



RESEARCH REPORT

Partners or Pirates?

Collaboration and Competition in Local Economic Development

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Executive Summary

In this report, we explore how and why local governments have turned to cooperation to boost economic development. We synthesize highlights from the literature, explore program features from two regional case studies, and share findings from interviews with local practitioners. Although research on the effectiveness of current practices is limited, we identify themes that can inform cooperative economic development.

Localities compete along several dimensions for residents, firms, and investment. Differentiation of tax rates and public goods among local governments can lead residents and businesses to sort into communities that best serve their needs. Competition between local governments, however, can cause a race to the bottom, especially when neighboring governments offer incentives to attract businesses, fueling potentially aggressive bidding wars and firm poaching within regions. Under these conditions, competition can undermine public resources and long-run regional economic competitiveness, with high costs to communities. But some argue that, like in the private sector, this competition can encourage more public-sector efficiency, leading to higher-quality public amenities or a leaner delivery mechanism.

Of course, evidence is growing that businesses locate in a region or locality because of the mix of general amenities offered and the characteristics of the labor force, and economic development incentives play only a secondary role. Can localities, then, *cooperate* to attract businesses by investing in these regional advantages without competing against each other on the frequency or generosity of business tax incentives? We find that social, regional, policy-related, and institutional factors can all promote higher degrees of economic development collaboration. State and local policy can help raise the benefits of collaboration for local communities and encourage trust and expectations of reciprocity among public officials. States and localities have attempted to encourage collaboration, or prohibit aggressive firm bidding among localities, through

- state regulatory policies,
- state and local financing policies,
- local cooperative agreements, and
- local codes of ethics.

Montgomery County, Ohio's, Economic Development/Government Equity Program, as well as the Metro Denver Economic Development Corporation's code of ethics, for example, both encourage local collaboration. Although more rigorous program evaluation is necessary to determine the efficacy of these approaches, the literature and case interviews consistently emphasize several themes that decisionmakers consider when designing collaborative economic development policies: (1) social norms and communication make a difference; (2) shared governance structures can promote communication; (3) regionalism can be attractive to individual jurisdictions; (4) offering cities rewards, in addition to prohibitions or punishments, can increase participation in collaborative programs; and (5) multiple programs can encourage a culture of collaboration.

Introduction and Background

Communities compete along several dimensions to attract businesses and jobs. Often, they compete on natural advantages, such as access to waterways or natural resources. They may also leverage advantages cultivated through long-term investment in workers, industry clustering, and educational institutions. However, they also compete financially by offering lower tax rates than neighboring communities and by granting special public subsidies to firms seeking to expand, relocate, or remain in the community. Competition may foster efficiencies, encourage localities to embrace their advantages, and help individuals and firms locate in places best suited to their needs. However, it can also encourage local governments to adopt tax incentives and other financial subsidies for businesses that could ultimately drain revenues for essential public services without producing the promised or desired increases in economic activity.

Empirical research suggests that local economic competition can encourage bidding wars between localities, pitting local governments against one another when they could be working together to develop regional advantages. State and local governments spend an estimated \$45 billion annually on tax incentives intended to spur economic development and attract firms (Bartik 2017). Although companies often claim that preferential tax treatment promotes investment and creates jobs, critics charge that it leads to a harmful “race to the bottom,” reducing resources for more important public investments and leaving communities in a worse position to attract and retain residents and jobs in the long term. Indeed, in some regions where economic activity crosses city or state borders, firm relocation deals can reduce public revenues with no gains in regional economic activity. Kansas City, which straddles the border between Missouri and Kansas, has been home to frequent bidding wars between the two states. These wars are largely generated by state incentives to lure firms in the area mere miles from their original location, often just across State Line Road (McGee 2015).¹

Theories of competition between local governments based on traditional economic models suggest that competition provides individuals and businesses with more choice to select a locality with the government services and taxes that suit their needs. Some economists have argued that, like in the private sector, competition between local governments for firms and people can assure more efficiency and higher-quality services at a lower price. But if subsidies to private firms are (a) not necessary to influence a siting decision or (b) prioritized at the expense of education or other long-term investments that benefit the community, the social trade-off may be harmful to residents and the community. Models for local cooperation seek to mitigate this social trade-off. In many cases, local governments

recognize that economic growth and activity cross jurisdictional boundaries and willingly collaborate, because cooperation provides material fiscal and economic benefits that exceed those of competition.

Understanding the drivers of interlocal competition and cooperation has become even more important given expanding state and local competition for the “megadeal.”² In recent years, companies such as Foxconn and General Electric have received generous state and local subsidies to either relocate or open new headquarters and manufacturing facilities.³ Most recently, cities and states across the country entered bids to land the new and highly anticipated second Amazon headquarters. Cities competed not only with their peers in other states and regions, but sometimes with their own neighbors. In the region comprising Washington, DC, and parts of Maryland and Virginia, for example, three sites made it to Amazon’s second round for consideration; each offered different and, in most cases, confidential subsidy packages.⁴ Following Amazon’s announcement that it would split its second headquarters between a Northern Virginia and New York site, however, Maryland residents may have uttered a sigh of relief not to be on the hook for the \$8.5 billion subsidy package their state offered to keep Montgomery County in the running.⁵ Though megadeals and firm relocations take up much of the public’s airtime and resources dedicated to economic development, actual patterns in job and economic growth suggest jobs are typically created through new businesses starting or existing firms expanding rather than through relocations (Theodos, Boddupalli, and Randall 2018).

This report is structured as follows: In the sections Introduction and Background and Why Local Governments Collaborate or Compete, we synthesize the literature on local competition and cooperation to better understand why communities and local governments compete and the conditions that foster collaboration. In State and Local Policies to Encourage Collaboration, we discuss how states and local governments have intervened to either promote collaboration or limit competition that can undermine regional economic prosperity or public resources. And in Case Studies in Local Cooperation, we highlight two noteworthy local models for promoting collaboration and limiting local firm poaching. Firm poaching, or firm piracy as it is sometimes called, is a type of local competition that occurs when one jurisdiction proactively attracts an establishment away from its home locality, often through tax incentives or other subsidies.

Little empirical research has been conducted on models that seek to either limit aggressive forms of competition (such as firm poaching) or promote collaborative local economic development. Limited data mean that much of the research on firm mobility and firm poaching has focused on a handful of localities or states, such as California and Ohio. Because institutional and economic factors vary, however, findings from one locality or state may not be generalizable to others. Further, evaluating the effects of economic development policies on economic outcomes is challenging because of the difficulty of

conducting rigorous econometric research that controls for all factors (Fisher and Peters 1998).

Moreover, economic development strategies vary significantly across localities. Economic development approaches may include tax incentives, direct cash grants, or indirect subsidies to support innovation, applied research, and entrepreneurship, for example (Bartik 1991).⁶ This diversity and variation makes it difficult to compare policies in one locale against those in another. This report focuses on the body of literature (and presents case studies) on how and why local governments have turned to cooperation to boost economic development efforts.

The Context for Competition and Collaboration

By many accounts, the relationship between local governments in the United States is inherently competitive. Decentralization is a chief feature of the United States' federalist system of government. States and many localities retain their own power to tax, spend, and set policy. Local autonomy, combined with the threat of exit from people or capital, encourages policymakers to act as policy entrepreneurs. Localities find new ways to compete for residents and capital by improving their city's livability or offering lower prices for public services (Breton 1991).⁷ Research has highlighted diffusion of policies across neighboring governments,⁸ migration of people across jurisdictional boundaries in response to policy change, and "price adjustments" (i.e., tax breaks) that local governments implement as evidence of this intrinsically competitive relationship (Breton 1991).

Firm and resident mobility can be beneficial when it comes to people getting what they want from government (that is, the right services at a high quality and at the right price). However, deviations from standard economic models can turn the threat of firm mobility into a costly bidding war between localities that are desperate to bring jobs and tax revenues into their community. Moreover, economies are regional, with flows of commuters and resources regularly crossing jurisdictional or political boundaries. The US does not have a strong system of regional governance to coordinate local economic development efforts. Even when neighboring communities share a workforce, natural resources, and infrastructure, local governments feel pressure to compete. Although organizations such as Councils of Governments, regional economic development agencies, or regional transit authorities exist in some areas of the country, they often cannot enforce regional policy preferences over the member municipalities.

Without sufficient central authority or coordination at the state or regional level, local units of government, such as cities, school districts, and counties, experience pressure to enhance their own

revenue capacities and reduce costs, even at the expense of neighboring jurisdictions. This is especially true when localities can gain temporary material benefits from being the first mover in adopting a competitive tax policy, when they are desperate to save jobs during a cyclical economic downturn, or when the political consequences of losing a key firm are too great for local lawmakers to risk (Noto 1991). Furthermore, recent research has also highlighted that voters reward the use of financial incentives. Politicians' likelihood of reelection improves when they offer incentives, regardless of whether they are successful in attracting the investment (Jensen and Malesky 2018).

Since the 1970s, the number and size of firm relocation subsidies (including tax incentives) offered by state and local governments has grown. Although comprehensive data on state and local business incentives are difficult to locate, recent estimates indicate that business incentives have tripled since 1990, although the rate of increase has slowed in recent years (Bartik 2017). This increase partly reflects the increasingly global nature of industry, spurred by lower transportation and communication costs and changes in the global economic mix.⁹ As tech firms have replaced heavy industry, business locations are driven by factors other than existing natural resources. In addition to state competition for firms, local governments also offer property tax rebates and other incentives to lure establishments to their city or town (Kenyon, Langley, and Paquin 2012b). Firms' increasing sensitivity to locational costs as well as changes to the relationship between the federal, state, and local governments have encouraged localities to respond more assertively to firm location demands.¹⁰

Although a lack of central economic development authority allows for natural competition between local governments, states can pressure local governments to compete even more aggressively by limiting local fiscal autonomy and revenue capacity. Some states limit local governments' tax and fiscal capacity, forcing them to make up lost property tax revenues through alternative measures.¹¹ In 2017, the National League of Cities published an accounting of different state preemption policies, including limitations on local taxing and spending authority in 42 states (DuPuis et al. 2017). California voters, for example, passed Proposition 13 in 1978, which significantly limited local property tax revenues. This encouraged local governments to compete for retail establishments and big-box stores to make up for lost revenues, spurring fiscalization of land use across the state. Researchers have found that in states such as California, state policies limiting local fiscal capacity have encouraged more intense competition for economic development opportunities locally (Kotin and Peiser 1997; Lewis and Barbour 1999; Neiman, Andranovich, and Fernandez 2000).

Competition ultimately has both benefits and costs, creating winners and losers in regional and state economies. Competition that benefits firms may undermine public resources for important goods that the community needs. Similarly, competition that allows one city to reap the benefits of a firm

location decision may be harmful to neighboring communities or the region. In the following sections, we discuss the possible benefits and costs of competition for local governments, the public, and firms.

How Local Competition Can Benefit Communities

A prevailing concern among both practitioners and researchers is that competition for firms and economic development produces a “race to the bottom” among local governments. But is competition necessarily harmful for communities? Some research on economic development competition applies traditional frameworks from economics or political science to explain the impetus for local competition more broadly. Much of the research expounding on the benefits of competition, for example, has focused on “Tiebout sorting” (discussed below) among people and firms and its relationship to taxes or specific public goods. Some studies have also discussed whether competition, beyond sorting individuals and businesses into jurisdictions that best match their preferences for public goods and corresponding taxes, also encourages governments to offer higher-quality services at a lower cost. These models, based on public-choice models of government, posit that governments, like the private sector, will improve efficiency when faced with more competition.

Benefits of Locational Choice

In traditional economic models, localities compete for residents and businesses by improving the quality and price of services. The Tiebout theory of local sorting proposes that households choose where to locate based on their desire for a specific set of government services and amenities that they are willing to pay for (Tiebout 1956). Within a region, residents can choose to live in a community that best meets their preferences regarding taxes and public services. Localities, meanwhile, are encouraged to improve the quality and price of their services to attract and retain residents who might decide to move if faced with higher taxes. Different services and taxes thus drive results and residential sorting, theoretically producing many efficiencies (discussed below) and allowing residents to live in a community that caters to their preferences.

HIGHER-QUALITY SERVICES AND PUBLIC GOODS

Competition may be beneficial if it encourages localities to provide higher-quality services. Shannon (1991), for example, described the “pace setter phenomenon” and “catch-up” imperative that compels localities to invest in goods such as education and infrastructure so as not to lag behind economic

competitors. Households and businesses make locational choices based on both taxes imposed and public services provided. Local governments can reduce tax rates for residents and businesses, but this may mean fewer public services and goods. Local governments, some researchers have claimed, follow the same rules of market-based competition that firms follow. Competition between governments, from this perspective, can produce overall efficiencies for governments, firms, and residents (Oates and Schwab 1991). Competition can encourage governments to respond to residents' needs and wishes, whether that be for lower taxes or higher-quality public services. In fact, some empirical research has confirmed that higher levels of "Tiebout choice" are associated with more productive public institutions, such as public schools (Hoxby 2000).

MORE EFFICIENT SERVICE PROVISION AND SIZE OF GOVERNMENT

In addition to higher-quality services, governments can also differentiate themselves in an economic region by providing services through a leaner and more efficient delivery mechanism.¹² Some of the literature on local competition posits that more jurisdictional fragmentation (i.e., a larger number of local governments within a similarly sized area) fosters beneficial competition. A proliferation of local governments affords residents with more choice to select a community that matches their preferences. Because residents can signal their preferences by moving, competition creates an incentive for local governments to curtail unnecessary expenditures (Oates 2002).¹³ A firm, as a mobile consumer of government services, can also be expected to benefit from a leaner suite of local services both for itself and its employees.

GROWTH IN FIRM PRODUCTIVITY

Some research on agglomeration economies has suggested that the positive spillover effects of landing a large firm in one's community are significant and lasting. Greenstone, Hornbeck, and Moretti (2010), for example, studied incumbent firms' productivity when a large new manufacturing plant was introduced. Compared with incumbent firms in areas that did not "win" the new plant but that had similar productivity leading up to the siting decision, total factor productivity for incumbent firms in the "winning" area was 12 percent higher. Such increases in productivity can benefit not only the incumbent firms but also the public, local governments, and regional economy if it leads to more economic activity in the region.

