June 2017

Global Homelessness in a Post- Recession World

Jay Bainbridge
Marist College

Tony J. Carrizales
Marist College

Global Homelessness in a Post-Recession World

Jay Bainbridge
Tony J. Carrizales
Marist College

The Great Recession has resulted in various changes in homeless populations in municipalities throughout the world. From "unsheltered homeless" in NYC to "rough sleepers" in London and to "sans-abris" in Paris, or "poblacion callejera" in Mexico City, the economic crisis of 2008 impacted economies in ways that put severe pressures on housing, particularly at the lower-income-level brackets. After all, the Great Recession was generated by a housing bubble, which then constricted capital markets for housing. After the immediate crisis, economic stabilization was followed by stagflation or deflation. There were flat or decreasing wages in the middle- to low-income brackets and high unemployment. Many governments responded with austerity measures to decrease public spending. This research takes a global perspective on the impact of the recession on trends for unsheltered homelessness in twenty of the largest municipalities in OECD countries from 2005-2014

The impact of the Great Recession on homelessness throughout the world requires research and analysis to better understand the trends, and how policies and economics have impacted the homeless population. The economic crisis of 2008 impacted all parts of the world and called on local-government municipalities to evaluate their approaches in interacting with these changes. This research will present a global perspective on the impact of the Recession on homelessness through demographics and statistics.

Homelessness has a wide range of applicable concepts of who and how one can be defined as homeless. The following research study focuses on the population of homeless who are unsheltered. The U.S. Department of Housing and Urban Development (HUD) have put forth working definitions and methods for research on homelessness. HUD published *A Guide to Counting Unsheltered Homeless People* and noted the importance of standard definitions for homeless. Specifically, the difference between unsheltered and sheltered homeless can be characterized by applying the following framework when conducting a homeless count. An unsheltered homeless person resides in: a place not meant for human habitation, such as cars, parks, sidewalks, abandoned buildings, or on the street. A sheltered homeless person resides in: an emergency shelter, including temporary emergency shelters only open during severe weather (USHUD 2008, 5).

Outside of the United States and HUD, there are international organizations specifically established to address issues surrounding homelessness. The Fédération Européenne des

Associations Nationales Travaillant avec les Sans-Abri (the European Federation of National Organisations Working with the Homeless, known as FEANTSA) is a European non-governmental organization that works in preventing and alleviating "the poverty and social exclusion of people threatened by or living in homelessness" (FEANTSA 2015, 1). FEANTSA developed a European Typology of Homelessness and housing exclusion (ETHOS) to provide a common "language" in an area where populations are transnational, and homelessness is addressed differently according to the country. It provides a framework for debate, data collection, policy, monitoring, and the media. The ETHOS categories are:

- Rooflessness (without a shelter of any kind, sleeping rough)
- Houselessness (with a place to sleep but temporary in institutions or shelter)
- Living in insecure housing (threatened with severe exclusion due to insecure tenancies, eviction, domestic violence)
- Living in inadequate housing (in caravans on illegal campsites, in unfit housing, in extreme overcrowding) (FEANTSA 2015).

Many countries, even outside of Europe, have adopted the ETHOS typology, or some variant, to define their homeless population. The research conducted by municipalities throughout the world vary not only in working definitions of homelessness, but also in methods. However, the majority of homeless counts conducted do reflect a similar differentiation between sheltered and unsheltered (i.e., roofless). Homelessness counts do, for the most part, report methods and definitions when also reporting their results. Most importantly, homelessness counts reflect similar perspectives of unsheltered homeless as those individuals residing in places not intended for human habitation.

The work of conducting a homeless count is not easy. Not every municipality conducts annual or even biannual survey counts. The staff and volunteers needed are extensive, and the work of gathering information about and from homeless is also challenging. Although there are challenges in counting homeless populations, the information can be very important to local communities, organizations, and government services. A "street count" is referenced when focusing on the unsheltered homeless population. The term "street" refers to "a wide variety of places not meant for human habitation...., and "count" implies that the goal is to enumerate the total number of unsheltered homeless people" (USHUD 2008, 5).

The following research study will focus on the "roofless" population without a shelter of any kind, sleeping rough. Specifically, we look at how the Great Recession impacted the homeless population of unsheltered, from 2005-2014, in large municipalities throughout the world.

Great Recession and Homelessness

Elsby et al. (2010) outlined how "since December 2007, labor market conditions in the United States have deteriorated dramatically [and] the depth and duration of the decline in economic activity have led many to refer to the downturn as the 'Great Recession.' " (1). The International Monetary Fund noted in 2009, the global economy was in a severe recession "inflicted by a massive financial crisis and acute loss of confidence" (IMF XV). In the U.S., unemployment went from a pre-recession low of 4.4 percent to a high of 10.1 percent in 2009, an increase of 5.7 percentage points. This was the largest postwar upswing in the

unemployment rate (Elsby et al. 2010, 5). The labor market activity suggests that the "recession has been unique in both its depth and its duration" with rates of joblessness among all groups reaching historic highs (Elsby et al. 2010, 41).

Germany, similarly, experienced a significant recession with its GDP falling 6.6 percent from its peak in 2008, exceeding the decline in the United States (Burda and Hunt 2011). However, the labor market experiences differed with U.S. unemployment rate reaching 10.0 percent and German unemployment rate declining over the period of 2008-2009 (Burda and Hunt 2011). Steinberg and Nakane (2011) highlight how the Great Recession led to Japan's unemployment rate increasing but to a small degree by international standards. They suggest that the comparatively lower rates can in part be explained "by the quick implementation of an employment subsidy program, a more flexible wage system, and a corporate governance structure that places workers' rights above shareholders" (Steinberg and Nakane 2011, 1).

The impact of the Great Recession cast a wide net. Hurd and Rohwedder (2010) note that almost 40% of households in the U.S. have been affected either by unemployment, negative home equity, arrears on their mortgage payments, or foreclosure. Moreover, there has been a reported increase in children living in unstable housing "driven by the two recessions, a jobless recovery with persistently high unemployment and a housing market that is still in crisis" (Oberg 2011, 554). The fiscal crisis directly impacted employment, especially "non-regular workers." Steinberg and Nakane (2011) note that 270 thousand non-regular workers lost their jobs, as employers allowed their contracts to expire. Moreover, many of these workers were unable to receive full unemployment insurance, and, as a result, many former non-regular workers became homeless (Steinberg and Nakane 2011, 7).

