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Jason R. Jurjevich
Portland State University, jjason@email.arizona.edu

Greg Schrock
Portland State University, gschrock@pdx.edu

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Jason Jurjevich, PhD
Assistant Director, Population Research Center
Assistant Professor, Nohad A. Toulan School of Urban Studies & Planning
Portland State University
Jason.Jurjevich@pdx.edu

Greg Schrock, PhD
Assistant Professor, Nohad A. Toulan School of Urban Studies & Planning
Portland State University
gschrock@pdx.edu

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Jason Jurjevich and Greg Schrock
Nohad A. Toulan School of Urban Studies & Planning
Portland State University
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Executive Summary

For many metro areas, including Portland, being economically competitive in today's knowledge and information economy depends on attracting and retaining young, college-educated (YCE) migrants. On this indicator, Portland has been most successful: since 1980, the Portland metropolitan region has attracted college-educated individuals under the age of 40 at some of the country's highest net migration rates in good economic times and bad.

Though not unique to Portland, the resiliency of Portland's migration streams, even in periods of economic uncertainty, calls attention to an increasingly selective group of YCE migrants who appear to place greater relative value on non-economic factors—from political milieu to access to quality public transportation—compared to employment opportunities. This trend directly challenges a long-established cornerstone of traditional migration theory suggesting that the decision to move is predicated on benefits exceeding costs, and linked to the importance of jobs and economic opportunity as attractive forces for working-age households.

Reading between the lines of recent media accounts, and in particular the television show *Portlandia*, the shift from economic to non-economic factors has been portrayed in a most interesting way: because young migrants to Portland place relatively low value on work and traditional careers, their desire to exchange employment opportunities for quality of life (amenity) factors indeed makes Portland the city "where young people go to retire." The question is: in the short and long-term, how sustainable is Portland's trend of attracting and retaining YCE migrants if labor market outcomes continue to remain worse compared to other metro areas?

What are the facts? In this paper we draw upon U.S. Census Bureau data from the 2000 Census and more recent American Community Surveys from 2005-2007 and 2008-2010, to compare migration patterns in Portland to the other 50 largest U.S. metros. Our analysis highlights several critical findings:

- The Portland region has consistently attracted and retained YCE migrants at some of the highest levels of any metro in the U.S.
- The Portland metro's migration patterns among YCEs have consistently exceeded the expected rate given the region's labor market conditions.
- Portland attracts and retains not only YCEs, but also empty-nester and retirement (age 40 and above) migrants at levels exceeding its metro peers.

- Unlike most large metros, Portland's net exchanges of YCE migrants are unusually strong across metropolitan areas of all sizes.
- In 2008-2010, almost 1 in 7 YCE in-migrants to the Portland metro were immigrants. Equally important, the Portland region's foreign-born population has educational attainment levels that rival the region's native-born population.

Of the largest 50 U.S. metro areas, only Portland and Seattle ranked in the top 15 metros for each period analyzed, 1980 to 2010, with the highest rate of attracting and retaining YCE migrants. This statistic not only underscores the Portland metro's competitiveness in attracting and retaining college-educated talent, but also showcases the consistency of Portland's YCE migration patterns. Other metro areas, including Austin, Denver, and Phoenix, also demonstrated an impressive ability to attract and retain YCE migrants during this period, but also experienced 'bust' periods where YCE migration flows ebbed.

In the end, our findings suggest that most Portland college-educated migrants appear to place greater relative value on amenity values compared to economic opportunity. Moving to and remaining in Portland despite less-than-stellar economic opportunities is truly 'voting with your feet' for the region's quality of life. What's more, given Portland's ability to not only attract, but also retain YCEs, amenities will likely remain important for keeping college-educated individuals as residents of Portland. In addition to YCE migrants, our results suggest that Portland's urban and natural amenities are also strong pull factors for empty-nester and retired (age 40 and above) college-educated migrants.

Given the strong attractiveness of Portland's quality of life to both Portland residents and would-be Portlanders, our findings underscore the importance of carefully navigating the 'amenity paradox'—managing future growth in a way so to avoid eroding the very quality of life that attracts and retains the region's human capital. We believe addressing this challenge will be essential to ensuring the sustainability of college-educated migration both in the short and long-term, and with definite implications for economic development in the Portland region.

I. Introduction: The Mix of Jobs, Amenities, and Migration

During the past decade, roughly 250,000 more people moved into Oregon compared to those who left the state—making net in-migration responsible for roughly two-thirds of Oregon's population growth during the decade[1]. In addition to being a key component of the state's population growth, migration has, more broadly, been highly influential in Oregon's social and cultural history, as well as in the state's economic fortunes. To further explore the reciprocal relationship between migration and economics, we examine migration patterns of the young and college-educated specific to Oregon's largest economic center—the Portland metro area.

Traditional explanations of mobility argue that because migration has high physical and social costs, not all individuals are equally likely to move. Equally important, the decision to move is predicated on benefits exceeding costs—linked to the importance of jobs and economic opportunity as attractive forces for working-age households[2]. More recently though, urban[3]/natural[4] amenities, along with age[5], politics[6], stage of life course, and size of place[7], have been recognized as increasingly important factors influencing today's migration patterns, particularly among young, educated, mobile individuals[8].

Recent migration patterns of young, college-educated individuals to the Portland metro appear to reflect this trend. As noted by local economist Joe Cortright[9], the 'young and restless' continue to move to Portland in response to some of the region's strongest assets: unparalleled accessibility to natural amenities[10], economic opportunities, comprehensive public transit, and overall high quality of life. In the end, the Portland metro's migration trends highlight the importance of both urban and natural amenities as pull factors for young migrants. What's more, given that the Portland

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[1] For more information on the relative importance of migration compared to the other demographic components of change, fertility and mortality, in driving population change in Oregon, see: Jurjevich, J. 2011. "Central Oregon, Metropolitan Portland are the State's Fastest Growing Areas." *Metropolitan Knowledge Network (MKN)*. April. Available at: http://mkn.research.pdx.edu/2011/04/county-population-article-header-herereereerrere/

[2] See Hobbs, A.H. 1942. "Specificity and Selective Migration." *American Sociological Review.* 7(6): 772-781, and Sjaastad, L. 1962. "The Costs and Returns of Human Migration." *Journal of Political Economy.* 70(5): 80-93.

[3] See Florida, R. 2002. *The Rise of the Creative Class.* New York: Basic Books; Glaeser, E.L, J. Kolko, and A. Saiz. 2001. "Consumer City." *Journal of Economic Geography*. 1(1): 27-50, and; Clark, T.N., R. Lloyd, K. Wong, and P. Jain. "Amenities Drive Urban Growth." *Journal of Urban Affairs.* 24(5): 493-515.

[4] See Shumway, J. and S. Otterstrom. 2001. "Spatial Patterns of Migration and Income Change in the Mountain West: The Dominance of Service-Based, Amenity-Rich Counties." *Professional Geographer.* 53(4): 492-502, and Vias, A. 1999. "Jobs Follow People in the Rocky Mountain West." *Rural Development Perspectives.* 14(2): 14-23.

[5] See Plane, D.A. and P. Rogerson. 1991. "Tracking the Baby Boom, the Baby Bust, and The Echo Generations: How Age Composition Regulates U.S. Migration." *Professional Geographer*. 43(4): 416-430; Plane, D.A. and F. Heins. 2003. "Age Articulation of U.S. Inter-Metropolitan Regional Flows." *Annals of Regional Science.* 37(1): 107-130.

[6] See Bishop, B. 2009. *The Big Sort: Why the Clustering of Like-Minded America is Tearing Us Apart."* New York: Houghton Mifflin.

[7] See Plane, D.A. and J. Jurjevich. 2009. "Ties that No Longer Bind? The Patterns and Repercussions of Age-Articulated Migration Up and Down the U.S. Urban Hierarchy." *Professional Geographer.* 61(1): 4-20.

[8] See, Florida, R. 2008. *Who's Your City? How the Creative Economy is Making Where to Live the Most Important Decision of Your Life*. Toronto: Vintage Canada.

[9] See Cortright, J. 2005. "The Young and Restless in a Knowledge Economy." CEOs for Cities. December.

[10] Rural amenities are typically defined as the combination of: 1) topographical variation, 2) access to water, and 3) climate. For more information, see: McGranahan, D. 1999. "Natural Amenities Drive Rural Population Change." *Agricultural Economic Report (AER781)*. October.

region has long attracted a large share of its human capital from other places (i.e., "buying" it) compared to investing in its creation (i.e., "making" it), the region's economic development strategy, as well as its long-term economic competitiveness, is strongly linked to the portability of human capital through migration.

Media accounts, including the television show *Portlandia*[11], have highlighted the apparent paradigmatic shift from employment to amenity factors, somewhat whimsically, by suggesting that young migrants to Portland place relatively low value on work and traditional careers, making the city "the place where young people go to retire." With its catchy cache, elected officials, private business leaders, and university scholars alike, have recently invoked the *Portlandia* adage to describe Portland's lot of young, college-educated (YCE) in-migrants. Largely anecdotal, the adage not only asserts a high degree of selectiveness among Portland migrants, but also suggests that because most Portland in-migrants are self-selective in that they are willing to exchange high wages and employment opportunities for quality of life attributes (i.e. urban/natural amenities), they are less economically productive compared to migrants in other metro areas.

Why does this matter? Like Portland, other metro areas across the U.S. have hitched their economic fortunes to attracting and retaining seemingly endless streams of young, mobile, educated migrants. Recently however, a critically important, but less-evident trend has unfolded across the American landscape with little hype: after decades of declining mobility rates across the U.S., migration rates reached record low levels in 2009 (see Cooke 2011[12]). For Portland and other U.S. metro areas, the implications are readily apparent: increased competition for a shrinking pool of young, mobile, educated individuals has real and potentially significant implications for the region's long-term economic viability. First, if mobility levels continue to remain depressed, how might Portland fare in the increasingly competitive market for limited access to mobile human capital? Second, with recent evidence showing that the Portland region continues to gain from the influx of YCE workers though migration despite limited labor market outcomes, might young, college-educated workers stop moving here, or begin to leave, if labor market outcomes are persistently worse compared to other regions?