Costs of Regulating Competition

Some researchers have expressed concern that state or federal attempts to limit local competition can produce economic distortions, with a net detrimental effect on communities. Attempts to limit either city

or state competition, these researchers suggest, could lead to a loss of local fiscal autonomy, encourage inefficient growth of the public sector, or otherwise dampen natural efficiencies that arise from decentralized fiscal authority (Bradbury, Kodrzycki, and Tannenwald 1997;¹⁴ Neiman, Andranovich, and Fernandez 2000;¹⁵ Oates 2002).¹⁶

Moreover, some research has suggested that the extent of firm poaching and so-called harmful competition between communities is overstated. In 2000, for example, Neiman, Andranovich, and Fernandez of the Public Policy Institute of California claimed that public concern over local competition in California was largely the result of several high-profile establishment relocations highlighted in the media. Upon closer examination, the authors found that California cities did not make economic development policy based on the policies of, or to compete with, the cities around them. They found that a sense of competition was more likely to shape economic development policy in densely populated regions where jurisdictions were located very near to one another. In these scenarios, competition played a more influential role in shaping local policy.

Several studies have concluded that neither inter- nor intrastate establishment moves are a source of major state or regional job loss or gain (Kolko and Neumark 2007; Neumark, Zhang and Wall 2005; Theodos, Boddupalli, and Randall 2018). That is, neither moves from one state to another nor moves within a state are responsible for economic decline or growth in a region. Rather, business expansion and formation are responsible for most job creation and loss. Despite the small percentage of job gains and losses from business migration, California has implemented several rules that restrain local governments in the name of limiting firm poaching. Absent additional data and with no evidence of real harmful effects, however, some researchers have cautioned state governments against adopting restrictive policies that limit local fiscal autonomy. Neiman, Andranovich, and Fernandez (2000), for example, expressed concern that overly restrictive state policies intended to curtail competition would hurt localities' ability to generate own-source revenues.

California's prohibitions, however, may have been a rational response to a specific type of business migration. Many of the state's policies have prohibited the use of state and local tax subsidies to lure big-box stores or other commercial retail establishments from one region to another within the state. Such retail establishments often displace existing retail activity, thus creating no new economic benefits. Moreover, at the regional level in California, researchers have concluded that most migration (both into and out of a region) has been driven by *intrastate* relocations (Kolko and Neumark 2007; Neiman and Krimm 2009). Intrastate and intraregional relocations can drive down total state revenues as well as total economic activity in a region or state. This is especially true if firms are receiving subsidies to relocate to other jurisdictions while downsizing their labor force. In part, California policies

may thus have been a response to the apparent prevalence of intrastate moves among total job migration within an area. Neiman, Andranovich, and Fernandez (2000) argued that rather than enacting overly prescriptive prohibitions, states should focus on increasing the benefits of local cooperation to cities so that they exceed those of competition.

How Local Competition Can Harm Communities

Despite its potential benefits, local competition can also produce harms. The original Tiebout theory was based on the idea of a single public good and assumed equal financing of the good across households. In practice, however, residential choices are based on myriad factors, and goods are disproportionately financed by property taxes paid by wealthier households.¹⁷ In many real-world contexts, theoretical assumptions about competition between governments and communities do not apply.¹⁸ Localities lack complete information, elected leadership may have competing political incentives, and not all jurisdictions have sufficient fiscal capacity to compete (Bradbury, Kodrzycki, and Tannenwald 1997; Kenyon and Kincaid 1991; McGuire 1991).¹⁹

Costs of Competition

Competition creates winners and losers. In the short-term, the winners may be the firms that can negotiate larger subsidies for doing business in a community. But if competition produces aggressive bidding wars and large subsidy packages, the benefits will not accrue to the public. Tax subsidy deals can have negative externalities if they reduce local revenue capacity and raise the pressure to outbid other localities, whether in current or future rounds of business attraction.

LOSS OF LEVERAGE AND REGIONAL TAX BASE

Non-Tiebout models of local competition have illustrated the information asymmetries that allow firms to play local governments against one another, creating a “prisoners’ dilemma” and the oft-referenced race to the bottom (Ellis and Rogers 2000). Some research has concluded that tax competition and subsidies are a zero-sum game where one state or locality’s gain is another’s loss (Chirinko and Wilson 2008; Wilson 2009).

Despite the proliferation of state and local tax incentives to lure businesses, many studies have concluded that they are not the primary driver in firm location decisions at the state level (Bartik 2005;

Jensen 2018).²⁰ Moreover, as a share of total job gains or losses, job changes from establishment relocations are small (Theodos, Boddupalli, and Randall 2018). However, although research shows relocations constitute a nominal source of job loss and gain, relocation *can* indicate different levels of local economic health to local economic development officials and policymakers (Kolko and Neumark 2007).²¹ Further, because the mere threat of firm exit is keenly felt by local officials, localities may still choose to compete in tax incentive bidding wars. Cassell and Turner (2010), in a study of Ohio's Enterprise Zone program, concluded there is a strong political market for tax incentives. They found that as competition between local governments increased, local governments gave into firms' demand for larger abatements, not wanting to lose out to another area. Edmiston and Turnbull (2003), similarly, found that a "tournament effect" came into play during local competition, although this competition was more likely to diminish as the distance between localities increased. Thus, neighboring governments may be more likely to compete with one another than governments further away from each other.

Localities are thus incentivized to match tax rates and business subsidy deals from neighboring governments, even though intraregional relocation of firms from one jurisdiction to another can cause a net loss in the regional tax base (Anderson and Wassmer 2000; Mintz and Tulkens 1986; Wildasin 1989; Wilson 1999).²² Efficiencies promised in the Tiebout model may not materialize if local governments set tax rates and service provision terms without accounting for effects on the tax base of overlapping or neighboring jurisdictions (Mintz and Tulkens 1986; Wildasin 1989; Wilson 1999). Bartik (2003) describes the "negative spillover" effects that can materialize from local competition, including net loss of business tax revenue and overinvestment in businesses that bring fiscal and economic benefit to one jurisdiction at the expense of its neighbors.

HIGH SUBSIDY COST PER JOB

Bidding wars may also unnecessarily drive up the public expenditure per job. In 2015, the average economic development subsidy deal cost state and local governments \$2,400 per job per year, which is already a significant investment.²³ This is only an average, however, and the value of a subsidy per job varies widely depending on the state, locality, and firm in question. Mattera, Tarczynska, and LeRoy (2013), for example, documented megadeals that cost state and local governments over \$75 million per package to attract large-scale firms. They found the average cost per job in these deals to be \$456,000 over the lifetime of the deal. Most recently, New York and Virginia offered Amazon approximately \$43,000 and \$29,000 per job, respectively, in state and local incentives to land the firm's second headquarters.²⁴ New York's package came in well above the national cost per job average, according to estimates from labor economist Tim Bartik, with others suggesting the deal actually tops \$112,000 per job.²⁵ Moreover, despite the large investment of public dollars through subsidy packages, ultimate

economic benefits do not necessarily accrue to the community. Kotin and Peiser (1997), for example, found that California cities competing against one another for firm relocations retained a smaller portion of the ultimate tax benefit from the deal; firms and developers captured a larger portion of the benefit that might have otherwise gone to the public.

Also, notably, local governments often compete over promised jobs, but they don't always materialize as anticipated. Depending on their design, some subsidies may even have a harmful effect on jobs and economic development. Patrick (2014b), for example, found that nontax state and local business subsidies had a negative medium-term effect on employment, especially in rural areas, but no other discernable economic results. She posited that incentives to attract capital (often a feature of subsidy packages) would not necessarily attract jobs, in part because of substitution behavior on the part of firms. That is, firms may decide to substitute capital for labor or use subsidies to replace existing capital.

UNDERINVESTMENT IN PUBLIC GOODS

Local competition for firms through tax and spending policy can also discourage local governments from investing in public goods that have positive spillover effects for neighboring communities. Residents from neighboring towns, for example, benefit from well-maintained roads throughout the region, so the full benefit of providing these public goods is not captured solely by measuring the benefit to one city's residents. But local governments may be hesitant to provide services with positive spillover effects for "free" to neighboring communities. Thus, a state might want to mandate (or provide funding to encourage) some local actions that generate spillovers that are beneficial for the state or regional economy. Localities face the positive spillover dilemma regardless of whether a firm location decision is at stake, but it may be exacerbated if neighboring jurisdictions feel they are competing for a limited number of firms and want to reserve public benefits for their own residents or businesses.

This phenomenon is especially problematic for local governments within the same region, wherein economic activity is spread across multiple jurisdictions. If traditional assumptions hold, people can choose to live in a city that allows them to consume the level of public goods desired (i.e., Tiebout sorting may occur). People can live and work in different places within the region, so communities can specialize in the level of services provided and taxes charged. But if traditional assumptions are loosened and competition drives down the ability of *all* communities in a region to raise revenues, the region may suffer as localities collect insufficient tax revenue and thus fail to make necessary investments in physical and human capital.

ADDITIONAL INFRASTRUCTURE AND PUBLIC SERVICE COSTS

Public discourse on firm attraction tends to focus on the benefits of attracting new businesses but rarely acknowledges the additional costs. New business establishments, as well as new employees that migrate from outside of the area, use additional public services (e.g., roads and public schools) and as such impose additional indirect costs on the local government (Altshuler and Gómez-Ibáñez 1993; Bartik 2018).²⁶ Bartik (2003) estimated that of the new jobs created in a local labor market, 8 in 10 will likely be filled by in-migrants who would have lived elsewhere absent the new job opportunities. This reduces the net benefit of new employment for the jurisdiction, which must now provide services to accommodate the increased population.

The total cost of competitive tax subsidies (i.e., the cost of the subsidy itself plus indirect costs from increased demand for public services) may therefore exceed total benefits for the local government because even a “winning” jurisdiction will experience new costs. Although in-migration can produce economic benefits, especially for cities with declining populations, it is also associated with costs that do not show up on the ledger directly as a subsidy deal. Moreover, new jobs will not necessarily resolve unemployment challenges for existing residents if those opportunities are primarily filled by in-migrants. The cost or benefit of attracting new residents in part depends on whether the local population is growing or in decline. Jurisdictions with a declining population may have spare public resource capacity, for example underutilized public school facilities and road capacity. In contrast, places with a growing population may need to build additional school facilities and roads to accommodate the new residents.

INEQUITABLE DISTRIBUTION OF BENEFITS AND COSTS

Wang, Ellis, and Rogers (2018) found that more generous economic development incentives exacerbated regional economic inequality. Parilla and Liu (2018) noted that even when economic development incentives are appropriately targeted to advanced or export-driven industries, they may not always align with a city’s goals for economic and racial inclusion. Edmiston and Turnbull (2003) found that low-income communities may not be able to sustain the short-term costs associated with aggressive industry recruitment through tax incentive deals. And Cassell and Turner (2010), in a study of Ohio’s Enterprise Zone program, found that competition disproportionately affected poor and rural communities, with the value of abatements in poor and rural areas growing faster than in wealthy or urban areas. The authors concluded that more intense competition between localities eroded the tax base of lower-income and rural communities more extensively than it did wealthy urban areas.

Why Local Governments Collaborate or Compete

Despite strong incentives to compete, local governments sometimes choose to collaborate. But why? The literature on why and how local governments collaborate suggests they do so when the logistical and transactional costs are reduced, when the cost of competing with other localities increases, when attitudes shift, or when governments adopt regionalist policies that encourage them to coordinate and focus on the global marketplace.

Although most research on local cooperation discusses shared service agreements and other broader forms of cooperation, a subset examines local economic development. As described in table 1 and the sections below, the literature describes social, policy-related, regional, and local institutional factors that can promote higher degrees of economic development collaboration among local governments. These factors are not mutually exclusive and often overlap with one another depending on how researchers characterize and operationalize variables. Most of the literature focuses on cities as the primary unit of analysis. But in many communities (particularly rural), counties are the lead entity on economic development, and businesses are primarily served through local chambers of commerce. Models for promoting collaboration among counties and cities may differ depending on the powers of each type of government in different states.

TABLE 1

Conditions Promoting Local Economic Development Collaboration

	Author(s)	Year	Method	Geography
Social				
More frequent communication between jurisdictions ^a	Oh, Lee, and Bush	2014	Survey, regression	242 cities
	Hawkins	2010	Survey, regression	206 governments in 12 metros
	Feiock, Steinacker, and Park	2009	Survey, regression	252 cities
Stronger associational ties (i.e., policy networks) ^b	Oh, Lee, and Bush	2014	Survey, regression	242 cities
	Hawkins	2010	Survey, regression	206 governments in 12 metros
	Feiock, Steinacker, and Park	2009	Survey, regression	252 cities
Trust ^c	Oh, Lee, and Bush	2014	Survey, regression	242 cities
	Hawkins	2010	Survey, regression	206 governments in 12 metros
Less concern about retaining autonomy or creating dependence on other local governments	Zeemering	2016	Survey	153 elected officials from 76 San Francisco Bay Area cities
More knowledge on initiating cooperative agreements	Lee and Hannah-Spurlock	2015	Survey	12 city and county managers in Florida
Greater expectation of reciprocity	Hawkins	2010	Survey, regression	206 governments in 12 metros
Broader view of economic development (i.e., beyond jobs and “zero-sum game”)	Gordon	2007	Key informant interviews	6 economic development officials in 14-county region of central Illinois
Policy				
Greater # of economic development policies	Hawkins	2010	Survey, regression	206 governments in 12 metros
More limited fiscal autonomy regarding state policy	Krueger and Berick	2010	Regression	3,664 cities in 49 states
Economic development policies focusing on larger businesses	Feiock, Steinacker, and Park	2009	Survey, regression	252 cities
More types of economic development policy	Feiock, Steinacker, and Park	2009	Survey, regression	252 cities
Narrower or more specific policy objectives defined	Gordon	2007	Key informant interviews	6 economic development officials in 14-county region of central Illinois
History of interlocal agreements and fiscal transfers	Park and Feiock	2005	Survey, regression	242 cities
Stronger regional Councils of Governments ^d	Olberding	2002	Survey, regression	244 metropolitan areas
Regional and population				
Greater economic need ^e	Oh, Lee, and Bush	2014	Survey, regression	242 cities
	Olberding	2002	Survey, regression	244 metropolitan areas
More economic homogeneity across cities within region	Oh, Lee, and Bush	2014	Survey, regression	242 cities

	Author(s)	Year	Method	Geography
Higher median income	Oh, Lee, and Bush	2014	Survey, regression	242 cities
Greater within-community racial homogeneity	Oh, Lee, and Bush	2014	Survey, regression	242 cities
Less income inequality between cities in region	Feiock, Steinacker, and Park	2009	Survey, regression	252 cities
Suburbs with less residential land	Feiock, Steinacker, and Park	2009	Survey, regression	252 cities
Less jurisdictional fragmentation ^b	Olberding	2002	Survey; regression	244 metropolitan areas
More overlapping geographies	Park	1997	Regression	186 central cities, 330 counties, and 2,156 suburban cities in 186 MSAs
Institutional				
Mayoral control	Hawkins	2010	Survey, regression	206 governments in 12 metros
	Feiock, Steinacker, and Park	2009	Survey, regression	252 cities
At-large council representation	Feiock, Steinacker, and Park	2009	Survey, regression	252 cities

Notes:

^a For Oh, Lee, and Bush (2014), frequency of communication refers to the extent of interaction with economic development agents in networks that are *external* to the jurisdiction in question (e.g., other representatives and groups within other jurisdictions). Although multiple authors found a positive association between communication and collaboration, Zeemering (2016) found that frequent communication was associated with less coordination.