One example of the impact of the financial crisis on housing stability found that 75% of high school principals in California reported that the number of houseless or living insecure had increased among their students, even in schools within affluent neighborhoods (Freelon et al. 2012, 161). The expectation was that a worsening recession will have led to a substantial increase in homelessness, particularly among families with children (Sard 2009).

Given these studies, our research questions and associated hypothesis expect a direct relationship and a rise in homelessness counts in cities throughout the world during the Recession years. We set forth two research questions. The first is what demographics and statistics of homelessness counts exist in large cities throughout the world? As we began this study, it became apparent that not all cities employ homeless counts. It is important to establish an analysis of existing counts and their methods. The second research question asks how the Great Recession impacted the homeless population in cities throughout the world.

With the noted difficulties and challenges of conducting regular homeless counts, we hypothesize that not every city will conduct counts and publish their data on homelessness. We therefore are targeting large cities in Organisation for Economic Co-operation and Development (OECD) countries throughout the world in an effort to identify an international sample of homelessness in regions with similar economic development, and also to increase the probability of the selected localities conducting regular counts. Substantial resources and efforts are required for homeless counts, and larger, developed municipalities increase the probability of our analysis having a researchable sample. Moreover, we hypothesize that the Great Recession will have had a negative impact on homelessness, resulting in an increase in homeless populations throughout the world.

Homelessness

Efforts to count the homeless are notoriously hard, and, at times, contentious (Rossi 1989,

Martin et. al. 1997, Wright 1992).   Homelessness is not branded on a person like a visibly colorful tattoo; it is not a permanent personal characteristic or state of being, but, rather, a status of housing insecurity that can range along a broad continuum – from living on the streets to being in illegal, unsafe, or overcrowded housing (Greve and Currie 1990, Edgar et al 2003, Chamberlain 2008, USHUD 2008, Statistics New Zealand 2009).

Most individuals pass quickly in-and-out of the worst forms of homelessness, and their position on the continuum of homelessness is frequently dynamic, changing from living in temporary housing to short stays in institutions, such as shelters, or without a roof (Hopper 2003, Kuhn & Culhane 1998, O'Flaherty 1996, Marpsat 2000, Busch-Geertsema 2015).

Homelessness is often defined in terms of a continuum of housing insecurity -- with those living on the streets being in many cases the smallest but most visible category. There is not a singular agreement about where along that housing-insecurity continuum someone should be considered homeless (US HUD 2008; Amore et al 2011; ABS 2012; FEANTSA 2015; Smith 2015).

In the U.S., the definition is comparatively narrow, including only the "literal homeless" who are living in shelters or places not meant for human habitation, such as streets, parks, commuter stations, vehicles, and abandoned buildings. The U.S. Housing and Urban Development agency does not include the "precariously housed" in its estimates, such as couch-surfers, those living in motels, people at threat of eviction, or living in an institutional setting, although they are acknowledged in separate federal legislation for students under the McKinney-Vento Act (US HUD 2008, McKinney-Vento 2009).

Most European countries, Australia, New Zealand, and Canada have a broader definition that includes the precariously housed (and usually the discussion of homelessness is framed in terms of social exclusion/inclusion, and/or adequacy, security and control rather than framed strictly as a housing problem) (Statistics New Zealand 2009, ABS 2012, FEANTSA 2015, Smith 2015). As the Australian Bureau of Statistics states, "The ABS definition of homelessness is informed by an understanding of homelessness as 'home'lessness, not rooflessness. It emphasizes the core elements of 'home' in Anglo American and European interpretations of the meaning of home as identified in research evidence (Mallett, 2004). These elements may include a sense of security, stability, privacy, safety and the ability to control living space. Homelessness is therefore a lack of one or more of the elements that represent 'home'" (ABS 2012). See Smith (2015) for a discussion of the differences in definitions among the U.S., Canada, and Europe.

Even when countries agree on the definition of homelessness, the methods used to measure differ, so as to make it difficult to compare across regions, even within countries. And, in cases where there is some adoption of common sets of categories or definitions, there are very few national estimates of homelessness. To quote, "surveys of the homeless population have typically focused on single problem areas, covered a small sample, are limited geographically to one locality and provide only patchwork data.... Due to lack of reliable empirical data, the estimates of the prevalence of housing exclusion and identification of needs of the homeless population often have to be based on data gathered for the purpose of administration of services and for fund-raising" (Avramov in Polakow et. al. International Perspectives on Homelessness 2001). As Avramov says, most research methods are not designed for making robust estimates of the homeless population, and, when they are, they are usually local. At the time, no surveys were valid for making population estimates of the homeless population for any European country. Though Avramov's statement is dated, the situation is mostly the same, on the whole, despite calls to unify the collection of data on

homelessness in the 2011 Census (Busch-Geertsema 2014). Some periodic national estimates are available for France, Spain, Hungary, Denmark, Sweden, Poland, the U.K., Ireland, and Finland. Italy and Portugal have conducted single estimates that are not designed to be repeated (Busch-Geertsema 2014).

For OECD countries in Asia, the definition of homelessness hews closer to the U.S. narrow categorization of those living unsheltered or in emergency shelters (Japan Ministry of Health, Labor and Welfare 2014; Korea Health and Welfare White Paper 2010).   Broader definitions including those living insecure or in inadequate housing are less common.   This holds as well in Latin American countries, where distinctions are often made between those living strictly without a roof and those living in less secure housing, such as colonias or favelas, as in Mexico City and Chile (En Chile Todos Contamos 2012).   Again, the official definitions of homelessness tend to be narrower than their European counterparts, including only the unsheltered and those in emergency shelters.

While countries differ on what categories they include in their definition of homelessness and how they measure it, all recognize and include the unsheltered, street homeless in their definition.   Also, the street homeless group is generally regarded as among the most vulnerable. Though all countries acknowledge those living unsheltered as homeless, it is a group that is among the hardest to measure.   Efforts at counting the street homeless have progressed tremendously over the last quarter century, in the U.S. at least, from guesstimates by Mitch Snyder in the 1980s (Wright et. al. 1992), to unverified estimates by advocates and experts (e.g., HUD 1984), to more systematic approaches involving surveys of individuals, and often involving sampling strategies (e.g., Burt 1999). Starting in 2007, the U.S. required street counts from all its Continuum of Care agencies biennially, as a condition for seeking funding from HUD.   HUD provided guidance for how to conduct these counts, but left it to localities to choose their preferred method (HUD 2008).

