Shrinking Cities: Fuzzy Concept or Useful Framework?

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Abstract

Shrinking cities on several continents beset with sustained population losses have been the focus of a number of studies in the past decade, marking an increasing awareness that growth should not be the only preoccupation of planners. This shrinkage owes to a host of economic and demographic processes, and the separate effects of these processes are often compounded when combined. In Eastern Europe the transition to market regimes coincided with declines in fertility and negative migration balances. In the US, on the other hand, many manufacturing jobs have left the central cities and, at times, the regions in which those cities are situated. In both cases, the dislocations in the former industrial heartlands have been profound. More recently, research has widened the map and shown shrinkage even in the Sun Belt cities of California in connection with the Great Recession of 2006-2008, leading some researchers to conclude new geographic fault lines for shrinkage. While these works, which have provided such information, are welcome additions to the literature, in this study I will proceed from the observation that the term "shrinkage" has been used for cities as diverse as Flint, Michigan and San Francisco and San Jose in California. Consequently, I will examine the concept of shrinkage and argue that, while the term's heterogeneity and flexibility are crucial to the productive employment of the concept, we must, nevertheless, tighten its definition and its application. Otherwise, we risk watering it down to the point where it is no longer useful to describe the vastly different trajectories of differing cities. The study will conclude with reflections on the appropriateness of local scale to address shrinkage.

Introduction

Aristotle purportedly said that a "great city should not be confounded with a populous city" (American Assembly 2011). Yet few people would consider it a sign of particular greatness for a city to lose population over a prolonged period. To be sure, a significant strand of North American political economy has been the focus of place-based coalitions consisting of business elites, government officials, and major industries banding together to assure preeminence for the local growth agenda (Molotch 1976),

eschewing other often conflicting social or environmental agendas (Amin 1994; Boyer 2000). At least discursively and historically, growth is also one of the main preoccupations of the planning profession. It is often regarded as the normal and healthy condition, and shrinkage, or the absence of growth, the exception. One example of such sentiments is the assertion by the Association of Collegiate Schools of Planning (ACSP) that the role of planning in the United States to "determine methods to deal effectively with growth and development of all kinds."[1]

Nonetheless, a significant number of localities across North America and Eastern Europe currently face population decline, economic contraction, or both, and this pattern may become a much more prevalent and normal condition for planners in the not too distant future. In the year 2000, some 45 million people—15% of the US population—lived in cities beset by reductions in population and employment (Mallach 2012).

Such declines are not new, however. Population loss was fairly commonplace for central cities in the US during the postwar years. With the full blessing, encouragement, and underwriting of the Federal Government (Jackson 1985, Beauregard 2003), the middle classes fled the cities for the rapidly developing suburbs in pursuit of space and racial homogeneity. But shrinkage is no longer confined to central cities. While suburbs have often been seen as luring financially sustainable individuals away from the cities causing vast intra-metropolitan inequities (Dreier et al. 2001; Orfield 1997), evidence is now emerging that suburbs, particularly inner-ring ones, have become subject to shrinkage as well (Hanlon 2008; Short, Hanlon, and Vicino 2007; Zakirova 2010).

In addition to this intra-metropolitan shift of shrinkage to encompass suburbs, there are now reports of shrinkage beyond the typical Rust Belt locales, afflicting regions of a much more heterogeneous sort, including the California cities of Fresno, (Hollander 2011), San Francisco, and San Jose (Pallagst 2009, Wiechmann and Pallagst 2012). With the emergence of this shrinkage, an academic literature is being written to address the problem. Most current definitions of shrinkage are fairly inclusive, designating the phenomenon as *any* population loss over more than a two year period:

> The "consensus" definition for a shrinking city is a *densely populated urban area* with a *minimum population of 10,000 residents* that has faced population losses in *large parts* for *more than two years* and is

1. See, for instance, http://www.acsp.org/education_guide/education_and_careers_in_planning.

> undergoing *economic transformations* with *some symptoms* of a *structural crisis* (Blanco et al. 2009, my emphasis).[2]

The geographic context of this scholarship has predominantly been Europe and North America[3], with focus on processes of economic restructuring and deindustrialization and, in the European case, with the additional focus of demographic changes (Martinez-Fernandez et al. 2012; Wiechmann and Pallagst 2012). While the above definition clearly rounds up the usual suspects for urban shrinkage, it allows also for a much wider set of cities and circumstances, raising the question of whether it may well be too inclusive to be useful, despite the fact that the concept should be able to apply to many circumstances of shrinkage over several continents.

This study initially argues the importance of the heterogeneity of the expressions of shrinkage, beginning in Eastern Europe, where economic and demographic trends have interacted, creating particularly challenging shrinkage-related effects. While shrinkage has received sustained federal policy attention in Germany over the past decade, coordinated action has yet to materialize in the American context. The heterogeneity encountered both in these cases of shrinkage and among the specific pathways that bring it about must be captured in a sufficiently broad but specific conceptual framework, and the present effort is a component of one such venture. Secondly, the study aims to offer a sympathetic conceptual critique, mainly focusing on the temporal dimension, arguing that, all factors being equal, shrinkage would constitute a stronger concept if it were to be measured over a wider time scale in order to avoid muddling by fluctuations of the economic cycle. A third aim, which is closely related to the first, is to argue that discussions of shrinkage must be sensitive to the *specific genealogies* involved in instances of shrinkage within their particular spatio-temporal contexts. Such an approach will permit reflection upon whether the concept should be stratified according to the generative processes at play. I conclude with reflections on policy and the scale of addressing shrinkage.