^b Oh, Lee, and Bush (2014) found that the presence of an *intralocal* network (that is, community ties within a jurisdiction) makes *interlocal* collaboration (that is, between jurisdictions) more likely. Jurisdictions that communicate more frequently with their partners at home, the authors propose, can more easily obtain information from their trusted community contacts about partners in other jurisdictions, making them more likely to collaborate. The authors did not find the same effect was true, however, for the mere *presence* of interlocal policy networks. But, as the frequency of interaction between agents within an interlocal network rose, so did the likelihood of collaboration.

^c Hawkins (2010) defined this as trust *between* jurisdictions and their respective representatives. Oh, Lee, and Bush (2014) defined this as a sense of trust *within* the home community, among its neighbors and citizens.

^d Olberding (2002) characterized strong Councils of Governments and less jurisdictional fragmentation as signs of a “tradition of regionalism,” which could also indicate the presence of shared social norms that encourage greater collaboration. Oh, Lee, and Bush (2014), by contrast, characterized Councils of Governments as external *institutional* forms of social capital (as opposed to “cognitive” forms, such as shared regional norms and community-based trust). The conditions promoting collaboration, as sorted and proposed in this table, are therefore not mutually exclusive. Some regional and policy factors may overlap with social and cultural factors. Oh, Lee, and Bush (2014) use racial and economic homogeneity, for example, as a proxy for shared values and norms because it is difficult to measure cognitive norms directly, although here we group them with regional and population-based drivers of collaboration.

^e For example, lower employment or higher poverty rate.

Reducing the Costs of Collaboration

Local governments cooperate in a variety of arenas, including economic development. Many localities, for example, have cooperative agreements with one another to share facilities or equipment. Research has found, however, that most of these agreements establish simpler forms of cooperation and do not apply to broader services, systems-level collaborations, or larger regional responsibilities (Lee and Hannah-Spurlock 2015). One reason for this is that collaboration can be costly, and a collective effort is required to overcome these costs. Researchers have referred to this phenomenon as “institutional collective action,” or the collective effort required among entities to create cooperative agreements (Hawkins 2010).

The primary impediments to adopting cooperative agreements and spurring further collective action among governments are the transaction costs associated with collaboration (Hawkins 2010). Transaction costs are the expenses that an agent incurs from brokering a deal. For local governments, this includes costs from sharing information, negotiating, and monitoring and enforcing an agreement (Hawkins 2010). Researchers have hypothesized and concluded that effectively reducing transaction costs produces greater collaboration among local governments. Hawkins (2010), as well as Feiock, Steinacker, and Park (2009), for example, identified factors that would reduce costs and promote collaboration in economic development. In a survey of 206 local governments in 12 metropolitan areas, and including a statistical analysis, Hawkins (2010) found that factors reducing transaction costs increased the probability of local governments entering voluntary joint economic development agreements. Feiock, Steinacker, and Park (2009), similarly, conducted a survey of economic development officials in 252 cities and concluded that factors reducing transaction costs (such as improved information access), as well as the potential for and size of joint economic gains, raised the likelihood of cities entering joint economic development agreements.

Governments can and will collaborate when costs are reduced, and the negotiation process is smoothed such that the returns on investment (i.e., joint benefits) are greater than the costs. Moreover, for governments to enter into regional agreements, joint action must create a greater positive net outcome than acting alone. Either reducing the transaction costs or enhancing the benefits of collaborative engagement can tip the cost-benefit analysis in favor of collaboration. Through in-depth interviews with six economic development and business officials in central Illinois, Gordon (2007) found that local governments cooperated on regional marketing. They did so to benefit from cost-savings generated from joint purchases of marketing services, advertisements, and trade show attendance. Lee

and Hannah-Spurlock (2015), however, in a survey of 12 city and county managers in Florida, found that city and county managers did not know how to initiate cooperative agreements or how to evaluate their benefits or cost-savings. These findings suggest that until local government officials are given the tools to cooperate effectively, local cooperative agreements will likely remain limited to simple facility and equipment sharing. Without further education or ways to reduce transaction costs, these agreements may not extend into more complex areas such as economic development.

Raising the Cost of Acting Alone

Some researchers have found that localities will collaborate on service agreements when states make other fiscal policy tools costlier (Krueger and Bernick 2010). Collaboration is administratively and politically expensive, but when states limit the availability of other tools to fund public services, cities will collaborate (Krueger and Bernick 2010). In a regression analysis on a sample of 3,664 cities in 49 states, Krueger and Bernick (2010) found that, in states that imposed property tax limits, adopted tighter restrictions on city annexation, and limited local ability to create special districts, cities were more likely to share revenues through intergovernmental transfers.

On the other hand, researchers in California have found that property tax limits created an environment of scarcity and more aggressive competition for retail business (Kotin and Peiser 1997; Lewis and Barbour 1999; Neiman, Andranovich, and Fernandez 2000). Moreover, Lee and Hannah-Spurlock (2015) found that, contrary to their initial hypothesis, unfunded federal or state mandates did not influence the likelihood of local collaboration, despite possible benefits and reduced costs that could be gained from sharing responsibility for compliance with those mandates. Lee and Hannah-Spurlock's findings were specific to a survey of 12 city and county managers in Florida, however, and the results may not be generalizable. Although some forms of state preemption may incentivize greater collaboration, this may be policy and geography specific. Some preemptive policies, such as restrictions on annexation, may produce greater collaboration, while property tax limits could produce collaboration or competition depending on other contextual factors.

Costs associated with local fiscal distress or other crises can also provide a strong incentive for intergovernmental collaboration. In the 1980s and early 1990s, the city of East Palo Alto struggled with high crime rates. The neighboring city governments of Palo Alto and Menlo Park, as well as San Mateo County and the California Highway Patrol, donated police officers to help ramp up policing efforts and reduce crime.²⁷ During this time, Palo Alto and Menlo Park also helped East Palo Alto launch a children's

summer program and improve local infrastructure in the shared interest of reducing crime and improving economic development regionally.

Local Attitudes, Policies, and Environmental Factors

Research has suggested that decisions to cooperate are rooted strongly in local perceptions and attitudes (Hawkins 2010; Feiock, Steinacker, and Park 2009; Gordon 2007; Zeemering 2016). Zeemering (2016), in a survey of 153 elected officials in the San Francisco Bay Area, examined how elected officials' concerns about collaboration affected their perceived role in local politics. Zeemering found that many elected officials wanted to protect their city from becoming dependent on other governments for services and that this concern about a loss of autonomy drove a protective outlook. Although the material cost of losing autonomy may be hard to quantify, it still factors into policymakers' decisionmaking process, as do other perceptions and attitudes. The gains from collaboration must be greater than the potential costs of loss of autonomy even if it is unclear how that loss of autonomy might affect the community in the long term.

Local elected officials have also expressed concern about cooperation leading to a loss of control over employees' work, employment policies, and fair distribution of service costs. Elected officials, Zeemering (2016) found, wanted to protect their cities from dependence on other governments, advocate for their own city's employees, and protect community identity. Elected officials in larger cities, he found, tended to exercise less of a protective role. Gordon (2007) found that economic development officials were willing to cooperate and often formed partnerships across jurisdictional boundaries. However, the pervasive attitude that economic development was a zero-sum game prevented them from entering fully collaborative partnerships.

Research has also demonstrated that trust, expectations of reciprocity, and frequent communication between local policymakers all have demonstrable effects on local governments' willingness to cooperate (Hawkins 2010; Feiock, Steinacker, and Park 2009; Olberding 2002).²⁸ These norms point to the importance of social capital in encouraging individuals or communities to act together to pursue shared interests.²⁹ Olberding (2002) tested this theory and found that a higher number of civic associations (representing "social structures of cooperation" as Putnam [1993] called them) in a region were associated with more economic development partnerships. Olberding interpreted these norms as indicating a "tradition of regionalism."³⁰ Zeemering (2016), however, found that elected officials who have more frequent contact with other cities take on a more protective role.

Differences in findings may be attributable to regional geographic differences as Zeemering's sample was limited to Bay Area elected officials, whereas Hawkins' (2010) and Feiock, Steinacker, and Park's (2009) samples were based on a wider geographic sample and their survey results were combined with regression analysis.

Oh, Lee, and Bush (2014) found that the presence of an intralocal network (that is, community ties within a jurisdiction) makes interlocal collaboration between jurisdictions more likely. They suggest that because the jurisdiction can obtain information about potential interlocal partners from their trusted community contacts, they are more likely to collaborate with others. They did not find the same effect was true, however, for the mere presence interlocal policy networks. But as the frequency of interaction between agents within an interlocal network rose, so did the likelihood of collaboration.

Institutional conditions and governance structures can also promote or hinder collaboration. In a regression analysis of central cities, counties, and suburban cities in 186 metropolitan statistical areas, Park (1997) found that, when governments wielded comparable powers (i.e., had a horizontal, or interjurisdictional, relationship, such as between two cities), they were more likely to increase spending to match neighboring jurisdictions, evidencing a competitive relationship. This dynamic goes back to Tiebout's (1956) theory that governments compete for residents by offering desirable suites of services and the "pace-setter" phenomenon described by Shannon (1991), where spending by one government spurs additional spending in neighboring jurisdictions who are competing for residents. Governments with different powers (i.e., those that had vertical or intergovernmental relationships, such as between a city and county) were, by contrast, more likely to supplement or substitute one another's services, suggesting a division of labor between local governments and a more collaborative dynamic.

In other examples, research has found that when mayors, rather than city managers, exercised more power, cities were more likely to collaborate (Hawkins 2010; Feiock, Steinacker, and Park 2009). Hawkins (2010) found that when local governments had access to a centralized policy network (e.g., through a regional economic development organization or chamber of commerce), they were more likely to collaborate, but only under mayoral government. Mayors, researchers have proposed, are more likely to pursue collaborative agreements because they can claim credit for initiatives they enter into with other cities (Hawkins 2010; Feiock, Steinacker, and Park 2009). This assumes those initiatives make sense for their city, such as sharing revenues as well as service responsibilities, or cooperating on an economic development deal to woo a large firm from outside the region.

Local policy and regional environmental factors also play a role. Both diversity and number of local economic development policies are associated with higher degrees of local collaboration (Hawkins

2010; Feiock, Steinacker, and Park 2009). Gordon (2007) reported that local governments were more likely to collaborate when there was a specific objective behind their efforts. For example, regional marketing, tourism, or industry-specific strategies may be more appealing to local governments than less well-defined, and higher-stake, areas of potential collaboration.

Research has presented conflicting findings on the influence of some environmental factors. Notably, Hawkins (2010) found that cities with a larger population were less likely to collaborate, while Feiock, Steinacker, and Park (2009) found larger cities more likely to do so. These discrepancies may be caused by differences in sample populations, methods, or period of analysis. Hawkins' (2010) sample population was from 2006 and included local governments in cities with populations greater than 10,000. He found that local governments with populations between 20,001 and 50,000 were slightly overrepresented in the sample. The 2004 sample from Feiock, Steinacker, and Park (2009) only included cities with populations over 50,000. More research may be needed on how population size affects economic development collaboration for cities with smaller or larger populations. In addition, Hawkins (2010) found less likelihood of collaboration within metropolitan areas that contained many cities. However, Feiock, Steinacker, and Park (2009) found that a greater number of cities in a region produced a higher probability of collaboration, but only when economic homogeneity across cities made bargaining positions similar. Olberding (2002) found that economic need, as measured by employment rate, produced additional economic development partnerships regionally.

A Role for Regionalism?

The rise of highly mobile, multinational firms has diminished the role of the nation-state in directing economic activity. This provides local governments with a stronger incentive, but not necessarily a stronger ability, to overcome interjurisdictional divisions and compete in the global marketplace (Frisken and Norris 2001). In a global context, regionalism can be attractive to local governments. Conteh (2013) studied the evolution of regional economic collaboration in Northern Ontario, Canada, for example. He found that since the 1960s, responsibility for economic development had become more multijurisdictional and collaborative, with planning efforts and responsibility spanning several agencies.³¹ In a study of firm relocation in Alleghany, Pennsylvania, Brinkman, Coen-Pirani, and Sieg (2015) found that business tax incentives encouraging business relocation to a regional central business district increased regional, not just city- or county-specific, agglomeration effects.

