Footloose or Stuck in Place?

A Six Metro Look at Firm Mobility

Brett Theodos, Aravind Boddupalli, and Megan Randall

November 2018

The migration of businesses and their corresponding jobs, at regional and international levels, is often seen as a barometer of business climate and an indicator of economic health. This idea has pushed state and local governments to compete to retain and attract businesses, often with economic development incentives and tax subsidies.

The threat of business migration contributes to a zero-sum game mentality toward local growth and development among local policymakers and elected officials. Localities compete with each other by offering generous tax and nontax incentive packages in attempts to attract or retain businesses, compromising local resources available to provide services. Despite some promising models, policies and programs that constrain aggressive tax competition between localities are not the norm (Randall et al., forthcoming). Competition for establishments is predicated on local policymakers' beliefs that businesses are mobile; that they decide where to move, at least in part, on incentives; and that exits affect local economies.

In *Partners or Pirates? Collaboration and Competition in Local Economic Development*, we synthesize a large body of literature on state and local economic development efforts and highlight conditions under which policymakers across jurisdictions are likely to compete or cooperate (Randall et al., forthcoming). We know that state and local governments spend billions of dollars on general business recruitment subsidy programs and on targeted incentives to large corporations (LeRoy et al. 2013; Bartik 2017). And we know that regardless of how the economic development incentives are designed, the evidence on their efficacy of job generation and benefits to residents is not always favorable (Bartik 2004; Patrick 2014). To understand what is at stake when state and local governments offer economic development incentives to attract and retain businesses, it is helpful to understand when, where, and which businesses are migrating, and how this impacts local employment changes for jurisdictions. Therefore,

assuming an economic development lens, we examine migration of establishments (the technical term used in our data[1]) and their corresponding jobs in six metropolitan areas.[2]

Overall, our findings challenge the practice of state and local governments providing generous economic development incentives to boost economic activity or retain and attract new businesses. In brief, we find the following:

- Changes in the number of jobs in a county or metropolitan area because of net migration were essentially zero when viewed as a share of all jobs in that area. Net job creation (from establishment births minus deaths) and net job growth (from establishment expansions minus contractions) drove the largest employment changes. For most individual counties, in-migration and out-migration were roughly on par with each other, though there were exceptions. Therefore, efforts to win over businesses with tax exemptions and subsidies may not be fiscally fruitful for overall job generation for regional economies.
- Median household income was not correlated with higher net migration, instead showing a positive relationship with "churn" (that is, higher levels of job migration in the form of in- and out-migration, even if ultimately netting to zero). Anecdotes of higher-income areas profiting from businesses migrating from lower-income areas may not be supported by evidence.
- Larger establishments were slightly more likely to move than others in recent years, and establishments in professional and scientific services or manufacturing industrial sectors were more likely than others to move; this may be why state and local officials may feel the pressure of certain businesses departing.
- Most intercounty job migration occurred within the establishments' respective regions, suggesting firms may want to retain their incumbent workforces and proximity to an existing base of suppliers and customers. The largest share of all moves was within the metropolitan area or state, and this was consistent over time.

Background

Research on firm migration dynamics has historically focused on the conditions under which industries diverge or concentrate in economic regions (Losch 1954; Krugman 1991; Baldwin and Okubo 2006). Studying strategic business location determinants and monopolistic competition, this research has modeled the role of factors such as incumbent firm productivity, agglomeration, and the type of industry in driving domestic and international business migration. More recent research on firm relocations has focused on firm demography, a framework that studies internal factors such as changes in size, motivation, and ownership of firms that were not previously seen as factors driving firm migration (Pellenbarg, Wissen, and Dijk 2002). Whereas earlier studies examined factors such as profit maximization and access to labor force and transportation networks, later research has examined factors such as a firm's level of risk aversion and government policies and regulations (Conroy, Deller, and Tsvetkova 2015).

Economic development research on firm mobility draws on studies of business assistance, firm retention and attraction, and state and local fiscal policy. In the past few decades, lower transportation costs along with advances in communication and globalization have presented firms with a wider range of domestic and international locational choices.[3] State and local governments feel pressured to retain businesses and maintain their employment levels while also competing with their neighbors to attract new businesses, vying for the same slice of economic pie. However, characteristics such as transportation networks and availability of skilled labor, both of which are long-term investments that are not as immediate as tax incentives, are considered critical site-selection factors by corporations.

Firm relocations capture the attention of local policymakers. Although not all competitive bidding processes are widely publicized, the competition to attract Amazon's new corporate headquarters in 2017 and 2018 has demonstrated how such firm decisions can push cities across the United States and Canada to prepare elaborate financial incentive packages. And Amazon is not the only firm receiving such offers—the city of Dallas, Texas, just offered Nokia nearly $5 million to move its North American headquarters three miles from its current location in Irving, putting it in a new Dallas development.[4] However, the benefits of economic competition are not straightforward. Tax incentives are often not the driving force for business relocations (Bartik 2004; Jensen and Malesky 2018), do not always include effective evaluation practices (Pew Charitable Trusts 2017), and may push funding out from other public services, such as K–12 education.[5]

Among local and state governments, incentives can fuel a prisoner's dilemma and subsidize job poaching across jurisdictions (Ellis and Rogers 2000; Chirinko and Wilson 2008; LeRoy et al. 2013). Bartik (2003) describes the "negative spillover" effects that can materialize from local competition, including a net loss of business tax revenue and overinvestment in businesses that bring economic benefit to one jurisdiction at the expense of its neighbors. When firm attraction is prioritized as the main measure of business climate dynamics and employment change, other sources of job generation and destruction can be ignored.

Behind many firm retention and attraction incentives is an assumption that firms are highly mobile. Recent research has highlighted the full spectrum of sources of job generation and destruction, including births, deaths, expansions, contractions, in-migration, and out-migration (Neumark and Kolko 2008; Moody and Warcholik 2014; Conroy, Deller, and Tsvetkova 2015). However, most studies continue to focus on industrial factors or specific incentives, such as enterprise zone programs (Leatherman, Howard, and Kastens 2002; Chapple 2014; Harger, Ross, and Stephens 2015; Smith 2016). These are integral contributions to understanding the business climate of certain states and evaluating the effectiveness of financing programs, but they do not shed as much light on broader business migration and employment dynamics across the country. By studying establishment and job changes in six metropolitan areas of the United States across two decades, especially at a local level, we hope to further our understanding of business migration dynamics within the framework of economic development.

Data and Approach

We rely on a panel dataset of establishments to answer the questions of how prevalent movements are, how far establishments move, how many employees move when establishments do, and how these movements relate to employment levels. The panel data are from the National Establishment Time Series (NETS), a proprietary business and industry database of establishments across the United States. Dun and Bradstreet (D&B), a private company and a large provider of business information and credit reports nationally, initially collects the business data through millions of telephone calls as well as searches of court filings, newspapers and electronic news services, public utilities, company filings, news reports, government registries, and licensing data (Kolko and Neumark 2007). We accessed these data from Walls & Associates, a private company that has an agreement with D&B to sell annual snapshots of the database for research. They link the D&B cross sections into a longitudinal file that tracks every establishment from its birth through any physical moves it may make, captures any changes of ownership, and records the establishment's death if it occurs (Kroll, Lee, and Shams 2010; Neumark, Wall, and Zhang 2008). D&B's coverage of business establishments increased sharply in 1992. Based on recommendations from previous literature, we limit our analysis to 1992 to 2013, the most recent data we had access to (Kolko and Neumark 2007).

We accessed information on all establishments and jobs present in six metropolitan areas: Baltimore, Maryland; Baton Rouge, Louisiana; Minneapolis, Minnesota; Rochester, New York; San Francisco, California; and Washington, DC.[6] We were not able to study a wider range of metropolitan regions, and we do not know how these trends generalize to other metropolitan areas across the country. Because of data constraints, existing literature on firm migration and economic development has largely focused on individual states and programs (Neumark and Kolko 2010; Chapple 2014). With a combined data sample spanning 20 years and more than 1.5 million establishments and 7 million jobs each year, we present findings on job migration to expand on previous research. Further, some metropolitan regions covered in our data sample have been subject to scrutiny for their tax subsidies in recent years.[7]

Almost all recipients of large local and federal economic development incentives are corporations or for-profit contractors (LeRoy et al. 2013). As such, we exclude nonprofit organizations and government agencies from NETS where we could identify them. We do so based on legal status, Standard Industrial Classification (SIC) code, and North American Industry Classification System (NAICS) code where available, though this method is imperfect; some nonprofit or public establishments may remain in the data. Additionally, because sole proprietors rarely access economic development incentives and they are often located in residential neighborhoods because their addresses are home offices, we exclude them as well.

Walls & Associates prepares migration data on all establishments that have "significant" moves, or those in which both the establishment's five-digit ZIP code and physical address changed between years. Shorter moves, such as on the same street or within the same ZIP code, are not included by Walls & Associates because minor changes may denote temporary moves or clerical errors. Using an

establishment's year of move and the origin and destination county for each move, we determine the status and extent of relocation by county, metropolitan area, state, and census division. NETS also captures expansion and contraction of employment and the births and deaths of establishments.

We define "net migration" as entries minus exits, "net creation" as births minus deaths, and "net growth" as expansions minus contractions. More specifically, for a given geographic unit in a given time period, entries and exits refer to in-migration and out-migration of establishments and their corresponding jobs that already existed; births and deaths refer to newly created and ceased-to-exist establishments and their corresponding jobs; and expansions and contractions refer to newly increased and newly reduced jobs in existing establishments.