Similar patterns occurred in Canada, which was an early player in conducting regular street counts, starting in the 1990s in Calgary and Edmonton, Alberta, for example (Homeless Hub Community Profiles 2015). Counts eventually expanded to other cities, more recently, Toronto in 2007, and Montreal just this past March 2015. Canada has now spelled out guidelines for common ground and methods in their annual counts and called for a national count in early 2016, though many major cities opted out (Turner, 2015; Homeless Hub, 2015).

Australian cities have done counts in spots over the years.   Japan and Korea have collected data consistently over the past decade. There have been occasional efforts in Latin American and other parts of North America, including cities in Brazil and Chile (Busch-Geertsema 2015). Mexico City has an unpublished count from 2015 (Communications with IAPA 2015)

In Europe, England was also an early adopter of regular annual rough sleeper counts dating back to 1998.   France conducted national estimates of the homeless for cities larger than 20,000 in 2001 and 2012, with Spain adopting a similar method for the country in 2005 and 2012. Portugal (2009) and Italy (2011) conducted a single national exercise, both with some limitations. Regions of Germany have conducted regular counts. Many Scandinavian countries have regularly tracked street homeless through registries and surveys (Busch-Geertsema 2014). The rest of Europe has conducted counts more infrequently, even though there has been a call to do so formally by FEANTSA and some European agreements, such as the 2006 UN Recommendations of the Conference on European Statisticians for 2010/2011 Census (UNECE 2006), which called for all European countries to estimate the homeless as part of their decennial census.

There are a variety of methods used to estimate the unsheltered or roofless homeless. In the HUD Guide to Counting the Unsheltered (US HUD 2008), detailed descriptions are provided for two common approaches -- what they call direct counts of unsheltered in public places, and counts based on the use of non-shelter services. They also present alternative methods for rural areas and innovative techniques that use decoys and/or plant capture methods, or a "day after survey" that combines elements of both the direct count and the service-based method. A similar set of choices is offered in the more recent report on international homelessness, adding Bayesian techniques used in Chile and census data from Australia (Busch-Geertsema et al. 2015).

Within each method of estimating the size of the unsheltered population, there are many important choices to make that will influence results. An instructive example of the influence choices about how to conduct homeless counts can have is described in the Canadian Regional Report from Alberta (Turner 2015), which documents the efforts of seven cities all doing a point-in-time count and purportedly using the same approach. Yet, choices on survey methods influence "what" is being measured. Cities did not use entirely consistent definitions of who would be included or excluded in the street counts -- whether or not they had a permanent place to stay, or whether they had been counted before. Not all cities counted their sheltered and unsheltered at the same time, complicating duplication. Not all cities used the national methods survey, and there were some local modifications. The report then makes recommendations for future counts that would rationalize some of these differences among cities in the region. A similar discussion is taking place for Canada as a whole through the Homeless Hub.

Listing the complications in Alberta is not a condemnation of efforts to count the homeless, nor of their utility. Systematic approaches have improved results, but not wiped out controversy. Choices about what method to use in a sense define what "aspect" of unsheltered homelessness is being measured. In looking at unsheltered homelessness across nations and time, we do not attempt to resolve complications engendered by localities and their approaches. We choose OECD countries as a means to partially control for varying economic situations (or at least excludes the most extreme developing countries). Comparing cities in countries against themselves and their own definition will reduce some of the noise by keeping a common measuring stick. And so we proceed with the simplifying assumption that a consistent measuring stick is "good enough" for this exercise, with notes where we question this rule. We also note that the frequency of counts varies quite a bit. We believe that this is part of the story and provide some analysis and reflections.

Research Methodology

Our research relied on data about the twenty most-populated OECD member nations. In these nations, the most populated city in each nation was identified as the study case for data collection.

The methodology resulted in twenty worldwide municipalities ranging in population from 14 million residents (Istanbul) to just under 790,000 residents (Stockholm). The selected municipalities provided a wide range of cities throughout the world and the various continents. By selecting cities in OECD nations, the economic impact of the recession could be reflected in change across international economic standards. The population of cities was obtained from the United Nations Database (UNDATA) and focused on principal municipal boundaries (excluding bordering towns' populations). Table 1 below summarizes the selected

cities.

Data Collection

Of the twenty selected municipalities, data for homelessness from 2005-2014 were available for the following cities: London, Vienna, Berlin, New York City, Madrid, Sydney, Toronto, Budapest, Auckland, Stockholm, Santiago, Paris, Tokyo, and Seoul. The cities of Rome, Prague, Warsaw, Mexico City, and Athens have also conducted city-wide homelessness counts, but had only conducted such a study one time over the period, and no trends were identifiable. No data were found for the city of Istanbul. These six cities with only one or no time point with data were excluded from the findings, as there was no point of reference for impact of the recession.

Each of the counts varied in methods. However, the defined homeless population used for our study was the count for unsheltered homeless (except in two cases where all we could find were trends for the roofless in general that included overnight shelters in Vienna and Berlin). It is important not to compare homeless counts across cities. This research is focused on the change of homeless counts within municipalities over time. Each city's data selected reflected their unsheltered population, however the methods for collection included different approaches. A point-in-time method was used in London (Oct), New York City (late January), Toronto (mid-April), Madrid (mid-Dec), Sydney (Feb/Aug), Auckland (mid Oct/March), Tokyo (Jan), Seoul (Oct), Rome (mid-March), and Mexico City (late May). A service-users count was used in Stockholm (Sept 25 every 2 years), Paris (Jan/Feb), Warsaw (Jan), Berlin and Vienna (monthly), and Budapest (Feb). Prague (Apr/May) used a variant with Bayesian estimation. Athens and Santiago collect data through their Census Bureau, using a service-based model.

Data and Findings

The first city presented is London (Figure 1), with a clear indication of an increase in homelessness over an eight-year period of data collection. London began in 2005 with a homeless population of 220 and peaked in 2014 with a homeless population of 742. This continuous upward trend would support our hypothesis of an economic impact from the recession that translated into an increase in rough sleeper homelessness for the city of London. However, it should be noted that starting in 2010, the city engaged in a requirement for every local authority to count or estimate the homeless (whereas before participation was voluntary) to reflect a more complete estimate of the homeless population, which can partially help explain the significant increase over the most recent years. In Figure 1, the upper, red line indicates the actual counts, and the lower, yellow line the additional estimated numbers.