Some qualitative literature on regionalism has suggested that certain policies encourage regional decisionmaking. For example, state-level annexation rules can encourage cities to overcome jurisdictional fragmentation by simplifying the process for incorporating surrounding land, as evidenced by the growth trajectory of Houston, Texas (Gainsborough 2001). Reducing fragmentation allows simpler regional-level planning (because fewer governments need to coordinate), but it can be a controversial and politically costly tactic that prompts lawsuits from the surrounding areas. In 2017, Texas amended its annexation rules to make it more difficult for cities to annex surrounding territory.³² Olberding (2002), in a quantitative study of regional economic development partnerships, found that additional fragmentation of city governments and special districts was negatively associated with the formation of regional partnerships. Conversely, the strength of regional Councils of Governments was positively associated with economic partnerships.

Indergaard (2015), however, called into question whether the economic benefits of regionalism could be equitably distributed within a region. In Detroit, he found, class divides still existed, even with a rise in regional collaboration. Moreover, in Southeast Michigan, regional collaboration had historically applied only to the suburbs, which were in direct competition with Detroit. It was not until foundations and federal grant programs began to tie funding to regional collaboration that the suburbs began to engage in metropolitan-level collaboration with their central city.

State and Local Policies to Encourage Collaboration

States have the power to set the rules of the game, limit local competition, and provide direct funding to local governments. Likewise, counties, regional economic development agencies, and cities can implement their own programs and policies to limit intraregional competition. State and local governments may use one or a combination of several strategies to boost their effectiveness.

Documenting state and local policies is challenging because no central repository of information is available, and policies change over time. In this section, we synthesize information from a variety of sources to propose a classification framework for state and local cooperative economic development policies. To create this framework, we drew from several sources, including existing catalogs of state and local economic development policies (Common 2012; LeRoy et al. 1997; LeRoy et al. 2013; McIlvaine and LeRoy 2014; Patton 2006); state legislative documents; news articles; academic literature; and interviews with economic development agencies, practitioners, and researchers. Next, we review the existing types of cooperative economic development approaches available to state and local governments and provide examples. Any of these state and local approaches could provide a foundation for building more broadly applicable models of cooperative economic development.

State Regulatory Policies

Prohibitive Regulatory Policies

Prohibitive regulatory policies at the state level discourage competition either by directly prohibiting local governments from granting incentives to firms for intrastate relocations or by penalizing jurisdictions that do so through fines or reduced state aid. Examples include the series of statutes that California adopted in the 1990s and 2000s that prohibited localities from granting business tax incentives to big-box retailers or auto dealerships.³³ Similarly, in 2007, Arizona implemented a penalty provision that reduced state aid dollar-for-dollar for tax incentives granted for intrastate relocations by Maricopa County governments.³⁴

Authorizing Regulatory Policies

Some states have adopted regulatory policies that create a framework to help local governments collaborate more effectively. These policies authorize localities to collaborate in a variety of ways, offering structure and establishing the rules of the game. For example, Ohio authorizes cities and townships to create Joint Economic Development Districts (JEDDs), which enable revenue sharing between jurisdictions without annexation (box 1).³⁵ Representatives of the City of Dayton-Miami Township JEDD reported that the program has fostered a cooperative attitude toward economic development between the two governments, primarily through the frequent communication and shared governance required to administer the JEDD.³⁶

Evidence is mixed, however, on whether JEDDs effectively foster cooperative economic development across the state. One qualitative study examining the implementation of a JEDD between the City of Akron, Ohio, and surrounding townships found that the JEDD helped the city reap tax benefits without having to go through a costly annexation, but it did not effectively promote cooperative economic development (Gianakis and McCue 1999). Negotiations, the authors found, still reflected hyperlocalized concerns, and some townships reported negotiation “at the point of a gun” under the threat of annexation. Flexible annexation laws make it relatively easy for a municipality to incorporate township land in Ohio, although such decisions have often led to political outcry and sometimes court challenges from the township (Essner 1981).³⁷ At one point, legislators became concerned that cities were using the JEDD program for non-economic development purposes, and the state has since adopted statutory changes to make the purpose of the program more explicit.³⁸

BOX 1

State Regulatory Policy: Ohio Joint Economic Development Districts

The State of Ohio authorizes cities and townships to enter revenue-sharing agreements related to land jointly designated by each government for economic development initiatives. The objective of establishing a JEDD is to encourage collaboration between by allowing the city to collect income taxes from township-owned land without having to formally annex it, because contentious annexation fights are a form of local competition. Townships cannot typically impose income taxes in Ohio, but a JEDD allows them to share in the income taxes imposed on businesses within the JEDD. The program thus encourages collaboration between two entities that would otherwise be in competition with one another for prime development land.

In 2005, the City of Dayton established a JEDD with Miami Township that encompasses the Dayton Wright Brothers Airport.⁹ Representatives from the township, city, and county meet regularly to discuss

how to allocate the tax income for future projects and their vision for economic development. The JEDD designation is distinct from, although overlaps geographically with, some of the collaborative economic development efforts in Montgomery County, Ohio, such as the Economic Development/Government Equity (ED/GE) program and Business First!. Table 2 summarizes key features of the JEDD program.

TABLE 2

JEDD Program Features

Dates	1993 to present
Model	Authorizing state regulatory policy
Administering government(s)	City and township
Participating entities	73 active JEDDs reported in Ohio as of March 2018 ^b
Governance	Determined by JEDD contract between city and township, often shared governance structure
Primary features	Authorizing contract between local governments allowing revenue-sharing between city and township; long-term agreement with economic development focus
Political background	Kirk Schuring (R-Canton) authored the original bill and has since pushed legislation to refine the JEDD’s economic development refocus. See HB 186 (2016) and HB 289 (2013).
Evaluation and citations	Gianakis and McCue (1999)
Website	https://development.ohio.gov/cs/cs_jedds.htm
Statutory citation	Ohio Revised Code, section 715.69 through 715.90

Sources: Terence Slaybaugh (Dayton International Airport) and Tawana Jones (Montgomery County), phone interview, August 2017; Ohio State Bar Association, “Understand How Joint Economic Development Districts Work,” May 23, 2016, accessed March 2018, <https://www.ohiobar.org/ForPublic/Resources/LawYouCanUse/Pages/LawYouCanUse-376.aspx>.

Notes:

^a Miami Township also has a JEDD with the City of Miamisburg that encompasses the Dayton Mall and the Austin Center.

^b Ohio Development Services Agency, staff, phone call and email exchange with authors, March 20, 2018. The Ohio Development Services Agency keeps a repository of JEDD contracts sent in by local governments.

Mandatory Local Revenue Sharing

States can also mandate revenue sharing among localities. Minnesota passed the Fiscal Disparities Act (i.e., the “Weaver Act”) in 1971, requiring that 40 percent of the annual growth in the commercial-industrial tax base be redistributed throughout a seven-county area in Minnesota based on a fiscal capacity formula. During an era when central cities were experiencing depopulation and disinvestment, proponents billed the measure as a progressive, populist solution to the emerging disparities between suburbs and cities, and bill sponsors found allies among some property-poor suburbs in the region. The bill was eventually passed by a coalition of Democratic central-city legislators and Republicans from

poor suburbs. The provision was highly contentious and challenging at the time and remains so today. Suburbs have challenged the law in court as recently as 2011.³⁹

It is unclear whether the act has been effective in promoting regional equity or collaboration or in deterring within-region firm poaching. Kenyon, Langley, and Paquin (2012a) suggested that cities within the region might be using tax increment financing districts to skirt the revenue-sharing components of the law and compete for businesses. A Good Jobs First evaluation (LeRoy and Walter 2006) found that job piracy is still a problem in the state and that many firms receiving tax incentives stay within a radius of 10 miles of their previous site. The law, McIlvaine and LeRoy (2014) concluded, is primarily prescriptive and not procedural. It does not create an effective framework for communication or collaboration. Evaluations by Fisher (1982) and Martin and Schmidt (1983) both found that the act did not reduce fiscal disparities.⁴⁰

Consolidating Regulatory Policies

Consolidating regulatory policies attempt to unify several jurisdictions by consolidating jurisdictional authority. For example, before annexation reform in 2017 Texas' generous state-level annexation rules provided Texas cities the opportunity to annex surrounding land and enact policy at a regional level (Gainsborough 2001). Cities such as Houston could pursue annexation without approval of residents within the territory to be annexed, making annexation a streamlined process. Consolidation reduces the number of competing jurisdictions and is one mechanism for limiting competition for firms between neighboring jurisdictions. This solution is not possible in places with more developed and incorporated cities, so it may be of limited value in some states or regions. Moreover, some states limit cities' ability to annex local land; in others (such as Michigan), townships or other local entities are politically powerful and may have the right to oppose annexation attempts by municipalities (Rusk 2006).⁴¹ In addition to more liberal annexation rules, empowering regional planning entities, such as Councils of Governments, with regulatory authority can also be part of this consolidating regionalist toolkit.

State and Local Financing Policies

Regionalist Financing Policies

Regionalist financing policies enacted at the state level provide funding for regional policymaking and regionalist governance institutions. Empowering regional economic development entities, such as Councils of Governments, may mean attaching grant funding for their operation or for programs related to regional economic development planning (Gainsborough 2001). By including funding, states can provide an added incentive for places to cooperate with one another.

Direct Funding and Grant Programs

Localities or states can also enact direct funding and grant programs that provide resources for local governments to collaborate on economic development initiatives. For example, Montgomery County, Ohio's, ED/GE program contains a grant fund for economic development projects in the region as well as a revenue-sharing component for participating jurisdictions. Providing financing incentives may encourage more collaboration because localities are able to obtain a material benefit from participating in more collaborative arrangements. Using the proverbial carrot, rather than stick, is one way of reducing the costs of collaboration and encouraging participation from multiple jurisdictions.

In another example, the New York Department of State administers the Shared Municipal Services Incentive Program for technical assistance and competitive grants on joint development projects between two units of local government. For example, the Towns of Bangor, Moria, and Fort Covington in Franklin County received \$200,000 in a Shared Municipal Services Incentive grant for necessary road maintenance resources (Cortés-Vázquez 2007). This New York program is an example of a state providing direct funding for local shared service agreements (which are discussed in more detail later in this report). Although shared services are not always directly related to economic development, such agreements can provide a model for how to build collaborative capacity between local governments.

Subsidy Eligibility Standards

States or localities can create subsidy eligibility standards that prevent subsidies from going to firms that are relocating within the state or region. Some states limit eligibility for tax subsidy programs or place

constitutional limits on other nontax economic development subsidies. LeRoy et al. (2013) inventoried 40 states with business tax incentives that limit eligibility for intrastate relocation. And Patrick (2014a) outlined state constitutional limitations on state and local nontax economic development incentives. These limitations can come in the form of credit clauses (which limit eligibility for financing instruments like industrial revenue bonds), current appropriations clauses (which limit economic development appropriations), and stock clauses (which regulate public-private partnerships and other arrangements). Subsidy eligibility standards can also be used by localities to prevent incentives from financing intraregional or intrastate relocations. Some cities have restricted subsidy eligibility to firms actually creating new jobs, and not simply relocating firms or jobs from within the region.

Local Cooperative Agreements

Local cooperative agreements are legally binding contracts between local governments, typically pursued outside of or separate from state policies, for the sharing of services, facilities, or revenues. Local service- and facility-sharing agreements are separate from but, in some ways, overlap with, collaborative economic development if they go to support services and infrastructure that make each locality more competitive and appealing for future firm-siting decisions. Moreover, such shared service models can provide a template for how to pursue agreements related to economic development more specifically. Local cooperative agreements can be authorized or informed by state-level regulatory or financing policies but may also be pursued independently by local governments.

Service- and Facility-Sharing Agreements

Service-sharing agreements are contracts between local governments that establish how they will share and pay for shared services, usually in the form of a memorandum of understanding (MOU). Sometimes localities develop facility- or equipment-sharing agreements or contracts. Large capital purchases make sense for localities to share and finance together because doing so reduces fixed costs for participating entities. This infrastructure, such as water or public utilities, requires high fixed start-up costs and can be useful for cities or other localities to share. Further, such agreements are administratively straightforward to pursue. Facility- and equipment-sharing agreements constitute the bulk of interlocal cooperation agreements (Lee and Hannah-Spurlock 2015).

Revenue-Sharing Agreements

Revenue-sharing agreements are contracts, MOUs, or other agreements between localities that stipulate how they will share in the increased tax revenues resulting from joint economic development investments. For example, Ohio authorizes JEDDs, but localities are responsible for drafting, approving, and implementing the resultant revenue-sharing agreement. Alternatively, revenue sharing may come into play when a firm wishes to relocate from one jurisdiction to another within the same region, and localities have agreed to share tax revenues resulting from that relocation.

In one unique example, the City of Cleveland has combined its regional antipoaching efforts with both facility- and revenue-sharing agreements. Established in 2007, Cleveland's Suburban Water Main Renewal Program allows the city's neighboring suburbs to replace and maintain their aging water mains.⁴² The City of Cleveland agreed to take ownership over and maintain the suburbs' water lines. To participate, the neighboring cities must sign an antipoaching and revenue-sharing agreement, promising not to lure firms from Cleveland to the suburbs and to share 50 percent of any additional tax income tax revenue over five years should a firm choose to relocate from Cleveland to the neighboring city.⁴³ Thirty-five neighboring communities currently participate in the program.⁴⁴

Local Codes of Ethics

Like local cooperative agreements, local and regional codes of ethics establish rules for regional collaboration and cooperation between localities, including revenue-sharing or firm-poaching guidelines, that all participating members have agreed to follow. Unlike cooperative agreements, which often take the form of a legally binding MOU, codes of ethics establish voluntary, socially expected norms. They are not legally binding, although membership in a group may be contingent on adhering to the norms outlined in the code. Codes of ethics may be proposed by either governmental or nongovernmental entities and may contain provisions to promote cooperation within the region on economic development projects. Some codes of ethics, such as the Metro Denver Economic Development Corporation (Metro Denver EDC) code of ethics (discussed in the Case Studies in Local Cooperation section of this report), contain antipoaching language.

