.691)	-1.148 (0.900)	0.980 (1.000)	-2.025 (1.390)	1.162 (1.299)
Observations	584	335	183	152	249	584	335	183	152	249
Adjusted R <sup>2</sup>	0.163	0.101	0.267	0.046	0.234	0.005	0.024	-0.062	0.053	0.072

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

**Appendix Table 6. Policy Variables on Log Total FDI Deals, 2009-2016, by CBSA**

	(1) All Regions	(2) Metropolitan Regions	(3) Large Metropolitan Regions	(4) Small Metropolitan Regions	(5) Micropolitan Regions
Population Density	0.000461** (0.000194)	0.000179 (0.000229)	0.000215 (0.000268)	0.000590 (0.000634)	-0.0000858 (0.00118)
Mean % Population with Bachelor's Degree or More, 2010-2015	-0.626 (2.133)	-1.921 (2.921)	-7.261* (4.146)	3.758 (4.271)	-2.504 (3.046)
Educational Attainment, Squared	2.087 (3.757)	3.880 (4.712)	11.89** (5.327)	-6.154 (7.030)	5.399 (5.689)
Mean Labor Force Participation Rate, 2010-2013	0.0692 (0.902)	1.065 (1.554)	3.903* (2.309)	-0.441 (2.123)	0.435 (1.199)
Mean Annual Unemployment Rate, 2010-2013	-0.0109 (0.0174)	-0.0282 (0.0181)	-0.0266 (0.0403)	-0.0418 (0.0288)	-0.00915 (0.0301)
Mean Annual Median Earnings, 2010-2013	0.0000158** (0.00000712)	0.0000125 (0.00000859)	0.0000118 (0.0000130)	0.0000132 (0.0000133)	0.0000153 (0.0000103)
Mean CBSA Share of State Employment, Local Total, 2010-2013	2.471*** (0.667)	1.623* (0.933)	2.206** (0.963)	3.627 (3.556)	10.73* (5.578)
Mean Real State GDP, Hundreds of Thousands of \$, 2010-2013	-0.000000375 (0.000000550)	-0.000000967 (0.000000703)	-0.000000164 (0.00000102)	-0.000000390 (0.00000110)	-0.000000627 (0.000000810)
Mean Total Crime Rate, 2010-2013	-0.0000254 (0.0000438)	-0.0000846 (0.0000608)	0.0000837 (0.0000819)	-0.000151* (0.0000881)	0.0000127 (0.0000789)
Industry Diversification	-0.145*** (0.0359)	-0.116*** (0.0433)	-0.235*** (0.0646)	0.0453 (0.0843)	-0.246** (0.112)
Industry Diversification Squared Term	0.00574*** (0.00160)	0.00503** (0.00231)	0.0150*** (0.00426)	-0.00256 (0.00373)	0.00978** (0.00424)
% Change in Unemployment Rate Between 2007 and 2009	0.105 (0.0959)	-0.0300 (0.129)	0.0572 (0.202)	-0.0546 (0.177)	0.215 (0.146)
% Change in State GDP Between 2007 and 2009	0.0515 (1.211)	-0.290 (1.629)	-3.778 (2.669)	2.173 (2.189)	-1.277 (1.594)
Log Export Value, 2009-2016	0.330*** (0.0290)	0.477*** (0.0367)	0.529*** (0.0659)	0.257*** (0.0615)	0.0836* (0.0464)



	(1) All Regions	(2) Metropolitan Regions	(3) Large Metropolitan Regions	(4) Small Metropolitan Regions	(5) Micropolitan Regions
Mean Manufacturing Share, 2010-2015	0.573 (0.402)	1.490** (0.602)	1.097 (1.072)	2.743*** (0.744)	1.142** (0.546)
West	-0.0583 (0.210)	0.312 (0.257)	-0.101 (0.367)	0.536 (0.352)	-0.656* (0.376)
Northeast	-0.0356 (0.240)	-0.132 (0.295)	-0.773 (0.546)	-0.150 (0.432)	-0.318 (0.433)
Midwest	-0.0381 (0.154)	-0.107 (0.193)	-0.405 (0.343)	0.0425 (0.279)	-0.372 (0.262)
Total Financing Events, 2010-2013	0.000635*** (0.000193)	0.000537*** (0.000174)	0.000419** (0.000168)	-0.00421 (0.00262)	-0.00552 (0.00521)
Has a Port	-0.0193 (0.0575)	-0.0204 (0.0623)	-0.112 (0.0714)	0.362 (0.226)	-0.341** (0.154)
Total Airports Serving More than 400K Passengers	0.449*** (0.108)	0.397*** (0.104)	0.384*** (0.126)	-0.0107 (0.321)	-1.574*** (0.579)
Airports - Landed Weight (lbs.) of Cargo	4.93e-11*** (1.23e-11)	2.29e-11* (1.20e-11)	1.04e-11 (1.50e-11)	1.00e-09 (1.24e-09)	5.98e-09** (2.35e-09)
Freight Railroad Mileage per Square Area of Land	1.167 (1.674)	3.749* (2.131)	5.578 (3.979)	2.670 (2.926)	3.998 (2.570)
Foreign Owned Establishments - Employees, Percent	0.0879*** (0.0324)	0.131*** (0.0390)	0.0698 (0.0586)	0.189*** (0.0577)	-0.0142 (0.0523)
Average Share of International Migration, 2010-2015	-0.000123 (0.000938)	-0.000510 (0.00102)	-0.00247*** (0.000923)	0.00530*** (0.00138)	0.0136* (0.00796)
Mean % Foreign Born, 2010-2015	- 0.000000861*** (0.000000301)	-0.000000631** (0.000000268)	-0.000000458* (0.000000248)	0.0000201** (0.00000955)	0.0000199 (0.0000207)
Mean Cost of Living, 2010-2015	-3.434*** (1.308)	-5.275*** (1.586)	-2.540 (2.633)	-4.610** (2.291)	0.414 (2.586)
Mean Commercial Utility Rate, 2010-2015	-0.0205 (0.0382)	-0.0223 (0.0487)	0.0514 (0.0665)	-0.0652 (0.0675)	0.0431 (0.0699)
Mean Industrial Utility Rate, 2010-2015	0.00274 (0.0405)	0.103** (0.0522)	-0.0645 (0.0748)	0.148* (0.0819)	-0.136** (0.0688)