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2. While this is listed as the consensus definition, some scholars use much larger time horizons when characterizing shrinking cities. Reckien & Martinez-Fernandez use a period of "40–50 years" (Reckien & Martinez-Fernandez, 2011).

3. There is an international network of researchers studying the phenomenon under the name of The Shrinking Cities International Research Network (SciRN™), established at UC Berkeley in 2004, and a monograph was issued in 2009, providing a wide-ranging array of articles on the topic (Pallagst et al., 2009).

Historical and Theoretical Origins

The term "shrinking cities" appears to have been used first nearly 25 years ago by Häussermann and Siebel in a commentary on Germany's deindustrializing Ruhr area. This area, where the coal and steel sector experienced a boom during the 1960s and early 1970s, found itself in a deepening structural crisis of lower productivity, technological change, and international competition (Häussermann and Siebel 1988). While this was a case of restructuring and decline in what was then West Germany, there is also a significant strand of shrinking cities literature associated with the specifics of the post-socialist transition, where the supposed "catch-up-modernization" of market-driven growth and expansion of infrastructure and amenities would often give way to tales of depopulation, industry closure, and erosion of services (see, e.g. Großmann et al. 2008). The American context is not one of such dramatic political-economic upheavals, although globalization has impacted many American jobs and has challenged established economic geographies. In the US, jobs have shifted at several scales: within metropolitan areas, they have decentralized rather than moved to the center; at the national scale they have generally moved west and, to some extent, away from metropolitan to more rural areas (cf. Essletzbichler 2004) in what amounts to a larger territorial rescaling of production, challenging established centers (Brenner 1999).

In Marxian accounts, urbanization ties up excess capital, temporarily resolving the issue of capital over-accumulation and avoiding an economic crisis in the process. This infrastructure, including bridges, highways, railroads, buildings, telegraphs, and later fiber-optic networks, in turn, is needed for the (capitalist) economy to function. As such the infrastructure serves as a "spatial fix," specific to the (accumulation) needs at *that particular moment in time* and is, by implication, inching closer to obsolescence—or shrinkage—once constructed (Harvey 1981; Harvey 2010).

From the perspective of neoclassical urban economics, cities are made up of businesses and residents for whom it is economically optimal and efficient to be in that particular place—if this were not the case, the story goes, they would move somewhere else, seeking to optimize their personal utility functions (Glaeser and Gottlieb 2009). Prices are the universalizing mechanism adjusting to ensure locational equilibrium, meaning, for example, that desirable, amenity-laden places cost more than undesirable, crime-ridden ones with fewer (employment) opportunities. Businesses, for their part, enter places to cater to specific markets or to access strategic parts of the supply chain: to learn of new markets or business practices and benefit from locating near other businesses in kindred or complementary industries. If markets and products change, the business structure and locational parameters may be out of sync; one example is the shift from a

manufacturing to an information-based economy, where access to water and ports matters less (O'Sullivan 2012).

Regardless of perspective, it is uncontroversial to assert that capital is required for the construction of cities (Scobey 2002) and that a city's financial sustainability is ultimately dependent on the presence of markets to support it (even though transfer payments from other areas may temporarily mask problems). By the same token, the sudden *loss* of access to such markets, coupled with the exodus of large segments of the tax-paying population heralds tougher times for the city, the region, or both, and poses tremendous economic challenges for policy planners at different scales of government in adapting to a new situation.

A declining economy and population puts all manner of pressures on a local community, but there are also "accelerators" that may exacerbate a decline beyond what the economic decline itself would bring about. There are many reasons why dramatic population loss is worthy of sustained attention by policy makers. If a population declines, so too will the labor pool, other factors being equal, making it more difficult to attract outside companies, as well as decreasing the likelihood that new companies might set up shop in the first place. While we typically think about shrinkage on the urban scale, the problem is more comprehensive. Due to agglomeration effects, shrinkage operates synergistically to put strains on the *overall* economy. Thus the entire phenomenon is greater than the sum of the individual losses, affecting not just the basic industries (the tradable sector), but the non-tradable sector as well: the services these industries formally supported. This is the economic multiplier effect in reverse (Moretti 2012; O'Sullivan 2012).

As a major investment reservoir, the housing market further adds to the challenges. If population drops and the housing stock remains constant, or even expands slightly, a deflationary spiral may occur, in which households will be disinclined to purchase property because of the expectation of future decline, thus in effect helping to materialize that decline (cf. Mankiw and Weil 1989). In addition to this psychological effect, because the housing stock is relatively fixed in the short and medium terms, a loss of population is typically not met by a corresponding decrease in the housing supply[4], leading to disproportional drops in price, even as wages may only dip slightly (Gyourko 2009). Further, some analysts have suggested that abandonment of housing can spread as an epidemic, and, by implication, should be prevented from starting in the first place (Wallace 1989). At the same time, fixed infrastructure systems made for much larger populations will all other things equal become more expensive to maintain per capita.

