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Are university revitalization efforts changing neighborhoods?

Meagan M. Ehlenz, PhD, AICP
Assistant Professor
School of Geographical Sciences and Urban Planning
Arizona State University
Meagan.Ehlenz@asu.edu

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Abstract

Problem

Universities are pursuing place-making beyond the campus. In the 21st century, many universities have invested in revitalization, reconceiving of urban neighborhoods as assets, rather than detriments. But what does this mean for the neighborhood?

Research Strategy

This study uses Census data and a survey of universities, pursuing neighborhood revitalization in nineteen cities, to examine place-based outcomes. I rely on median home values and rents to evaluate market change (1990 to 2010), testing how the rate of change in target tracts compares to areas without university investments. To account for contextual variation, I employ a multi-dimensional typology to analyze changes by city markets and revitalization approach.

Findings

The findings illustrate how extending the university brand into neighborhoods, achieved through bricks-and-mortar projects, is an effective strategy for revitalization. University initiatives, regardless of their intensity or place-based focus, meaningfully impacted neighborhood housing markets. However, market appreciation was substantially greater for target areas located in strong-market cities and/or with high-intensity investment from a university.

Takeaway for Practice

The findings contribute to an understanding of university revitalization outcomes and offer insight into the importance of context. For instance, strong market cities, on their own, are an indicator of success. University investment, in any form, appears to close gaps and boost lower-value neighborhoods back into an otherwise strong marketplace. For moderate and weak cities,

the university's approach is the defining characteristic—investment in place-based projects is critical for an improved market. Thus, the key to revitalization "success" is two-fold. Either the city is strong, enabling the university invest at any level of intensity, or the university pursues a place-based approach that increases the likelihood of growth regardless of city context. These outcomes highlight the potential for market-boosting effects, but also demonstrate the unique opportunity for planners to moderate housing market pressures alongside anchor institution investments.

Keywords: anchor institution, place-making, neighborhood revitalization, neighborhood change

Introduction

In the 21st century, the rise of the "engaged" urban university has taken on new meaning and visibility for urban centers. The phenomenon grows out of a confluence of two oppositional forces. As "manufacturers" of knowledge and innovation, universities are increasingly adopting a corporate model, tailoring their education and research investments to global demands. Universities are educating a 21st century workforce and, yet, they remain distinct from other industries. Physical and intellectual ties to *place* set them apart, anchoring universities—and their immense assets—into urban centers and neighborhoods.

The convergence of globalization with rootedness generates a strong impetus for universities to actively develop and manage their institutional brand. Whereas early and mid-20th century universities could cultivate scholarly identities from within ivory towers, globalization has elevated the importance of place. For competitors—corporations, institutions, or industries (e.g., a local tourism industry)—to be successful, a place must offer some locational advantage. For a corporation, the advantage might be a tax break or lower land and/or labor costs. For anchor institutions, largely immobile by definition, the place-based formula takes a different shape. When faced with the same demands to compete globally for talent (e.g., students, faculty, researchers) and dollars, there is a much stronger incentive for universities to build a brand within their own neighborhoods.

Within the global-local framework, universities have evolved from being the defining characteristic of a place (i.e., a campus) to actively pursuing place-*making* within a neighborhood. This marks a paradigmatic shift in the ways universities adopt place into their institutional identity. In the early 20th century, universities left industrializing centers, deeming the chaotic city an inappropriate setting. Often, they relocated to pastoral environs considered more conducive to

scholarship. Urbanization, however, was not far behind. By the 1950s, disinvested neighborhoods surrounded many urban universities and cities fell out of favor. Once again, administrators faced discontinuity between their academic enclave and the city, requiring another intervention in "place." This time, however, institutions did not decamp; they partnered with government entities and harnessed urban renewal funds to reshape place, accommodating their expanding research needs and enrollments.