Table 1. Most Populated City in OECD Member Countries (20 most Populous)
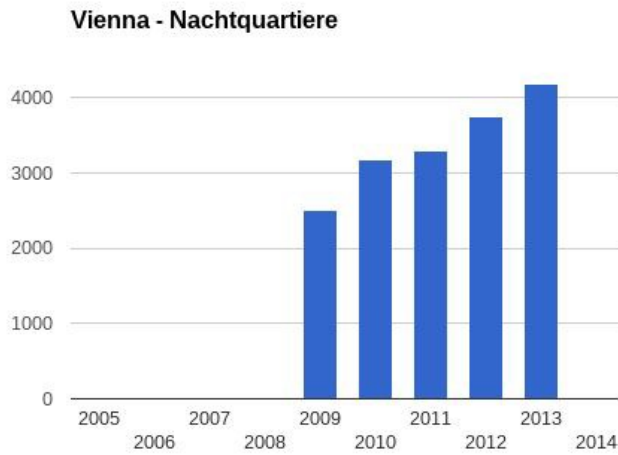
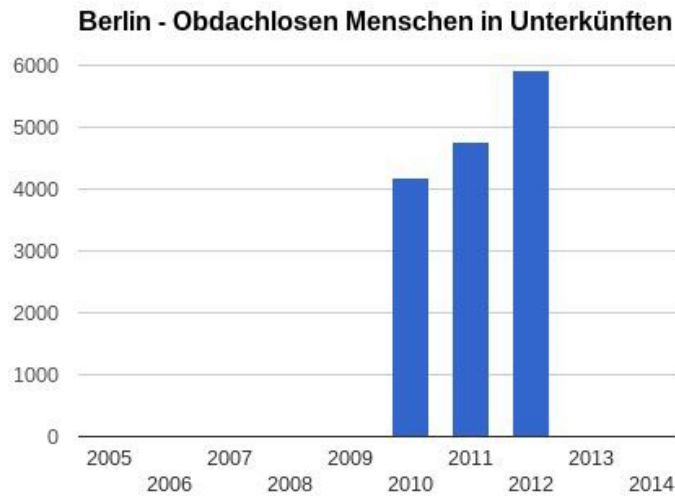|	Municipality	Nation	Pop (millions) (http://data.un.org/)
1	Istanbul	Turkey	14.377[1]
2	Seoul	Korea	9.820
3	Tokyo	Japan	8.945
4	Mexico City	Mexico	8.851
5	London	United Kingdom	8.416[ii]
6	New York City	United States	8.391
7	Santiago	Chile	6.148
8	Sydney	Australia	4.575
9	Berlin	Germany	3.501
10	Madrid	Spain	3.264
11	Rome	Italy	2.753
12	Toronto	Canada	2.503
13	Paris	France	2.211
14	Vienna	Austria	1.731
15	Budapest	Hungary	1.727
16	Warsaw	Poland	1.716
17	Auckland	New Zealand	1.486
18	Prague	Czech Republic	1.257
19	Athens	Greece	0.790
20	Stockholm	Sweden	0.789

Figure 1. London

London - PIT Rough Sleepers
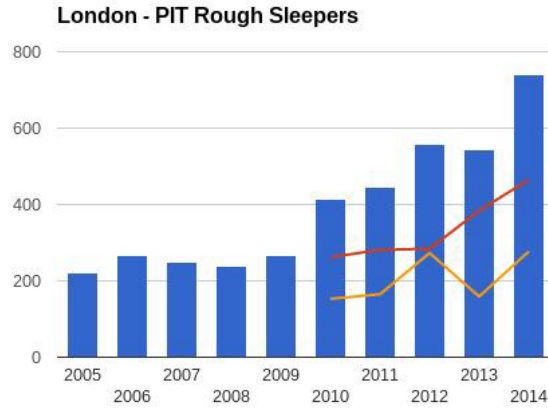
The following tables for the cities of Vienna (Figure 2), Berlin (Figure 3), Stockholm (Figure 4), and Madrid (Figure 5) also show continuous increases in their city's homeless population. First, Vienna began their city survey in 2009 with a homeless population of 2509. Their most recent study in 2013 resulted in a 66% increase from the first survey with a homeless population of 4175. Berlin held a similarly consistent increase of the city's homeless population. Berlin's first of three surveys reported a homeless population of 4194, followed by 4765 in 2011, and 5926 in 2012. It should be noted about the Vienna and Berlin figures, however, that these include those sleeping in
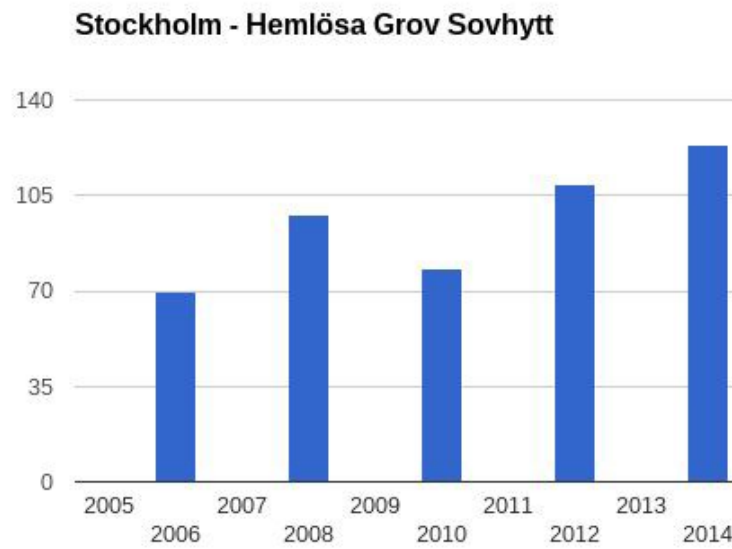
Figure 2. Vienna

Vienna - Nachtquartiere

Figure 3. Berlin

Berlin - Obdachlosen Menschen in Unterkünften

Figure 4. Stockholm

**Stockholm - Hemlösa Grov Sovhytt**

overnight shelters, as there were no data available for those exclusively sleeping unsheltered. Stockholm, which collects data every other year, saw a rise immediately following the recession, and in recent years as well, going from a low of 70 in 2006 to 124 in 2014. In the case of Madrid, there is a decrease in the homelessness count from 2006 (621) to 2009 (553).