4. The supply curve is "kinked", leading to a very elastic price drop as the population drops.

For all these reasons, it may be costly to do nothing as economic and demographic trends take a turn for the worse. Indeed, as noted, some cities have recently come to recognize the need to accept a smaller demand for housing than during peak times and shrink the housing stock accordingly. While properly aligning housing supply and demand is clearly a "housing market problem," and accordingly, reducing the housing stock and downsizing neighborhoods may be a necessary step to avoid further deflationary cycles and to contain service costs, shrinkage is ultimately a problem that goes far beyond the scale and scope of the capacities of any one local government. This has proven particularly true in the former East Germany, where problems of depopulation and industrial decline are rampant following German reunification (Glock and Haussermann 2004). While expressed most clearly at the scale of each urban area, shrinkage reflects much wider problems in the geography of industrial organization, or what Doreen Massey has termed the *spatial* divisions of labor. More than 30 years ago, Massey (1979) argued in the context of a deindustrializing Britain that such divisions had national and increasingly international scales of operation, and accordingly that strictly regional, let alone local solutions to regionally experienced economic upheavals would ultimately prove inadequate. Such scalar concerns and the implied need for coordinated policy across governmental levels does not mean a local government is entirely impotent with respect to addressing some aspects of shrinkage, and several cities across continents have actively tried to downsize. The city of Leipzig demolished 20,000 vacant units, and a similar idea is being pursued in Youngstown, Ohio, the only city in America to have a plan for downsizing (Hollander 2011). This strategy, which Ed Glaeser[5] (2011) calls "shrinking to greatness," sheds excess buildings, eschews building-driven approaches to urban regeneration (since the problem is not a lack of buildings), and focuses instead on human capital in an attempt to reframe a loss as a strategic opportunity.

Glaeser's sentiment here is shared by planners. For example, Hollander and Nemeth call for shifting paradigms within planning practice towards a recognition that prosperity can and should be uncoupled from a singular focus on ever-increasing growth (Hollander and Németh 2011; Hollander 2011). Wiechmann (2009a) reports a similar recognition of change in context for the city of Dresden, where the strategic plan is no longer oriented around growth, but rather the development of a revitalized, more attractive, compact urban center, more efficient services, and a stable population living closer to the center. Reckien and Martinez-Fernandez (2011) note the great opportunity for reframing and repurposing shrinking cities away from polluting industries toward more livable and greener cities.

5. See the Roundtable Discussion with Ed Glaeser earlier in this volume http://escholarship.org/uc/item/2zz0q147.

An important factor within the shrinking domain is demography, which interacts with shrinkage in important ways. At the most basic level, government planners need to reckon with the demographic identity equation (balances of births, deaths, and migration) in order to provide services, public and private, whether the issue is aging, immigration imbalances, or baby booms. All these society-wide challenges become even more salient at the local (and regional) level where infrastructure is built and many services provided (Müller and Schiappacasse 2009). Changes in the ratios of birth to death and immigration to emigration will condition the size of the population at any given point, and each of these, in turn, are the result of somewhat distinct processes and thus entail distinct policy interfaces. Consequently, while the net effects—lower populations in cities—may be the same, the *pathways* may ultimately be quite varied, just as the composition of the labor force will differ in significant ways, depending on whether population change is due to fertility changes, migration, or both.

Variable Shrinkage in the Eastern Europe and the United States

Eastern Europe

One of the key laboratories for shrinking cities has been Eastern Europe, but it is also a laboratory beset with a very specific set of circumstances, which must be borne in mind when attempting comparisons and applying the concept to other contexts. One aspect that has particularly caught the attention of researchers is the post-socialist transition behind the old Iron Curtain to an array of market regimes across the continent, which has led to substantial numbers of bankruptcies and relocations of businesses and residents. In the wake of the collapse of the communist regimes, many regions of Eastern Europe have experienced a rampant suburbanization made possible by liberalized land markets and decentralized planning regulations (Brade, Smigiel, and Kovács 2009). But there are also widespread signs of depopulation and economic decline, even within small geographical distances. Wiechmann and Pallagst (2012) refer this geographical complexity to as "a patchwork of prosperity and decline." This notion is also encapsulated in the term "perforated city," which denotes a strong core with pockets of decline elsewhere in the city, suggesting a far from uniform pattern of decline but a much more varied landscape of growth and decline (Kühn and Liebmann 2007, Florentin 2010). The overall scale of contraction was astonishing; between 70%–90% of industrial jobs in the former German Democratic Republic (GDR) disappeared in a matter

of years, having lost the economic rationale for their existence within the re-scaled context of a larger Germany (Nuissl and Rink 2005).