University attempts to cleanse and buffer their campuses from place were not a permanent solution. Urban neighborhoods were in crisis, yet again, by the 1980s. At this point, the relocation strategy of the early 1900s was not an option. The "renewal" strategy was also off the table, as it generated substantial animosity and federal supports had been dismantled. Instead, many universities harnessed their natural skills to embrace "place" and blur town-gown lines (Ehlenz, 2015). Boosted by an urban renaissance, university initiatives have reconceived of place as an asset, rather than a detriment to the institution's brand.

This paper seeks to explore the city-level impacts of the "engaged" university paradigm. It builds on a previous survey analysis that explores the scope and breadth of university engagement and revitalization strategies (Ehlenz, 2015). The survey included twenty-two U.S. universities, located in nineteen cities, engaging in neighborhood revitalization initiatives. Their responses revealed two major findings, which puts university revitalization efforts into context. First, in all instances, universities pursued multiple types of initiatives to fulfill their roles as anchor institutions; their efforts ranged from two to seven or more activities. However, the engaged urban university also appears to rely on its strengths: conventional engagement strategies and place-based development. For conventional strategies, universities draw from their student-focused roots in community service, their commitment to student quality of life (e.g., public safety and

amenities), and their role as a public purpose institution to apply knowledge to community challenges. At the same time, survey responses demonstrated how universities leverage their core competencies in campus planning and development to blur the lines between town and gown.

University reliance on institutional strengths forms the basis for this paper. Although the anchor institution literature tends to adopt a more community-focused definition of engagement, the survey respondents demonstrated how bricks-and-mortar solutions were often a cornerstone of their work. The stated motivations for engaging in neighborhood revitalization underscore this point. When asked to describe the rational for engaging in a neighborhood revitalization strategy, several respondents pointed to "quality of life" and "sense of place" motivators, while few named the oft-cited neighborhood deterioration and crime concerns presented in the literature. To an extent, this difference may reflect a messaging choice on behalf of the institution. However, it is wholly consistent with a key motivator for campus expansion, as well as the relevant higher education literature.

This conceptual framing of revitalization speaks directly to the global-local tension that defines the modern university's identity. As universities develop a brand, they strive to both maintain their academic reputations and build a place-based identity. The survey results suggest there is a greater alignment between university revitalization strategies and campus planning or higher education trends than the anchor institution literature has recognized. For these institutions, revitalization initiatives enable the university to invest in place to satisfy their own place-making goals, while also blurring the town-gown line and incorporating urban neighborhoods into their broader identity.

In this paper, I utilize a multi-dimensional typology of university revitalization strategies and city markets. I apply the typology to the twenty-two universities in the sample (and their cities)

to examine place-based impacts, examining the question: how do different anchor institution approaches impact place-based outcomes? Incorporating tract-level data from the U.S. Census and American Community Survey, I examine market-based changes between 1990 (pre-university revitalization) and 2010 ("post" university revitalization initiative), considering patterns in the context of city market and population trends and the intensity of a university's revitalization strategy.

The findings demonstrate that nearly all tracts with university revitalization initiatives had lower housing costs in 1990, but, twenty years later, those same tracts showed substantially stronger appreciation rates than non-target tracts. With respect to context, university target tracts located in cities with strong real estate markets or receiving high-intensity revitalization strategies, including place-based investment, showed significantly more growth than target tracts in weaker markets or without place-based investment. In many instances, target tracts realized sufficient appreciation to eliminate cost differences with non-target tracts, either catching up to or exceeding non-target tract median values. For universities and planning practitioners, these findings contribute to knowledge about the impact of university revitalization efforts in neighborhoods. They highlight the potential for market-boosting effects, but also demonstrate the unique opportunity for planners to moderate housing market pressures alongside anchor institution investments.

Divergent Conversations: A review of university and anchor institution literatures

The existing body of anchor institution literature approaches the anchor model from two opposing positions, each focused on a normative understanding of what "rooted" institutions can and/or should (or should not) be doing in place. However, these anchor discussions have not readily engaged with long-standing planning conversations in the higher education industry. The internal

trade perspective, often written by university administrators and/or campus planners and designers, highlights the ongoing trends in higher education as they pertain to campus planning, university demographics, or other drivers that shape the ways a university engages in space and place. These industry viewpoints are essential to gain a complete understanding of university actions in town-gown spaces.