Recent literature on firm relocations, particularly at the establishment level, has examined interstate migration (Neumark and Kolko 2008; Conroy, Deller and Tsvetkova 2015). Studies at smaller geographic levels have been limited to specific development programs or industries (Neumark and Kolko 2010; Chapple 2014; Smith 2016). Counties are the smallest geographic unit for which NETS has reliable move data available for all metropolitan area establishments over a long period (Smith 2016), so we explore moves down to the county level. Several units of analysis in our study are independent cities, such as Manassas Park City in Virginia or Baltimore City in Maryland. Though these are cities, they have their own Federal Information Processing Standard (FIPS) county codes and are thus single-city county equivalents; they are included. A complete list of the counties included, along with summary statistics, can be found in tables A.1 and A.2.

The NETS data, although the best available source on firm mobility, have limitations. A few fields in the NETS database are estimated because (1) data are unavailable even though the establishment was active; (2) individual fields were blank, missing, or suspicious in an otherwise complete historical record; or (3) D&B provided an estimated value. About half of all employment numbers are figures reported by the establishment; the rest are either D&B or Walls & Associates estimates. When considering a relatively long interval of three years, data estimation concerns are mitigated because of rounding since the data more accurately measure larger changes while errors in smaller employment changes cancel out (Kolko and Neumark 2007; Chapple 2014). Based on recommendations from previous literature, we analyze firm mobility in three-year rolling intervals.[8]

Because NETS is constructed from cross-sectional snapshots by Walls & Associates, when the newest cross-sectional snapshot is added, it is also used to update some of the imputations in previous years (Kolko and Neumark 2007). Though we have migration data through 2013, it has been verified and updated through the 2015 NETS database release, issued in Fall 2018. We assume that the data cleaning processes from the two subsequent data releases (2014 and 2015) helped to weed out many "false" moves and erroneous imputations, though the data are not perfect.

How Many Jobs Are Departing Locally?

Local officials concerned about economic growth often focus on establishment retention and attraction as a means of bolstering or expanding their employment base. But there is considerable churn in jobs—many more are created and destroyed every year than the net figures would imply. How sizable, then, are local job losses because of establishment migration? Anecdotally, exits of key establishments are viewed as having a devastating effect on communities. In one recent example, in 2017, manufacturing company Caterpillar announced it would relocate its headquarters from Peoria, Illinois, to Deerfield taking with it about 300 top-paying executive jobs and canceling a planned 3,200-person development in downtown Peoria.[9] And McDonald's announced in 2016 that it would move its long-time Oak Brook, Illinois, headquarters to Chicago.[10] Officials in both localities reported concern about the loss of high-paying jobs and possible detrimental effects on smaller establishments and industries that depend on contract work with the departing employers.

Job losses can occur because an establishment moves out of a locality, reduces its number of employees, or closes altogether. Figure 1 displays job entries and exits as a share of total 2010 jobs in each county in this study from 2010 to 2012. The yellow 45-degree line shows points at which counties had in-migration at par with out-migration. In other words, counties above the yellow line had more job entries than exits; those below had more job exits than entries. For 70 percent of our counties, job mobility was relatively offsetting, with entries and exits differing by less than 1 percent of total jobs. This was especially true for the counties where all intercounty job migration, entries or exits, was generally low as a share of total jobs. For more than 60 percent of the counties we studied, both exits and entries respectively constituted less than 3 percent of total jobs.

There are notable exceptions, however, where exits far exceeded entries or the reverse. For example, job exits through establishment exits constituted 3.9 percent of all jobs in Pierce County, Wisconsin, from 2010 to 2012, while entries represented just 1.2 percent of all jobs. Conversely, in Loudoun County, Virginia, job entries through establishment entries represented 8.7 percent of all jobs, while job exits through establishment exits constituted just 3.3 percent of all jobs.

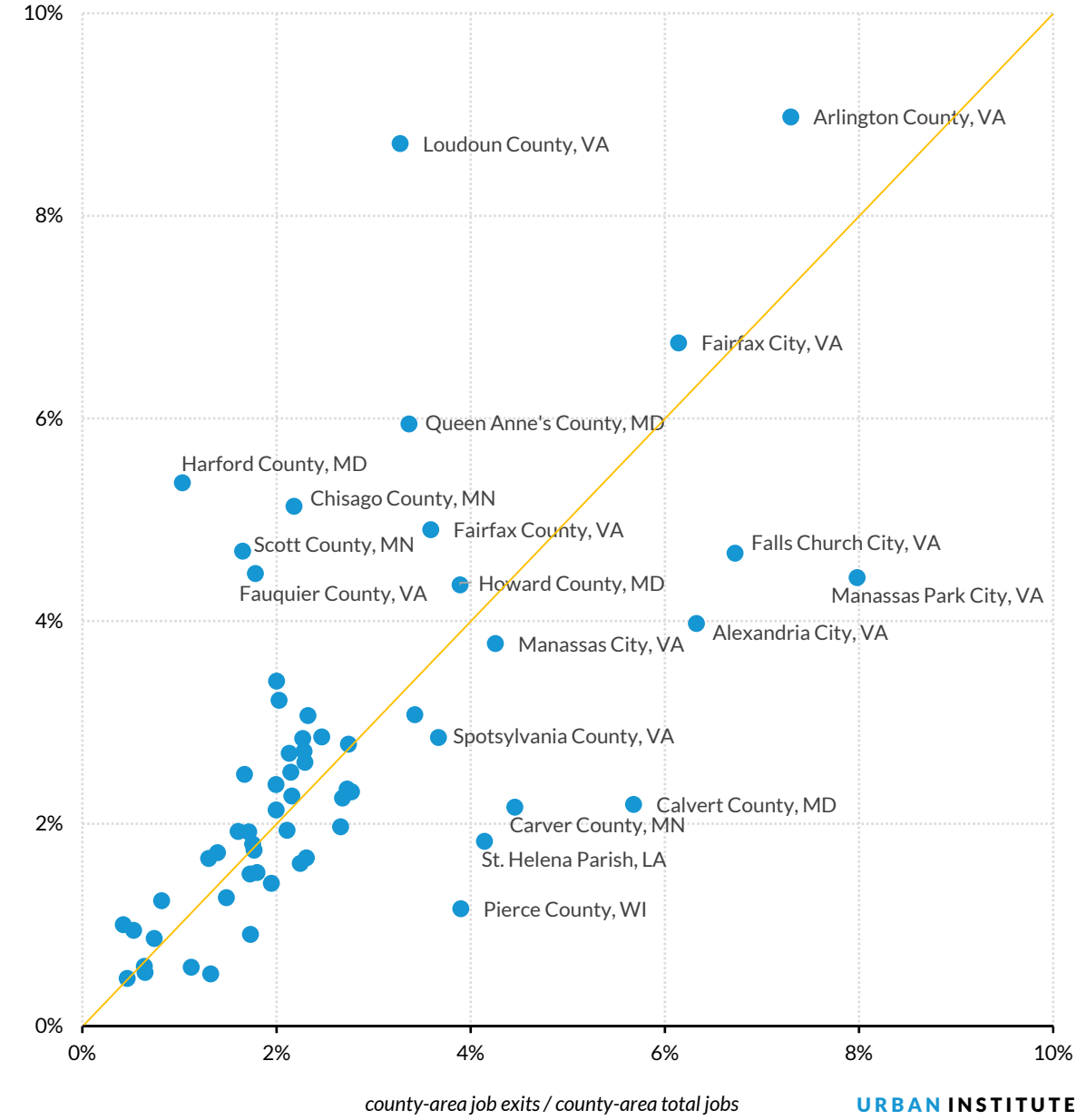
In previous intervals, such as 2008 to 2010 or as far back as 1995 to 1998, the findings are nearly identical. Job entries typically offset job exits over a three-year period for many, but not all, counties.

FIGURE 1

County-Level Job Migration

Jobs in Six Metro Areas, 2010 - 2012

county-area job entries / county-area total jobs



Source: Authors' analysis, National Establishment Time Series (NETS).
Note: Six metro areas include Baltimore, Baton Rouge, Minneapolis, Rochester, San Francisco, and Washington DC.

How Do Job Departures Relate to Changes in Jobs?

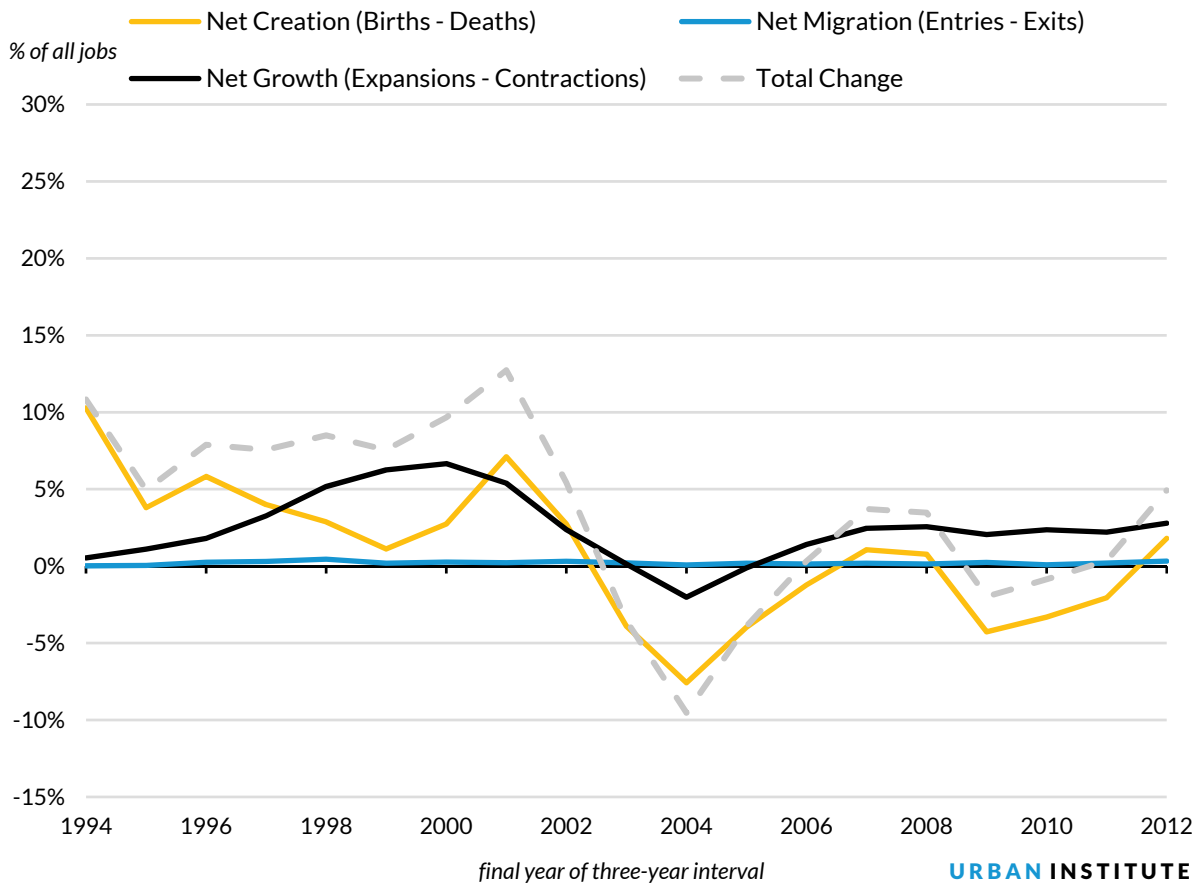
Because of stories in the media about large movers and the pressures felt by elected officials to not lose their businesses to neighboring jurisdictions, policymakers often have trouble looking past the anecdotes at the overall evidence on employment changes. We examine the importance of job exits and entries relative to changes in total local employment.[11]