Understanding migration patterns among YCEs is also important given the aging among Baby Boomer population, which in 2010 represented nearly 25% of Oregon's total population. As this highly educated cohort continues to age and enter retirement, replacing these workers with educated younger workers will undoubtedly be tied to whether the Portland metro can continue to attract and retain YCEs through migration. Given the Portland region's heavy reliance on the continued flow of young, educated talent, understanding the full range of migration patterns has important policy implications, particularly in terms of regional economic development.

[11] "Portlandia: Portland Dream of the '90s", http://www.ifc.com/portlandia/videos/portlandia-portland-dream-of-the-90s.
[12] Cooke T. 2011. "It is Not Just the Economy: Declining Migration and the Rise of Secular Rootedness." *Population, Space, and Place*. 17: 193-203.

Using a two-pronged research approach, first identifying and describing Portland-area migrants, and then examining their labor market outcomes (see Schrock and Jurjevich 2012[13]), we attempt to set the context and provide some empirical insight into the largely anecdotal *Portlandia* assertion that Portland is "the place where young people go to retire." In this report, we examine YCE migration trends in Portland to peer metropolitan areas as a way to frame the context for future research. Specifically, we consider the following research questions:

- How do migration patterns of young (25-39), college-educated (YCE) individuals to the Portland region compare to those trends seen in other large U.S. metros? To what extent are Portland YCE migration patterns consistent over the past forty-years?
- Where are Portland's YCEs coming from? How does Portland's net exchange of YCE migrants between different sized origins and destinations compare to other large U.S. metros?
- How significant are college-educated immigrants in Portland's YCE migration streams?

II. Data and Methods

To answer these questions, we utilize the U.S. Census Bureau's Public Use Microdata Sample (PUMS) for the decennial population Census and the American Community Survey (ACS), accessed through the Minnesota Population Center's Integrated Public Use Microdata Series[14]. We analyze data from 1980 to 2010, but in this paper, we generally only report data for three recent periods—2000, 2005-2007, and 2008-2010[15]—which allows us to assess migration patterns in quite different economic circumstances nationally—the end of a prolonged expansionary period, the middle of a jobless economic recovery, and the throes of a deep global recession, respectively.

The PUMS datasets offer researchers distinct advantages and drawbacks. The advantages are quite significant; in particular, users can tabulate Census and ACS data in customized ways, as opposed to the pre-defined formats and categories offered by the Census Bureau through portals like American Factfinder. They also allow users to cross-tabulate various population characteristics collected through the surveys; for example, you can analyze the educational attainment of individual migrants by user-defined age cohorts.

The fact that the PUMS data are drawn from a survey means that there are limits to how finely one can "slice and dice" the data. Like all survey data, PUMS data are subject to sampling error, meaning imprecision in the probability that the respondents are representative of the overall population[16]. Although the Census and ACS PUMS files are drawn from large samples, representing five percent of

[13] Schrock, G. and J. Jurjevich. 2012. "Is Portland Really the Place Where Young People Go To Retire? Analyzing Labor Force Outcomes for Portland's Young and College-Educated." September.

[14] Ruggles, S., Sobek, M., Alexander, T., Fitch, C., Goeken, R., Hall, P., King, M., and Ronnander, C. 2012. Integrated Public Use Microdata Series (IPUMS). Minneapolis, MN: Minnesota Population Center [producer and distributor]. Available at: http://usa.ipums.org/usa/

[15] For 2005-07 and 2008-10, we use the three-year pooled ACS files published by the U.S. Census Bureau.

[16] They are also subject to non-sampling error (i.e., imprecision based on biases and misunderstanding on the part of the survey respondent, survey researcher and the instruments themselves); however, there is relatively little that can be done to remedy this type of error.

the population in 2000 and roughly three percent for 2005-2007 and 2008-2010, we are careful to report data only where the sampling errors are at reasonable levels.

In this analysis we compare the Portland metropolitan region against 49 other metro regions that, together, comprise the 50 largest metropolitan areas as of 2009 [Table 1]. Because the PUMS datasets are built upon geographical units (Public Use Microdata Areas) that vary somewhat from year to year, we have taken steps to make the metropolitan regions both consistent over time and with the current, core-based definitions in use by the Census Bureau.

In the U.S. decennial Censuses (1980, 1990, and 2000), the long-form[17] migration question asked respondents where they resided five years ago. Now that the ACS is administered annually, the migration question[18] in the ACS asks respondents where they resided one year ago. In this report, because we are primarily interested in the migration patterns of young individuals ages 25-39, we selected individuals from the microdata who were between the ages of 30-44 and 26-40 in the decennial file years and ACS period years, respectively. Consequently, migration data cited in this report, during any period, refers to the migration patterns of individuals ages 25-39.

One of the most widely cited statistics for measuring the impact of migration is the Net Migration Rate[19] (NMR). However, to more effectively highlight the directionality and percentage of migration that redistributes population, we rely on Demographic Effectiveness[20] (DE), or efficiency, the metric ranges from 100 to -100 percent and is represented as:

$$\text{Demographic Effectiveness (DE)}_{ija} = 100*(\text{Net Migration}_{ija}/\text{Total Migration}_{ija})$$

Here, DE is calculated with $\text{Net Migration}_{ija}$ representing the net exchange of age-specific *a* migrants between the origin (i) and destination (j), and $\text{Total Migration}_{ija}$ representing the total migration exchange between the origin (i) and destination (j). The upper limit of DE, 100 percent, is reached when all migrants move to a given place and there are no out-migrants. Conversely, the lower limit of DE, -100 percent, is reached when all migrants move from a given place and there are no in-migrants.

[17] The long-form surveyed 1 in 6 households (approximately 16% of total households), where the ACS has averaged around 2 million households over the past five years, representing approximately a 1.5% sample of households.

[18] Changing the migration question from a five-year to one-year timeframe significantly reduced the potential migrant pool and increased the related margin of error (MOE) for migration estimates. Also, because the one-year question in the ACS is more sensitive to economic conditions and more likely to pick up repeat and return moves compared to the five-year question in the decennial Census, this limits our ability to directly compare ACS with decennial Census data.

[19] The NMR calculates net migration relative to the destination population. Population geographers and demographers calculate demographic rates using the 'at-risk' population in the denominator, which refers to a specific subset of individuals who could are predisposed to a demographic event—whether it be fertility, mortality, or migration. So, as NMR is traditionally calculated, the denominator does represent the true 'at-risk' population for out-migrants, but does not however, represent the 'at-risk' population for in-migrants. For in-migrants, the true 'at-risk' population would be the population not residing in the region for which NMR is calculated. For more information, see Plane and Rogerson (1994, p. 192).

[20] See Plane, D.A. and P. Rogerson. 1994. *The Geographical Analysis of Population With Applications to Planning and Business.* New York, NY: John Wiley and Sons, Inc.

For example, college towns have high levels of in-migration every year thanks to the new class of incoming freshman, but those streams are demographically "ineffective" because there is an opposite and typically almost equal flow of graduating seniors who move out of town in search of jobs. The measure is best illustrated with the following example: if 10 total migrants either enter or leave a region during a year, and if all 10 were in-migrants, the effectiveness would be 10/10, or 100%. However, if four were in-migrants and six were out-migrants, the DE[21] would be -2/10, or -20%.

III. Findings

- **Young, college-educated (YCE) migration to the Portland region is not a new phenomenon. Equally important, the Portland metro has consistently attracted and retained YCE migrants at some of the highest levels of any metro area in the U.S.**

  To some degree, the *Portlandia* adage suggests that only recently has Portland emerged as a possible destination for young migrants (looking to retire). However, migration data show that over the past three decades, Portland has a distinguished record of attracting and retaining young, mobile talent. Over the past thirty years, the Portland region's NMR was consistently two and a half to three times higher than the largest 50 MSA peers (Table 2). What's more, from 1980 to 2010, of the largest 50 metro areas, only Portland and Seattle's[22] demographic effectiveness (DE) values among YCE migrants ranked in the top 15 metros during each period[23] analyzed. Austin, Denver, Phoenix, and other metro areas also recorded high DE values during 1980-2010, but also experienced 'bust' periods where YCE migration flows ebbed. For Portland, this statistic not only underscores the region's competitiveness in attracting and retaining college-educated talent, but equally important, showcases the consistency of Portland's YCE migration patterns.

  In 2005-2007 and 2008-2010, the Portland metro recorded around 7,000 net YCE in-migrants (see Table 2) —roughly one-third of the total net in-migration of YCE migrants to Washington, DC[24] during the 2008-2010 period. Because metro areas with larger base populations almost always have larger streams of both in and out migrants, gross migration flows are most difficult to compare across different sized metro areas. When examining Portland's net exchange of YCE migrants through the DE metric however, Portland ranks quite high as the 6th and 2nd highest metro area in 2005-2007 and 2008-2010, respectively (see Tables 3 and 4).

  The high DE levels among YCE migrants are particularly impressive during the 2008-2010 period, when Portland's economic prospects specific to this young, educated demographic were comparatively weaker than its peer metro areas (more fully detailed in Schrock and Jurjevich

[21] Weeks, J. 2005. *Population: An Introduction to Concepts and Issues.* 10th Edition. Belmont, CA: Wadsworth/Thomson Learning.
[22] In Atlanta, demographic effectiveness values among YCE migrants ranked in the top 15 metros for every period except for the post-Great Recession period of 2008-2010.
[23] The periods analyzed include: 1975-1980, 1985-1990, 1995-2000, 2005-2007, and 2008-2010.
[24] Washington, DC recorded 20,907 net YCE in-migrants during the 2008-2010 period.