This paper incorporates campus planning perspectives into the anchor institution conversation, highlighting the internal factors that inform the ways administrators and campus planners approach place-based issues and contextualizing their choices when universities embrace an anchor institution philosophy. While the anchor institution literature frequently points to opportunities for institutions to expand their role as economic and community anchors, demographic and campus planning trends heavily favor physical improvement strategies that prioritize the "college town" brand over community benefits.

The university's physical motivations: Place as campus design

A long-standing conversation uniting university and place focuses campus design. What factors make a university attractive, memorable, or successful? Sense of place has been a core tenet of university development and planning, shifting in response to economic, social, and demographic trends within the institution and the surrounding community. The Society for College and University Planning (SCUP) has often discussed the role of "place" for universities within its journal, *Planning for Higher Education*. For instance, the April-June 2016 issue is dedicated to the idea that "Campus Matters," with articles exploring the ways a campus can give a university a competitive edge in attracting students and talent (Roberts & Taylor, 2016), making a case for evidence-based planning and design for healthier campuses (DeClercq, 2016), connecting campus

design to student success metrics (Hajrasouliha & Ewing, 2016), and examining the challenges for a 21st century campus (Haggans, 2016).

Two recent articles specifically discuss branding and its importance to the institution. The first draws from organizational management and draws parallels to the university's purpose and mission (Mayer, 2014). Retail branding focuses on the complete package of a product and the characteristics that create its core identity. In a university context, Mayer equates this to the characteristics that attract undergraduates and maintain alumni loyalty. Business-to-business branding distinguishes the institution from peer products, which is applicable to a university's need to compete for graduate students, faculty, grant funding, and donor dollars. Meanwhile, Roberts and Taylor play off of the branding conversation to stress the highly competitive nature of higher education, as well as the pressure to invest in new place-based amenities that satisfy student-driven demand in the university marketplace (2016).

Within the campus planning literature, the import of branding and identity has deep roots. Whether or not it is explicitly articulated, an institution's identity is clearly at the center of its viability as an organization. Further, administrative perspectives highlight the multiple dimensions of identity for a university. Their brand spans the institution's academic reputation—from faculty and research to academic programs and resources, its visual appeal and the quality of its amenities, and its extra-curricular reputation with a special emphasis on athletic programs. This is the "standard" package of ingredients for an enduring institutional brand. Given its reliance on students, faculty, and researchers as its core consumers and constituents, these different branding components have a distinct imprint on *place*—in a current and future tense.

In recent years, however, universities have faced steeper competition as they work to maintain their enrollments and attract students, faculty, and dollars (Marginson, 2004). As a result,

U.S. institutions are investing more resources to distinguish themselves from their national, and sometimes international, peers. In one article, a long time campus planner refers to this competition and the pressure it creates to build bigger and better campuses as "an amenities 'arms race'" (Rickes, 2009). And while *innovation, leadership and excellence,* and *affordability and accessibility* are some of the buzz words found in university mission statements and visions, a new series of words are also visible. Under the theme of place, some universities are using *social embeddedness, community engagement,* and *local impact* to set themselves apart from their competition. This adds a new dimension to the boundaries of "place" for a university, as well as its vested interest in "town" territory.

Beyond competition, what other factors drive university investment trends? Consumer demand from students (and, by extension, their parents) is a key element. In the anchor institution literature, the inflection point for recent university revitalization initiatives—efforts that reach beyond the campus boundary and into adjacent neighborhoods—began in the early 1990s, induced by place-based threats, including concerns about deterioration and safety. The campus planning literature offers another equally important motivation: demographic trends that have welcomed millennials into an increasingly diverse student body. As universities compete for incoming undergraduates, their administrators have worked to adapt their physical assets—dorms, student centers, recreation and entertainment options, etc.—and teaching styles to meet the needs of a new generation (DeBard, 2004; Falk & Blaylock, 2010; Jamieson, 2009; Milliron, Plinske, & Noonan-Terry, 2008; Rickes, 2009).