Then begins a slight, but steady increase over the next two years, peaking in 2012 with a count of 701. These four cities did not report any changes in methods for data collection and represent three examples that would support our hypothesis of economic recession's impact on homeless populations. These cases are the exceptions to the overall study and require further research to identify the relationship among economics of their city, services, and homelessness.

**Figure 5. Madrid**

Figure 6. Auckland
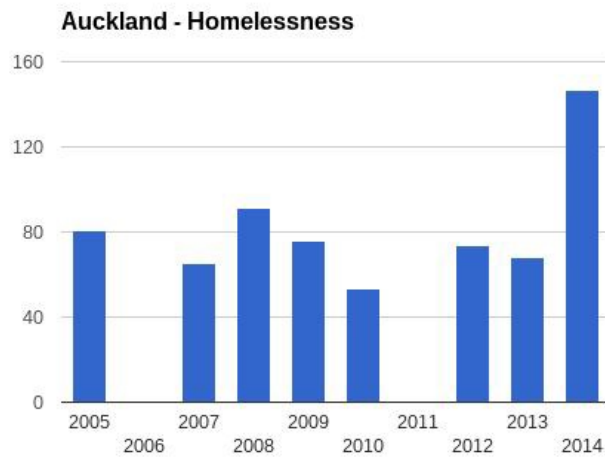
Auckland (Figure 6) held varying results for the homelessness counts, beginning with a count of 81 in 2005 and peaking at 147 in 2014. However, the annual count focused only on an area consisting of 3 kilometers distance surrounding the Sky Tower. This allows for a lot of unaccounted factors, such as shifts in homelessness locations in the larger municipal areas outside of the city center. In Auckland, the rise occurred over one year, near the end of our study period.

The next group of cities differ in that they do not show any increase in homelessness. Rather in some cases, there is a slight decrease in survey count results. The cases of Seoul (Figure 7), New York City (Figure 8), and Toronto (Figure 9) underscore the varying results, with no apparent pattern of homelessness related to the recession. Seoul held continuous homelessness counts from 2006 to 2013, with an average of 1165 homelessness individuals. In the case of New York City, there are steady drops from 2005 through 2009, and there is a slight trend upward after 2009, but then a steady pattern, still well below the homelessness results in the years prior to 2009. Toronto has a similar pattern as NYC, with a steep drop from 2006 to 2009, and then a slight rise in 2013, still well below the pre-recession numbers. The decline prior to the Recession requires further study and may explain the count remaining below the average in the four years after the Recession.
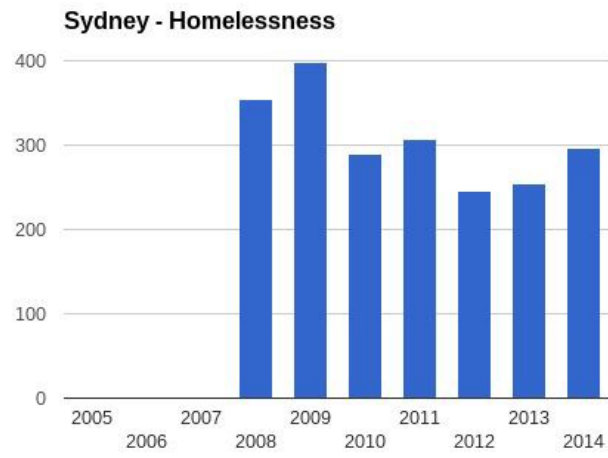
Figure 7. Seoul

.