These codes of ethics typically contain information-sharing provisions requiring firms and localities to report to the central economic development entity if firms have plans to relocate within the region. This information sharing theoretically reduces the gamesmanship between localities by giving all of them the same information about firms' relocation options. Localities are incentivized to sign on

because they get benefits from having access to increased information. Localities can pursue these arrangements through economic development corporations, a county, or individually between cities or other local governments.

Case Studies in Local Cooperation

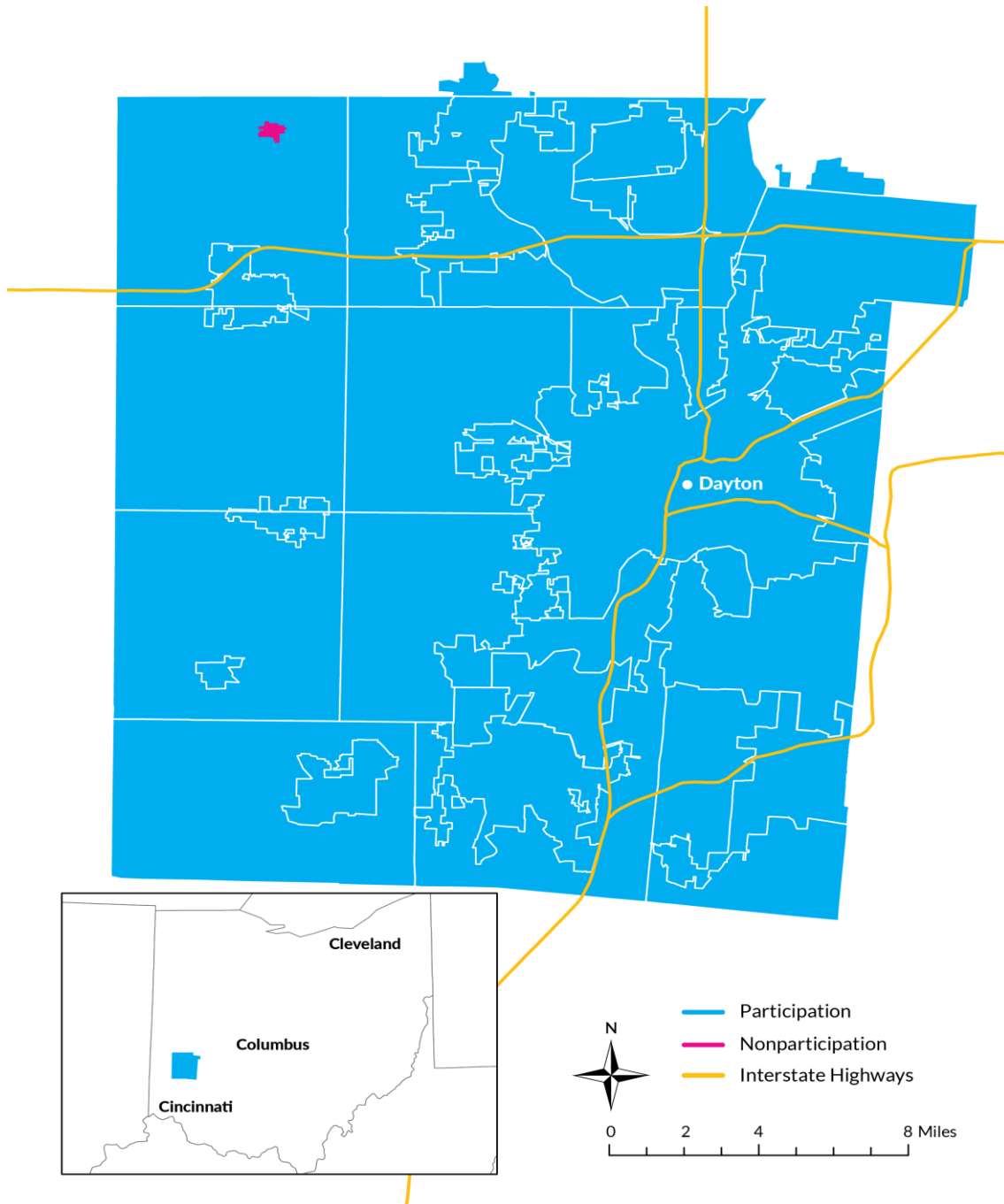
In this section, we highlight cooperative economic development programs in two regions: Montgomery County, Ohio, and Denver, Colorado. These cases have received attention in the news, economic development literature, and among economic development practitioners, but they have not undergone any economic program evaluation. This section highlights program features and findings from practitioner interviews in each region as a resource for states and localities that wish to invest in collaborative economic development programs.

Montgomery County, Ohio: ED/GE Program

Montgomery County, Ohio, created the Economic Development/Government Equity (ED/GE) program in 1992 to limit firm poaching and promote cooperation among local governments within the county. Researchers and practitioners have since highlighted the program as a successful model for regional economic development collaboration (Common 2012; Mazey 2003; LeRoy et al. 2013). Although it has yet to undergo a rigorous economic program evaluation, the program is designed to encourage collaborative county-level investment in public and private infrastructure critical to local economic development. It consists of an economic development grant program (economic development) and a formula-based revenue sharing program for participating jurisdictions within the county (government equity). Table 3 summarizes key program features.

Montgomery County cities and townships that opt to participate in ED/GE sign an agreement with the county that establishes both grant and revenue-sharing requirements. To receive economic development grants through the program, jurisdictions must also participate in revenue sharing with other cities and townships in Montgomery County. The program currently has participation from 27 of 28 cities, townships, and villages in the county (figure 1).⁴⁵ In 2017, participating jurisdictions had a combined population of approximately 595,000 (see appendix). Cincinnati and Cleveland, the two largest cities in closest proximity to Montgomery County, had populations of 299,000 and 389,000, respectively. Thus, when acting collectively, Montgomery County's individual jurisdictions can achieve populations on par with Ohio's larger municipal hubs, potentially enabling them to access resources, tools, and economies of scale typically seen in larger municipalities. ED/GE encourages localities to cooperate with one another through three critical mechanisms: (1) economic development grant criteria; (2) local revenue sharing and the "settle-up" provision between the ED and GE components of the program; and (3) communications and shared governance.

FIGURE 1
ED/GE Program Participation: Montgomery County, Ohio



Source: Montgomery County Ohio, “ED/GE Net Calculations 1991 – 2016,” May 22, 2018; and Montgomery County, Ohio, “ED/GE Communities,” http://www.mcoho.org/document_center/EcDev/edge_communities.gif.

Notes: Twenty-seven of twenty-eight cities, counties, and villages participate in the Montgomery County ED/GE Program. The Village of Phillipsburg, which had a population of 448 in 2017, participated from 1995 - 2010. The City of Dayton is the county seat. See the appendix for a full list of participating cities, townships, and villages and their populations.

TABLE 3

Montgomery County ED/GE Program Features

Montgomery County, Ohio

Dates	1992 to present (renewed in 2011 through 2019) ^a
Model	Grant and revenue sharing (state and local financing policy)
Administering entity	Montgomery County, Ohio (Development Services Department) ^b
Participating entities	27 local governments in Montgomery County ^c
Budget	\$2 million awarded annually for grants, allocated from county sales tax revenues
Governance	The ED/GE Advisory Committee reviews grant applications and makes funding recommendations to the county commissioners. The committee has 15 members, made up of representatives from six cities and villages, four townships, three chambers of commerce, and two county commissioners. ^d
Primary features	Competitive, categorical economic development grants (with restrictions on grants for within-county relocations); formula-based revenue sharing program
Political background	Early court challenges, decided in favor of county and ED/GE program; see <i>City of Centerville et al v. Charles J. Curran, et al</i> , Case 13008 Second District Court of Appeals, January 27, 1992 ^e
Website	http://www.selectmcoho.com/mcoho/economic-development/incentives-and-assistance/?item=1358
Citation	County Resolution: BCC Resolution #92-243 (Advisory Council); authored by Ohio Revised Code Sec. 307.07

Sources: Erik Collins, Michael Norton-Smith, and Gwen Eberly (Development Services Department, Montgomery County), phone interview, June 27, 2017; and Montgomery County Ohio, “ED/GE Net Calculations 1991 – 2016,” May 22, 2018.

Notes: ED/GE = economic development/government equity.

^a Resolution #11-0430, Montgomery County Board of Commissioners, February 22, 2011, accessed August 25, 2017, http://www.mcoho.org/government/elected_officials/board_of_county_commissioners/resolutions/index.cfm.

^b Montgomery County, “2017 Adopted Plan and Budget,” Office of Management and Budget, accessed August 25, 2017, http://www.mcoho.org/document_center/OMB/2017_Montgomery_County_Adopted_Budget_and_Plan.pdf.

^c Montgomery County, “Economic Development/Government Equity Communities,” accessed August 25, 2017, http://www.mcoho.org/document_center/EcDev/edge_communities.gif.

^d Montgomery County, “ED/GE Advisory Committee,” 2017, accessed August 25, 2017, http://www.mcoho.org/government/elected_officials/board_of_county_commissioners/boards_commissions_details.cfm?id=18.

^e County Commissioners Association of Ohio, “Chapter 78: Economic Development,” in Ohio County Commissioners Handbook, June 2015, accessed August 25, 2017, <http://www.ccao.org/userfiles/HBKCHAP078%206-24-15.pdf>.

Economic Development Grant Criteria

The county disburses \$2 million a year in economic development grant funds to participating cities and townships in Montgomery County. The grants are funded out of sales tax revenues from the county’s general fund. Before 2006, the county allocated \$5 million annually for grants and then \$3 million annually before 2013, but revenue shortages during the recession led to program cuts. The county awards grants twice a year in a competitive application process with defined criteria. Applicants are

ranked on the following basis. Based on Advisory Committee recommendations projects can be fully funded, partially funded, or receive no funding. Projects should⁴⁶

- retain or create jobs within the county;
- attract new jobs from outside the county;
- support strategic investment goals, such as community impact;
- encourage infill growth where public infrastructure already exists;
- invest in high-growth industries, such as research and development;
- constitute a joint development effort between two districts;
- discourage speculation and have a committed business as the end user;
- discourage intracounty relocations;
- leverage private, nonprofit, or other government funds; and
- be ready for implementation.

When it comes to ED/GE funding, it doesn't help a business to "shop" communities because [communities] actively talk to one another. If the project is submitted for ED/GE funding, the losing jurisdiction has to sign off on the application or the business runs the risk of not receiving funding. This promotes a degree of cooperation and prevents companies from shopping around for incentives.

*—Erik Collins, Director of Community and Economic Development,
Montgomery County, Ohio*

The requirement that ED/GE-funded projects “discourage intracounty relocations” and “constitute a joint development effort between two districts” are unique features expressly intended to limit within-county firm poaching. If a within-county establishment relocation would occur as part of an ED/GE-funded project, it must be because the current community has insufficient space for an

expansion, because the current community has inadequate infrastructure, or because the existing location has become inappropriate for the business. Moreover, if the project successfully meets those criteria, the new jurisdiction is still expected to acquire a letter of support from the “losing” jurisdiction, and the two are expected to come to a separate tax-sharing agreement.

Revenue Sharing and Settling Up

The county also collects and distributes GE funds annually based on comparative economic growth in participating jurisdictions. Participating jurisdictions contribute to the GE fund based on growth in property tax values and receive distributions based on a county average growth rate and population. This formula redistributes funds from higher-revenue, high-growth jurisdictions to lower-growth jurisdictions with slow or declining revenue growth, ensuring that all participants in the group benefit from economic growth in neighboring jurisdictions and from maintaining the regional tax base.

The revenue-sharing mechanism is designed to share the benefits of economic growth regionally, thereby encouraging more collaboration, less firm poaching, and fewer jurisdictional skirmishes over where to locate economic development projects. Practitioners in Montgomery County report jurisdictions are more likely to support beneficial economic development efforts in their sister jurisdictions because they know that resultant growth and regional prosperity will be shared.⁴⁷

Notably, the program has not collected or made disbursements from the GE fund since 2010 because revenues across the county declined during and following the Great Recession. The GE formula requires contributions to the fund based on growth in property taxes, income taxes, and assessed property valuation, compared with a base year. Because the assessed valuation of real property dipped sharply during the Great Recession, no jurisdiction has met the formula threshold to contribute to the GE fund. In 2010, the most recent year in which GE fund payments were paid or collected, the county collected and subsequently paid out a total of \$558,000.⁴⁸ Fourteen jurisdictions paid into the fund, and 14 jurisdictions received disbursements.⁴⁹ Over the life of the program, between 1992 and 2010, the county collected and disbursed approximately \$13.1 million in GE funds, in 2010 inflation-adjusted dollars, or an average of approximately \$690,000 annually over 19 years.⁵⁰

A “settle-up” provision in the program ensures that no participating jurisdiction contributes more to the GE fund than it receives in ED grants over the life of the program. Every three years, the county has a settle-up period wherein funds are reallocated from the primary ED fund (the same fund from which ED grants are made) to ensure that no local government is putting in more than it is receiving from the

program. If a jurisdiction has contributed more to the GE fund in the previous three years than it has received from the grants program, then it receives a payout from the ED fund at the end of the settle-up period. The county, however, has not disbursed “settle-up” funds since 2010, because no jurisdiction has met the threshold to contribute to the GE fund in the past five years.

Practitioners report that the settle-up period reduces political opposition to the revenue-sharing component of the ED/GE program because jurisdictions know that they will at least break even from program participation over time.⁵¹ There has been no economic evaluation of how or whether the ED/GE program creates greater revenue equity between cities and townships within the county, or whether it has more of a revenue-smoothing effect for participating jurisdictions during times when some jurisdictions experience slower revenue growth.

Communication and Shared Governance

Consistent with empirical research on economic development collaboration, practitioners have reported that frequent communication among participating jurisdictions promotes trust and cooperation. McIlvain and LeRoy (2014) reviewed the program positively and highlighted strong communication and transparency as its most effective mechanisms for mitigating within-county firm poaching. Participating jurisdictions benefit from the grant funding as well as from the information sharing about firm activity in the region. In interviews, practitioners identified the shared governance structure as an important contributor to a culture that values communication and cooperation.