The institutional shift towards a new generation of consumers, in tandem with the urban context of more than half of U.S. universities (Coalition of Urban Serving Universities, 2010), implies two additional motivations for why universities have embraced place and turned towards

their neighborhoods. First, the demonstrated preference of millennials for urban lifestyles offers urban institutions a clear opportunity to leverage their locations and incorporate, rather than wall off, urban neighborhoods into their brand (Myers, 2016; Nelson, 2013). Second, urban institutions are space constrained and off-campus ventures provide an opportunity to meet university needs in new ways (Coulson, Roberts, & Taylor, 2015; Martin & Allen, 2009). Unlike their more pastoral counterparts in small towns or cities, development has surrounded urban universities since the mid-20th century (Mayer, 2014). Campus-adjacent development projects, whether they are developed by, for, or in partnership with the university, enable institutions to respond to future demands without traversing into the problematic territory of campus expansion. Together, these motivators mean urban neighborhoods are no longer simply threats or neutral backdrops for the university; they are (or can be) true assets and provide a rationale for investing in neighborhood revitalization.

Research Strategy, Methodology, and Data

This study's premise is that universities pursuing revitalization strategies are primarily relying on development projects (Ehlenz, 2015). Supported by the literature, I argue physical investments in place satisfy two institutional aims simultaneously, establishing a "college town" brand for the university and fulfilling anchor institution aspirations for *embeddeness* and *local impact*. Further, I assert that universities investing in physical revitalization change their neighborhoods in more dramatic ways than institutions who invest primarily in social engagement and programs.

The research uses university reported activities, collected in a national survey of institutions pursuing neighborhood revitalization,[1] to categorize university revitalization strategies. Survey respondents also identified their primary revitalization target areas. I used a combination of reported boundaries and a three-quarter mile campus buffer to identify

revitalization tracts (target tracts);[2] I assigned all other tracts within the university's host county to the non-target tract group. University revitalization areas incorporated between three and twenty-seven tracts, with an average of ten target tracts.

I augmented the survey data with city- and tract-level indicators for median home values and rents in 1990 and 2010,[3] which offer insight into the market-side impacts of university revitalization. Although several indicators can capture neighborhood change, including racial composition and socioeconomic measures, the survey results and higher education literature both highlighted the prevalence of bricks and mortar strategies in pursuit of place-based change. Market-based metrics, including home and rent values, offer the most immediate indication of place-based impact. In this study, 1990 variables represent a baseline measure of the market before universities started to pursue neighborhood revitalization initiatives; 2010 variables are used as a "post-revitalization" benchmark, showing changes after the universities began investing in their revitalization efforts.

Neighborhood change literature also highlights the importance of place with respect to property markets, baseline neighborhood conditions, and revitalization strategies; in short, place matters (Dillman, Horn, Verrili, & Melo, 2015; Dreier, Mollenkopf, & Swanstrom, 2014). Thus, this paper disaggregates the university sample to develop an understanding of not only "what works?," but also "under what conditions?" To accomplish this, I developed a university typology that accounts for variation in the depth of revitalization strategies and emphasis on place-based investments.[4] I apply the typology to the nineteen cities in the sample, and the tracts contained within them, to begin assessing the relationship between a university's revitalization strategy and tract-level changes in housing markets (homeownership and rental). In addition to grouping tracts by city, I also stratified cities based on their market and population trajectories relative to national

trends during the 1990 to 2010 period.[5] By classifying cities as strong, moderate, or weak markets, I was able to consider how university revitalization might behave differently in a city with a strong real estate market (e.g., Boston, MA) versus one with a weak market (e.g., Akron, OH). Table 1 summarizes the hybrid typology, identifying (1) city market types, (2) revitalization initiative intensity and (3) place-based strategies.