2012). In the end, these recent migration trends underscore the resiliency of Portland's migration streams—even in periods of economic uncertainty. We provide a more detailed analysis of the relationship between economic opportunity and migration in ensuing findings included in this report.

- **While the Portland metro has consistently attracted and retained YCE migrants, not until recently have college graduates outnumbered non-college graduates as a share of net in-migrants to Portland.**

  Despite Portland's remarkable ability to attract and retain YCE migrants over the past three decades, not until the 2005-2007 period did Portland's volume of net YCE in-migrants exceed the volume of net young, less-educated (without a Bachelor's degree or higher) in-migrants (see Table 2). From 1980 to 2000, the NMR ratio remained relatively constant among YCEs—highlighting the region's impressive ability to attract and retain young, educated talent. At the same time however, the NMR ratio dropped precipitously among less-educated migrants from 8.8 in 1980 to 1.9 during the most recent 2008-2010 period (Table 2). This remarkable decline in the net retention of young, less-educated migrants lends support to the notion that the Portland region's migration streams are becoming increasingly selective towards more-educated migrants.

  Four factors largely explaining Portland's transition from majority less-educated to more-educated net in-migrants include: 1) the broad increase in educational attainment during this period (more fully detailed in Schrock and Jurjevich 2012); 2) in the early deindustrializing period of the 1970s and 1980s, the regional shift of industrial jobs from the Northeast and Midwest to the South and West spurred less-educated and lower-skilled migrants to areas in the South and West; 3) a cohort-related effect of aging Baby Boomers entering their peak ages of mobility. For example, in 1980, Boomers were approximately 16-32 years of age and many individuals had not yet reached their early-to-mid 20s peak in mobility. By 1990 however, at 26-42 years of age, all Boomers had finally reached their peak ages of mobility, and; 4) beginning in the early 2000s, Portland demonstrated an impressive ability to attract and retain older migrants, particularly those individuals 40 years of age and older (more details provided in ensuing findings contained in this report). Given that the first three factors affected all metro areas to some degree, Portland's attractiveness to older migrants appears to be a particularly critical factor in college graduates recently outnumbering non-college graduates as a share of net in-migrants to Portland.

  As we have explained, places have two potential routes to building their stock of human capital – by investing in its creation (i.e., "making" it), or by attempting to attract educated individuals from other places (i.e., "buying" it); both are not mutually exclusive. Metro areas, like San Francisco and Washington, DC for example, have a significant higher education infrastructure that allow them to produce human capital locally, but also have relied on YCE migration streams to support their demand for human capital. Equally important, given that most jobs in both regions require some degree of formal education and/or skilled job training, since 1980

the total volume of net in-migration among YCE individuals exceeded the net in-migration of young, less-educated individuals. Because this trend has been occurring for 30 years in places like Boston, San Francisco, and Washington, DC, the ability of these metros to consistently attract and retain more than higher-educated than less-educated migrants in part, explains their high levels of educational attainment.

Although Portland still trails Boston and San Francisco in the race for high educational attainment levels, the ability of the Portland metro to outpace other U.S. metro areas in attracting YCE migrants, in large part, explains the region's recent increases in educational attainment. Figures 1 and 2, which illustrate DE values[25] among young migrants for the 2005-2007 and 2008-2010 periods, underscore the robustness through which the Portland metro has outpaced all other metro areas. In the near future, maintaining this trend will be critical to improving Portland's long-term competiveness in the knowledge and information economy with a well-educated resident population.

- **From 1980 to 2010, Portland's migration rates among YCEs have consistently exceeded what would have been expected, given its labor market conditions.**

  Historically, it has been argued that migrants generally move to maximize individual benefits, largely described in terms of employment-related factors. More recently however, non-economic motivations, including urban and natural amenities, local culture, and political considerations, have been identified as increasingly important factors driving YCE migration patterns. Under this research approach, we are unable to discern the exact reasons[26] migrants move to, and often stay in Portland. However, we can assess the relationship between migration and economic opportunity of Portland migrants compared to other U.S. metros.

  During the most recent 2008-2010 period[27], the Portland region was remarkably successful in both attracting and retaining YCE migrants despite losing jobs during the 2006-2009 period (-0.5%). For Portland, this somewhat unusual relationship is highlighted in Figure 3; generally speaking, metros with higher levels of employment growth[28] often attract and retain more YCE migrants. In Texas for example, where the state managed to successfully avert the worst of the economic recession, migrants poured into Austin, Dallas, Houston, and San Antonio, presumably lured by jobs and lower costs of living. In Portland however, since 1980, more migrants moved to and remained here than predicted with the region's level of employment growth.

  This stage of research prevents us from making definitive conclusions on whether Portland migrants look to 'retire' lofty career goals in exchange for quality of life considerations;

[25] The top 15 metros presented in Figures 1 and 2 represent the metros with the highest average DE values among YCE migrants during the 1980 to 2010 period.
[26] See Cortright, J. and C. Coletta. 2004. "The Young and the Restless: How Portland Competes for Talent." Impresa, Inc. and Coletta & Company, which, in part, uses focus group data in their in-depth analysis of recent Portland migrants.
[27] Portland's pattern between employment and YCE migration patterns is consistent for each period analyzed, 1980 to 2010.
[28] Because migration is often a lagging response to employment opportunities, we plot employment growth recorded for each metro during the 2006-2009 period.

however, the consistency of the relationship between Portland's employment opportunities and YCE migration patterns does suggest some degree of selectiveness compared to migrants in other metro areas. As we more fully discuss in Schrock and Jurjevich (2012), this trend has important implications for regional economic development. If future labor market outcomes for young, college-educated workers in Portland are persistently worse than for other regions, then the region's long-term economic sustainability may be in jeopardy as young, educated individuals decide to pursue opportunities elsewhere.

- **Unlike most large metros, Portland's YCE migrants are drawn from metropolitan areas of all sizes, not just those "moving up" the urban hierarchy.**

  Although migration is a highly selective process that few individuals undertake, migration rates are higher for younger individuals (see Figure 4) and are strongly influenced by an individual's stage of life course. What's more, recent research (see Plane and Jurjevich 2009) shows that as individuals get older and move through the life course, their reasons for moving change and destination preferences reflect, to a large degree, different types of lifestyle considerations often linked to size of place. For example, recent college graduates ages 25-29 more often than not move 'up the urban hierarchy' to larger metropolitan destinations as young, single individuals in search of employment and/or urban amenities. Conversely, by the time people reach their early-to-mid 30s, most individuals are established in their careers and are beginning to conceive children; this often results in individuals moving 'down the urban hierarchy' from large metropolitan areas. To provide a more detailed analysis of Portland's migration trends across the urban Core-Based Statistical Area (CBSA) hierarchy, we classify urban areas as follows: Mega metropolitan (4,000,000+), Major metropolitan (1,000,000-3,999,999), AAA metropolitan (500,000-999,999), AA metropolitan (250,000-499,999), A metropolitan (50,000-249,999), and Non-Metro areas (less than 50,000).

  Because migration trends vary considerably across the urban hierarchy by five-year age-specific cohorts, ideally we would report these data for Portland's net migration exchanges (and by educational attainment); however, sample size issues with American Community Survey (ACS) data prevent us from doing so. Therefore, Figures 5-8 report net migration exchanges for a broader, 25-39 year age group. Despite this reduced granularity, the figures underscore several important points. First, Figures 5 and 7 show that the net exchanges of YCE Portland (classified as a 'major' metropolitan area) migrants are unusually strong between Portland and its peer metropolitan areas of all sizes (across the entire urban hierarchy) in both the 2005-2007 and 2008-2010 periods, respectively. Under normal circumstances, given that majority of migrants in this broad age range (25-39) are in their 30s, we would expect migrants from mega and major (Portland) metropolitan areas to move down the urban hierarchy. Equally important, none of Portland's YCE migration exchanges are net out-migration flows. Second, the Portland metro's DE values among YCE migrants, both in the 2005-2007 and 2008-2010 periods, are considerably higher both in the aggregate, and when analyzing effectiveness across urban hierarchy levels, compared to other U.S. metros (see the DE values for the 50 largest metro areas in Figures 6 and 8 for the 2005-2007 and 2008-2010 periods, respectively). This

trend highlights the consistency and efficiency through which migration provides the Portland region with an abundance of human capital. Third, and perhaps most important in terms of the long-term sustainability of future migration trends, net exchanges of YCE migrants show that the Portland region is not reliant on any one level within the urban hierarchy for human capital; rather, the net exchanges of YCE migrants are evenly distributed across different levels of the urban hierarchy. This implies that where most mega and major metro areas are reliant on unidirectional migration flows 'up the hierarchy' for YCEs, Portland equally attracts YCEs from other large metro areas (i.e. San Francisco) and smaller metros (i.e. Bend) alike.

- **In recent years, Portland has also begun to attract and retain high levels of empty-nester and retirement migrants from most levels of the urban hierarchy.**

  Examining net exchanges of migrants 40 years of age and older[29], Figure 9 illustrates that in the recent 2008-2010 period, the Portland metro attracted and retained empty-nester and retirement migrants (age 40 and above) across most levels of the urban hierarchy. This trend suggests that Portland may also be the place 'where old people come to retire', which combined with the high levels of educational attainment among Baby Boomers, is likely a contributing factor to the region's recent increase in educational attainment.