In a look at all counties across our six metropolitan areas, we study net creation (births minus deaths), net growth (expansions minus contractions), and net migration (entries minus exits) to see which component is driving growth in number of establishments or jobs. We find that changes in total jobs are driven principally through changes in births, deaths, expansions, and contractions rather than entries and exits (figure 2). This holds true over time.

FIGURE 2

Components of Change in Jobs

Jobs in Six Metro Areas, Rolling Three-Year Intervals



Source: Authors' analysis, National Establishment Time Series (NETS).
Note: Six metro areas include Baltimore, Baton Rouge, Minneapolis, Rochester, San Francisco, and Washington DC.

How Do Trends Vary across Counties?

The results in figure 2 convey trends across all counties in the six metropolitan areas in our study. But these counties have considerable differences in their size and economic composition.

Counties demonstrated similar patterns in the components of net employment change (figure 3, sorted by net creation of jobs), with some exceptions. In nearly all of the 61 counties, change in employment levels was primarily driven by net job creation (yellow bars) and job growth (black bars).

This is true among large counties—for example, in Minnesota's Hennepin County and Virginia's Fairfax County, net migration represented -0.2 percent and 1.3 percent, respectively, as a share of all jobs. And it is true among smaller counties: in Louisiana's West Feliciana Parish and New York's Ontario County, migration represented -0.1 percent and 0.3 percent, respectively, as a share of all jobs. Counties with a relatively larger share of change attributable to migration included Maryland's Calvert County, Minnesota's Scott County, and Virginia's Loudoun County. Overall, this shows that migration was a fairly minimal detractor (where negative) or contributor (where positive) to net changes in jobs.

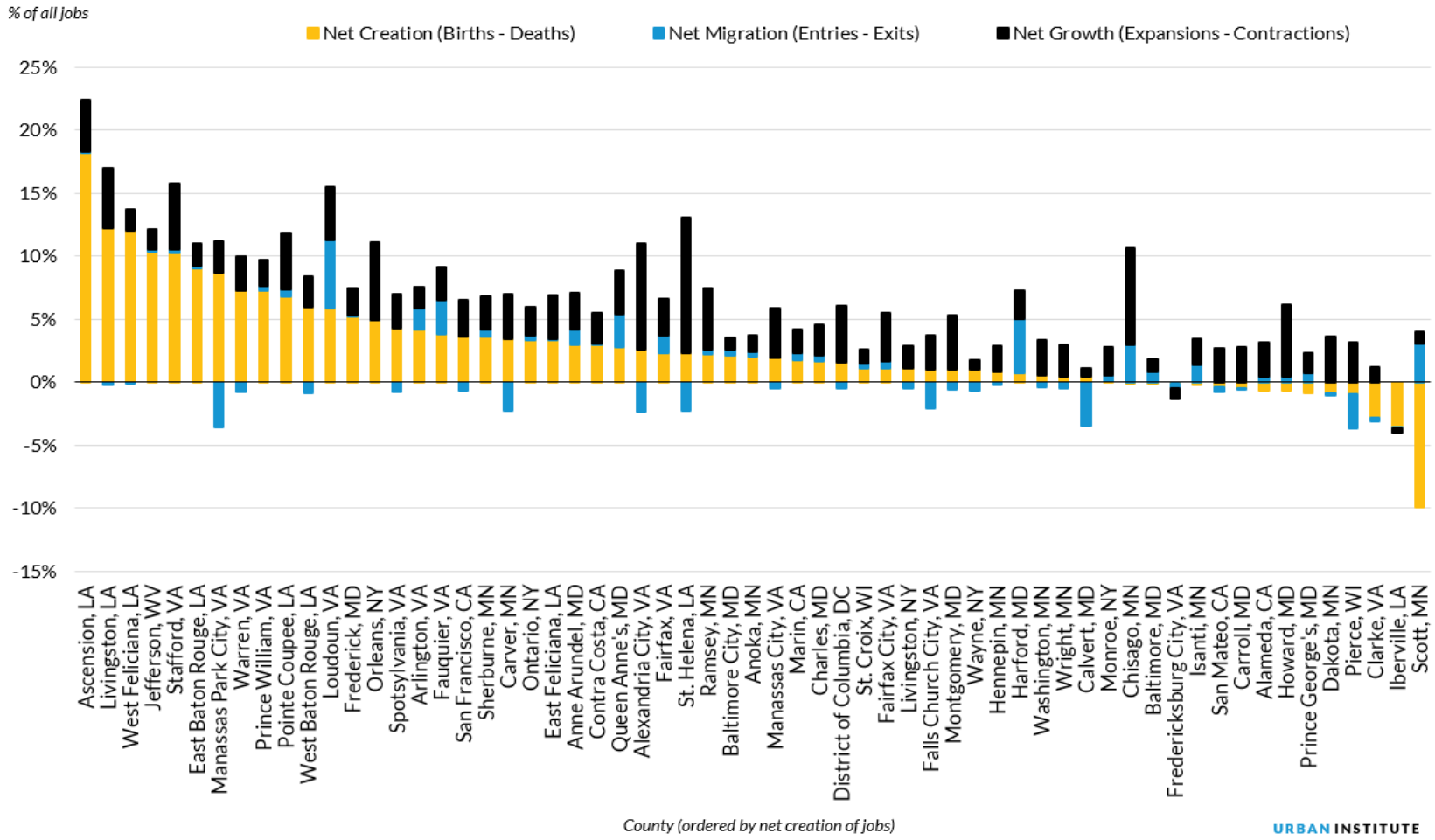
Furthermore, the 61 counties represented a wide range of economic conditions. 10 of the 61 counties were in the top 20 counties in the United States by 2010 median household income, with Loudoun County, Virginia ($123,500), at the top.[12] St. Helena Parish, Louisiana ($35,400), and Baltimore City, Maryland ($42,200), however, had significantly lower median household incomes. We explored whether job migration varied with median household income as an indicator for local economic conditions. In figure 4, counties are ordered from left to right on the horizontal axis by median household income. The vertical axis, by comparison, illustrates the county's job entries (blue bars above the horizontal axis) and job exits (yellow bars below the horizontal axis) as a share of total jobs.

We find a positive correlation between job entries and median household income at the county level. But there is also a positive correlation between job exits and median household income. Barring a few exceptions (such as Chisago County, Minnesota, and Manassas Park City, Virginia), counties with higher median household income were likely to have more churn (both in- and out-migration). Once we subtract exits from entries to examine the cumulative trend, the aggregate change in net migrations was not associated with local economic conditions. Higher-income counties may see more job entries, but they also see substantial job exits, meaning higher-income counties are not, on net, experiencing more or less net migration.