[Table 1 about here]

The analysis consists of three parts. First, I calculated three measures of difference to build an understanding of tract-level changes in the sample. The tracts in each city were stratified into two groups: tracts with university revitalization initiatives (target tracts) and tracts without university initiatives in the same county (non-target tracts). I used the group means of median home value and rent in 1990 and 2010 to establish the initial measures of difference: (1) in space, calculating the baseline difference between target and non-target tracts in 1990; and (2) in time, identifying the expected trajectory of change based on how housing costs in non-target tracts appreciated (or depreciated) between 1990 and 2010. Subsequently, I determined the measure of interest, an interaction term, which asks: how does the rate of change for target tracts (1990 to 2010) compare to the rate of change for non-target tracts? The study identifies difference measures for each city in the sample, assessing change across different markets.

Second, I used a mixed factorial ANOVA to test for statistical significance in: (1) the main effect of time, which conveys the significance of the market changes for non-target tracts over twenty years and confirms the expected trend for each city (i.e., did the mean of median housing values in non-target tracts change in statistically significant ways between 1990 and 2010?); and (2) an interaction effect, which accounts for the presence of university revitalization initiatives and highlights statistically significant differences in the rate of change over time between target and

non-target groups. In the study, the size of a university's target area constrained the number of target tracts in a city; as a result, there were far fewer tracts in target than non-target groups. In most cases, the target observations (n) fell below the minimum threshold to ensure a robust statistical difference between trajectories inside and outside the target area. To account for this limitation, the reported significance of the interaction term is based on the Pillai's Trace statistic, which offers a more robust interpretation when the n-value is small and/or unequal.

Third, I examined the variation in means for a relative measure of median values in order to conduct a cross-city comparison and identify contextual patterns in tract-level outcomes based on city market and revitalization initiative intensity. The variables of interest were a ratio of each tract's median home or rent value divided by the city's median value. Computed for 1990 and 2010, the ratio expresses tract value as a percentage of its city and enables comparison both within and between different cities. Using ANOVA (F-test), I assessed the within group and between group variation in 1990 (pre-initiative baseline) and 2010 ("post"-initiative measure) and searched for statistically significant patterns based on both the intensity and focus of the revitalization strategy, as well as the type of city.

Findings

At a national scale, tracts within a university revitalization target area show statistically-significant, positive momentum in market indicators relative to non-target tracts within the same county, including steeper increases in median home values and rents and a greater decrease in vacancy rate (Ehlenz, 2016). However, this aggregate perspective does not demonstrate the ways various university revitalization approaches, in the context of city trends, may impact place-based outcomes. When tract groups are stratified by city and revitalization intensity, new patterns emerge.

The calculated difference measures and mixed factorial ANOVA statistics reveal two key trends for university revitalization target tracts (Table 2). First, in most cities, the median home values for university target tracts fell below their non-target tract counterparts in 1990. As indicated by the *space* calculation, the negative baseline measure indicates target tract groups had median home values $427 to $143,480 lower than non-target tract groups in those cities. The target tract group only exceeded non-target tracts in five cities during 1990, claiming $4,817 to $82,221 more value.

The second major takeaway focuses the ways median home values changed. Over twenty years, the majority of target tracts groups in nineteen cities saw substantially more growth in home values than non-target tracts—or, in one instance, less decline. Although most non-target tracts saw their median home values appreciate during the study period (indicated by positive *time* calculation), the positive interaction calculation, as well as the significant Pillai's Trace statistic for ten cities, demonstrates that, with respect to median home values, target tract group performance was typically stronger and statistically different than non-target tract groups. On average, target tracts in strong cities realized $83,515 more growth than non-target tracts; target tracts in moderate cities claimed an average of $41,647 more growth; and weak cities saw an average of $684 more growth in target tracts, though this varied substantially and included three cities where target tracts experienced less growth than non-target tracts.