  The impressiveness of this trend is best understood by comparing the net exchange of older Portland migrants (Figure 9) to the exchanges in the 50 largest U.S. metros (Figure 10). Although the demographic effectiveness values are not robust[30], Figure 10 does illustrate a common trend among older migrants who reside in mega and major metropolitan areas. As individuals approach retirement, often significant numbers of people move down the urban hierarchy to smaller metro (AAA, AA, and A) and rural areas for lower costs of living, adequate medical facilities, urban and natural amenities, and proximity to a moderate-sized airport. Yet, Figure 9 demonstrates two unexpected trends in the Portland region among older migrants: 1) Portland has fewer overall negative net exchanges and attracts more and/or loses fewer older residents to smaller metros compared to its peer metro areas, and; 2) the net exchange with AAA metros show that older individuals actually moved 'up the urban hierarchy' to Portland. So not only does the Portland region attract and retain YCEs, but the region also hangs on to and simultaneously attracts older residents. Together, these trends suggest that the attractiveness of urban/natural amenities that drew YCEs to the Portland region in the first place remain important factors for YCEs staying in Portland as they age.

- **YCE migration patterns over past decade show that Portland's top 10 metro origins and destinations are in Oregon, California, and Washington.**

[29] Due to the relatively small volume of migrants 40 years and older, we do not report educational attainment for older migrants because of sample size considerations.

[30] This is due, in part, to aggregating what are different migration patterns across the urban hierarchy for individuals 40 years of age and over.

States proximate to Oregon, notably California and Washington, share a close relationship in migration patterns. According to 2009 ACS data, almost half of Oregon's in and out migratory exchanges are linked to California and Washington. In 2009, roughly 20-25% of Oregon's in and out migrants were from/to California; Portland-area migration exchanges were largely between the California metro areas of San Francisco, Los Angeles, Riverside, San Jose, and to a lesser extent, Sacramento and San Diego. Another 20% of Oregon's in and out migrants were from/to Washington; Portland-area migration exchanges were strong with Seattle, and to a lesser extent, Spokane. Sample size considerations prevent us from reporting, with statistical confidence, the exact number of in and out migrants by specific metro area. What we can say however, with a high degree of confidence, is that during the most recent period the metro origins and destinations of Portland's YCE migrants remained remarkably consistent during the 2000s[31].

- **Immigrants are an important segment of the Portland's YCE in-migrant population, with educational attainment levels that rival the region's native-born population.**

  Between 1980 and 2010, Oregon's share of foreign-born residents, as a percent of the state's population, more than doubled from 4.1% to 9.8%. A significant contributing factor to this trend is the increase in the share of immigrants as a proportion of total migration flows. According to recent population estimates from the U.S. Census Bureau[32] for the 2008-2009 period, immigration flows represented almost 30%[33] of total net in-migration to the three-county (Clackamas, Multnomah, and Washington) Portland region[34]. In terms of Portland's YCE net in-migration, Figure 11 shows that during the most recent 2008-2010 period, almost 1 in 7 YCE in-migrants to the Portland metro were immigrants—compared to the 50 largest metros areas, where immigrants comprised roughly 1 in 5 YCE in-migrants.

  These trends highlight the importance of considering immigration streams when examining migration patterns of highly educated individuals. Consider also that in 2010, among individuals ages 25 and older, 29.2% of all foreign-born Portland residents held a Bachelor's degree or higher[35] compared to 33.6%[36] of native-born persons. The educational attainment levels of Portland's native and foreign-born populations both exceed the U.S. average of 27%

[31] For more information on county-specific origins and destinations of Portland migrants using IRS tax return data, see: Jurjevich, J. 2011. "A Pivot Point? Economic Slow-Down Affects Oregon's Migration Flows." *Metropolitan Knowledge Network (MKN).* May. Available at: http://mkn.research.pdx.edu/2011/05/slow-economy-tempered-oregon-population-growth-over-decade/

[32] Available at: http://www.census.gov/popest/data/counties/totals/2009/CO-EST2009-05.html

[33] Because the U.S. Census Bureau only reports data on residents of the U.S., out-migration flows to international destinations are not reported, which results in a slightly overestimation in the importance of immigration as a percentage of net in-migration.

[34] According to Census Bureau estimates from 2010-2011, immigration flows represented 34.3% of total net in-migration to the three-county Portland region.

[35] This analysis does not consider the nativity status (i.e. citizen or non-citizen) of immigrants, which is a critically important factor for educational attainment and income. For more information relating to Oregon's foreign-born population, see Jurjevich, J. 2012. "In Search of Opportunity: Foreign-Born Residents in Oregon." Metropolitan Knowledge Network (MKN). June. Available at: http://mkn.research.pdx.edu/2012/06/in-search-of-opportunity-foreign-born-residents-in-oregon/

[36] The corresponding margins of error are +/- 1.7% and +/- 0.7% for Oregon foreign and native-born persons, respectively.

and 28.4%[37] for foreign and native-born persons, respectively. Given the small number of Fortune 500 companies and the absence of a 'Research 1' university engaging in extensive research activity, the Portland region is not as well positioned, compared to Seattle or Minneapolis-St. Paul for example, to attract college-educated immigrants. Despite these limitations, the Portland region's long-term competiveness remains heavily reliant on the ability of the region to capitalize on attracting college-educated immigrants.

IV. Conclusion

Is Portland really the place where young people go to retire? The consistently high levels through which the Portland metro has attracted and retained young, college-educated migrants in the face of below average economic growth emphasizes findings from our companion report[38] where we conclude that "young people do not come here to retire, but do not come here to get rich either." What's more, while all potential migrants balance economic and non-economic factors—from "quality of life" to political milieu—into their decisions of whether and where to move, it appears that the typical Portland migrant places greater relative value on amenity values compared to the economic opportunities afforded by the region. Though not unique to Portland, the data highlight a higher degree of selectiveness among Portland migrants challenging the long-established cornerstone of traditional migration theory suggesting that employment considerations are the primary factor in the decision to move.

Juxtaposing the consistency of Portland's young, educated migration trends over the past thirty years with the long-held notion asserted by urban economists[39] arguing that migration is akin to 'voting with your feet', we conclude that, it seems clear that young, educated migrants have cast their ballots in favor of the Portland region's quality of life. More recently though, the region's historically low barriers to entry, measured in terms of owner and renter-occupied affordable housing, transit accessibility, and general low cost of living, have increased (e.g. steady increases in median rent prices) leading some to wonder if in the future these barriers might become deterrents to otherwise would-be Portland in-migrants. Given that many of these increases are relatively recent, only future migration trends will provide an answer.

The results also underscore an equally important trend; in particular, the high level of demographic effectiveness and movement of older migrants 'up the urban hierarchy' to the Portland region suggests that Portland may also be the case where "old people go to retire." We conclude that migration trends among older individuals not only underscore the importance of the region's amenities to retaining YCEs, but are also a major factor in the Portland region's recent increase in educational attainment. Continuing to capitalize on these highly-educated streams in the near future will require continued focus on the built and social environments for aging populations, and

[37] The corresponding margins of error are +/- 0.2% and +/- 0.07% for U.S. foreign and native-born persons, respectively.

[38] See Schrock, G. and J. Jurjevich. 2012. "Is Portland Really the Place Where Young People Go To Retire? Analyzing Labor Force Outcomes for Portland's Young and College-Educated." September.

[39] See Tiebout, C. 1956. "A Pure Theory of Local Expenditures." Journal of Political Economy. 64(5): 416-424.

also emphasizes the importance of the Portland region's collaborative partnerships with organizations like the World Health Organization (WHO) in the Age-Friendly Cities project.

These findings more broadly, also lend support to the interrelated hypotheses of 'consumption-oriented migration' advanced by Wilbur Zelinsky[40], and the 'consumer city' idea championed by Harvard economist Ed Glaeser (2001). With high amenity cities recently experiencing higher levels of economic growth, scholars have argued that the short and long-term success of cities largely rests in their ability to serve as 'centers of consumption' by attracting human capital through amenity-based migration. The relevance to Portland has to do with what we term, 'the amenity paradox'—the notion that the attractiveness and amenity value of a city draws more people to the region and additional growth pressures have the potential to erode the quality of life that makes the region attractive in the first place. While the Portland region has invested in policies (i.e. the urban growth boundary) to proactively address growth-related issues, our results underscore the importance of maintaining the region's quality of life as a critical ingredient to the sustainability of economic development in the Portland region.

We conclude with two additional important points: first, an important implication of the region's poor labor market is that the highly selective pool of migrants are privileged, to some degree, in that they can afford and are willing to pay for Portland's amenities. This trend may be fine for reproducing a milieu and reinforcing a set of place-specific variables that give the region its unique identity, but it probably does little in adding to the region's diversity, and; second, as other local economists have also pointed out, the importance of immigrants[41] to the regional economic competitiveness of the Portland region is not to be understated. Together, migration trends highlight the role of both migration and immigration as critical components to the Portland region's economic development in the past, present, and future.

[40] See Zelinsky, W. 1971. "The Hypothesis of the Mobility Transition." *Geographical Review.* 61(2): 219-249.

[41] See Cortright, J. and C. Coletta. 2004. "The Young and the Restless: How Portland Competes for Talent." Impresa, Inc. and Coletta & Company. Page 45.

Table 1. 50 Largest Metropolitan Regions by Population, 2009.