FIGURE 3

County-Level Components of Change in Jobs

Jobs in Six Metro Areas, 2010 - 2012



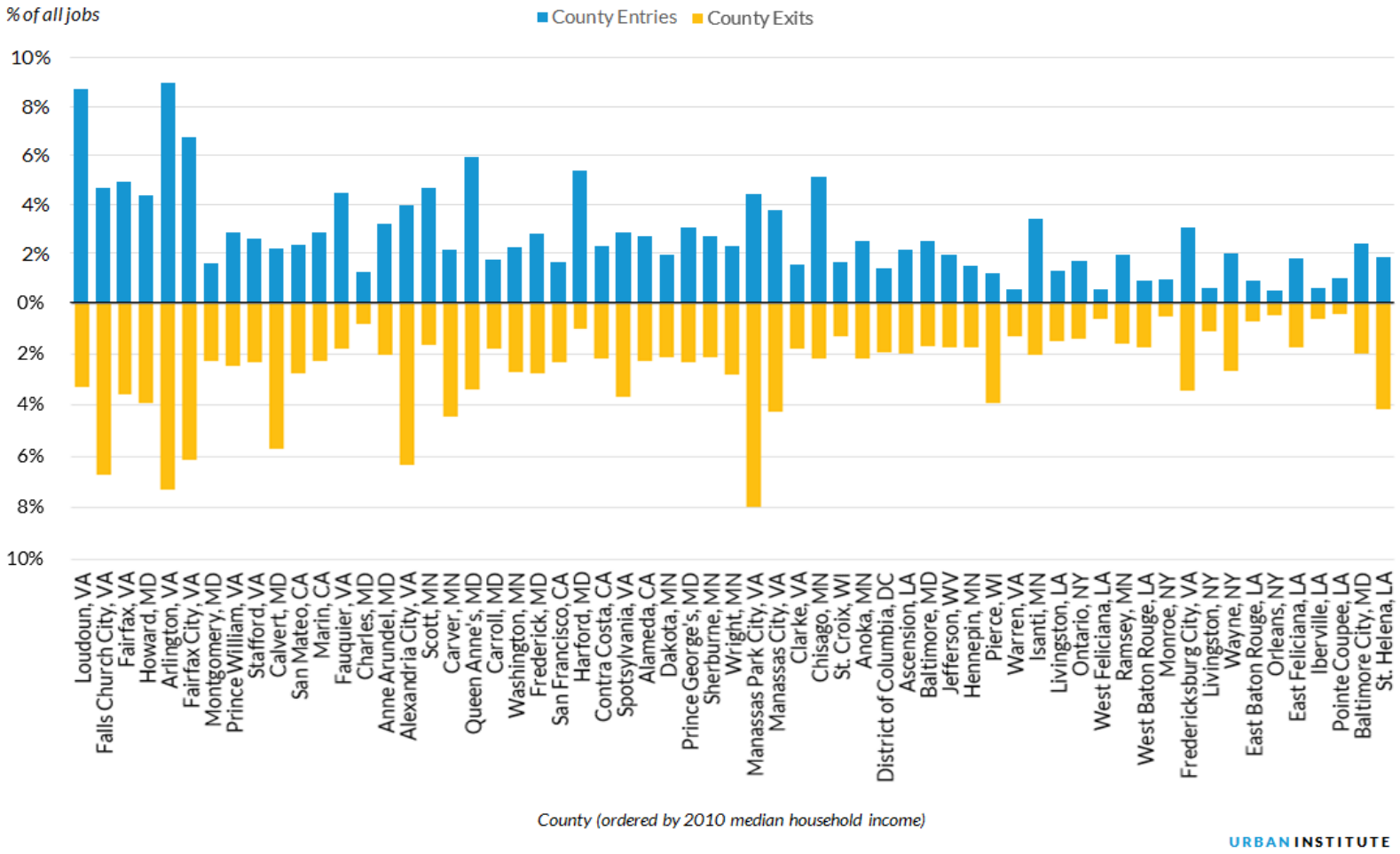
Source: Authors' analysis, National Establishment Time Series (NETS).

Note: Six metro areas include Baltimore, Baton Rouge, Minneapolis, Rochester, San Francisco, and Washington DC.

FIGURE 4

County-Level Median Household Income and Job Migration

Jobs in Six Metro Areas, 2010 - 2012



Source: Authors' analysis, National Establishment Time Series (NETS); 2011-2015 5-Year Estimates, American Community Survey (ACS), U.S. Census Bureau.
Note: Six metro areas include Baltimore, Baton Rouge, Minneapolis, Rochester, San Francisco, and Washington DC.

What Type of Establishments Are Moving?

Even though mobility does not typically represent a large source of local job loss, officials may feel more motivated to respond to real or threatened establishment exits if they are relatively large or strategic in terms of their industrial sector. Local officials bear more direct witness to the positive spillover and multiplier effects of job creation that establishment entries can cause. Not only do people who are employed locally purchase locally generated services (and, to a lesser extent, goods), but economic activity from establishment can generate additional jobs for establishments in local complementary industries. Moretti (2010) found that for every additional manufacturing job in an area, another 1.6 jobs in the nontradeable sector were generated locally. This result was more pronounced for high-skilled jobs, for which each job generated an additional 2.5 jobs in nontradeable local goods and services.

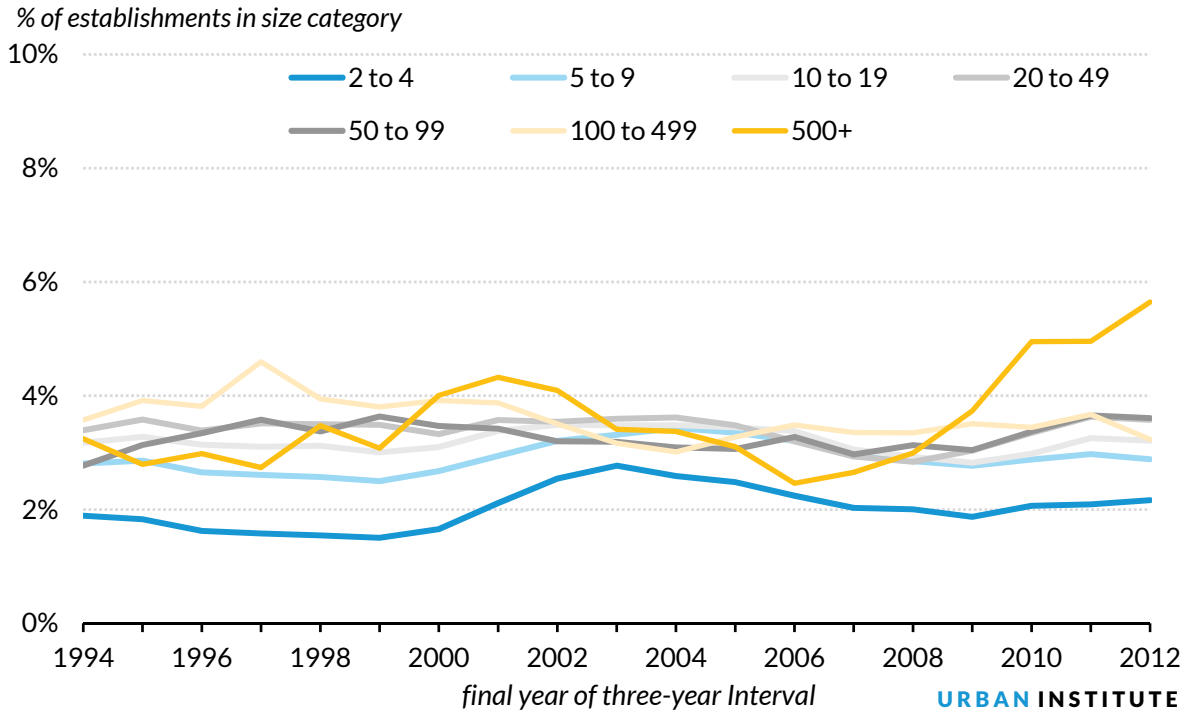
We find that mobile establishments had more employees than establishments that were born or died. This is understandable given that establishments generally ramp employment levels up or down as they are starting or failing, respectively. Establishments that moved out of their county or entered a county between 2010 and 2012 averaged 13 to 15 employees. Establishments that died averaged about 7 employees, and establishments that were born averaged 5 employees.

The largest establishments were relatively more likely to move from their respective counties than others. From 2010 to 2012, 5.6 percent of establishments with 500 or more employees moved; while between 3.2 and 3.6 percent of establishments with 10 to 499 employees moved, depending on their size class (figure 5). Least likely to move were the smallest establishments: just 2.2 percent of those with two to four employees moved in the most recent period. Overall, we see that establishments with 500 or more employees were likelier to move than establishments in other size classes in the last four rolling intervals of our 20-year study period.

FIGURE 5

Migration Rates by Establishment Size

Establishments in Six Metro Areas, Rolling Three-Year Intervals



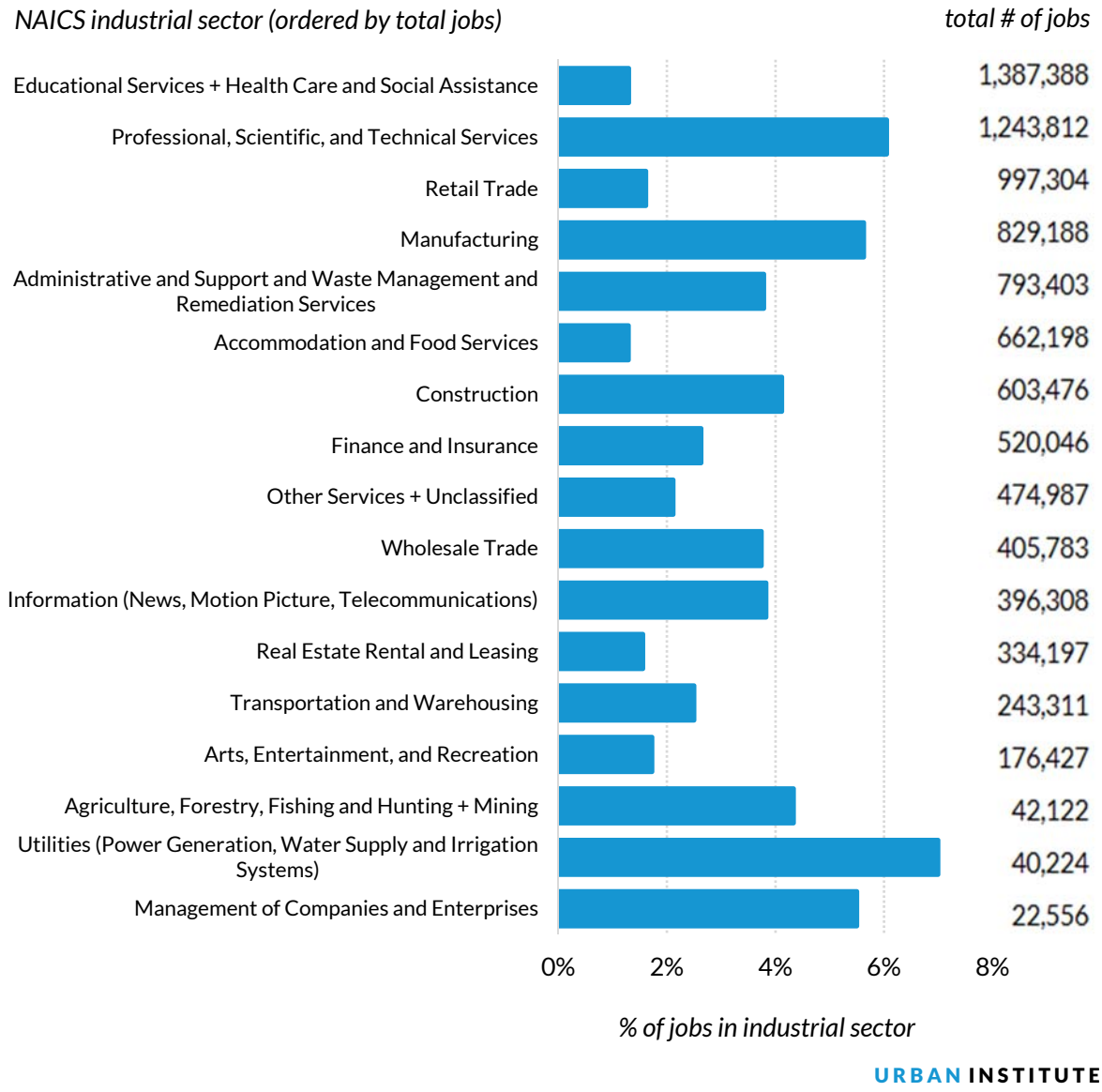
Source: Authors' analysis, National Establishment Time Series (NETS).
Note: Six metro areas include Baltimore, Baton Rouge, Minneapolis, Rochester, San Francisco, and Washington DC.