[Table 2 about here]

Importantly, these two trends for home values hold across cities, regardless of their market strength, and institutions, irrespective of their revitalization style. Although the interaction term and Pillai's Trace statistic illustrate how the strength of an impact varied by market, the generalizable pattern appears to be consistent. These trends largely hold for median rents, as well,

although the variation in mean values is, predictably, much smaller. In most cities, the mean median rent value for target tracts was lower than non-target tracts in 1990; mean values were as little as $15 and as much as $387 below non-target tract values in seventeen (of nineteen) cities. By 2010, the majority of target tract groups had experienced greater appreciation (or, in two instances, less decline) than their non-target counterparts, although fewer cities (seven) had a significant Pillai's Trace p-value. Further, the range was tighter across cities: Strong cities saw an average of $74 more growth in target tract rents; moderate cities realized an average of $76 more growth; and weak cities only saw target tract rents appreciate by an additional $6, on average.

The analysis indicates that university investments in revitalization, regardless of the intensity or presence of place-based strategies, meaningfully impact the market conditions of a neighborhood. They not only stimulate growth in median home values and rents, but the university initiatives boost housing markets in ways that deviate from non-target tract trends. Further, these changes were statistically significant from the observed trends for non-target tract groups in a number of cities, as supported by the interaction term. Collectively, these patterns offer important insight in the performance of and potential for anchor institution led revitalization efforts.

Building upon these market-boosting results, I used the typology of university initiatives and city markets as an organizing principle and examined median home values and rents, indexed to the host city, for target and non-target tracts (Figures 1 and 2; Table 3). Using ANOVA, I searched for durable patterns in the rates of change for the two tract groups, based on both the intensity and focus of the revitalization strategy, as well as the type of city.

Three primary findings emerged, offering greater insight into the categories of city markets and/or university revitalization strategies that are most likely to stimulate market-based change. First, unsurprisingly, university revitalization strategies appeared to have a distinct advantage in

strong market cities, leveraging macro-level strength to realize greater levels of appreciation in university target tracts. This upwards momentum was apparent even when universities invested in medium intensity approaches or when they did not invest in place-based strategies. Second, place-based approaches appear to matter when it comes to neighborhood change. Universities investing in high-intensity revitalization strategies, were consistently aligned with significant changes in home values, regardless of city market type. Last, homeownership and rental markets behaved differently under the variable conditions in the hybrid typology. While clear patterns emerged in median home values, median rents showed greater variation and were without discernable trends. The remainder of the paper explores these findings in greater detail.

In strong cities, target tract groups demonstrated positive growth in median home values across the board, irrespective of the university's revitalization intensity or the presence of place-based investments.   In most instances, each city's target tract group either caught up to non-target tracts, eliminating any significant 1990 difference by 2010, or surpassed them by 2010.

[Figure 1 about here]
[Figure 2 about here]
[Table 3 about here]

Target tract groups in moderate cities also showed significant growth, provided they were part of a high-intensity revitalization approach. By default, these approaches included at least one place-based strategy. Most target tracts groups realized enough appreciation in median home values to eliminate any between group differences with non-target tracts, either catching up to or exceeding their median values. The only exception to this rule was in Milwaukee; in this case, the mean median home value in the University of Wisconsin-Milwaukee's target area was already well above the non-target tract mean in 1990 and remained higher in 2010. By comparison, medium and low intensity approaches produced variable results with respect to change in home

values. In two cities, target tract groups showed positive trends, either catching up to or gaining value above non-target tracts. Conversely, two other cities did not see any change in the relationship between target and non-target tract median home values.

Weak city patterns mimicked moderate markets. Where universities invested in high-intensity strategies and place-based projects, target tracts showed significant appreciation in median home values, eliminating the between group difference with non-target tracts. Meanwhile, tracts with only medium or low intensity revitalization strategies did not see significant changes in median home values or in their relationship with non-target tracts—even in circumstances where the university invested in a place-based strategy.