Scholarship on domestic migration tells us that migratory flows respond to both such push factors (e.g. a surplus of labor) and pull factors (e.g. better opportunities elsewhere) (Greenwood 1985; Todaro 1969) and helps equalize labor supply across regions (cf. Borjas 1999; Greenwood 1997). As it happened, many households *did* relocate out of the former GDR, and by the turn of the century the region had lost some 1.6 million, or 10%, of its residents, who left more than one million housing units vacant, or 14% of the total, with half of those taken permanently off the market (Glock and Haussermann 2004; Lintz, Müller, and Schmude 2007).

Compounding economic restructuring are demographic shifts. Eastern Europe has witnessed drops in fertility rates to levels "unprecedented in human history" in relatively short order following the many regime transitions (Mykhnenko and Turok 2008). However, the "second demographic transition," the process of destabilization of traditional patterns of marriage and more fluid life trajectories and single households (Buzar, Ogden, and Hall 2005) had already begun in earnest well before the fall of the wall (cf. Florentin, Fol, and Roth 2009), and declining birth rates are by no means specific to Eastern Europe, but are common throughout the Organization for Economic Co-operation and Development (OECD) countries and beyond (World Bank 2013). This suggests that declines in fertility are more of an "across-the-board" factor at work in many places rather than a specific cause of shrinkage, exacerbating economic hardships. These demographic shifts coupled with the onset of "post-socialist suburbanisation" in much of Eastern Europe (Brade et al. 2009) and in the former GDR (Buzar et al. 2007; Nuissl and Rink 2005) compounded still further the effect on central cities, echoing the patterns seen in US cities in the postwar years (Weaver 1977). Together, outmigration in the short term and changes to fertility in the medium term can lead to substantial mismatches between the housing stock and the demand for it. Notwithstanding the prominent role of industrial restructuring, demographic forces have been seen as a key component of the overall landscape of urban change in Eastern Europe.

To the German federal government, it was clear that this was a matter of national policy urgency requiring a longer-term strategic and coordinated partnership across levels of government. Federal officials had long expressed the preference for balancing growth in the core with growth in the peripheral cities pursuant to an overall principle of national spatial cohesion (Wiechmann 2009b). The German *Bundesregierung* (Cabinet) responded with a €2.5 billion, eight-year restructuring program of its own, *Stadtumbau Ost* ("*City Rebuild East*"), the core of which was to restore the attractiveness of the region's cities and stabilize housing markets through

the demolition of some 300,000 housing units across 400 participating municipalities. The evaluation report issued in 2008 by Germany's Federal Ministry of Transport, Building, and Urban Development noted that the region had witnessed population growth, however slight, instead of a loss, and that a more cross-sectoral, integrated urban development policy had been established, leaving a better set of institutions to deal with the challenges of shrinkage moving forward (Federal Ministry of Transport, Building and Urban Development 2008).

The United States

The American case of urban contraction has predominantly been viewed as an affliction intrinsically connected to the specificities of industrial restructuring in a handful of Rust Belt states, so named for the precipitous decline of the steel industry since at least the 1970s. But economic restructuring has occurred much more broadly than simply for steel and raw materials related industries. Changes in organizational forms, more distributed firm structures, and wider sectoral shifts have transferred much of the country's economic structure away from earlier strongholds to other newly established centers (Essletzbichler 2004, Frey 1987). The resulting contractions in places such as Detroit, Buffalo, and Philadelphia are well known. Shrinkage is also related to, if not predetermined by, macroscopic (domestic) migration patterns which entail a shift of population—and commensurate jobs—towards the American west during much of the 20th century. It remains a topic of debate whether these migrations respond to employment opportunities or if more often the reverse is true, although it appears more likely that the jobs currently follow the people (Hoogstra, Florax, and Dijk 2005; Steinnes 1978; Stevens and Owen 1982). If in-migration now increasingly predates growth in employment, at least in some occupations, it may help explain the appearance, over the past decade, of an increased research focus on amenities for middle class workers, since accounting for their habits may in turn help the understanding of business patterns as well. This research aims to explain the emergence of new spatial patterns in residential and business location decisions. A well-known example of such geographically-specific research has been Richard Florida's studies on the rise of the "Creative Class" as a force to be reckoned with, the presence or absence of which supposedly acts as a litmus test to the fortunes and prospects of aspiring urban centers (Clark et al. 2002; Florida et al. 2011; Storper and Scott 2008). Such relocation patterns are observable even in shrinking cities. With its focus on high-end retail, Pittsburgh seems to be in the midst of a transition to an entertainment economy, even as the city continues to lose population (Wiechmann and Pallagst 2012), again underlining the complex patchwork of prosperity and decline, here at the city scale.

But, to be sure, the process population decline goes beyond the Rust Belt. It can be instructive to examine events at long time scales over a greater number of areas to gain a better understanding of the connections. Figure 1 shows, for each decade and Census Region, the number of counties by magnitude of population growth (positive or negative, categorized) during the preceding decade. Figure 1 suggests that during the past half century, shrinkage in terms of population is relatively commonplace, even at a scale of measurement that is much larger than most cities[6], although there are some notable variations.