Since you've got city managers who serve on the ED/GE committee with other city managers, there is an avenue for them to see each other less adversarially than they otherwise would.

—Gwen Eberly, Economic Development Manager, Montgomery County, Ohio

Complementary Programs

Another feature of the Montgomery County arrangement is its overlap with other local and state programs. In addition to the ED/GE program, the county operates Business First!, which practitioners

have credited with reducing firm poaching in the region. Business First!, established in 2001, is an information-sharing program that operates in 33 jurisdictions and five counties locally.

Speaking to the program's effect on mitigating local firm poaching, Eberly shared: "Back in the earlier days of ED/GE and Business First!, there was a lot more poaching. The difference ED/GE makes is that—because we have more interaction and know each other better, in addition to [firm poaching] being prohibited in the Business First! Protocol—it's harder to try and take advantage of someone if you know them as a person."

Lastly, in addition to ED/GE and Business First!, communities in Montgomery County have worked together to create several JEDDs, as authorized by the State of Ohio (box 1). The effect of several complementary programs in Ohio may contribute to additional collaboration, especially if economic development officers and stakeholders from different jurisdictions find themselves communicating frequently to administer a variety of programs. The overlap in programs, at the same time, makes it difficult to evaluate the efficacy of any single program because it is challenging to isolate the effects of one program.

Denver Metropolitan Area: Metro Denver EDC Code of Ethics

The Metro Denver Economic Development Corporation (Metro Denver EDC) is Colorado's largest privately funded economic development organization representing the Front Range of Colorado. Serving as an affiliate of the Denver Metro Chamber of Commerce, the Metro Denver EDC is governed by over 300 Colorado employers. Federal, state, county, and local partners engage with the Metro Denver EDC to support the branding of the region, learn about trends in prospect activities, and identify activities to enhance business recruitment, retention, and expansion efforts.

Metro Denver EDC and its partners adhere to a code of ethics that promotes collaborative economic development, discourages firm poaching across communities, and markets a unified brand to promote the economic vitality of the region.⁵² The Metro Denver EDC code of ethics has been cited in several publications among best practices to promote regional cooperation in local economic development.⁵³ McIlvaine and LeRoy (2014) attributed the success of the code to its emphasis on professionalism, accountability, ongoing education, and relationship building. The approach, according to feedback from practitioners knowledgeable about the program, encourages strong proactive economic development efforts while seeking to eliminate cross-community business poaching. The effort is summarized in table 4. To date, no formal, empirically rigorous evaluations of this approach have been conducted.

TABLE 4

Metro Denver EDC Code of Ethics Program Features*Denver metropolitan area, Colorado*

Dates	1987 to present ^a
Model	Local Code of Ethics
Administering entity	Metro Denver EDC (nongovernmental)
Partner entities	50 governmental and nongovernmental partners ^b
Budget	Not applicable
Governance	The Metro Denver EDC Executive Committee and Board of Governors, consisting of over 300 private investors ^c
Primary features	Prohibition on firm poaching (i.e., partners cannot proactively recruit firms from within region); and expectation that partner will notify affected jurisdiction if approached by a firm seeking to relocate within the region.
Political context	None available
Website	http://www.metrodenver.org/about/partners/code-of-ethics/
Statutory citation	Not applicable

Sources: Chelsea McClean, Metro Denver Economic Development Corporation, phone and email communication with authors; outside sources where applicable.

Notes: EDC = economic development corporation.

^a See Common (2012) for history of the Metro Denver EDC.

^b Excluding ex-officio members. See Metro Denver EDC, "Economic Development Partners," 2018, <http://www.metrodenver.org/about/partners/>.

^c See Metro Denver EDC, "About the Board of Governors," 2018, <http://www.metrodenver.org/investors/leadership/board-of-governors/>.

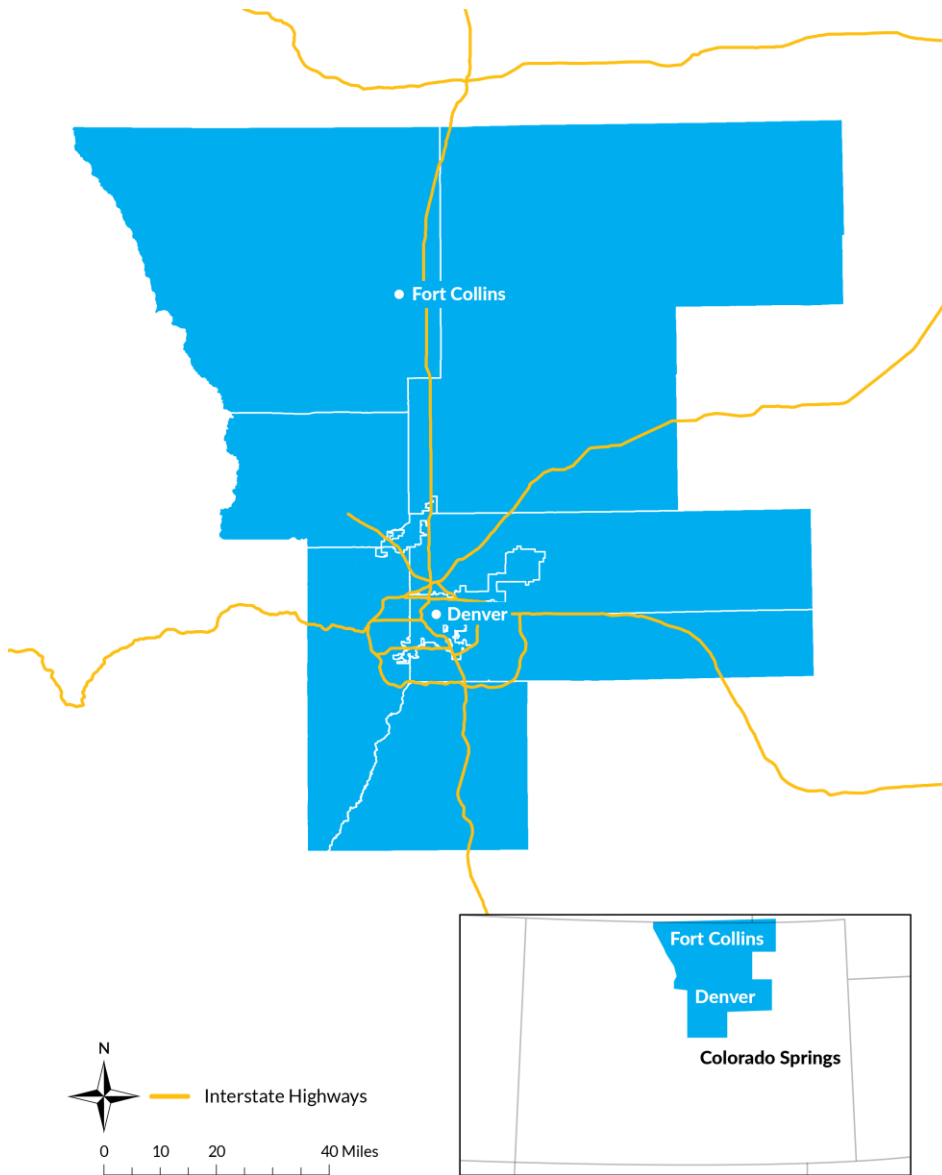
Guiding Principles

The code of ethics provides the 50 counties, cities, and economic development groups that make up the Metro Denver EDC (figure 2) with guiding principles that support net-new job creation and capital investment. The Metro Denver EDC nine-county region (i.e., Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, Larimer, and Weld counties) has a population of approximately 3.7 million (see appendix). Each of the nine counties partners with the Metro Denver EDC either independently or through its membership in a local economic development organization. Per the Metro Denver EDC Partners web page, 30 cities and towns partner with the Metro Denver EDC independently.⁵⁴ Many other cities and towns in the region, however, are members of a local economic development group that partners with Metro Denver. El Paso County, and the city of Colorado Springs, additionally, while not part of the nine-county region, are members of a participating local economic development group. The guiding principles in the code of ethics encourage communities to work together to attract, expand, and retain primary employers. The code of ethics serves as a governing document to help ensure partners focus on growing the economic pie rather than moving companies around.

FIGURE 2

Metro Denver Economic Development Corporation Participation

Nine-county area of participation



Source: Metro Denver EDC, “Economic Development Partners,” 2018, <http://www.metrodenver.org/about/partners/>; Chelsea McLean (Metro Denver EDC), email and phone correspondence, 2017 to 2018; and Metro Denver EDC, “Denver Metro – full map,” <http://www.metrodenver.org/media/443332/map-region.pdf>.

Notes: The Metro Denver Economic Development Corporation (Metro Denver EDC) is comprised of 50 counties, cities, and economic development groups from throughout Metro Denver and Northern Colorado (including Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Jefferson, Larimer, and Weld counties). Colorado Springs and El Paso County, though not in the official nine-county region, are members of a local economic development organization that partners with Metro Denver EDC. See appendix for more detail.

The code says that participating entities shall not solicit other firms away from fellow EDC member cities and counties, or “sell against” other members of the Metro Denver group.⁵⁵ All members are expected, though not strictly required, to notify any possible losing member jurisdiction if a business establishment has expressed an intent to relocate within the region.⁵⁶ Local government members may entertain such relocations when discussions are driven by the establishment, but they are not permitted to proactively search for or entice establishments, with incentives or otherwise, to relocate. In the 30 years during which the code of ethics has been in place, the Metro Denver EDC has only reviewed three cases in which these terms may have been violated.⁵⁷ In each of these instances, the concerns were mainly a result of poorly executed marketing campaigns that elevated a single community rather than the entire region.

Communication and Information Sharing

As discussed, partners are expected to notify one another if an establishment has expressed an intent or desire to relocate from one Metro Denver EDC jurisdiction to another. McIlvaine and LeRoy (2014) noted that building relationships and sharing information must have been key to this model’s success. Metro Denver EDC hosts bimonthly meetings with its economic development partners from across the approximately nine-county territory it represents. During these meetings, partners learn about recent economic development activity, strategic initiatives, and updates from economic development groups across the region. To reinforce community partnerships, the Metro Denver EDC also hosts the Metro Mayors Caucus bringing together mayors from across the region.

The participation is not driven by mandate or legislative requirements but rather by a focus on enhancing the region and the state’s competitiveness for economic opportunity. Economic development organizations, governmental jurisdictions, and nongovernmental partners across the region work with the Metro Denver EDC to identify qualified opportunities to attract companies and to leverage the region’s workforce, performance-based incentives, quality of life, and competitive real estate options. Working with the Colorado Office of Economic Development and International Trade, the Metro Denver EDC and its partners evaluate projects for job creation incentives, training assistance, business personal property tax rebates, expedited permitting, and more. Although practitioner feedback and qualitative research have praised the model and identified key features contributing to its apparent success, no formal economic evaluation has been completed of whether and how participating members collaborate or whether collaboration has empirically reduced intraregional firm poaching.

Conclusion

Although the relationship between local governments can be intrinsically competitive, with localities competing along several dimensions for residents, firms, and investment, local governments also choose to collaborate when the conditions are right. Research has demonstrated that local governments collaborate with one another when the material benefits of collaboration exceed the costs and communities have established social norms of trust and reciprocity with one another. Policy can help increase the benefits of collaboration for local communities, helping to curtail firm poaching and aggressive tax incentive competition that can harm local governments' fiscal health and undermine communities' long-run economic competitiveness.

States and local governments have taken many approaches to limit intrastate or intraregional firm poaching and halt the proliferation of unnecessary or overly generous local tax incentive packages. Our review of the literature suggests state and localities have attempted to encourage collaboration or prohibit competition through

- **state regulatory policies** that *prohibit* firm poaching and other damaging forms of competition, *provide an authorizing framework* for collaboration, establish policies that enable local governments to *consolidate regionally*, or that *mandate local revenue sharing*;
- **state and local financing policies** that include *regionalist financing* opportunities, *direct funding* and grant programs, and *subsidy eligibility standards*;
- **local cooperative agreements**, which can include service-, facility-, or revenue- sharing contracts between local governments; and
- **local codes of ethics** that set guidelines for cooperation and competition, adopted by a group of local governments or regional entity such as an economic development corporation.

The above models offer a starting point for policymakers and practitioners who want to encourage collaboration and positive economic development outcomes in their communities. But rigorous empirical literature examining their efficacy is scarce. The general lack of rigorous program evaluation is likely attributable to several factors, including a limited number of program examples, a lack of comparable programs or regulations across states, measurement challenges, a low capacity for evaluation at the local level, and the limited duration of some programs or regulations.

And, as with any policy experiment, even well-intended or oft-cited policies do not always have the desired effects across states or communities. For example, in one of the few quantitative studies examining intrastate competition in the presence of limiting provisions, Cassell and Turner (2010) found that competition persisted among localities participating in Ohio's Enterprise Zone program, despite provisions that attempted to prohibit subsidies from going to firms relocating within the state. Similarly, a qualitative overview of Ohio's JEDD program (Gianakis and McCue 1999) found that it did not produce the desired local economic development collaboration. In Minnesota, two evaluations of the state's famous Fiscal Disparities Act by Fisher (1982) and Martin and Schmidt (1983), found that the act did not reduce fiscal disparities, as intended. These examples point to the need for more rigorous evaluation and exploration of states' policy options.

Despite the lack of empirical evaluation on specific programs and policies, this review has identified several themes that recur in both the literature on local collaboration and in case interviews with economic development practitioners:

1. Social norms and communication make a difference.

Literature on local collaboration in economic development has found that cultivating social norms such as trust, communication, and reliability promotes cooperation among local policymakers. This is consistent with our findings from interviews we conducted with practitioners in the Montgomery County ED/GE program, Ohio's Dayton-Miami Township JEDD, and the Metro Denver EDC.

2. Shared governance structures can promote communication.

Practitioners we interviewed for our two case analyses, as well as background information on the Ohio JEDD program, reported that shared governance structures, which require jurisdictions to meet face to face and communicate regularly, foster cooperation.