We also investigated whether establishments in different industrial sectors were more or less mobile. We found that establishments, and specifically their corresponding jobs, in some industries were more likely to move than others (figure 6). For the 2010 to 2012 period, 5.6 percent of jobs in the manufacturing sector and 6.0 percent of jobs in professional, scientific, and technical services moved. These two sectors were also in the top four sectors by total employment levels, with about 1 million or more jobs throughout the six metropolitan areas. The utilities sector also saw 7.0 percent of jobs move, though it constituted only 0.4 percent of total jobs. Least likely to move, with move rates between 1.0 and 2.0 percent, were establishments in the accommodation and food services and education services, both of which are large-employing industries with more than 500,000 jobs in our six metropolitan areas.

FIGURE 6

Migration Rates by Industrial Sector

Jobs in Six Metro Areas, 2010 - 2012



Source: Authors' analysis, National Establishment Time Series (NETS).

Note: Six metro areas include Baltimore, Baton Rouge, Minneapolis, Rochester, San Francisco, and Washington DC.

When Establishments Move, How Far Do They Go?

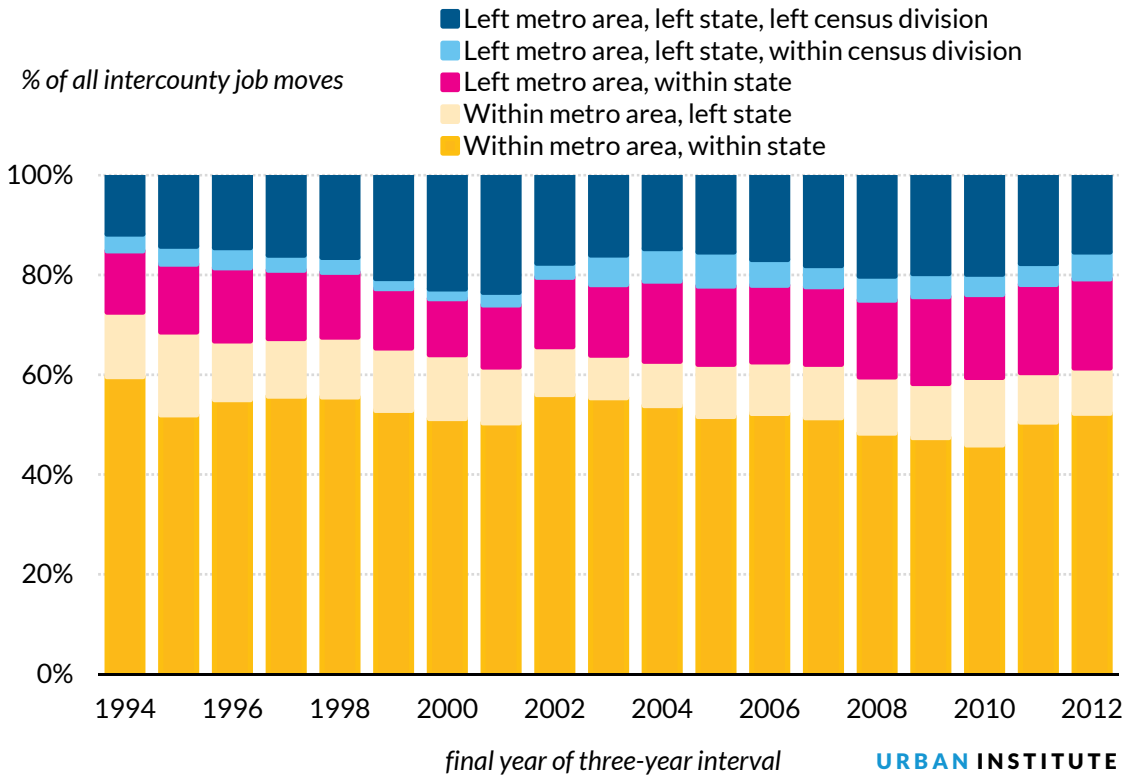
As with residential moves for families, most intercounty establishment relocations are happening at closer distances—within the metropolitan area or state. From 2010 to 2012, 61 percent of all intercounty job moves occurred within the same metropolitan area (yellow bars, figure 7). Of the other 39 percent of jobs that left their respective metropolitan areas during that period, slightly more than half left the state (and of these, a sizable share left the census division).[13] Specifically, 18 percent left the metropolitan area but stayed within the state (pink bar), and 21 percent left the state (blue bars). Overall, the composition of job migration has been consistent over time.

The Washington, DC metropolitan area encompasses areas from three states, and the Minneapolis metropolitan area, while mostly in Minnesota, includes two counties in Wisconsin. Therefore, the share of jobs that left the state but stayed within the metropolitan area (light yellow bar) was driven solely by those two metropolitan areas, totaling about 11 percent of intercounty job migration on average across time.

FIGURE 7

Geography of Intercounty Job Migration

Jobs in Six Metro Areas, Rolling Three-Year Intervals



Source: Authors' analysis, National Establishment Time Series (NETS).
Note: Six metro areas include Baltimore, Baton Rouge, Minneapolis, Rochester, San Francisco, and Washington DC.

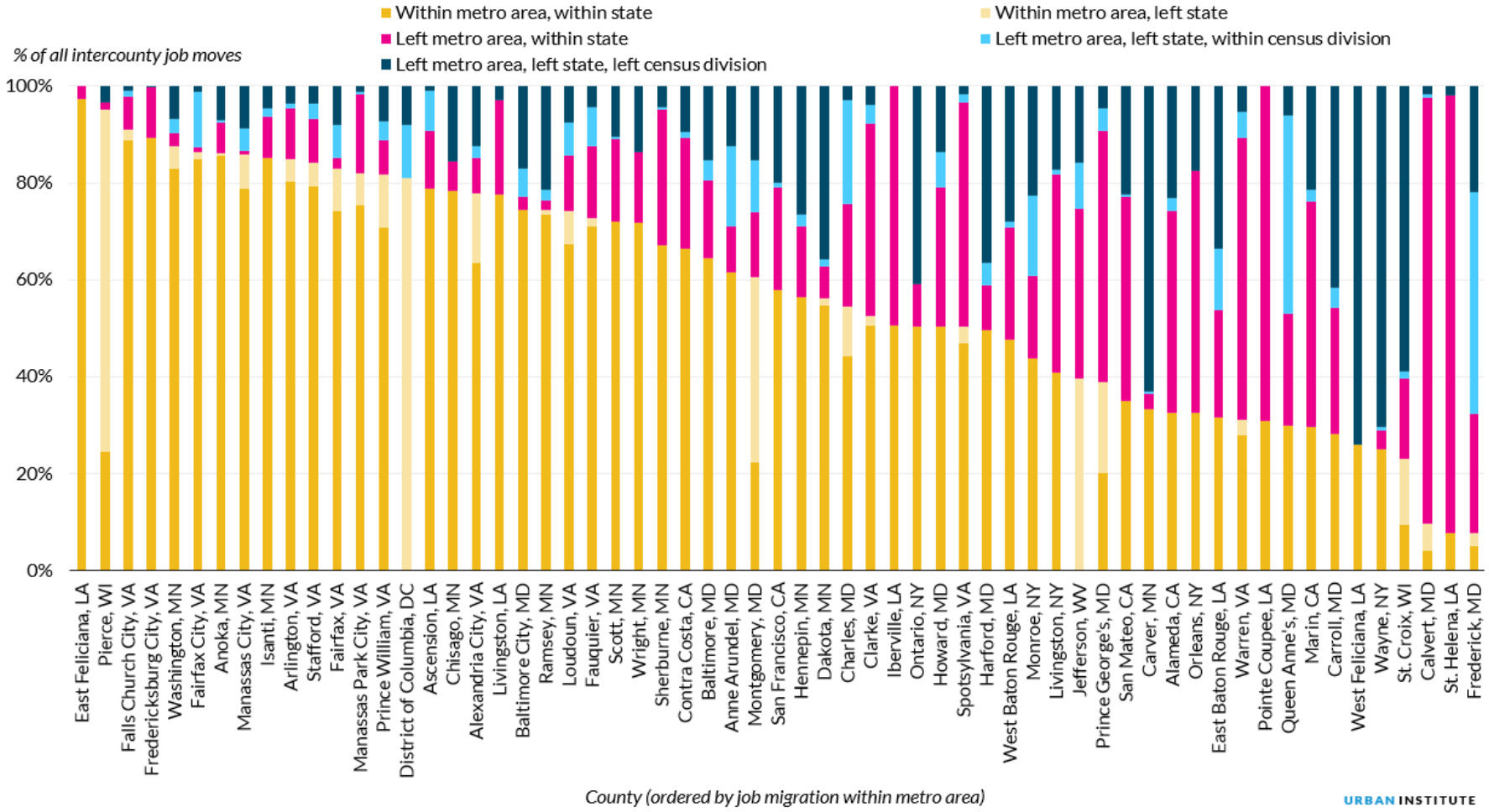
Comparing individual counties from 2010 to 2012 (figure 8), similar patterns emerge. In figure 8, counties are ordered from left to right by the share of job migration that occurred within the metropolitan area (a combination of yellow bars, with left-most county having the largest share and right-most county having the lowest share). A large share of job migration happens at closer geographies. In eight of 61 counties (13 percent) more than 80 percent of intercounty job migration was within the metropolitan area and within the state. This was true both for small counties like East Feliciana Parish, Louisiana, and large ones like Arlington County, Virginia. In 39 of 61 counties (64 percent), moves within a metropolitan area (combination of yellow bars) represented more than half of all intercounty moves.