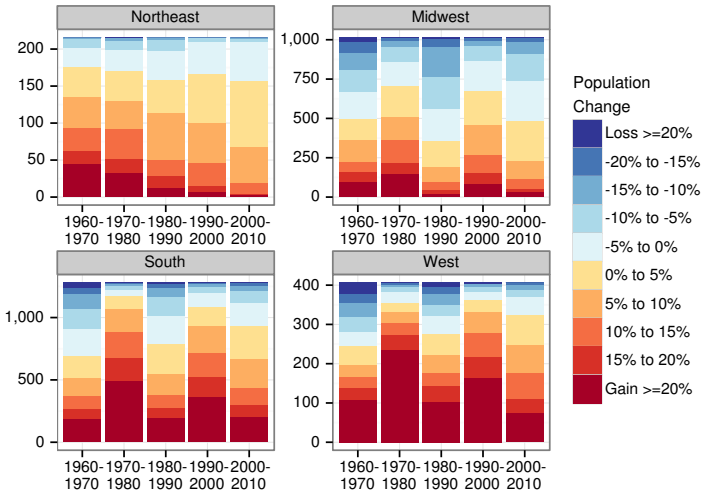

Figure 1: Number of US Counties Experiencing Shrinkage 1960-2010, by Census Region.

Source: County-level data from Decennial Censuses digitized by socialexplorer.com

As expected, the Midwest Census region saw declines at the county level each decade—the most frequently of the four regions—but even the South experienced population loss. Except for the Northeast region, which shows an increasing number of declining counties (and fewer growing ones) with time, there was substantial temporal variation, with the 1980s showing most counties shedding population in *all* regions. While the last decade of the 20th century reveals that fewer counties saw a loss of population, the first decade of the 21st century showed population loss in more than

6. Counties were intended to be a measure of not just whether a central city lost population to its suburbs; i.e. a more metropolitan-scale restructuring. If population were lost at the county level it would suggest a wider and more structural shift. A measurement at the county level is, in effect, a more conservative one.

half of the counties in the Midwest. The chart also implies an increasing concentration of population over time—if many counties lose population, and population is still growing for the nation as a whole, it necessarily means that other counties are taking in more people. In the American context, part of the picture of shrinkage is that residents in general are more likely to be domestic migrants, or more frequent movers, than their European counterparts (Greenwood 1997). During the 1980s and 1990s, one in between five to six residents moved annually[7]. The early 1980s saw losses in many counties, especially in the Midwest, and this period also saw domestic migration exceed 20% for the first time in 20 years (Frey 2009, 2009). While this may be good news at the scale of the national economy to the extent that the moves signal the labor market's skill-matching process at work (Borjas 1999), the implications of such dislocations at the local level may be profound if they are sustained over time[8]. What is more, all regions saw a larger number of counties shedding population, however little, during the period 2000–2010, than during the preceding decade, implying the interaction between deep recessions on the one hand and migration and shrinkage on the other.

Overall, we can see that over a 50-year period, all regions have counties with a significant amount of growth; the declines have been somewhat concentrated, and the last decade has seen an increase in losses even in the South and West regions. It is important that we understand that growth is much more selective than we have perhaps long assumed.

Conceptual Challenges

As indicated in Figure 1, population losses are not uncommon, and not just in the Eastern or Midwestern regions of the United States. In the past decade or so, we have seen reports of shrinkage not just in the Rust Belt, but in the otherwise hot market areas of the so-called "Sun Belt" states, commonly defined as the states below the 37th parallel north (Hollander 2011; Wiechmann and Pallagst 2012). Hollander takes us on a tour of Sun Belt shrinkage based on data from 2006 to 2009 and shows contractions in cities in California and Florida at the neighborhood level, thus expanding the geographic scope of places to look for shrinkage at both the national and intra-urban scales (Hollander 2011). Wiechmann and Pallagst (2012) offer a wide-ranging survey relating shrinkage to the broader (re-) structuring

7. There has been a secular decline of domestic migration since the mid-1980s, however, down to a rate of 120 from a peak of 202 in 1984-1985, in part due to compositional changes of the population as older residents tend to move less.

8. With major plant closures, it should be added, the implications are profound if there is a large outmigration as a consequence, but impacts may be no smaller if such a migration fails to occur.

imperatives of globalization of production. They interpret shrinkage not so much as a matter of suburbanization hollowing out a central city, as was the case during the postwar contractions, but rather as expressions of "problematic development paths" and larger societal transformations in Europe and the United States wrought by globalization through either of two processes: through the decline of manufacturing, or through the so-called "post-industrial transformations of a second generation," which refers to more recent dislocations in the high tech industry. They map 20 shrinking US cities and show Detroit, Cincinnati, New Orleans, San Francisco, and Flint to be in the top five[9]. They further propose a two-way typology to operationalize the growth/shrinkage continuum along both the economic and demographic dimensions, resulting in four possible combinations (see Table 1).

	Demographic Growth	**Demographic Shrinkage**
Economic Growth	Urban Growth Poles	Transition Areas
Economic Decline	Urban Gravitation Centers	Downgrading Areas

Table 1: Economic and demographic dimensions of growth and shrinkage.

Source: Wiechmann and Pallagst (2012).