Metropolitan Area	Population
New York-Northern New Jersey-Long Island, NY-NJ-PA	19,069,796
Los Angeles-Long Beach-Santa Ana, CA	12,874,797
Chicago-Joliet-Naperville, IL-IN-WI	9,580,567
Dallas-Fort Worth-Arlington, TX	6,447,615
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	5,968,252
Houston-Sugar Land-Baytown, TX	5,867,489
Miami-Fort Lauderdale-Pompano Beach, FL	5,547,051
Washington-Arlington-Alexandria, DC-VA-MD-WV	5,476,241
Atlanta-Sandy Springs-Marietta, GA	5,475,213
Boston-Cambridge-Quincy, MA-NH	4,588,680
Detroit-Warren-Livonia, MI	4,403,437
Phoenix-Mesa-Glendale, AZ	4,364,094
San Francisco-Oakland-Fremont, CA	4,317,853
Riverside-San Bernardino-Ontario, CA	4,143,113
Seattle-Tacoma-Bellevue, WA	3,407,848
Minneapolis-St. Paul-Bloomington, MN-WI	3,269,814
San Diego-Carlsbad-San Marcos, CA	3,053,793
St. Louis, MO-IL	2,828,990
Tampa-St. Petersburg-Clearwater, FL	2,747,272
Baltimore-Towson, MD	2,690,886
Denver-Aurora-Broomfield, CO	2,552,195
Pittsburgh, PA	2,354,957
Portland-Vancouver-Hillsboro, OR-WA	2,241,841
Cincinnati-Middletown, OH-KY-IN	2,171,896
Sacramento-Arden-Arcade-Roseville, CA	2,127,355
Cleveland-Elyria-Mentor, OH	2,091,286
Orlando-Kissimmee-Sanford, FL	2,082,421
San Antonio-New Braunfels, TX	2,072,128
Kansas City, MO-KS	2,067,585
Las Vegas-Paradise, NV	1,902,834
San Jose-Sunnyvale-Santa Clara, CA	1,839,700
Columbus, OH	1,801,848
Charlotte-Gastonia-Rock Hill, NC-SC	1,745,524
Indianapolis-Carmel, IN	1,743,658
Austin-Round Rock-San Marcos, TX	1,705,075
Virginia Beach-Norfolk-Newport News, VA-NC	1,674,498
Raleigh-Cary-Durham-Chapel Hill, NC*	1,627,055
Providence-New Bedford-Fall River, RI-MA	1,600,642
Nashville-Davidson-Murfreesboro-Franklin, TN	1,582,264
Milwaukee-Waukesha-West Allis, WI	1,559,667
Jacksonville, FL	1,328,144
Memphis, TN-MS-AR	1,304,926
Louisville-Jefferson County, KY-IN	1,258,577
Richmond, VA	1,238,187
Oklahoma City, OK	1,227,278
Hartford-West Hartford-East Hartford, CT	1,195,998
New Orleans-Metairie-Kenner, LA	1,189,981
Birmingham-Hoover, AL	1,131,070
Salt Lake City, UT	1,130,293
Buffalo-Niagara Falls, NY	1,123,804

Source: Bureau of Economic Analysis, based on Census Bureau annual population estimates.
Note: All metro areas based on Metropolitan Statistical Area definition, except Raleigh-Durham, where we have combined the Raleigh-Cary (49th largest) and Durham-Chapel Hill (102nd largest) MSAs.

Table 2. Portland, OR Migration Streams by Age and Educational Attainment, 1980 to 2008-2010.

Bachelor's Degree or Higher	1980	1990	2000	2005-2007	2008-2010
Gross In-Migration, 25-39	6,460	30,156	40,534	15,603	16,650
Gross Out-Migration, 25-39	3,240	17,947	23,135	9,227	9,120
Net In-Migration, 25-39	3,220	12,209	17,399	6,376	7,530
Portland Net Migration Rate (NMR)	93.7	121.7	146.1	42.0	44.0
Top 50 MSAs Net Migration Rate (NMR)	20.3	43.8	61.4	16.7	17.8
NMR Ratio of Portland to Top 50 MSAs	4.6	2.8	2.4	2.5	2.5
Less than a Bachelor's Degree	**1980**	**1990**	**2000**	**2005-2007**	**2008-2010**
Gross In-Migration, 25-39	26,920	50,542	61,803	18,150	15,751
Gross Out-Migration, 25-39	16,620	32,846	42,427	13,972	13,161
Net In-Migration, 25-39	10,300	17,696	19,376	4,178	2,590
Portland Net Migration Rate (NMR)	46.9	69.6	67.5	14.3	9.0
Top 50 MSAs Net Migration Rate (NMR)	5.3	17.6	24.9	4.5	4.8
NMR Ratio of Portland to Top 50 MSAs	8.8	4.0	2.7	3.2	1.9

Sources: U.S. Decennial Census (1980-2000), American Community Survey (ACS) 2005-2007 and 2008-2010, 3-year estimates. Calculated by authors.

Table 3. Top Ranking Metros w/ Demographic Effectiveness and Net Migration Values, Migrants Ages 25-39 with a Bachelor's degree or higher, 2005-2007.

		Demographic Effectiveness (DE)	Total Net Migration
1	Seattle, WA	37.4	17,371
2	Charlotte, NC-SC	32.5	6,978
3	Riverside-San Bernardino, CA	30.5	8,188
4	Austin, TX	26.1	6,975
5	Houston, TX	26.1	11,124
6	Portland, OR-WA	25.7	6,376
7	Sacramento, CA	25.6	6,124
8	Phoenix, AZ	22.0	8,526
9	Atlanta, GA	19.8	11,238
10	Orlando, FL	19.3	4,406
11	Louisville, KY-IN	18.3	1,701
12	Tampa-St. Petersburg, FL	17.8	4,058
13	San Jose, CA	17.7	6,267
14	Dallas-Fort Worth, TX	17.7	9,666
15	Denver-Boulder, CO	16.7	6,435
	Top 50 MSAs	12.3	198,712

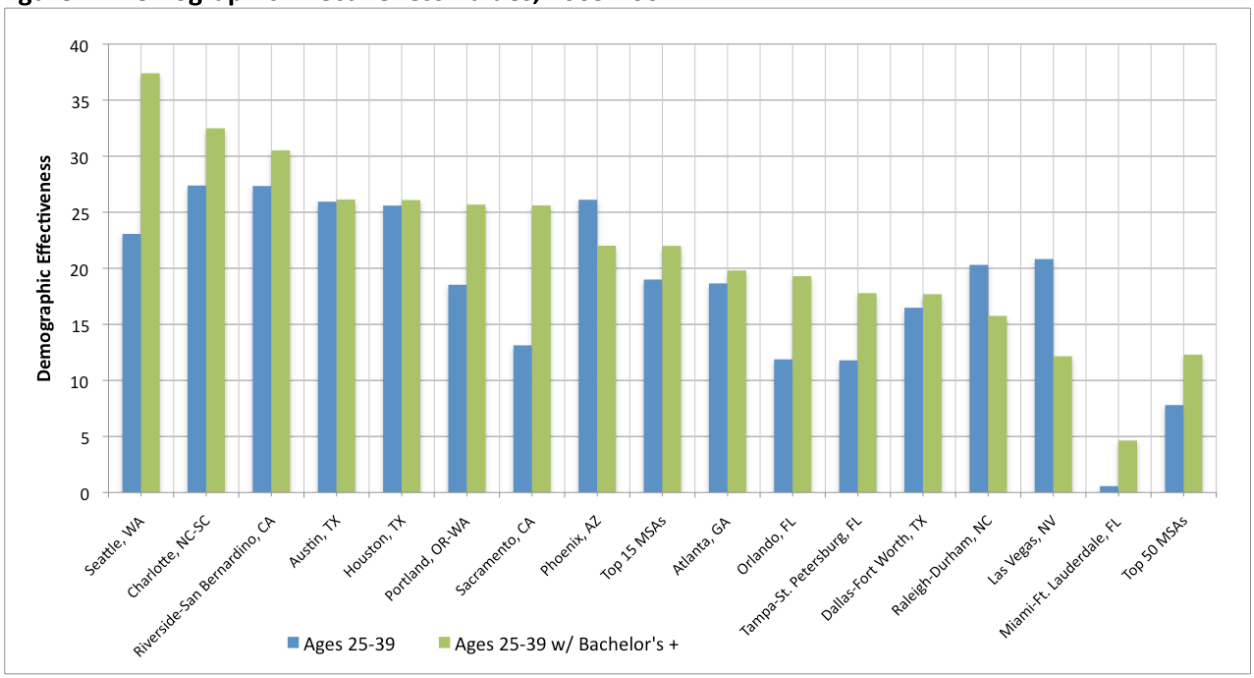
Source: American Community Survey (ACS) 2005-2007, 3-year estimates. Calculated by authors.

Table 4. Top Ranking Metros w/ Demographic Effectiveness and Net Migration Values, Migrants Ages 25-39 with a Bachelor's degree or higher, 2008-2010.

		Demographic Effectiveness (DE)	Total Net Migration
1	Louisville, KY-IN	33.9	3,045
2	Portland, OR-WA	29.2	7,530
3	Seattle, WA	28.5	12,780
4	Dallas-Fort Worth, TX	28.0	14,573
5	Pittsburgh, PA	26.8	4,583
6	San Antonio, TX	26.6	5,377
7	Houston, TX	25.6	10,382
8	Austin, TX	23.7	6,605
9	Washington, DC-MD-VA	21.9	20,907
10	Tampa-St. Petersburg, FL	20.0	4,112
11	Charlotte, NC-SC	18.5	4,160
12	San Jose, CA	17.7	6,101
13	Boston, MA-NH	16.5	10,501
14	Kansas City, MO-KS	16.5	2,897
15	San Francisco-Oakland, CA	16.2	11,607
	Top 50 MSAs	14.5	224,967