	(1) All Regions	(2) Metropolitan Regions	(3) Large Metropolitan Regions	(4) Small Metropolitan Regions	(5) Micropolitan Regions
Mean Land Value, 2010-2015	0.00000248** (0.00000116)	0.00000156 (0.00000141)	0.00000112 (0.00000206)	-0.000000594 (0.00000208)	0.00000446* (0.00000232)
Annual Mean Property Tax, Thousands of 2009 \$ (Census Survey) / GDP, 2009-2013	-27.96* (14.84)	-40.60*** (13.13)	-110.2** (43.23)	-11.09 (17.50)	-26.27* (15.11)
Annual Mean Individual Income Taxes, Thousands of 2009 \$ (Census Survey) / GDP, 2009-2013	0.937 (5.300)	-6.908 (7.705)	-1.776 (12.08)	3.792 (10.78)	-0.436 (8.240)
Annual Mean Corporation Net Income Taxes, Thousands of 2009 \$ (Census Survey) / GDP, 2009-2013	-4.652 (29.48)	-8.639 (43.45)	102.1 (66.82)	-28.42 (70.53)	-20.48 (45.12)
Annual Mean Total Tax Paid, Thousands of 2009\$(Census Survey) / GDP, 2009-2013	3.863 (4.747)	6.673 (6.958)	20.20* (11.29)	0.465 (7.960)	2.050 (7.705)
Government Outstanding Debt as Portion of GDP	1.834* (1.034)	2.144 (1.500)	3.274 (2.277)	0.621 (2.418)	2.860* (1.472)
Government Total Highway Direct Expenditure as Portion of GDP	-18.64 (15.17)	-33.64 (21.01)	-95.91*** (34.01)	-9.114 (28.71)	-3.407 (29.17)
Annual Mean State Government R&D Spending, as Portion of GDP, 2009-2013	1.19e-09 (8.25e-10)	2.73e-09*** (1.05e-09)	1.02e-09 (1.52e-09)	2.71e-09 (1.71e-09)	3.12e-10 (1.42e-09)
Annual Mean State Support for Public and Independent Higher Education, as portion of GDP, 2009-2013	-2.27e-12 (1.10e-10)	4.34e-11 (1.41e-10)	-9.71e-11 (2.22e-10)	-3.38e-11 (2.05e-10)	5.18e-11 (1.71e-10)
Constant	-3.105** (1.342)	-5.144*** (1.873)	-9.795*** (3.502)	-1.839 (2.672)	-1.033 (2.900)
Observations	583	335	183	152	248
Adjusted R <sup>2</sup>	0.759	0.810	0.813	0.396	0.175

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

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<sup>97</sup> State and federal export assistance organizations track the effectiveness of their programs, and it generally supports the conclusion that the established set of export promotion programs work. However, these measures are fragmented, inconsistent across organizations and not always readily available. For example, state economic development or trade organizations will publish actual and/or projected sales resulting from participation in tradeshow, trade missions or other export programs. Examples include Enterprise Florida and the Maine International Trade Center: many of the tradeshow and trade missions led by these two states resulted in over a \$1M in projected sales per participating company. As discussed later in this section, states report very high "ROI" on the SBA STEP grant program, measured as the ratio between projected sales and grant funding provided. The US Commercial Service (DOC) no longer consistently tracks sales resulting from their services, but the 2016 National Export Strategy indicates that DOC fee-based and firm-specific services, such as Gold Keys, resulted in nearly \$800K in sales per company during 2010-14. (Sources: Trade Promotion Coordination Committee, National Export Strategy 2016: Helping U.S. Businesses Increase Global Sales to Support Local Jobs; Maine International Trade Center, 2017 Annual Report; Enterprise Florida, 2016-17 Annual Report.)

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