The mapping of the problem onto these two dimensions is useful and provides meaningful distinctions, even as some of the examples chosen to embody them seem somewhat odd, but that is merely due to Wiechmann and Pallagst (2012) being faithful to the consensus definition, focused on very short time horizons: "The San Francisco Bay Area during the Dot Com Crisis of the years 2000–04 would be an example of [the category 'Urban gravitation center, with population growth and economic decline']." Their model distinguishes a Detroit ("Downgrading area") from a San Francisco ("Gravitation center"). Still, while arguably the breadth of their approach has been designed to be fairly comprehensive and not just anecdotally to select "known shrinkers," the inclusiveness runs the risk of diminishing both the analytical and descriptive value of the shrinking cities concept.

The example serves to illustrate a number of temporal, spatial, and analytical challenges. First, the short-term time scale deemed sufficient for shrinkage (two years) conflates recession effects with long term effects. Second, it is not clear that this typology is sufficient to help us distinguish the economic trajectories of a diversity of cities. Third, this typology does

9. It is not entirely clear whether the study refers to shrinkage in employment or population, or both, or whether the geographical designation refers to the Metropolitan Statistical Area (MSA), Core Based Statistical Area (CBSA) or city.

not necessarily allow us to adequately distinguish cases of different types of population change resulting from changes in either migration or fertility, and this may have unfortunate analytical ramifications.

In the United States for example, the temporal issue emerges most strongly. The list of large city shrinkage noted above covers the period from 2001–2004, half of which coincides with the 2001–2002 recession, and at this time scale San Jose did indeed lose population at a rate of three per thousand or so for a two-year period. However, taking into account changes in household size in San Jose, which had been falling over the same period and, other factors being equal, entails fewer people in the same number of units—the expression of shrinkage largely disappears as noise. While the rate of population decline was at about three per thousand in 2002 and 2003, the number of occupied housing units appears to have increased over the same period at a rate of seven per thousand to 1%—even as population dropped, the number of occupied housing units still increased (California Department of Finance 2012). More than taking issue with analyses that conflate small short-term population losses with dramatic long-term declines in population, I argue that the application of the term shrinkage should be reserved for cases of more structural changes, leaving aside those characterized by mere short-term or cyclical volatility. This does not imply that structural forces are not at work in the short term—surely they are. But my critique here is more practical; if we adopt the short-term cycle as the temporal standard of the "consensus definition" quoted in the introduction, we could well end up classifying many of the country's urban areas as shrinking every seven years or so, based on minor short term fluctuations. Doing so seems to miss the point and, I suspect, cannot have been the intent of coining the term in the first place, considering the geo-historical context in which it emerged. It certainly diminishes the concept's usefulness for analytical and policy purposes.

The second issue is more qualitative, or pertaining to *context*, consistent with what Wiechmann and Pallagst note in the same paper (2012): shrinking cities have "many different attributes." Indeed, the cities on their list are so diverse in terms of their economies that it appears the only unifying part is the shrinkage label affixed to them. Case in point: by 2004, at the end point of shrinkage included in their data, both the San Jose-Sunnyvale-Santa Clara and the San Francisco-Oakland-Fremont MSAs were in the national top five of regional GDP per capita, while Flint, MI MSA, at number five just below San Francisco on the shrinkage list, ranks 295 of 367 MSAs in the US for 2004 (Bureau of Economic Analysis 2013). While even tall trees can fall, the *economic trajectories* of the cities on the list are so different as to be related only marginally to the same underlying restructuring processes. This holds even allowing for the distinction to manufacturing decline Pallagst and Wiechmann made with respect to the "post-industrial transformations of a second generation." The latter distinction was included, presumably, to

make the concept apply for just such perhaps unorthodox cases as those in the Bay Area during the economic contraction between 2001 and 2004. In effect, it is akin to confusing weather with climate—Detroit's predicament goes back half a century, while that of San Jose, as I noted, barely registered during one recession. Ultimately, if we have trouble distinguishing a San Jose from a Detroit within the same top five ranking, the concept appears to lose descriptive and analytical relevance, as well as both its usefulness as a heuristic and its internal coherence for policy prescription purposes. It appears to meet the requirements for the labeling of a "fuzzy" concept (cf. Markusen 1999), and that is a pity, given how important it is as a lens for understanding the spatiality of current restructuring processes. In sum, there is clearly a story about recessions and their at times dramatic effects on cities (Schafran 2012), even in boom towns. But I would argue that theirs is a rather different story—although a compelling one— from that of a shrinking city, conceptually, analytically, practically, and politically (notwithstanding process similarities, as Hollander (2011) points out with respect to Fresno). Still, the current two-year criterion in the definition leads to an unfortunate conflation. Thus, while previously we saw a loss in temporal precision, here we add the issue of a failure to conceptually capture qualitative differences in economic trajectories.

Third, looking to Eastern Europe, it may be useful for policy purposes to unpack population decline into fertility and migration components, as both components may move in different directions and have very different implications for the labor market, because their associated age profiles are very different. A lower fertility rate may be a long-term problem, but in the short term the migration balance matters more because it has a greater effect on the economically active population. A typology would be more useful, at least in a European context, if such resolution were available.