Figure 8. New York City

New York City - Homelessness Data
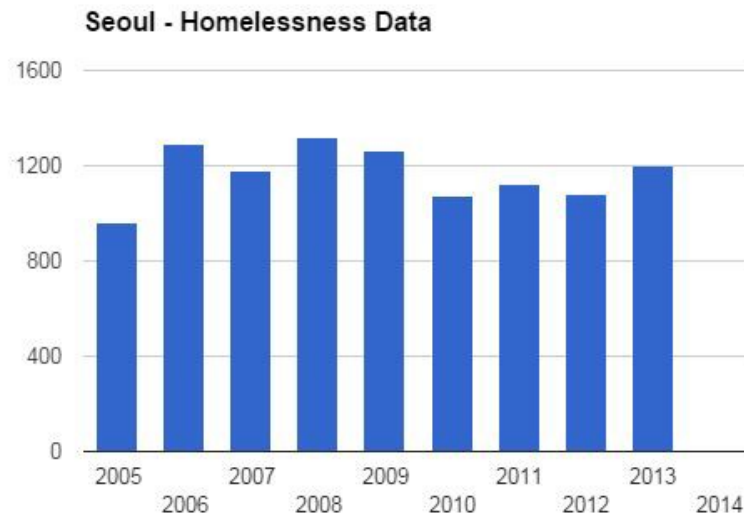
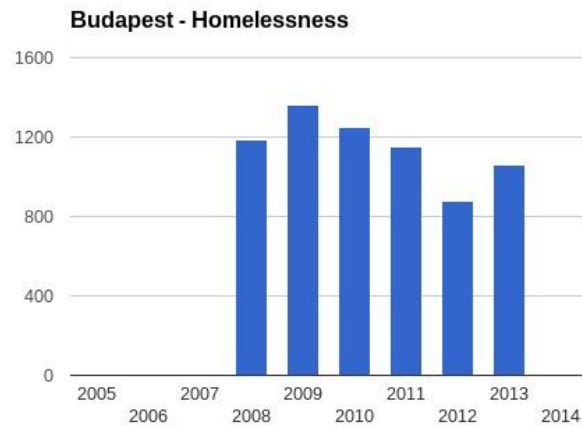**Figure 9. Toronto**
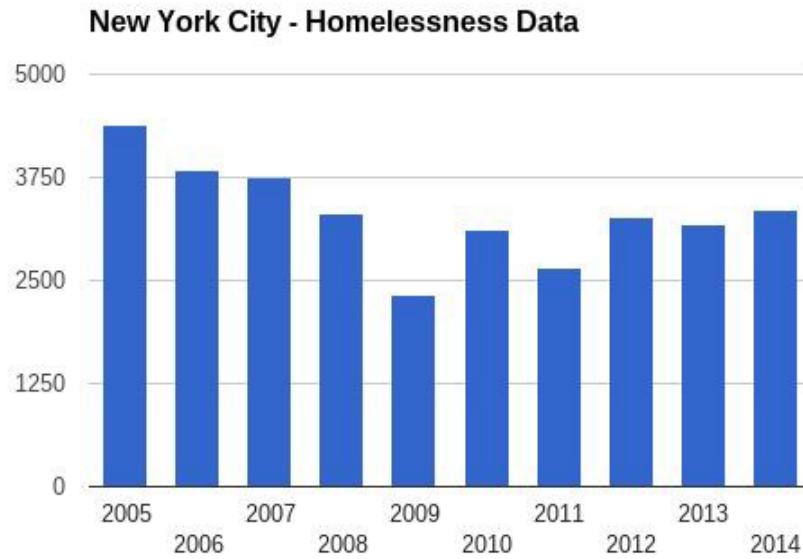
Toronto - Homelessness
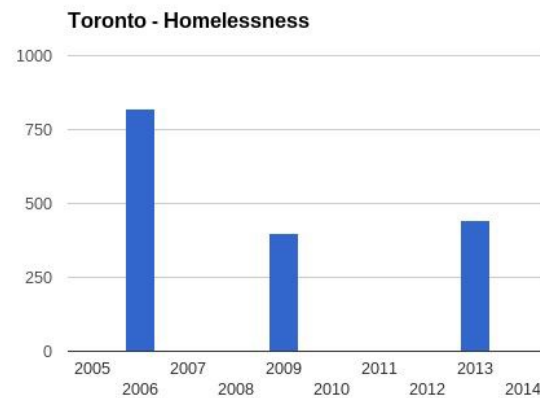
The final group of cities show mostly declines in street homelessness following the recession.   Sydney (Figure 10) has a slight rise from 2008 to 2009 (354 to 399), but then falls sharply in 2010 (289), and again in 2012 (246), with a slight bounce back in 2014 (296) to levels far below the pre-recession numbers.   Budapest (Figure 11), like Sydney, rises from 2008 to 2009 (1189 to 1360), drops steadily to 2012 (876), and then rises slightly in 2013 (1057).   Unique among cities in this review, Tokyo (Figure 12) drops steadily and
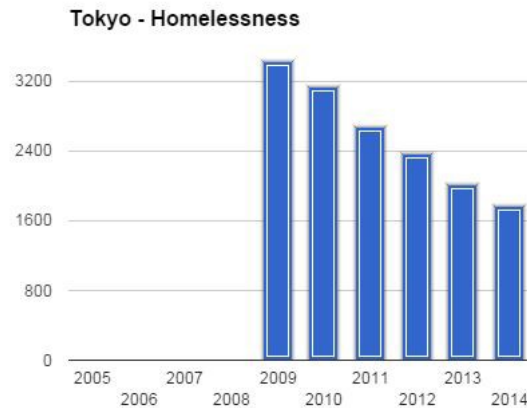
consistently from 2009 to 2014 (3428 to 1768).

Figure 10. Sydney

Figure 11. Budapest

Figure 12. Tokyo

Tokyo - Homelessness

3200	
2400	
1600	
800	
0	

2005   2006   2007   2008   2009   2010   2011   2012   2013   2014

Discussion and Conclusion

On the whole, we do not see the relationship we expected between the Great Recession and street homelessness.   A few places had big jumps in unsheltered homeless counts following the recession, such as London, Vienna, Berlin, Stockholm, Auckland and, to some extent, Madrid, though the latter two were delayed.   But in some cases, the sharp rise is due in part to more comprehensive counting methods (i.e., London) or a slightly different definition of homelessness (Vienna and Berlin).

We see more than a few cities where street homelessness declines following the recession, notably in Sydney, Budapest, and Tokyo.   In one case, the decline occurred mostly in one year (Sydney 2010), while in the cities of Tokyo and Budapest, there were sustained drops for four years during the recession (or even preceding it).   In Budapest, there has been a rise in street homelessness in 2013 to slightly below the 2011 level.

Also, we see mixed patterns.   In NYC and Toronto, large gains in reducing street homelessness before the recession were maintained, with numbers staying relatively constant through the recession. (Sydney is a variant of this pattern.) Seoul had a rise in 2006, stayed steady through 2009, dropped slightly through 2012, and then came back up to 2007 levels in 2013.

Many cities have too little data to identify trends. Paris and Santiago conducted counts twice with more than five years in between. Both cities saw rises in the homeless, but it should be noted that their methods were slightly more comprehensive in the latter estimates. Of note are cities that have not yet conducted street homeless counts (Istanbul), or have done so only once, e.g., Prague, Athens, Warsaw, Rome, and Mexico City. Though some of these cities have conducted subsequent counts (e.g., Warsaw), or have plans for future counts (e.g., Mexico City), the lack of data reflects a low commitment to tracking the problems of street homelessness -- despite many communal efforts to refine methods and typology and calls to include estimates in decennial censuses.

Limitations

While we maintain there is a relationship between housing crisis/recession and street homelessness, we find it is not as simple a story as we expected. Clearly, the relationship is muted and mediated by other factors, such as policies, culture, demographics, and migration.

As an observational study, there are multiple competing explanations of the results. It is worth discussing a few of these limitations or alternatives. We worked on the assumption that comparing each city against its own standard of homelessness over time was "good enough," since it largely ruled out changes in methods.   However, this assumption does not fully recognize variations in counting estimates over time, even given the same method.   For example, many counting efforts rely on volunteer participation or expert knowledge, which can change from year-to-year (especially in localities where the estimates are more infrequent). More damning is the influence of weather.

Counts tend to be done at about the same time of year in each city, but the weather can be quite disparate -- from sunny and pleasant, to wet or snowy, or freezing, all with implications for how many people will be found sleeping rough on any given day (and counts are not always done the same time of year, or are sometimes postponed due to inclement weather). The variance in count results can be a particularly large challenge when dealing with small numbers of people who move from one sleeping location to the next -- sometimes finding a makeshift shelter, and sometimes sleeping it rough. Thus, it is possible that counts are reflecting shifting distributions of homeless people from one form of homelessness to another. To some extent, this problem can be remediated by looking at trends of total homelessness over time, not just for the unsheltered, but then definitional issues of homelessness become more pronounced.

Our selection method of large cities within large OECD countries could account for the results.   Perhaps these countries are not reflective of a larger trend.   Or, perhaps the cities within these countries are hiding deeper phenomena about shifts in homelessness within a country.