Six counties had half or more of their intercounty job migrations exit the metropolitan area but remain in the state (pink bar). Another five small counties, including Wayne County, New York, and Frederick County, Minnesota, had more than 60 percent of intercounty job migration going out of state. Interestingly, almost all of those jobs not only left their respective states, but also left their respective census divisions.

FIGURE 8

County-Level Geography of Intercounty Job Migration

Jobs in Six Metro Areas, 2010 - 2012



Source: Authors' analysis, National Establishment Time Series (NETS).

Note: Six metro areas include Baltimore, Baton Rouge, Minneapolis, Rochester, San Francisco, and Washington DC.

Implications

Localities frequently offer tax or other publicly funded incentives to attract or retain firms in an effort to bolster local employment (Bartik 2018a). However, the prevalence of job migration and its economic effects are not well understood.

We find that, with some exceptions, establishment and job entries and exits typically offset each other. Job exits are a relatively small share of all job losses at the county level. And, once in- and out-migrations are reconciled, changes in the number of jobs attributed to establishment mobility are small when viewed as a share of all jobs in an area. Migration happens at slightly different rates across varying establishment sizes and industrial sectors, but it is likely to occur within neighboring geographies of the same metropolitan area. Higher-income counties are likely to see more churn (both in- and out-migration) than lower-income counties, suggesting the prevalent rhetoric of jobs siphoning to higher-income areas merits further investigation.

Given these dynamics, localities should rigorously assess the value of providing incentives for firm attraction or retention. The evidence we present on job generation from migration does not reflect well on incentives, especially if eligibility and accountability standards in tax abatements do not explicitly address requirements for new jobs. Migration of establishments and their respective jobs constitutes a small portion of overall job gain or loss in our six metropolitan areas of study, suggesting that public resources may be better spent on activities that are larger contributors to employment gains, such as establishment births and expansions. We also note that though larger firms were slightly more likely to move than others, policymakers should reevaluate the role of mega-deals and large incentive packages in attracting establishments from other localities given the largely minimal changes to total employment levels from net migration.[14]

A healthy economy is important to local policymakers and their residents, and government action may still have a place in supporting sustainable economic growth, especially in declining or stagnant geographies or in areas dependent on a declining industrial base. Surveys about firm site selection, however, indicate that highway accessibility, labor costs, the availability of skilled labor, and quality of life all top tax exemptions and state and local tax incentives as important factors that local officials can influence.[15]

Although employment changes caused by job migration may vary across counties, most moves are happening locally within metropolitan areas. Unsurprisingly, this suggests that firms look to maintain their incumbent workforce, suppliers, and customer base. But the mere threat of an exit presents jurisdictions with the dire choice of either spending fiscal resources to retain the business or risk their neighboring jurisdictions poaching it. Regionalism and collaboration at interlocal levels, especially when incentivized by states and shared governance structures, can counter the "race to the bottom."

Economic development is about more than tax incentives. Evidence-based apprenticeship programs,[16] workforce development programs (Eyster and Briggs 2016), and good infrastructure

support (Francis and Randall 2017) are alternatives. As Bartik (2018b) noted, job skills development programs (whether at the prekindergarten or community-college level) can have higher cost- benefit ratios than business tax incentives. Cities might consider these programs as long-term investments and shift some of those tax incentives into evidence-based practices if they want to take a proactive role in their economic development. The Governmental Accounting Standards Board (GASB) recently issued Statement No. 77 on tax abatement disclosures, requiring detailed financial reporting on all agreements where tax revenues are forgone (FAF 2015). All state and local governments that conform to Generally Accepted Accounting Principles (GAAP) for financial accounting purposes are required to comply for budgets post December 2015.

Across the US, economic development incentives have become popular political tools. But the asymmetry of information between governments, voters, and firms can mask the long-term fiscal costs to a region. Investigating the distributional effects of investment incentives, Jensen and Malesky (2018) find that cities and states with more investment incentives rely on regressive sales taxation and cuts to public services, which lead to higher levels of economic inequality. Our research does not directly examine the costs and benefits of such incentives in these six metropolitan areas or explicate migration trends for only establishments that received incentives, both of which are worthy pursuits for future research in this field. However, it does indicate that job migration is a very small share of all local employment, which should leave economic development agencies, politicians, and residents more skeptical of firm attraction and tax incentives' role in boosting economic activity.

Appendix

TABLE A.1

Summary of Six Metro Areas

Population, Income, Jobs, and Migration Breakdowns

	Baltimore, MD	Baton Rouge, LA	Minneapolis, MN-WI	Rochester, NY	San Francisco, CA	Washington, DC-VA-MD-WV	All six metros
CBSA code	12580	12940	33460	40380	41860	47900	
Counties	7	9	13	5	5	22	61
Population	2,710,500	802,500	3,348,900	1,079,700	4,335,400	5,636,200	17,913,100
Median HHI	$76,800	$52,500	$73,200	$55,100	$96,700	$95,800	$84,200
Total est.	126,300	39,500	154,300	37,900	232,400	301,700	892,100
Total jobs	1,344,500	383,800	1,755,700	428,500	2,152,100	3,108,100	9,172,700
Share of est.	14.2%	4.4%	17.3%	4.2%	26.1%	33.8%	100%
Share of Jobs	14.7%	4.2%	19.1%	4.7%	23.5%	33.9%	100%
Est. exits	1.7%	1.0%	1.9%	0.9%	1.7%	2.1%	1.8%
Est. entries	1.9%	1.2%	2.0%	1.0%	1.7%	2.1%	1.8%
Job exits	2.1%	1.0%	1.9%	0.8%	2.3%	3.1%	2.3%
Job entries	3.1%	1.0%	1.9%	1.1%	2.3%	3.6%	2.7%

Source: Authors' analysis, National Establishment Time Series; 201115 Five-Year Estimates, American Community Survey; Metropolitan and Micropolitan Statistical Areas Population Totals: 2010–17, US Census Bureau.

Notes: CBSA = core-based statistical area; est. = establishment; HHI = household income. Numbers reported for the "All six metros" column are actual total figures for all variables except median household income (weighted average by population). Data are from 2010 for total establishments, total jobs, and population; data are 2011–15 five-year estimates for median HHI; data are from 2010–12 interval for exits and entries. Sole proprietorships and nonprofit/government establishments and their corresponding jobs are not included.

TABLE A.2

Summary of 61 Counties

Population, Income, Jobs, and Migration Breakdowns

	State	Population	Median HHI	Total Est.	Total Jobs	Est. Exits	Est. Entries	Job Exits	Job Entries
Alameda	CA	1,510,300	$75,600	70,700	703,700	2%	2%	2%	3%
Contra Costa	CA	1,049,000	$80,200	46,800	380,100	1%	2%	2%	2%
Marin	CA	252,400	$93,300	21,100	132,300	2%	2%	2%	3%
San Francisco	CA	805,200	$81,300	53,300	540,400	2%	1%	2%	2%
San Mateo	CA	718,500	$93,600	40,500	395,700	2%	2%	3%	2%
District of Columbia	DC	601,700	$70,800	37,400	498,700	2%	1%	2%	1%
Ascension	LA	107,200	$70,600	4,400	36,400	2%	2%	2%	2%
East Baton Rouge	LA	440,200	$49,300	25,800	281,500	1%	1%	1%	1%
East Feliciana	LA	20,300	$45,500	700	4,300	1%	1%	2%	2%
Iberville	LA	33,400	$45,100	1,300	13,300	1%	1%	1%	1%
Livingston	LA	128,000	$58,300	4,400	25,500	1%	2%	1%	1%
Pointe Coupee	LA	22,800	$43,800	900	6,200	1%	1%	0%	1%
St. Helena	LA	11,200	$35,400	400	2,500	4%	3%	4%	2%
West Baton Rouge	LA	23,800	$53,700	1,100	10,700	2%	2%	2%	1%
West Feliciana	LA	15,600	$56,700	400	3,600	1%	1%	1%	1%
Anne Arundel	MD	537,700	$89,900	26,200	259,300	2%	2%	2%	3%
Baltimore	MD	805,000	$67,100	37,900	396,700	2%	2%	2%	2%
Calvert	MD	88,700	$95,800	3,700	28,000	1%	2%	6%	2%
Carroll	MD	167,100	$85,400	8,200	65,800	2%	2%	2%	2%
Charles	MD	146,600	$90,600	5,900	49,500	1%	2%	1%	1%
Frederick	MD	233,400	$83,700	12,500	113,600	1%	2%	3%	3%
Harford	MD	244,800	$80,500	10,000	104,400	1%	1%	1%	5%
Howard	MD	287,100	$110,200	16,300	178,300	2%	3%	4%	4%
Montgomery	MD	971,800	$99,400	53,200	531,800	1%	1%	2%	2%
Prince George's	MD	863,400	$74,300	38,900	363,100	2%	1%	2%	3%
Queen Anne's	MD	47,800	$86,000	2,800	16,600	2%	3%	3%	6%
Baltimore City	MD	621,000	$42,200	24,900	323,300	2%	2%	2%	2%
Anoka	MN	330,800	$70,900	12,200	116,600	2%	2%	2%	3%
Carver	MN	91,000	$86,300	4,400	41,800	2%	2%	4%	2%
Chisago	MN	53,900	$71,000	2,400	14,300	2%	3%	2%	5%
Dakota	MN	398,600	$75,600	17,100	203,500	2%	2%	2%	2%
Hennepin	MN	1,152,400	$65,800	63,400	820,300	1%	1%	2%	2%
Isanti	MN	37,800	$59,900	1,600	9,400	2%	3%	2%	3%