It is worth asking what the concept of shrinkage is needed for. One view is that to understand a particular process and how it varies in time and space, we need to conceptualize it. Without the concept, the *process* we seek to understand is unintelligible, chaotic, and unpredictable. Another view is more narrow, or descriptive—we just need to be able to identify shrinkage as a concept, irrespective of the process that led to it. The latter cannot help us with policy, because that would be akin to a doctor prescribing for a patient with a cough a regimen of antibiotics without first determining whether the patient has a short-term viral infection, pneumonia, or a more serious underlying autoimmune disorder. The utilization of the concept of shrinkage raises, then, an analytical dilemma: Should the concept, employed as a classification, measure, typology, or all three, be applied to encapsulate a descriptive *state of being* (i.e. population or job loss), regardless of the underlying set of *causes*? Or should it be tightly construed and associated with specific "genetic" conditions leading towards an outcome observed as shrinkage? In other words, should it be weighted

towards *process or outcome*? And what are the analytical (and policy) consequences of each stance?

If we have an *inclusive* term (which I will use to refer to the case where the concept of shrinkage is applied to any kind of shrinkage without regard to its specific genealogy), which I would say captures the usage of Pallagst and Wiechmann (2012), and to a lesser extent, Hollander (2011), we run the risk of identifying "false positives." In such a case the concept of shrinkage would become too amorphous to have any meaning sufficiently specific and analytical for any practical application. Table 2 summarizes these conceptual constructions.

	Analytical	**Practical**
Narrow	Tending towards "false negatives"; too few cities are labeled "shrinking"	Policies easier to target a more homogeneous group of cities, problems, causes
Inclusive	Tending towards "false positives"; too many cities are labeled "shrinking"	With a wider set of cities labeled as shrinking covering differing causes, it becomes more difficult to devise policy direction

Table 2: Inclusive versus Narrow Construction of Shrinkage

Conversely, if we favor a *narrowly construed* term, the risk runs in the other direction; namely the production of false negatives: for example, the failure to appreciate that there is no inherent reason that only cities in the Rust Belt should see structural economic and demographic changes. A mere change in latitude or weather does not an economy make, even if a higher mean January temperature has been a good predictor of past migrations in the US (Glaeser and Gottlieb 2009). The concept should properly allow for a variety of types and be able to distinguish important qualitative and quantitative differences at appropriate time scales, and certainly California cities should be on such lists if they meet the criteria.

Alternative Conceptualizations

Perhaps there may be instructive lessons in thinking of urban transformation not so much in descriptive terms—this city is growing, or that city is shrinking—but rather in more analytical terms, giving greater credence to the subcomponents of the flows and circuits with respect to which a city is situated, which ultimately become manifest as a change in population or economic activity (cf. Castells 1996). As an example, I

have in mind the organizing principle by which medical conditions are typically classified according to the organ or subsystem involved (such as respiratory, digestive, nervous systems) (World Health Organization [WHO] 2010).

We might also look to the approach employed by the North American Industrial Classification System (NAICS), introduced in the middle 1990s to better reflect cross-border trade enabled by NAFTA, an increasingly service-based economy and, most important for my purposes, the shift to a focus on related process of production rather than the *product* produced (Office of Management and Budget 1999). While this process focus is somewhat incongruous with the WHO's classification of diseases mentioned above, both approaches capture the key dimensions of variability in their respective domains. An analogous parsing of the domain of shrinkage (or growth) would add some analytical precision with respect to genealogy, while allowing a flexibility in terms of time and space.

Ultimately I welcome Wiechmann's and Pallagst's four-way typology (and acknowledge that they are faithful to the consensus definition citing two years), perhaps with adjustments to allow for more heterogeneity in expression and causation. Thus, I also concur with Großmann et al. (2008) in their call for "developing a qualitative typology [consisting of] shrinking cities which have a similar complex of causes and consequences" with a particular focus on the *long-term* loss of population. Strategies and interventions will depend on the underlying causes and trajectories, whether economic, demographic, short term, or more structural. For this reason we need to carefully distinguish the types of shrinkage and to see shrinkage less as a unifying phenomenon than as a multi-faceted expression of a number of different processes, some of which are related to globalization, and others to demographic processes, but all to some process of economic and geographic restructuring. Policy contexts and governmental structures clearly differ substantially in the European and the North American cases. However, as the economic system is increasingly globalized (Dicken 2007), we should expect to see more shrinkage, and the public policy rationale for addressing it will only increase with time, as will the need for the development of an appropriate conceptual toolbox.

Discussion and Conclusion

Some cities grow while others decline. This decline may challenge how planners think of their roles as stewards of the development process. The shrinking cities discourse has become a stable presence in urban studies, and there is an increasing recognition (which is more advanced in Europe than in the United States) that decline is a challenge requiring some sort of coordinated action. A number of studies have emerged which have

started to offer important context to the numbers, including case studies for specific geographic contexts. This is a necessary starting point if we are to entertain ways to address shrinking cities as a matter of policy. For while we may need the overall map(s) of shrinkage(s) to identify links with national policy and, thus, where a national policy framework might be appropriate[10], demographic processes of fertility and migration, along with economic conditions, vary tremendously at the local level and need to be at the forefront of any policy proposal.