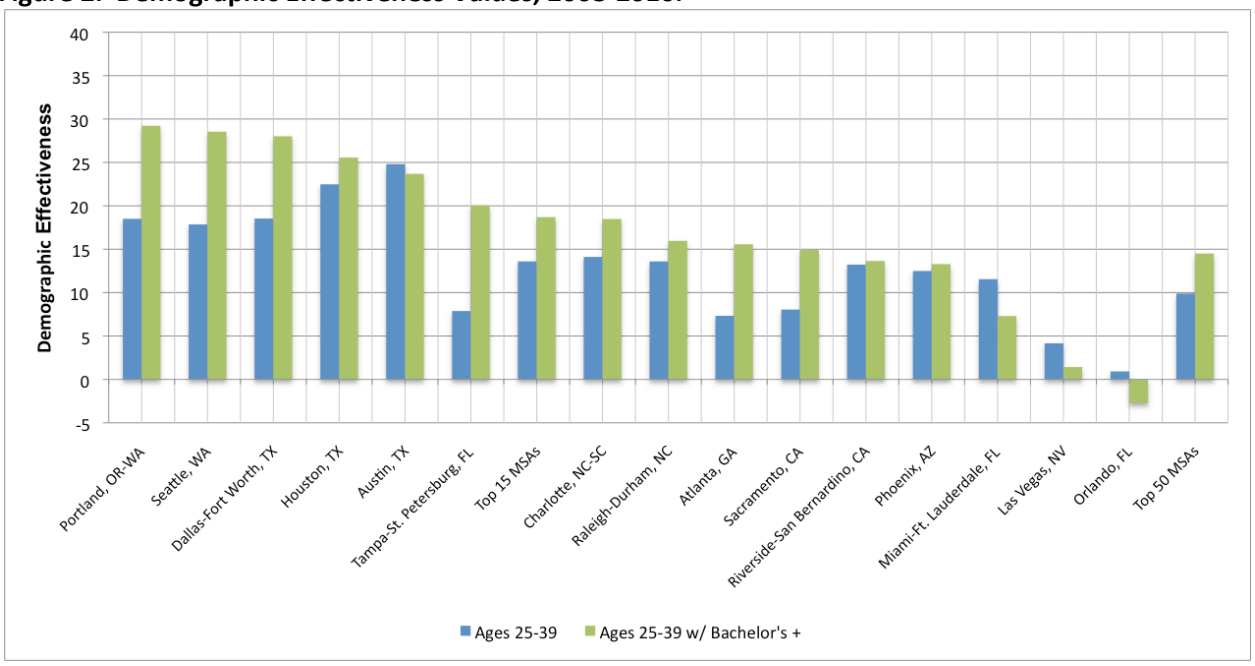
Source: American Community Survey (ACS) 2008-2010, 3-year estimates. Calculated by authors.

Figure 1. Demographic Effectiveness Values, 2005-2007.



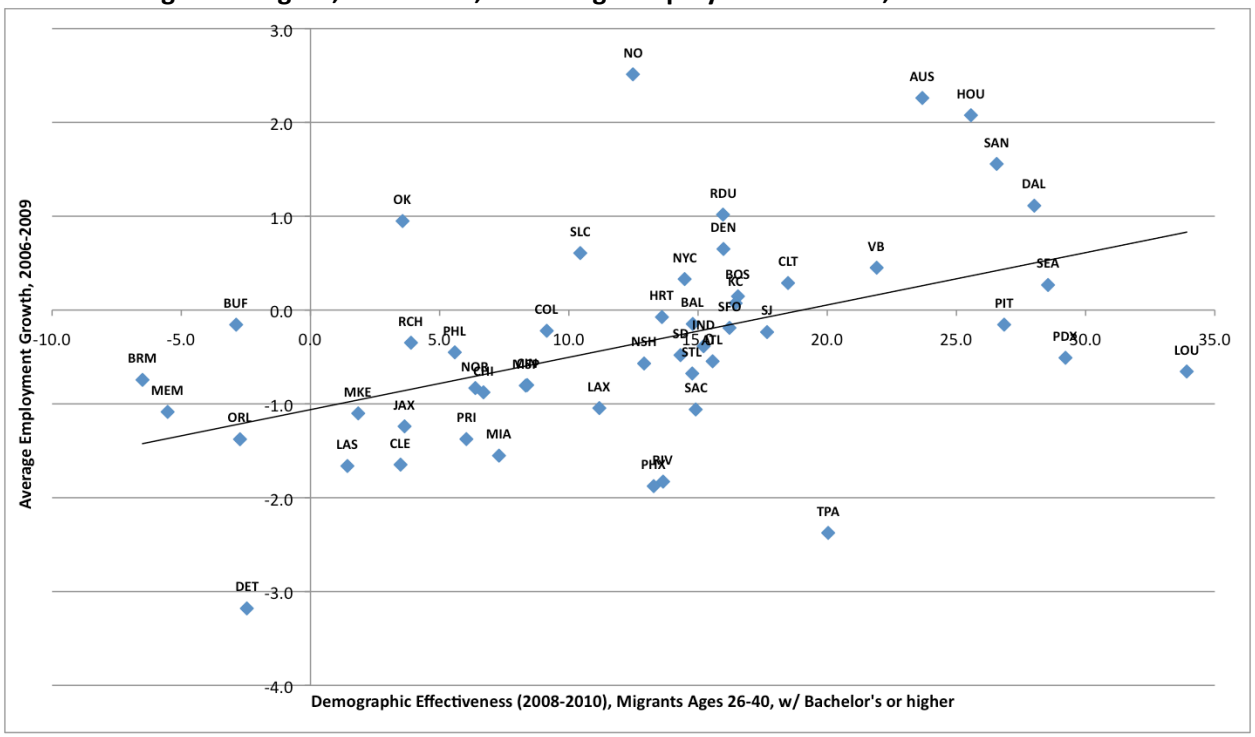
Source: American Community Survey (ACS) 2005-2007 3-year estimates. Calculated by authors.

Figure 2. Demographic Effectiveness Values, 2008-2010.



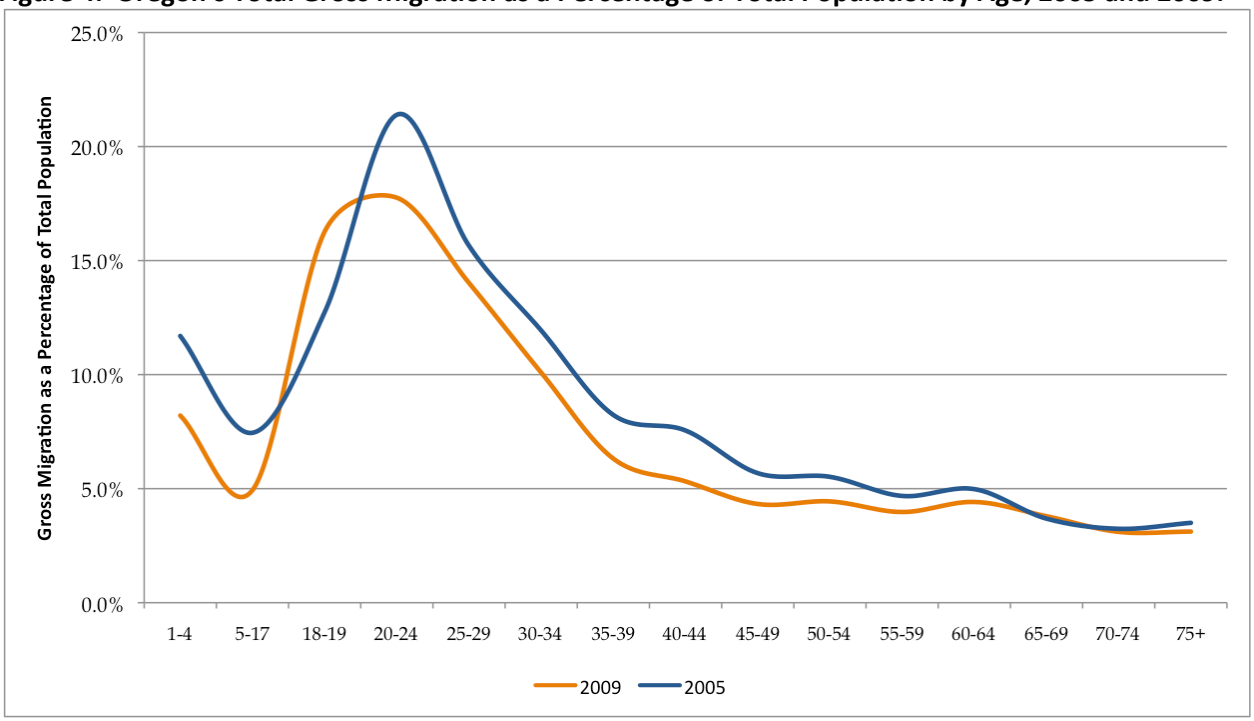
Source: American Community Survey (ACS) 2008-2010 3-year estimates. Calculated by authors.

Figure 3. Scatterplot of Demographic Effectiveness Values Among Migrants Ages 25-39 with a Bachelor's degree or higher, 2008-2010, to Average Employment Growth, 2006-2009.