While those are possibilities, they seem less likely.   For example, we know that the patterns in New York City are reflective of a general trend of decreasing unsheltered homelessness across the country (and the pattern is more pronounced nationally than in NYC alone).   The picture for Madrid is similar to Barcelona's.   Rome mirrors Milan.   Berlin compares well with North Rhine-Westphalia. The trends in Santiago reflect those of the nation, as do the trends in Stockholm reflect those of Sweden. What if we had picked other countries?   Finland is seeing an overall decline in homelessness.   The patterns in Denmark are similar to Sweden's.   We know less about how representative Santiago is of South America in general, or Seoul and Tokyo are of the rest of Asia. Cities where data were missing also had missing data nationally.

Finally, the economic recession may not have impacted unsheltered homelessness directly, as there might have been a lag before the worst of the crisis hit those at risk. There is some evidence that pressures on homelessness are rising in some areas, but this may be more to do with migration than economic pressures. Furthermore, even though the economic impact was severe, steps were taken to support the stock market, such as quantitative easing. And of course, municipal and national policies could matter a great deal.   Even in the midst of a financial and housing crisis, there may be opportunities to address persistent problems of street homelessness.   In the U.S., for example, there has been a sustained push to dramatically reduce chronic homelessness through strategies that promote supportive housing and

housing-first programs targeted at the hardest to serve.   In the height of the recession, the American Recovery and Reinvestment Act allocated increased funds for rapid rehousing and homeless prevention.   At around the same time, the federal government launched an initiative to eliminate homelessness among veterans, increasing access to housing and services.   Many European countries initiated housing-first and housing-led strategies of their own, in addition to other policies to support the health and well-being of their citizens.   The data gathered here provides a good starting point for better understanding what has worked in New York City, Tokyo, Sydney, Budapest and other cities, or challenges in Stockholm, London, Berlin and Vienna, so better results can be replicated worldwide.

Authors' Notes The Organisation for European Economic Cooperation (OEEC) was established in 1948 to run the US-financed Marshall Plan. One aim was to underscore how individual governments needed to recognize the interdependence of their economies, and lead to increased cooperation among European nations. Encouraged by its success, Canada and the US joined in 1960 with the OECD officially born in September of 1961. Other countries continued to join, and, today, 34 OECD member countries worldwide "regularly turn to one another to identify problems, discuss and analyze them, and promote policies to solve them" (OECD 2015).1 UNDATA not available. Used recent Turkish statistical data published (http://www.turkstat.gov.tr/) 2UNDATA not available. Used recent UK statistical data published (http://www.ons.gov.uk/).

Jay Bainbridge, Ph.D., is an associate professor of public administration in the School of Management at Marist College. Dr. Bainbridge's research applies statistical and research methods to public sector problems. His current research focuses on trends, causes and solutions to homelessness, especially with respect to the street homeless. Previous to joining Marist College, he was assistant commissioner of policy and research at the NYC Department of Homeless Services, and he continues to consult on homeless services policy and planning for national and international cities. He recently guided the first systematic street count in Mexico City, and is working on replicating that work in Bogota, Colombia. He has published in reputable journals such as the *American Journal of Public Health* on topics related to homelessness prevention, aging of the homeless population, and the health of the homeless. Email: *jay.bainbridge@marist.edu.*

Tony J. Carrizales, Ph.D., is an associate professor of public administration at Marist College in Poughkeepsie, NY. His research interests include diversity in the public sector and e-government. His research has been published in *Public Performance and Management Review, Public Administration Quarterly,* and *State and Local Government Review*. Dr. Carrizales received his MPA from Cornell University and PhD in public administration from Rutgers University – Newark. Email: *tony.carrizales@marist.edu.*

References
Amore, K., Baker, M. and Howden-Chapman, P. 2011. The ETHOS definition and classification of homelessness: An analysis. *European Journal of Homelessness*, *5*(2).
Australian Bureau of Statistics. 2012 Census of Population and Housing: Estimating Homelessness. *Canberra: Australia Bureau of Statistics, Commonwealth of Australia 2049.0*.
Avramov, i n Polakow, V., & Guillean, C. Eds. 2001. *International perspectives on*

homelessness (No.135). Greenwood Press.

Baptista, I., I. Benjaminsen, N. Pleace and V. Busch-Geertsema 2012. Counting Homeless People in the 2011 Housing and Population Census, *FEANTSA*, Brussels.

Budapest, Hungary 2013 Survey of Service Users. Accessed at http://www.bmszki.hu/sites/ default/files/field/uploads/f-3-2013-english-final.pdf#overlay-context=februar-harmadika-munkacsoport

Burda, M C.; Hunt, J. 2011. What explains the German labor market miracle in the Great Recession?, *SFB 649 discussion paper*, No. 2011-031. Accessed on February 27, 2015 at http://www.econstor.eu/bitstream/10419/56708/1/662163370.pdf

Burt, Martha R. and Cohen, Barbara E. 1989. America's Homeless : Numbers, Characteristics, and Programs That Serve Them, Washington, DC: The Urban Institute.

Burt, M. R. 1999. Homelessness: Programs and the People They Serve: Findings of the National Survey of Homeless Assistance Providers and Clients.

Busch-Geertsema, V., Culhane, D., & Fitzpatrick, S. 2015. A Proposed Typology and Definition of Homelessness and Reflections on Measurement of Homelesssness on a Global Scale, Institute of Global Homelessness. Accessed on July 15th at http://ighomelessness.org/Docs/2015PostConf/Typology-and-Measurement.pdf.

Busch-Geertsema, V., Benjaminsen, L., FilipovičHrast, M. and Pleace, N., 2014. Extent and Profile of Homelessness in European Member States.*Brussels: ISBL*.

Edgar, B., Doherty, J., & Meert, H. (Eds.). 2004. *Immigration and homelessness in Europe*. The Policy Press.

Elsby, M., Hobijn, B., & Ahin, A. (2010). The Labor Market in the Great Recession. *Brookings Papers on Economic Activity*, Spring: 1-69.

En Chile Todos Contamos. (2012). Segundo Catastro Nacional de Personas en Situación de Calle, *Colección Observatorio Social*

FEANTSA. 2015. la Fédération Européenne des Associations Nationales Travaillant avec les Sans-Abri, European Federation of National Organisations working with the Homeless. *ETHOS Typology on Homelessness and Housing Exclusion.* Accessed on March 25, 2015 at http://www.feantsa.org/spip.php?article120&lang=en

Firdion, Jean-Marie, and Maryse Marpsat. "A research program on homelessness in France." *Journalof Social Issues* 63.3 (2007): 567-587.