That local conditions vary does not mean shrinkage should be considered as a merely *local* problem, or that the scale of intervention is necessarily exclusively found at that scale. For this to be the case, our cities would have to be far less networked in terms of industry and labor markets than they actually are (cf. Castells 1996, Massey 1979).

In several Eastern European countries, populations are forecast to shrink by 2050, economic restructuring in the context of globalization appears to be there for the long haul, and it will continue to challenge existing and established spatial fixes, existing infrastructures, and built landscapes. Often, problems will be compounded by their co-presence. Deindustrializing regions will also have trouble attracting in-migration. The demographic challenge is a fundamental one in regions of Europe and beyond where the total fertility rate has fallen dramatically below replacement level. Cities are here faced with not only economic upheavals, but smaller populations to carry the increasing per capita costs of running large sunken-cost infrastructure systems. In the United States, the problem is less about fertility decline than about economic restructuring and building place-based economies and skills even as investments seem more fleeting than ever. While the US has more foreign in-migration as a whole, it is highly geographically selective as it largely bypasses shrinking cities (Singer 2008).

The new geographical mappings of the United States that reveal shrinkage beyond the Rust Belt are an important addition to the existing scholarship and, in effect, a wake-up call for planning practice. The message is that growth is not perpetual even in the US Sun Belt states. Rather, changing economic fortunes also bring strategic opportunities for realignment, reframing, and a recognition of the necessity of downsizing if the conditions call for it, and getting beyond the "stigma" of shrinkage (Beauregard 2003). Hollander (2011) coined a companion term to smart

10. Joseph Stiglitz, former Chief Economist at the World Bank once said that "[i]f there is a single accident on a road, one is likely to look for a cause in the driver, his car, or the weather. But if there are hundreds of accidents at the same bend of the road, then questions need to be raised concerning the construction of the road itself" (Amin, 1994; Boyer, 2000). The "accidents" are of course in our usage, shrinking cities.

growth, but in the reverse—smart *decline*, and similarly identified the need, still very much pronounced in the US context, for planners to recognize that all is not growth, but that there must also be smart ways to decline, securing a better quality of life for all if properly managed. This certainly seems to be necessary from a planning perspective as one of the very first steps, even if economic development offices will continue apace to seek new businesses and residents. However, this type of analysis tends to essentialize planning as the key domain for—and local government the appropriate scale to address—problems of shrinkage, which seem likely to come up short as matters of national urban policy, which was certainly recognized in Germany.

There is, however, some increased urgency at least for academics and prominent policy forums, including the American Assembly, a policy group founded by President Eisenhower in 1950, which in 2011 made the issue of shrinkage the topic of their 110th meeting (American Assembly 2011). It is worth noting that while the latter fully recognizes the imperative of shrinkage, the focus is decidedly on "changing the investment climate" and attracting businesses and residents anew, which, to be sure, is the "old" model. And while there is clearly a message for state and federal governments in changing the framework for how regions grow, how land and property is taxed, and how income is shared, much of the message appears to be directed towards the *local* level. The implication seems to be that shrinkage is a problem which has, or should have, a *local* solution, given the right visions, partnerships, and resources. This may be the *de facto* status quo—localities are ultimately on their own, and no government has the power to fundamentally reverse the economic tide, certainly not in the long term. But to settle for this is to ignore that a myriad of policies and politics, including those on the local, but also on the regional to national levels, which encourage jurisdictions to constantly assert pressures and enticements to businesses to relocate, including tax breaks, "right-to-work" laws, and the minimization of short term business expenses. Given that the number of businesses that actually relocate is dimishingly small during any given year (Kolko and Neumark 2007), and Bartik's (2005) finding that the benefits of business incentives are typically smaller than the costs, the focus and incentive monies would be better spent nurturing home grown businesses and building the long term educational infrastructure that supports them, rather than luring them from elsewhere.

My conceptual critique is in part anchored in a number of studies of the California Sun Belt, each based on very short study horizons which to some extent limit their impact. I asked if shrinkage should really be analyzed at the resolution of two years which gets very close to a conflation of shrinkage with mere cyclical changes as a normal part of the economic cycle, as was the case with San Jose in California. I further raised the question of context and economic trajectory and if shrinkage as a concept

could capture differences between cities, or whether it conflated them. I also welcomed Wiechmann's and Pallagst's (2012) important work in increasing dimensions of analysis, but called for a finer resolution in categories in order to be able to distinguish between changes in demographic factors and migration as not all net population changes are created equal.

I ultimately argued that the concept has been stretched to include situations and cities far too heterogeneous and based on data drawn from far too short of a term for any single concept of shrinkage to meaningfully capture. Lastly, I question whether the shrinkage should be narrowly or widely construed, and whether the concept should be further stratified to reveal specific pathways or genealogies of shrinkage. Future research might identify such a typology, distinguishing not just expressions of shrinkage, but its trajectory and, perhaps, pathways beyond it, if local, state and federal policy can be properly aligned.

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