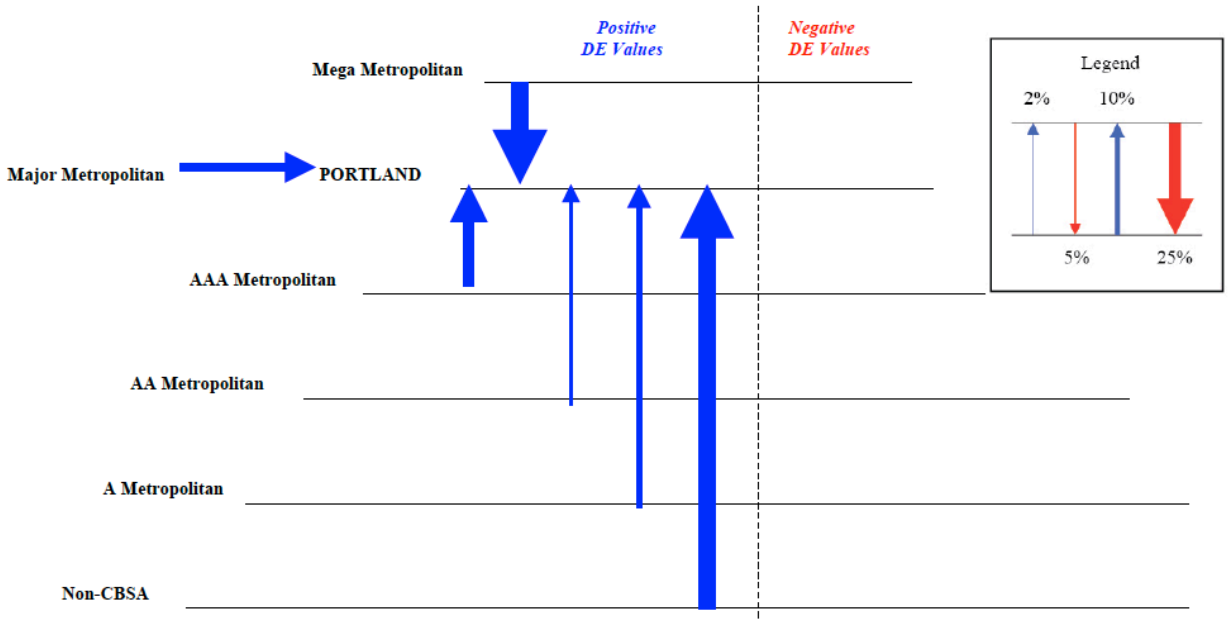
Sources: American Community Survey (ACS) 2008-2010 and Bureau of Economic Analysis (BEA), CA25 Series (Total Employment) 2006-2009. Calculated by authors.

Figure 4. Oregon's Total Gross Migration as a Percentage of Total Population by Age, 2005 and 2009.



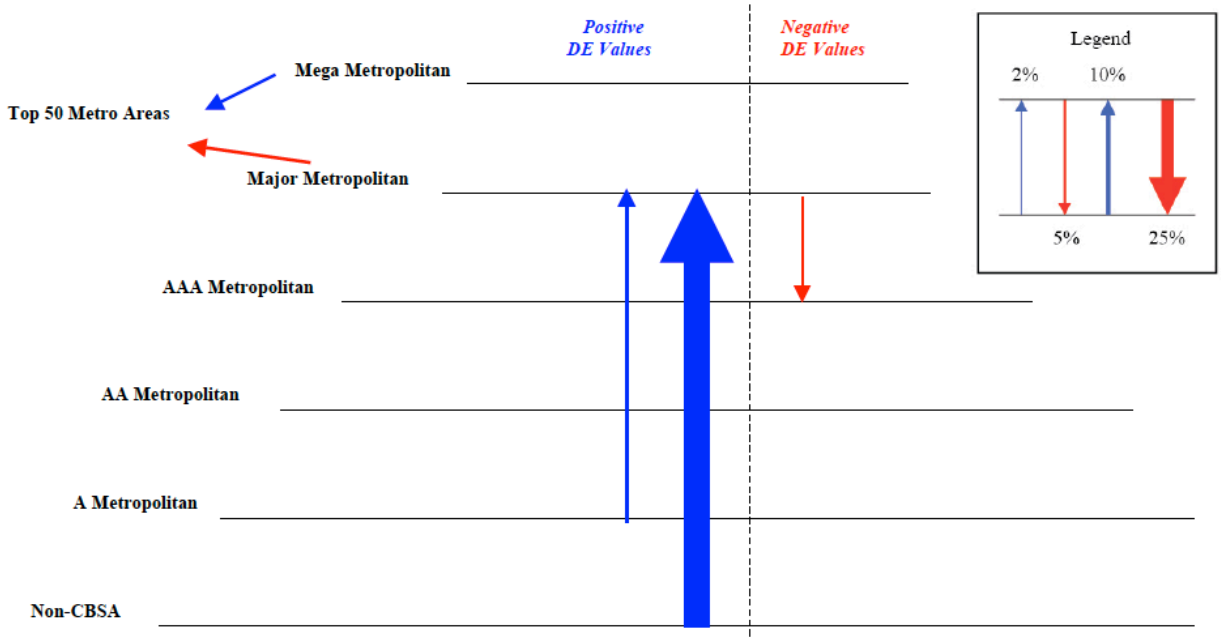
Source: Jurjevich, J. 2011. "A Pivot Point? Economic Slow-Down Affects Oregon's Migration Flows." *Metropolitan Knowledge Network (MKN).* May. American Community Survey (ACS) 2005, 2009, 1-year estimates.

Figure 5. Portland, OR Demographic Effectiveness Values for Net Migration Exchanges Between CBSA Hierarchy Levels for Persons Ages 25-39 w/ Bachelor's Degree or Higher, 2005-2007.



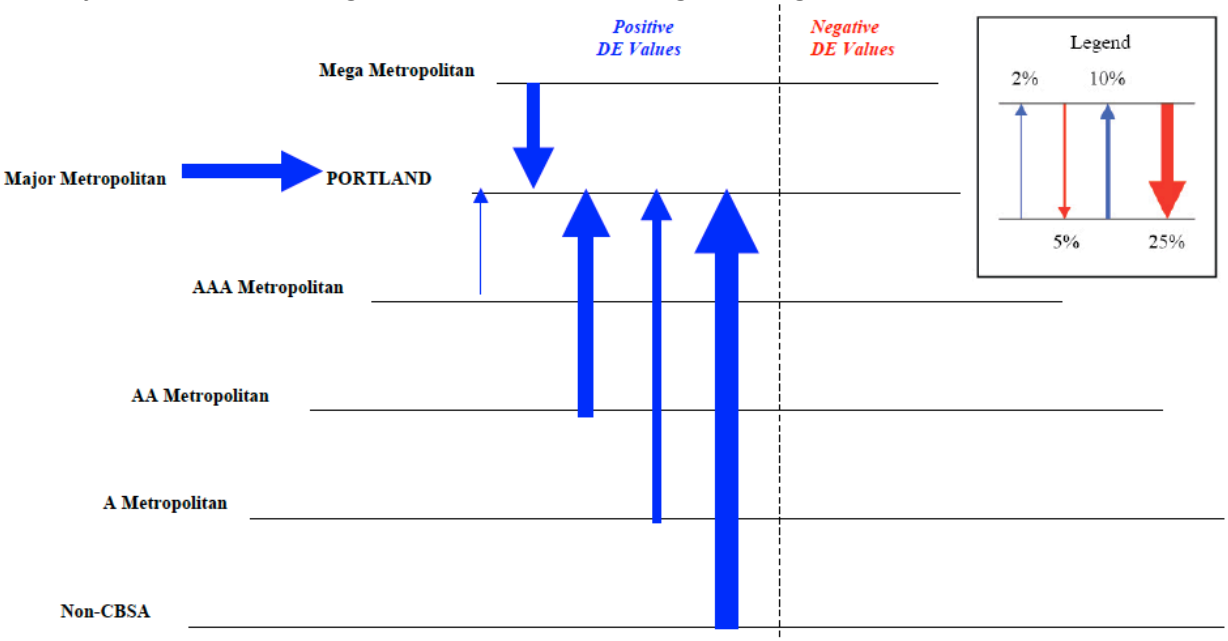
Source: American Community Survey (ACS) 2005-2007 3-year estimates. Calculated by authors.

Figure 6. 50 Largest MSAs Demographic Effectiveness Values for Net Migration Exchanges Between CBSA Hierarchy Levels for Persons Ages 25-39 w/ Bachelor's Degree or Higher, 2005-2007.



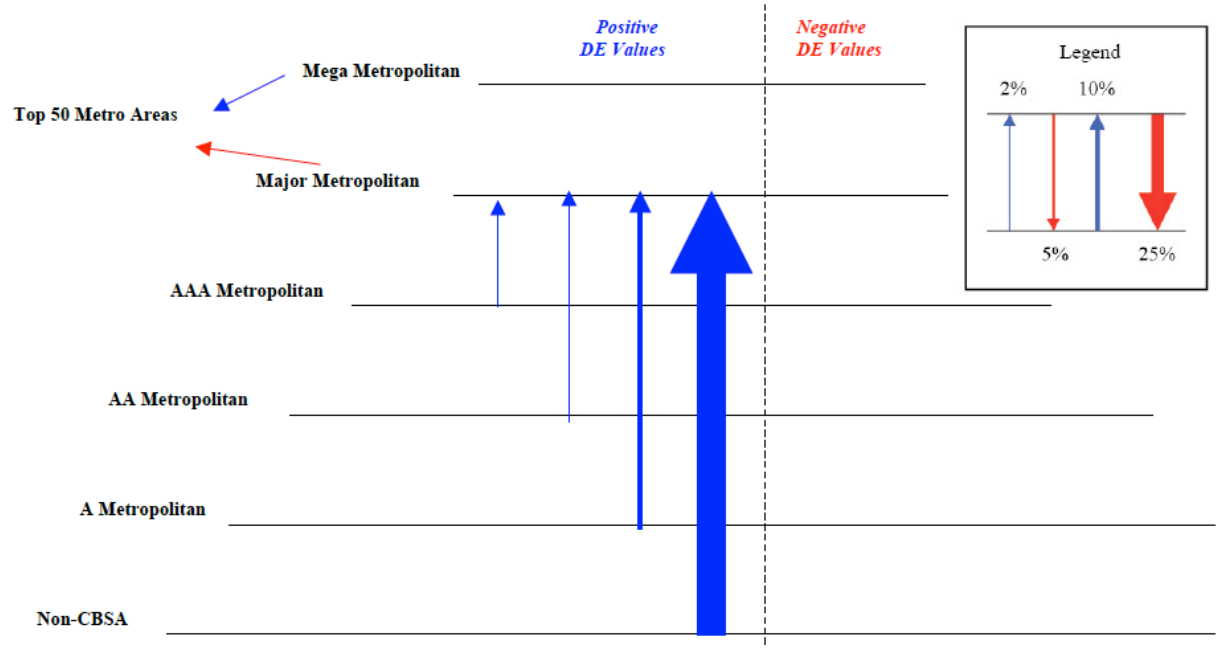
Source: American Community Survey (ACS) 2005-2007 3-year estimates. Calculated by authors.