3. Regionalism can be attractive to individual jurisdictions.

Cities have an incentive to participate in regional economic development policy. Interviews with practitioners confirmed that cities and counties are often aware it takes a regional effort to compete in a global marketplace. As Erik Collins, director of community and economic development for Montgomery County shared, "The key is to be transparent. It's about communication and demonstrating that, if a community is going to compete in the global environment today, there is no time for individual jurisdictions to think they can do it on their

own. There must be a compelling case demonstrating that they won't be as successful if they don't work together."

4. Offering rewards for participation, in addition to prohibitions or punitive measures, can increase participation in collaborative programs.

In case interviews, practitioners reported that they were able to persuade nearly all local jurisdictions to participate in their programs. In the case of Montgomery County, 27 of 28 local jurisdictions participate in ED/GE, and in the case of the Metro Denver EDC, even local entities outside of the Metropolitan Statistical Area have signed on to the code of ethics. In both cases, practitioners reported that a high percentage of entities are encouraged to participate because of the compelling *benefits* they receive from doing so.

In the Metro Denver EDC, participating entities that sign onto the code of ethics become eligible for information-sharing benefits with other communities and may be recommended for firm-siting arrangements for out-of-state firms looking to relocate in Denver. In Montgomery County's case, entities that participate in the revenue-sharing program are eligible to receive economic development grants. Provisions in the ED/GE program ensure at least a break-even investment for participating entities over the life of the program, reassuring local governments they will receive at least what they put in. At first, local governments challenged the legality of the revenue-sharing provisions. However, after the courts affirmed the program's legality, cities began to sign on to become eligible for the grant funding.

5. Multiple programs can encourage a culture of collaboration.

In the Montgomery County region, at least three overlapping policies promote local economic development cooperation: ED/GE, Business First!, and state-authorized JEDDs. Research that seeks to evaluate one of these programs alone may miss the synergistic effects from other programs. The City of Dayton benefits from all three of these programs, and any rigorous empirical evaluation of the effects of each should consider the others as a basket of conditions that encourage a culture of collaboration over the long-term.

The above lessons and case studies are candidates for future empirical analysis on the role of state and local policy in promoting cooperation and limiting damaging forms of competition (such as firm poaching) that undermine public resources or long-run regional economic competitiveness. More research is necessary to build a broader, evidence-based toolkit of state and local cooperative models. State and local economic development policy will likely continue to occupy policy discussions as cities

and states pursue megadeals and make trade-offs on public investments in tax incentives or other economic development approaches. In these discussions, states will continue to play a critical role in setting the ground rules for local economic development policy.

As the research has demonstrated, localities may more easily cooperate on low-stakes efforts such as advertising for tourism, engaging in fiscal transfers, or entering MOUs to cover the costs of services or high-cost equipment. But economic development is more speculative and potentially lucrative, in the short-run, for cities that “win” over their neighbors. Elected officials experience real political pressure to compete. States, in these cases, may be ideally situated to step in, set the rules of the game, and provide the appropriate rewards for localities to work together.

Some literature, recognizing the harmful effects of local competition, has suggested potential benefits from a federal moratorium on interlocal competition. Such a moratorium would have significant effects on state and local economic development policy. However, declining federal investments in state and local services over time, legal complications associated with limiting state and local police power, and an increasingly hands-off regulatory approach from the federal government suggest that the federal government will not provide any future restraint on harmful competition. The most recent federal budget proposals demonstrate a limited federal appetite for providing additional direct aid to local governments.⁵⁸ Moreover, recent proposals to limit local economic development subsidies, ranging from a moratorium on local incentives to a 100 percent tax on company-specific state and local relocation subsidies, for example, are likely to encounter challenges in both design and implementation.⁵⁹ Instead, state governments can explore and evaluate a variety of models for engaging local governments and rewarding regional collaboration to help alleviate the “race to the bottom.”

Appendix

TABLE A.1

Cities, Townships, and Villages Participating in Montgomery County, Ohio ED/GE Program

Jurisdiction	Type	Population
Montgomery County participating jurisdictions		
<i>All participating jurisdictions^a</i>	<i>Total</i>	595,255
Dayton (county seat)	City	140,939
Washington	Township	56,416
Kettering	City	55,567
Miami	Township	50,530
Huber Heights	City	38,825
Riverside	City	25,064
Trotwood	City	24,348
Centerville	City	23,847
Harrison Township	Township	22,310
Miamisburg	City	20,042
Vandalia	City	15,090
Englewood	City	13,475
Clayton	City	13,187
West Carrollton	City	12,963
Oakwood	City	9,035
Clay	Township	8,850
German	Township	8,375
Butler	Township	7,840
Union	City	6,562
Jefferson	Township	6,543
Moraine	City	6,433
Jackson	Township	6,298
Perry	Township	5,968
Brookville	City	5,964
Germantown	City	5,500
New Lebanon	Village	4,168
Farmersville	Village	1,116
Montgomery County nonparticipating jurisdictions		
Phillipsburg ^b	Village	448
Largest Ohio Cities		
Columbus (capital)	City	852,144
Cleveland	City	388,812
Cincinnati	City	298,957
State of Ohio		
Ohio	State	11,609,756

Source: US Census Bureau, 2013–2017 American Community Survey 5-Year Estimates; Montgomery County Ohio, “ED/GE Net Calculations 1991 – 2016,” May 22, 2018; and Montgomery County, Ohio, “ED/GE Communities,” http://www.mcoho.org/document_center/EcDev/edge_communities.gif.

Notes:

^a Ohio cities, townships, and villages may cross county lines. Population totals in this table reflects the sum of all participating jurisdictions' populations, including any portion of jurisdictions' population that resides outside Montgomery County. As such, the total population count for participating jurisdictions exceeds the US Census American Community Survey population estimate for Montgomery County (531,987 in 2017).

^b The Village of Phillipsburg participated from 1995 to 2010.

TABLE A.2

Counties, Cities, Towns, and Local EDCs Partnering with the Metro Denver EDC

Jurisdiction	Type	Population
Nine-county region^a		
<i>All counties</i>	<i>Total</i>	3,675,668
Denver	County	678,467
Arapahoe	County	626,612
Jefferson	County	564,029
Adams	County	487,850
Larimer	County	330,976
Douglas	County	320,940
Boulder	County	316,782
Weld	County	285,729
Broomfield	County	64,283
Partner jurisdictions^b		
Denver (capital)	City	678,467
Fort Collins	City	159,150
Lakewood	City	151,411
Thornton	City	132,310
Westminster	City	111,895
Centennial	City	108,448
Loveland	City	74,125
Broomfield	City	64,283
Commerce City	City	52,905
Parker	Town	51,125
Littleton	City	45,848
Northglenn	City	38,473
Englewood	City	33,155
Windsor	Town	23,386
Erie	Town	22,019
Golden	City	20,365
Louisville	City	20,319
Greenwood Village	City	15,397
Lone Tree	City	13,430
Superior	Town	12,879
Federal Heights	City	12,449
Firestone	Town	12,282
Wellington	Town	7,941
Sheridan	City	6,018
Berthoud	Town	6,018
Glendale	City	5,027
Mead	Town	4,315

Jurisdiction	Type	Population
Timnath	Town	2,422
Partner EDCs and related organizations^c		
Adams County Economic Development, Inc.		
Arvada Economic Development Association		
Aurora Economic Development Council		
Boulder Economic Council		
Brighton Economic Development Corporation		
Castle Rock Economic Development Council		
Colorado Springs Chamber of Commerce and EDC		
Denver South Economic Development Partnership		
Downtown Denver Partnership, Inc.		
Estes Park Economic Development Corporation		
I-70 Corridor Regional Economic Advancement Partnership		
Jefferson County Economic Development Corporation		
Longmont Economic Development Partnership		
Northern Colorado Economic Alliance		
Northwest Douglas County Economic Development Corporation		
Largest Colorado cities (after Denver)^d		
Colorado Springs	City	450,000
Aurora	City	357,323
State of Colorado		
Colorado	State	5,436,519

Source: US Census Bureau, 2013-2017 American Community Survey 5-Year Estimates; Metro Denver, “Economic Development Partners,” 2018, <http://www.metrodenver.org/about/partners/>.

Notes: EDC = economic development corporation.

^a The Metro Denver EDC serves an approximately nine-county region in Colorado. Each of the nine counties partners with the Metro Denver EDC either independently or via its membership in a local partner EDC or related organization. El Paso County, while not part of the nine-county region, also has membership in a participating EDC.

^b Thirty cities and towns independently partner with the Metro Denver EDC, as indicated on the Metro Denver EDC Partners webpage. Many other cities and towns maintain membership in a local partner EDC. A majority of cities and towns in the nine-county area partner with the Metro Denver EDC either independently or via their membership in a participating EDC.

^c Additional cities, towns, and counties not specifically named above maintain membership in these local economic development organizations.

^d Both Aurora and Colorado Springs are members of local partner EDCs. Aurora is included in the nine-county region, while Colorado Springs is in El Paso County.

Notes

- ¹ See also Andy Marso, “Border War Wages On: HCA Got \$3 Million in Tax Breaks to Move 4 Miles to Kansas,” *Kansas City Star*, February 13, 2018, <https://www.kansascity.com/news/business/development/article199763294.html>; and “Episode 699: Why Did the Job Cross the Road?,” *Planet Money*, National Public Radio, May 4, 2016, <https://www.npr.org/sections/money/2016/05/04/476799218/episode-699-why-did-the-job-cross-the-road>.
- ² See Greg LeRoy, “Amazon’s HQ2 and the Rise of Big-Ticket Megadeals,” September 11, 2017, *Citylab*, <https://www.citylab.com/life/2017/09/tax-break-auctions-for-foxconn-apple-and-now-amazons-hq2-why-states-and-cities-keep-granting-outrageous-megadeals/539427/>; and Philip Mattera, Kasia Tarczynska, and Greg LeRoy, *Megadeals: The Largest Economic Development Subsidy Packages Ever Awarded by State and Local Governments in the United States*, Good Jobs First, June 2013, http://www.goodjobsfirst.org/sites/default/files/docs/pdf/megadeals_report.pdf.
- ³ See Megan Randall, “Three Questions Policymakers Should Be Asking about the Foxconn Megadeal,” *TaxVox*, August 1, 2017, <https://www.taxpolicycenter.org/taxvox/three-questions-policymakers-should-be-asking-about-foxconn-megadeal>; and Megan Randall, “Massachusetts Gave GE a ‘Mega-Deal’ to Move, but Did It Matter?” *TaxVox*, May 8, 2017, <https://www.taxpolicycenter.org/taxvox/massachusetts-gave-ge-mega-deal-move-did-it-matter>.
- ⁴ See Seth Fiegerman, “Here Are the Top 20 Cities for Amazon HQ2,” *CNNBusiness*, January 18, 2018, <https://money.cnn.com/2018/01/18/technology/amazon-second-headquarters-list/index.html?iid=EL>; and “D.C. and Virginia Should Stop the Secrecy about Amazon’s HQ2,” *Washington Post*, April 12, 2018, https://www.washingtonpost.com/opinions/dc-and-virginia-should-stop-the-secrecy-about-amazons-hq2/2018/04/12/c4468886-3c29-11e8-a7d1-e4efec6389f0_story.html.
- ⁵ See “Amazon selects New York City and Northern Virginia for new headquarters,” *Day One: The Amazon Blog*, November 13, 2018, <https://blog.aboutamazon.com/company-news/amazon-selects-new-york-city-and-northern-virginia-for-new-headquarters>; and Howard Gleckman, “Maryland’s Sweetheart Offer to Amazon Makes No Sense,” *TaxVox*, April 18, 2018, <https://www.taxpolicycenter.org/taxvox/marylands-sweetheart-offer-amazon-makes-no-sense>.
- ⁶ For a review of research perspectives on the efficacy of policies related to economic development, job expansion, and public welfare, see Bartik (1991), Bradbury, Kodrzycki, and Tannenwald (1997), Fisher and Peters (1998), and Oates (2002).
- ⁷ Breton (1991) reviewed the literature on interjurisdictional competition, concluding that the relationship between intergovernmental jurisdictions is competitive in nature. He cites early literature on the “Tiebout hypothesis” from Oates (1969), Meadows (1976), Reschovsky (1979), and Rosen (1982).
- ⁸ Shipan and Volden (2012) reviewed literature on policy diffusion, concluding that policies spread from one government to another in part because of competition between local governments. The authors cite Tiebout (1956), as well as work on tax competition from Wilson (1999), the diffusion of state lottery policies from Berry and Berry (1990), and work from Baybeck, Berry, and Siegel (2011). They also cite Peterson and Rom (1990) and Bailey (2005) as evidence that states may compete with one another not only to attract firms but also to reduce costly redistributive services.
- ⁹ In chapter 2 of *States and the Economy: Policymaking and Decentralization*, Wilson (1993) describes structural economic changes, including deindustrialization and innovations in the telecommunications industry, that have caused economic activities to become more spatially dispersed. These changes, as well as a 1970s proliferation

of state business climate rankings focusing heavily on tax rates, Wilson suggests in chapter 4, led to higher levels of state economic competition. State tax climate and business tax incentives thus became a central feature of state-directed economic policy. For a study on how declining transportation costs have contributed to the rise in international trade since the 1950s, see Hummels (2007).

¹⁰ For example, Neiman, Andranovich, and Fernandez (2000) discuss the effects of reduced federal funding on California cities. They cite the Reagan- and Bush-era funding cuts (paired with loss of local control over property tax revenues) as a critical point of context for understanding local competition for economic development in California. Caraley (1992), cited in Neiman, Andranovich, and Fernandez (2000), discusses the increase in local competitiveness resulting from these funding reductions.

¹¹ For a review of how tax and spending restraints affect city budgets, see work on the “fiscal policy space” of cities by Pagano and Hoene (2018).

¹² See, for example, Geoffrey Brennan and James Buchanan’s 1980 book *The Power to Tax*, which built out the “Leviathan hypothesis.” Schneider (1986) found that local government fragmentation slowed the expansion of local government spending and service levels.