	State	Population	Median HHI	Total Est.	Total Jobs	Est. Exits	Est. Entries	Job Exits	Job Entries
Ramsey	MN	508,600	$56,100	22,400	309,900	2%	2%	2%	2%
Scott	MN	129,900	$87,800	5,700	50,500	2%	3%	2%	5%
Sherburne	MN	88,500	$74,200	3,800	24,900	3%	3%	2%	3%
Washington	MN	238,100	$83,700	9,800	83,200	2%	3%	3%	2%
Wright	MN	124,700	$73,600	5,700	38,300	2%	2%	3%	2%
Livingston	NY	65,400	$51,700	2,300	18,100	1%	1%	1%	1%
Monroe	NY	744,300	$52,600	26,900	327,400	1%	1%	1%	1%
Ontario	NY	107,900	$57,400	4,500	45,500	1%	2%	1%	2%
Orleans	NY	42,900	$46,400	1,200	8,700	1%	1%	0%	0%
Wayne	NY	93,800	$50,800	3,000	28,800	2%	2%	3%	2%
Arlington	VA	207,600	$105,800	10,600	152,700	4%	3%	7%	9%
Clarke	VA	14,000	$71,300	1,000	5,700	3%	2%	2%	2%
Fairfax	VA	1,081,700	$112,600	66,000	742,200	2%	2%	4%	5%
Fauquier	VA	65,200	$91,600	4,300	27,700	2%	3%	2%	4%
Loudoun	VA	312,300	$123,500	17,600	168,100	2%	3%	3%	9%
Prince William	VA	402,000	$98,700	16,600	134,600	2%	3%	2%	3%
Spotsylvania	VA	122,400	$78,100	5,300	39,400	2%	3%	4%	3%
Stafford	VA	129,000	$97,100	5,100	34,900	3%	2%	2%	3%
Warren	VA	37,600	$61,500	2,100	14,100	2%	1%	1%	1%
Alexandria City	VA	140,000	$89,100	9,000	92,200	4%	3%	6%	4%
Fairfax City	VA	22,600	$105,300	3,600	32,500	5%	5%	6%	7%
Falls Church City	VA	12,300	$120,500	1,500	11,600	4%	5%	7%	5%
Fredericksburg City	VA	24,300	$51,800	2,300	23,600	4%	3%	3%	3%
Manassas City	VA	37,800	$72,900	2,400	23,800	5%	4%	4%	4%
Manassas Park City	VA	14,300	$73,500	600	4,800	5%	5%	8%	4%
Jefferson	WV	53,500	$66,700	2,100	15,500	2%	2%	2%	2%
Pierce	WI	41,000	$61,600	1,600	11,000	1%	2%	4%	1%
St. Croix	WI	84,300	$70,900	4,100	31,900	1%	2%	1%	2%
All 61 counties		**291,200**	**$75,000**	**14,600**	**150,400**	**2%**	**2%**	**3%**	**3%**

Source: Authors' analysis, National Establishment Time Series; 2011–15 Five-Year Estimates, American Community Survey; Metropolitan and Micropolitan Statistical Areas Population Totals: 2010–17, US Census Bureau.

Notes: Est. = establishment; HHI = household income. Numbers reported for the "All 61 counties" row are unweighted averages. Data are from 2010 for total establishments, total jobs, and population; data are from 2011–15 five-year estimates for median HHI; data are 2010–12 intervals for exits and entries. Sole proprietorships and nonprofit/government establishments and their corresponding jobs are not included.

Notes

[1] An establishment, as defined by Walls & Associates, is "a business or industrial unit at a single physical location that produces or distributes goods or performs services, for example, a single store or factory" (Neumark, Zhang, and Wall 2005).

[2] We studied the following metropolitan statistical areas: Baton Rouge, LA; Baltimore-Towson, MD; Minneapolis-St. Paul-Bloomington, MN-WI; Rochester, NY; San Francisco-Oakland-Fremont, CA; and Washington-Arlington-Alexandria, DC-VA-MD-WV.

[3] For a study on how declining transportation costs have contributed to the rise in international trade since the 1950s, see Hummels (2007). In *States and the Economy*, 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, led to higher levels of state economic competition.

[4] Jill Cowan, "Dallas Offers Nokia $4.8 Million to Move Headquarters 3 Miles from Las Colinas, Jobs from Plano," *DallasNews.com*, July 11, 2018, https://www.dallasnews.com/business/economy/2018/07/11/dallas-offers-nokia-48-million-move-headquarters-3-miles-las-colinas-jobs-plano.

[5] See Randall et al. (forthcoming) for a more thorough overview of the literature on the effects of aggressive tax incentive competition. Intraregional relocation of firms from one jurisdiction to another can cause a net loss in the regional tax base. See Anderson and Wassmer (2000), Mintz and Tulkens (1986), Wildasin (1989), and Wilson (1993). Discussions about the benefits of firm relocations tend to focus on the benefits obtained but not the additional costs associated with increased use of public services by the establishment or new employees that migrate from outside of the area (Bartik 2018a). Of the new jobs created in a local labor market, 80 percent will likely be filled by in-migrants who would have lived elsewhere absent the new job opportunities (Bartik 2003). This reduces the benefit of new employment for the jurisdiction, which now must provide services to accommodate the increased population.

[6] We received data for the following combined statistical areas (CSAs) and core-based statistical areas (CBSAs), as per the 2008 statistical definitions: Baton Rouge-Pierre Part, LA (CSA: 132), Minneapolis-St. Paul-Bloomington, MN-WI (CBSA: 33460), Rochester-Batavia-Seneca Falls, NY (CSA: 464), San Francisco-Oakland-Fremont, CA (CBSA: 41860), and Washington-Baltimore-Northern Virginia, DC-VA-MD-WV (CSA: 548). From the above, we derived the metropolitan statistical areas and excluded any micropolitan areas for the following: Baltimore (CBSA: 12580), Baton Rouge (CBSA: 12940), Minneapolis (CBSA: 33460), Rochester (CBSA: 40380), San Francisco (CBSA: 41860), and Washington-Arlington-Alexandria, DC-VA-MD-WV (CBSA: 47900).

[7] See LeRoy and Walter (2006) and Cafcas (2015).

[8] To ensure our results are robust, we tested three different iterations of components of change in establishment and job levels across the six metropolitan areas to check the validity of actual and imputed employment figures, finding that the trends in this brief hold.

[9] Jonathan O'Connell, "As Companies Relocate to Big Cities, Suburban Towns Are Left Scrambling," *Washington Post*, July 16, 2017, https://www.washingtonpost.com/business/economy/as-companies-relocate-to-big-cities-suburban-towns-are-left-scrambling/2017/07/16/81c12cea-618d-11e7-84a1-a26b75ad39fe_story.html?noredirect=on&utm_term=.925160c99965.

[10] Ibid.

[11] A related but distinct body of research shows the effects of plant closures due to trade or technological changes, which we do not focus on here.

[12] "2011-2015 5-Year Estimates: Median Household Income by County," American Fact Finder, US Census Bureau, accessed April 25, 2018 https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml.

[13] Census divisions are geographic groupings of states and the District of Columbia. The nine census divisions are New England, Middle Atlantic, Midwest, West North Central, South Atlantic, East South Central, West South Central, Mountain, and Pacific.

[14] See Mattera and Tarczynska (2013).

[15] See Geraldine Gambale, "32nd Annual Corporate Survey Results & the 14th Annual Consultants Survey" *Area Development*, quarter 1 2018, http://www.areadevelopment.com/Corporate-Consultants-Survey-Results/Q1-2018/32nd-annual-corporate-survey-14th-annual-consultants-survey.shtml.

[16] Zachary J. McDade, "Expanding apprenticeships is worth the investment," *Urban Wire*, June 9, 2014, https://www.urban.org/urban-wire/expanding-apprenticeships-worth-investment.

References

Anderson, John E., and Robert W. Wassmer. 2000. *Bidding for Business: The Efficacy of Local Economic Development Incentives in a Metropolitan Area.* Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.

Baldwin, Richard E., and Toshihiro Okubo. 2006. "Heterogeneous Firms, Agglomeration and Economic Geography: Spatial Selection and Sorting." *Journal of Economic Geography* 6 (3): 323–46.

Bartik, Timothy J. 2003. "Local Economic Development Policies." Working paper 03-91. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. http://research.upjohn.org/cgi/viewcontent.cgi?article=1108&context=up_workingpapers.