Figure 7. Portland, OR Demographic Effectiveness Values for Net Migration Exchanges Between CBSA Hierarchy Levels for Persons Ages 25-39 w/ Bachelor's Degree or Higher, 2008-2010.



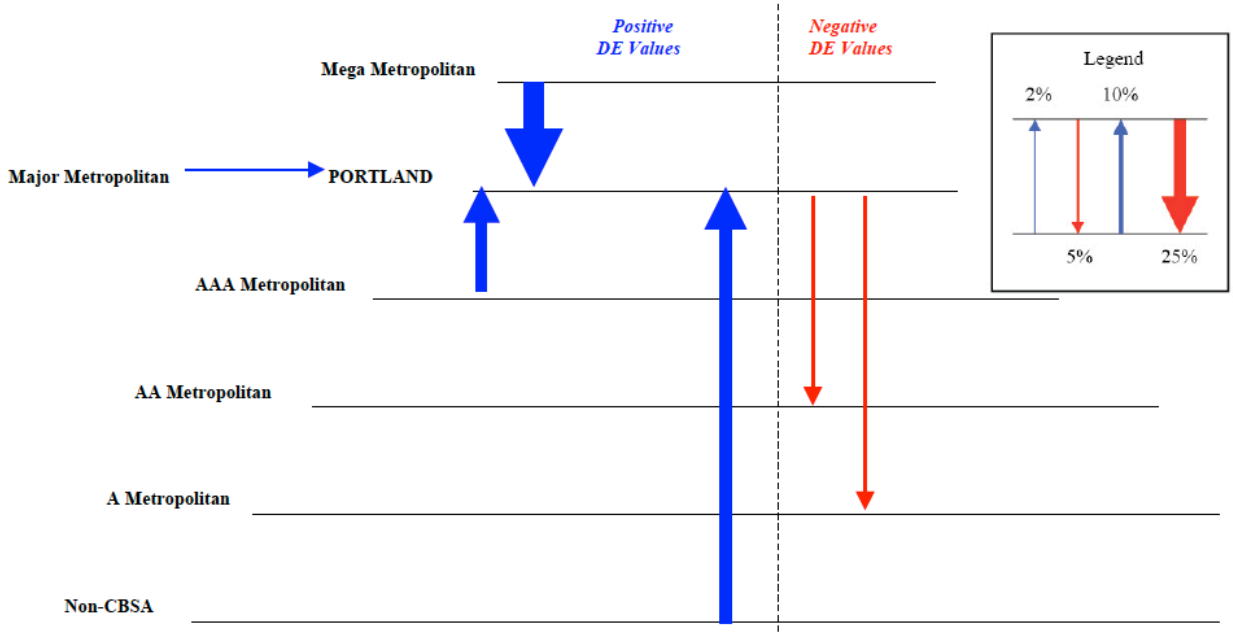
Source: American Community Survey (ACS) 2008-2010 3-year estimates. Calculated by authors.

Figure 8. 50 Largest MSAs Demographic Effectiveness Values for Net Migration Exchanges Between CBSA Hierarchy Levels for Persons Ages 25-39 w/ Bachelor's Degree or Higher, 2008-2010.



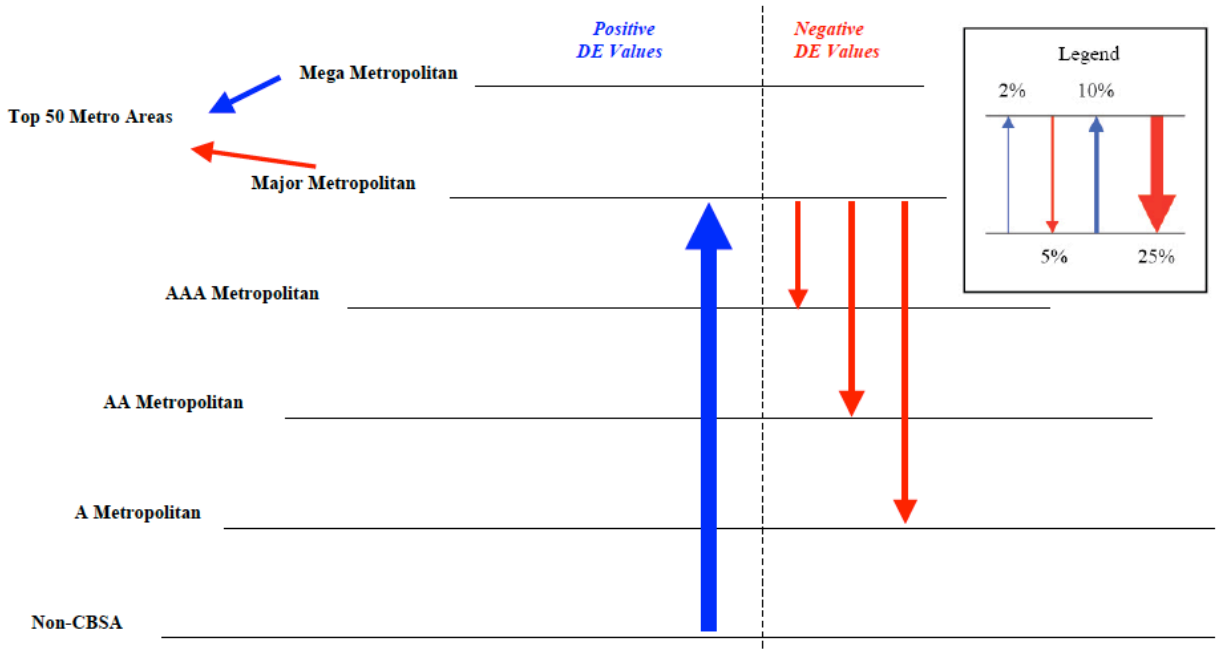
Source: American Community Survey (ACS) 2008-2010 3-year estimates. Calculated by authors.

Figure 9. Portland, OR Demographic Effectiveness Values for Net Exchanges Between CBSA Hierarchy Levels for Migrants Age 40+, 2008-2010.



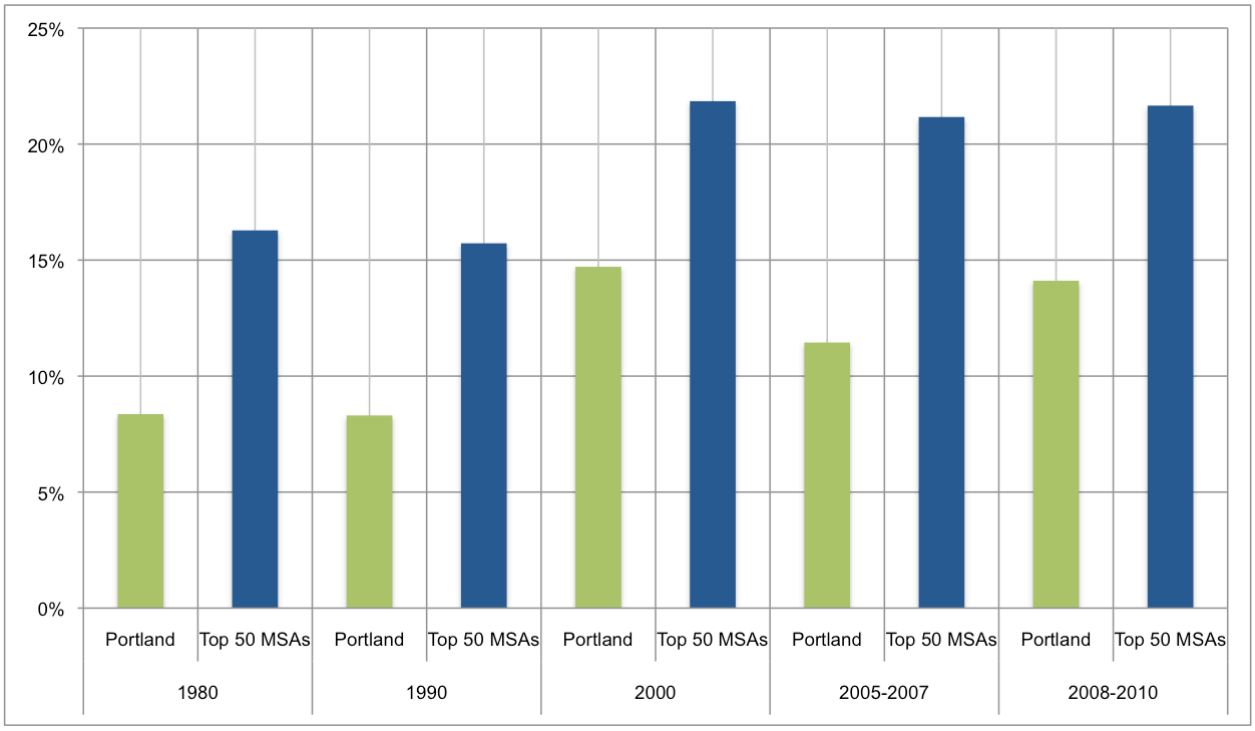
Source: American Community Survey (ACS) 2008-2010 3-year estimates. Calculated by authors.

Figure 10. 50 Largest MSAs Demographic Effectiveness Values for Net Exchanges Between CBSA Hierarchy Levels for Migrants Age 40+, 2008-2010.



Source: American Community Survey (ACS) 2008-2010 3-year estimates. Calculated by authors.

Figure 11. Immigrants as a Percentage of Total In-Migrants w/ a Bachelor's Degree or higher, Ages 25-39, 2008-2010.



Source: American Community Survey (ACS) 2008-2010 3-year estimates. Calculated by authors.