Freelon, R. , Bertrand, M. & Rogers, J. 2012. Overburdened and Underfunded: California Public Schools Amidst the Great Recession. *Multidisciplinary Journal of Educational Research*, 2(2), 1 52-1 76.

Henry, M., Cortes, A., Shivji, A., Buck, K., Khadduri, K., & Culhane, D. P. 2014. The 2014 Annual Homelessness Assessment Report (AHAR) to Congress: Part 1 Point In Time Counts.

Homeless Hub 2015. Community Profile Alberta. Accessed at http://homelesshub.ca /community-profiles/alberta

Hopper, K. 2003. *Reckoning with homelessness*. Cornell University Press.

Hurd, M. and Rohwedder, S. 2010. Effects of the Financial Crisis and Great Recession on American Households. Working Paper WR-810, RAND Labor and Population. Accessed on February 27, 2015 at http://130.154.3.8/content/dam/rand/pubs/working_papers/2010/RAND_WR810 .pdf

International Monetary Fund. 2009. World Economic Outlook: Crisis Recovery, April 2009. Accessed on February 27, 2015 at http://www.imf.org/external/pubs/ft/weo /2009 /01/pdf/text.pdf.

Japan Ministry of Health, Labour, and Welfare. (2014) National Survey of the Homeless. Accessed on February 27, 2015 at HTTP://WWW.MHLW.GO.JP/STF/ HOUDOU/0000044589.HTML

Kuhn, R., & Culhane, D. P. 1998. Applying cluster analysis to test a typology of homelessness by pattern of shelter utilization: Results from the analysis of administrative data. American journal of community psychology, 26(2), 207-232.

Korea Health and Welfare White Paper 2010. Accessed at http://stat.mw.go.kr/front/ statData/mohwAnnalsWpView.jsp?menuId=14&bbsSeq=1&nttSeq=21073&nttCls Cd=02&searchKey=&searchWord=&nPage=1Madrid, Spain 2012 PIT Count. Accessed at http://www.madrid.es/UnidadesDescentralizadas/IgualdadDeOportuni dadesSamurSocial/NuevoSamurSocial/ficheros/PRESENTACION%20RECUENT O%202012.pdf

Marpsat, M., Firdion, J.-M. 2000. La rue et le foyer. Une recherche sur les sans-domicile et les mal-logés dans les années 1990, PUF/INED.

Martin, E., Laska, E., Hopper, K., Meisner, M., & Wanderling, J. 1997. "Issues in the Use of a Plant-Capture Method for Estimating the Size of the Street Dwelling Population."Journal of Official Statistics, Vol. 13 (1) 1997 59-73.

McKinney-Vento Homeless Assistance Act As amended by S. 896 The Homeless Emergency Assistance and Rapid Transition to Housing (HEARTH) Act of 2009. Accessed on January 20, 2016 at

https://www.hudexchange.info/resources/documents/HomelessAssistanceActAmended by HEARTH.pdf

Oberg, C. 2011. The Great Recession's Impact on Children. *Maternal and Child Health Journal.* Vol 15(5): 553-554.

OECD. 2015. The Organisation for Economic Co-operation and Development. *History.* Accessed on February 27, 2015 at http://www.oecd.org/about.

O'Flaherty, B. (1996). *Making room: The economics of homelessness*. Harvard University Press. Pleace, N. 2010. Immigration and homelessness. *Homelessness Research in Europe. Brussels:FEANTSA*.

Prague, Czech Republic 2010. Capture-Recapture Method. Accessed at http://socialni.praha.eu/public/44/9f/ae/1877854_502943_zaverecna_zprava_scitani_ bezd omovcu_hmp_2010.pdf

Rome, Italy 2014 PIT Count. Accessed at http://www.frdb.org/language/eng/topic/social-assistance/year/2014/scheda/raccontami- 2014-roma

Rossi, Peter. 1989. "Down and Out in America: the Origins of Homelessness". University of Chicago Press, Chicago, IL.

Sales, A., 2015. How Many Homeless People Live in Spain? Incomplete Sources and Impossible Predictions. *European Journal of Homelessness _ Volume*, *9*(2).

Sard, B. 2009. Number of Homeless Families Climbing Due to Recession: Recovery Package Should Include New Housing Vouchers And Other Measures to Prevent Homelessness. Center on Budget and Policy Priorities. *Special Series: Economic Recovery Watch.* Accessed on February 27, 2015 at http://www.cbpp.org/files/1-8-09hous.pdf

Smith, A., 2015. Can We Compare Homelessness across the Atlantic? A Comparative Study of Methods for Measuring Homelessness in North America and Europe.

European Journal of Homelessness _ Volume, 9(2).

Steinberg, C. and Nakane, M. 2011. To Fire or to Hoard? Explaining Japan's Labor Market Response in the Great Recession. *International Monetary Fund Working Paper,* 11/15. Accessed on February 27, 2015 at http://papers.ssrn.com /sol3/papers.cfm?abstract_id=1751425

Toro, P. A., Dworsky, A., & Fowler, P. J. 2007. Homeless youth in the United States: Recent research findings and intervention approaches. In *National symposium on homelessness research*.

Turner, A. 2015. *2014 Alberta Point-in-Time Homeless Count: Provincial Report.* Accessed on March 31, 2015 at http://media.wix.com/ugd/ff2744 _82ee4dec83f24f60a821cee54bec8990.pdf

U.K. Homelessness Statistics 2015. Department for Communities and Local Government. Accessed on December 15, 2015 at https://www.gov.uk/ government/collections/homelessness-statistics

U.S. HUD. 1984. HUD Report on Homelessness. *Washington, DC, US Government Printing Office*.

U.S. HUD. 2008. U.S. Department of Housing and Urban Development. *A Guide to Counting Unsheltered Homeless People, Second Revision.* Accessed on March 26, 2015 at https://www.hudexchange.info/resources/documents/ counting_unsheltered.pdf

Wright, James and Joel Devine. 1992. "Counting the Homeless: The Census Bureau's "S-Night" in Five US Cities". Evaluation Review. Vol 16 (4) August 1992 355-364.