Bartik, Timothy J. 2004. "Incentive Solutions." Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. https://doi.org/10.17848/wp04-99.

———. 2017. "A New Panel Database on Business Incentives for Economic Development Offered by State and Local Governments in the United States." Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. http://www.upjohn.org/models/bied/report.php.

———. 2018a. "Who Benefits From Economic Development Incentives? How Incentive Effects on Local Incomes and the Income Distribution Vary with Different Assumptions about Incentive Policy and the Local Economy." Kalamazoo, MI: W.E. Upjohn Institute for Employment Research. https://doi.org/10.17848/tr18-034.

———. 2018b. "Helping Manufacturing-Intensive Communities: What Works?" Washington, DC: Center on Budget and Policy Priorities. https://www.cbpp.org/sites/default/files/atoms/files/4-9-18fe.pdf.

Cafcas, Thomas. 2015. *A Better Deal for the District: Enhancing Economic Development Transparency & Accountability in Washington, D.C.* Washington, DC: Good Jobs First.

Chapple, Karen. 2014. "The Highest and Best Use? Urban Industrial Land and Job Creation." *Economic Development Quarterly* 28 (4): 300–313.

Chirinko, Robert S., and Daniel J. Wilson. 2008. "State Investment Tax Incentives: A Zero-Sum Game?" *Journal of Public Economics* 92 (12): 2362–84.

Conroy, Tessa, Steven Deller, and Alexandra Tsvetkova. 2015. "Regional Business Climate and Interstate Manufacturing Relocation Decisions." *Munich Personal RePEc Archive* 72350.

Eyster, Lauren, and Amanda Briggs. 2016. "State Workforce and Economic Development." Washington, DC: Urban Institute. https://www.taxpolicycenter.org/sites/default/files/publication/136701/2001004-state-workforce-and-economic-development-opportunities-for-collaboration_3.pdf.

Ellis, Stephen, and Cynthia Rogers. 2000. "Local Economic Development as a Prisoners' Dilemma: The Role of Business Climate." *Review of Regional Studies* 30 (3): 315.

Financial Accounting Foundation (FAF). 2015. "Statement No. 77 of the Governmental Accounting Standards Board: Tax Abatement Disclosures." CT: Financial Accounting Foundation.

Francis, Norton, and Megan Randall. 2017. "Investments in the Community." Washington, DC: Urban Institute. https://www.taxpolicycenter.org/publications/investments-community.

LeRoy, Greg, and Karla Walter. 2006. *The Thin Cities: How Subsidized Job Piracy Deepens Inequality in the Twin Cities Metro Area*. Washington, DC: Good Jobs First.

Harger, Kaitlyn R., Amanda Ross, and Heather M. Stephens. 2015. "What Matters More for Economic Development, the Amount of Funding or the Number of Projects Funded? Evidence from the Community Development Financial Investment Fund." Working paper 15-51. Morgantown: West Virginia University.

Hummels, David. 2007. "Transportation Costs and International Trade in the Second Era of Globalization." *Journal of Economic Perspectives* 21 (3): 131–54.

Jensen, Nathan M., and Edmund J. Malesky. 2018. *Incentives to Pander: How Politicians Use Corporate Welfare for Political Gain*. United Kingdom: Cambridge University Press. https://doi.org/10.1017/9781108292337

Kolko, Jed, and David Neumark. 2007. "Business Location Decisions and Employment Dynamics in California." San Francisco: Public Policy Institute of California.

Krugman, Paul. 1991. "Increasing Returns and Economic Geography." *Journal of Political Economy* 99 (3): 483–99.

Kroll, Cynthia A., Diana Lee, and Nadir Shams. 2010. "The Dot-Com Boom and Bust in the Context of Regional and Sectoral Changes." *Industry and Innovation* 17 (1), 49–69.

Leatherman, John C., Donald J. Howard, and Terry L. Kastens. 2002. "Improved Prospects for Rural Development: An Industrial Targeting System for the Great Plains." *Review of Agricultural Economics* 24 (1): 59–77.

LeRoy, Greg, Kasia Tarczynska, Leigh McIlvaine, Thomas Cafcas and Philip Mattera. 2013. "The Job Creation Shell Game: Ending the Wasteful Practice of Subsidizing Companies that Move Jobs from One State to Another." Washington, DC: Good Jobs First.

Losch, August (translated by William H. Woglom). 1954. *The Economics of Location*. New Haven, CT: Yale University Press.

Mattera, Philip, and Kasia Tarczynska with Greg LeRoy. 2013. *Megadeals: The Largest Economic Development Subsidy Packages Ever Awarded by State and Local Governments in the United States*. Washington, DC: Good Jobs First.

Mintz, Jack, and Henry Tulkens. 1986. "Commodity Tax Competition Between Member States of a Federation: Equilibrium and Efficiency." *Journal of Public Economics* 29 (3): 1330172.

Moody, J. Scott, and Wendy P. Warcholik. 2014. "Illinois Job Creation from the Expansion or Contraction of Existing Establishments." Chicago: Illinois Policy Institute.

Moretti, Enrico. 2010. "Local Multipliers." *American Economic Review* 100 (2): 373–77. https://doi.org/10.1257/aer.100.2.373.

Neumark, David, and Jed Kolko. 2008. "Changes in the Location of Employment and Ownership: Evidence from California." *Journal of Regional Science* 48 (4): 717–44.

———. 2010. "Do Enterprise Zones Create Jobs? Evidence from California's Enterprise Zone Program" *Journal of Urban Economics* 68 (1): 1–19.

Neumark, David, Brandon Wall, and Junfu Zhang. 2008. "Do Small Businesses Create More Jobs? New Evidence from the National Establishment Time Series." *Review of Economics and Statistics* 93 (1): 16–29.

Neumark, David, Junfu Zhang, and Brandon Wall. 2005. "Employment Dynamics and Business Relocation: New Evidence from the National Establishment Time Series." Working Paper 11647. Washington, DC: National Bureau of Economic Research.

Patrick, Carlianne. 2014. "Does Increasing Available Non-Tax Economic Development Incentives Result in More Jobs?" *National Tax Journal* 67 (2): 351–86. https://doi.org/10.17310/ntj.2014.2.03.

Pellenbarg, Piet H., Leo J. G. van Wissen, and Jouke van Dijk. 2002. "Firm Relocation: State of the Art and Research Prospects." Groningen, NL: University of Groningen, SOM Research School.

Pew Charitable Trusts. 2017. "How States Are Improving Tax Incentives for Jobs and Growth: A National Assessment of Evaluation Practices." Washington, DC: Pew Charitable Trusts. http://www.pewtrusts.org/-/media/assets/2017/05/edti_how_states_are_improving_tax_incentives_for_jobs_and_growth.pdf.

Randall, Megan, Kim Rueben, Brett Theodos, and Aravind Boddupalli. Forthcoming. "Partners or Pirates? Collaboration and Competition in Local Economic Development" State and Local Finance Initiative. Washington DC: Urban Institute.

Smith, Richard. 2016. "Did the Community Renewal Tax Incentives Pirate Businesses from Other Places?" *Economic Development Quarterly* 30 (1): 46–61.

Wildasin, David E. 1989. "Interjurisdictional Capital Mobility: Fiscal Externality and a Corrective Subsidy." *Journal of Urban Economics* 25: 193–212.

Wilson, Robert H. 1993. *States and the Economy: Policymaking and Decentralization.* Westport, Connecticut: Praeger.

About the Authors

Brett Theodos is a principal research associate in the Metropolitan Housing and Communities Policy Center at the Urban Institute. His expertise is in program evaluation and performance measurement of interventions supporting vulnerable communities and families, focusing on economic/community development, neighborhood change, affordable housing, financial services, and youth support programs.

Aravind Boddupalli is a research assistant in the Urban-Brookings Tax Policy Center, where he contributes to projects regarding federal, state, and local tax and budget issues. His research interests include economic development and inclusive and accessible policymaking to reduce wealth disparities and ensure government resources support marginalized communities in the United States. Boddupalli graduated summa cum laude from the University of Minnesota, Twin Cities, with a BA in economics and political science.

Megan Randall is a research analyst in the Urban-Brookings Tax Policy Center, where she works on projects pertaining to state and local finance. Before joining Urban, Randall conducted research on several social policy topics in Texas, including state health care, housing, and tax policy. Her master's report evaluated the effects of tax abatements on public school finance in Texas, earning the Emmette S. Redford Award from the Lyndon B. Johnson School of Public Affairs and the Central Texas American Planning Association Award for outstanding independent research. Randall graduated summa cum laude with a bachelor's degree in political science from the University of California, Berkeley, and earned master's degrees in public affairs and in community and regional planning from the University of Texas at Austin.

Acknowledgments

This brief was funded by the Laura and John Arnold Foundation. We are grateful to them and to all our funders, who make it possible for Urban to advance its mission.

The views expressed are those of the authors and should not be attributed to the Urban Institute, its trustees, or its funders. Funders do not determine research findings or the insights and recommendations of Urban experts. Further information on the Urban Institute's funding principles is available at http://www.urban.org/fundingprinciples.

We would like to add a special thanks to Kim Rueben for advice and guidance in directing and reviewing this line of research. Thanks also to Jed Kolko, Greg LeRoy, Donald Marron, Christina Stacy, Mark Mazur, and Michael Marazzi for reviewing this brief in draft form and providing thoughtful comments.

2100 M Street NW
Washington, DC 20037

www.urban.org

ABOUT THE URBAN INSTITUTE

The nonprofit Urban Institute is dedicated to elevating the debate on social and economic policy. For nearly five decades, Urban scholars have conducted research and offered evidence-based solutions that improve lives and strengthen communities across a rapidly urbanizing world. Their objective research helps expand opportunities for all, reduce hardship among the most vulnerable, and strengthen the effectiveness of the public sector.