¹³ See Oates (2002) for additional treatment and literature citations on the “Leviathan hypothesis” of taxation and its relationship to local government competition.

¹⁴ See Bradbury, Kodrzycki, and Tannenwald (1997) for a summary of research perspectives from the 1996 research symposium on economic development policy hosted by the Federal Reserve Bank of Boston. This peer-reviewed paper summarizes perspectives from discussion, papers, and notes submitted by different researchers at the symposium. The authors’ overview of perspectives on Tiebout choice, and the possible downsides of limiting local competition, do not necessarily reflect the views of the authors or all symposium participants. The authors state that at the symposium, there “was general agreement that competition promotes an efficient allocation of resources by encouraging jurisdictions to differentiate themselves in their level and mix of taxes and public services,” but whether “interjurisdictional competition is good or bad on net, several participants argued that federal measures designed to restrain it would be difficult to implement and would create more problems than they would solve” (12). For example, the authors cite William Fox’s concern that the federal government will be unable to design effective regulation to limit competition and that such measures may harmfully curtail states’ rights. They also cite Robert Ebel’s comments cautioning against federal intervention on the grounds that it may dampen some of the economic growth and benefits associated with competition. Peter Enrich is cited as disagreeing and discussing possibilities for Congress to act to limit harmful competition.

¹⁵ See Neiman, Andranovich, and Fernandez (2000) for a study on how local adoption of economic development policies relates to competition in California. Much of the literature on local economic development policy has been limited to a single state, region, or point in time, largely because of a lack of centralized data sources. Findings from California have provided some insights into how competition influences or does not influence local economic development policy. As with any study with a limited study population, however, the findings may not necessarily be generalizable to other states or periods.

¹⁶ See Oates (2002) for a thorough review of the literature on the benefits and detriments of economic competition between local governments. Oates (2002) cites McKinnon (1997), and Rauscher (1998), among others, in his discussion on the efficiency-enhancing benefits of local competition, concluding, “fiscal and regulatory competition in the right institutional setting is likely, on balance, to be an efficiency-enhancing force, one that improves the performance of the public sector in the efficient deployment of fiscal and regulatory measures.” He concludes there is insufficient evidence to support the hypothesis that poor outcomes from a “race to the bottom” are likely to occur as a result.

¹⁷ For a more in-depth discussion of Tiebout’s theory, its limitations, and effects on public finance, see Fischel and Oates (2006).

- ¹⁸ In *Competition Among State and Local Governments*, editors Kenyon and Kincaid (1991) summarize different research perspectives on the benefits of state and local competition, especially regarding theoretical assumptions and measurement. They state: “But perhaps the most important unresolved issue is that of which model or view of interjurisdictional competition is most applicable in the real world, and to what kinds of competition.” There is, therefore, significant disagreement about which theoretical assumptions hold true in an empirical context.
- ¹⁹ Bradbury, Kodrzycki, and Tannenwald (1997) summarize findings and discussion from a research symposium. The authors cite Daphne Kenyon’s view that traditional assumptions of perfect competition do not hold up in real-world settings. Kenyon’s and others’ statements on potentially negative effects of local competition, however, do not necessarily reflect the views of the authors or of all symposium participants. McGuire (1991), in *Competition among State and Local Governments*, proposes that although competition can be good, many of Tiebout’s theoretical assumptions do not hold in reality and can lead to “destructive competition,” although this may be more likely to occur at the state than the local level because states are typically responsible for redistributive grants.
- ²⁰ A case study approach on economic development in Texas revealed that 80 percent of firms had made their location commitment and decision before receiving an incentive. A quantitative study showed that only 15 percent would have located outside of Texas but for the incentive, suggesting incentives are overused by the state in its effort to attract firms.
- ²¹ This study was limited to California.
- ²² Mintz and Tulken (1986), Wildasin (1989) and Wilson (1999) are all cited in Oates’s (2002) literature review on intergovernmental competition as part of the evidence base that finds competition can result in suboptimal regional tax rates and underinvestment in the public sector. Although Oates concludes that evidence supporting a race to the bottom is insufficient to expect “suboptimal outcomes,” he acknowledges that when “we relax...assumptions, often in quite realistic ways, we find, not surprisingly, that the efficiency properties of...outcomes are compromised” (380). Anderson and Wassmer (2000) are cited by Kenyon, Langley, and Paquin (2012b) as evidence that property tax abatements are only effective in the short-run as other localities seek to match each other’s tax rates.
- ²³ See “Panel Database on Incentives and Taxes,” W.E. Upjohn Institute for Employment Research, accessed December 18, 2018, <https://upjohn.org/models/bied/database.php>, as well as the accompanying report (Bartik 2017); and “Business Incentives Cost States Millions, Don’t Do Enough to Foster Job and Wage Growth: New Database Shows How States Compare,” press release, W.E. Upjohn Institute for Employment Research, March 7, 2017, <https://upjohn.org/models/bied/press-release.pdf>.
- ²⁴ See Donnie Charleston and Megan Randall, “What Lessons Can We Learn from Amazon’s HQ2 Drama?” *TaxVox*, November 16, 2018, <https://www.taxpolicycenter.org/taxvox/what-lessons-can-we-learn-amazons-hq2-drama>.
- ²⁵ See Ben Casselman, “A \$2 Billion Question: Did New York and Virginia Overpay for Amazon?” *New York Times*, November 13, 2018, <https://www.nytimes.com/2018/11/13/business/economy/amazon-hq2-va-long-island-city-incentives.html>; and Greg LeRoy, “The Amazon Deal Is Even Worse Than It Looks and Will Cost New York More Than It Thinks,” *Fast Company*, November 16, 2018, <https://www.fastcompany.com/90269146/the-amazon-deal-is-even-worse-than-it-looks-and-will-cost-ny-more-than-it-thinks>.
- ²⁶ In Bartik’s (2018) model, which is informed by existing research on firm locations, he assumes that in the short-run, approximately one-third of jobs will go to in-migrants, and in the long-run that share increases to 85 percent. Previously, Bartik (2004) estimated that 8 in 10 new jobs created go to residents who would otherwise have lived elsewhere. Altshuler and Gómez-Ibáñez (1993), cited in Kenyon, Langley, and Paquin (2012a), examined whether new development and local services paid for themselves, looking specifically at regulatory revenue generation by local governments.

- ²⁷ See Richard C. Paddock, "Affluent Cities Help Their Neighbor Turn Back Crime : Police: Officers from Nearby Departments and the CHP Make East Palo Alto a Law Enforcement Model," *Los Angeles Times*, January 8, 1994, http://articles.latimes.com/1994-01-08/news/mn-9711_1_east-palo-alto.
- ²⁸ Ostrom (1998) applies a second generation, "bounded theory of rationality" to collective action. She posits, based largely on experimental behavioral science literature, that social norms such as trust, reciprocity and reputation influence individuals' impetus to work either alone or together. Thus, research on institutional collective action, and policy discourse, should consider the role of these norms in willingness of actors to collaborate with one another.
- ²⁹ Putnam (1993) helped develop the concept of social capital in his examination of civic and social norms in regional Italian governments. He emphasized the role of mutual trust between citizens in maintaining effective democratic institutions.
- ³⁰ Olberding (2002) also classifies other regional characteristics as indicating a "tradition of regionalism," including the presence of strong Councils of Governments and more consolidated local governance structures (i.e., less balkanization and fragmentation of jurisdictional authority, and more consolidated local governments).
- ³¹ Case studies on Canada may have more limited application in the United States because of differences in the relationship between the federal and subnational governments. In Canada, for example, the federal government makes equalization payments to provinces for the provision of public service such as health care, education, and public welfare. This could plausibly affect how governments either compete or collaborate for economic development opportunities.
- ³² Texas passed legislation in 2017 that now requires the city to obtain resident approval for the annexation. See Texas Municipal League, "Home Rule Cities Take Heed: Annexation Reform Effective December 1," Legislative Update, August 25, 2017, https://www.tml.org/legis_updates/home-rule-cities-take-heed-annexation-reform-effective-december-1; and Vianna Davila, "Annexation in Texas: What You Need to Know," *San Antonio Express-News*, August 9, 2017, <https://www.expressnews.com/news/local/article/Annexation-What-you-need-to-know-11745096.php>.
- ³³ See Community Development Law Reform Act of 1993 [Chapter 942, Statutes of 1993 (AB 1290) and amended by Chapter 936, Statutes of 1994 (SB 732)]. For a discussion and summary of the bill, see O'Malley (1994). Also see Chapter 462 §§ 2-3, Statutes of 1999 (AB 178). Neiman and Krimm of PPIC (2009) discuss this legislation and cite *City of Carson v. City of La Mirada, et al.* Also see Chapter 781, Statutes of 2003 (SB 114); Chapter 4, Statutes of 2009 (SB 27)(details on this legislation available in Debra Waltz, "SB 27: Bill Summary," State Board of Equalization Staff Legislative Bill Analysis, 2009); and Chapter 717, Statutes of 2015 (SB 533)(details available in California Senate Committee on Governance and Finance, "Cities and Counties: Sales Tax and Use Agreements," 2015).
- ³⁴ See Arizona Revised Statutes § 42-6010 (State of Arizona, House Bill 2515, <http://www.azleg.gov/legtext/48leg/1r/bills/hb2515s.pdf>).
- ³⁵ In Ohio, a township is a division of the county with some limited corporate powers.
- ³⁶ Terrence Slaybaugh (Dayton International Airport) and Tawana Jones (Montgomery County), phone interview, August 2017.
- ³⁷ For more information on Ohio annexation laws, see County Commissioners Association of Ohio, "Commissioners Annexation Manual," accessed December 5, 2018, <https://ccaoh.org/resources/manuals-and-handbooks/commissioners-annexation-manual/>.
- ³⁸ See House Bill 182 in 2016, which amended the state statutory language, <https://www.legislature.ohio.gov/legislation/legislation-summary?id=GA131-HB-182>; and House Bill 289 in 2013 made changes to the language, as well, http://archives.legislature.state.oh.us/bills.cfm?ID=130_HB_289.

- ³⁹ See Steve Dornfeld, “Affluent Suburbs Challenge Twin Cities’ Unique Tax-Base Sharing Law,” *Minnpost*, September 22, 2011, <https://www.minnpost.com/cityscape/2011/09/affluent-suburbs-challenge-twin-cities-unique-tax-base-sharing-law>.
- ⁴⁰ See also Reschovsky and Knaff (1977) and Orfield and Wallace (2007).
- ⁴¹ Rusk (2006) classified states as having rigid, hard, or soft annexation policies. For Rusk’s original discussion of city elasticity see Rusk (1993).
- ⁴² See City of Cleveland, “10 Years of the Suburban Water Main Renewal Program,” December 14, 2017, <http://www.clevelandwater.com/blog/2017-recap-10-years-suburban-water-main-renewal-program>.
- ⁴³ See Jeff Piorowski, “With Millions in Repairs Upcoming, Beachwood Considers joining Cleveland Water’s Main Replacement Program,” July 18, 2017, http://www.cleveland.com/beachwood/index.ssf/2017/07/beachwood_33.html; and Jeff Piorowski, “South Euclid Extends by 20 Years Its ‘No-Poaching’ Agreement with Cleveland Water Department,” *Cleveland.com*, June 15, 2013, http://www.cleveland.com/lyndhurst-south-euclid/index.ssf/2013/06/south_euclid_extends_by_20_yea.html.
- ⁴⁴ City of Cleveland, “10 Years of the Suburban Water Main Renewal Program,” December 14, 2017, <http://www.clevelandwater.com/blog/2017-recap-10-years-suburban-water-main-renewal-program>.
- ⁴⁵ Twenty-seven cities, townships, and villages participate in the Montgomery County ED/GE Program (all except the Village of Phillipsburg, which participated from 1995 to 2010). The City of Dayton is the county seat.
- ⁴⁶ Montgomery County Board of Commissioners, “Exhibit A: ED/GE Criteria and Guidelines for 2011-2019,” Resolution 11-0430, February 22, 2011, accessed August 25, 2017, http://www.mcoho.org/government/elected_officials/board_of_county_commissioners/resolutions/index.cfm.
- ⁴⁷ Erik Collins, Michael Norton-Smith, and Gwen Eberly (Department of Development Services, Montgomery County, Ohio), phone interview, June 2017.
- ⁴⁸ In 2010 dollars.
- ⁴⁹ In 2010, 28 cities, townships, and villages participated in the program, including the village of Phillipsburg.
- ⁵⁰ In nominal terms, the county collected and paid out \$10.7 million in GE funds between 1992 and 2010, or approximately \$565,000 per year.
- ⁵¹ Erik Collins, Michael Norton-Smith, and Gwen Eberly, phone interview, Department of Development Services, Montgomery County, June 27, 2017.
- ⁵² The following content regarding the Metro Denver EDC was provided by Chelsea McLean (Metro Denver EDC), during phone and email conversations with the research team in 2017 and 2018.
- ⁵³ See, for example, Kenyon, Langley, and Paquin (2012a), Common (2012), McIlvaine and LeRoy (2014), and Patton (2006).
- ⁵⁴ “Economic Development Partners,” Metro Denver Economic Development Corporation, accessed December 18, 2018, <http://www.metrodenver.org/about/partners/>.
- ⁵⁵ Metro Denver EDC, “Code of Ethics,” <http://www.metrodenver.org/about/partners/code-of-ethics/>.
- ⁵⁶ Metro Denver EDC, “Code of Ethics,” <http://www.metrodenver.org/about/partners/code-of-ethics/>.
- ⁵⁷ Chelsea McClean (Metro Denver EDC), in phone interview with authors, July 2017.
- ⁵⁸ See National League of Cities, “Cities Respond to President Trump’s 2019 Budget Proposal,” February 12, 2018 <https://www.nlc.org/article/cities-respond-to-president-trumps-2019-budget-proposal>.

⁵⁹ See Tracy Gordon, “Amazon HQ2 Tax Incentives: There Ought To Be A Law... Or Something,” *TaxVox*, November 20, 2018, <https://www.taxpolicycenter.org/taxvox/amazon-hq2-tax-incentives-there-ought-be-law-or-something>.

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