While median home values demonstrated clear patterns, median rents proved less predictable. For most university target tracts, stability was the watchword. In high-intensity revitalization areas, median rents increased in the target tracts for some cities, diminishing differences with non-target tracts, but remained stable in others. With one exception, moderate cities with low intensity approaches and weak cities with moderate or low intensity strategies did not produce differentiated change in the relationship between target and non-target tract groups. Last, although place-based strategies did not guarantee change, the university cases do suggest that a greater share of target tract groups with place-based projects showed some amount of rent growth, as compared to target tracts without housing and/or commercial strategies.

Key Takeaways, and Challenges, for University Revitalization Strategies

Collectively, the findings demonstrate that, when it comes to place-based metrics of success, context matters for university revitalization strategies. There is, however, a caveat. The contextual focus shifts, based on the type of city and/or university approach to revitalization. In strong market cities, for instance, the city provides the context for success, rather than the details of a university

approach. A university's focus on its neighborhood, in any form, appears to close gaps, lending the momentum needed to boost disinvested neighborhoods back into an otherwise strong marketplace. For moderate and weak cities, the university's revitalization approach becomes the defining characteristic of success. In these cities, investment in hard, place-based projects is a critical component for moving the needle for neighborhood markets. And, short of that, the findings did not demonstrate a clear pattern of change for target tracts.

The key to success for revitalization strategies, then, is two-fold. Either a city has a strong market, which enables universities to invest in a range of strategies, at any level of intensity, and realize substantial change in their target area; or a university pursues a high-intensity revitalization approach, including investment in bricks-and-mortar development, which has a greater likelihood of producing change regardless of the city context. As a cautionary footnote, however, universities should resist the temptation to invest in development projects alone. University of Cincinnati's experience offers insight (Ehlenz, 2015). While the university has sown seeds for an urban "college town" brand, including significant university-affiliated and private investment in several off-campus multi-family and commercial development projects, it has not strengthened the neighborhood's housing market (rental or owner). Despite dramatic changes in the physical fabric of the neighborhood, crime and safety remains a pervasive issue and town-gown tensions are unabated. This case would suggest that well-rounded revitalization strategies do better with respect to neighborhood improvement, particularly in moderate and weak markets.

This study also highlights a number of potential challenges for universities, neighborhoods, and planners. For strong, and some moderate, cities, the results imply a loss of affordable owner-occupied housing in neighborhoods with university-led revitalization. The anchor institution literature suggests lower 1990 values reflect the deteriorated and/or abandoned condition of

housing stock, which spurred university action. While I do not suggest deteriorated stock is synonymous with an acceptable affordable housing strategy, the actual balance between uninhabitable (or poor quality) and affordable units in these neighborhoods remains unclear. Further, the stark appreciation of the housing markets in target tracts offers equal cause for concern over potential displacement and/or restricted access to stock.

When an anchor institution invests in a "failed" marketplace, what types of outcomes are sufficient or, going a step further, desired? Is it enough for an initiative to stimulate the market and put the target tracts on par with other non-target tracts? I would argue that it is not. Cities and universities should pay equal attention to the resultant loss of affordable housing during neighborhood improvement. To this end, this research opens up two pathways for future research. First, a detailed assessment of neighborhood change could incorporate property-level data, capturing housing stock attributes (and changes), as well as resale trends and value appreciation. Second, future research should explore the implications of market shifts for people, examining residential turn-over and gentrification and/or displacement trends in neighborhoods with university revitalization.

A similar challenge exists for rents in these renter-majority neighborhoods. While none of the target tracts saw significant decreases in median rents (which I would not expect due to consistent student-led demand), trends did not show differentiated price increases either. In other words, most target tracts mirrored city trends and did not change their relationship to non-target tracts. Importantly, this is not a negative outcome, particularly for target tracts with an influx of new development. However, no significant change does not signify affordability. And, while student concentrations are higher in target tracts, they are not the only renters impacted by housing costs. I would hypothesize that, given demand, the available stock is equally or more expensive

than other units when one controls for size and condition. These types of inquiries represent another area of future research: What is the spectrum of available rental stock in university neighborhoods with respect to size and condition? If an analysis controlled for these characteristics, what is the cost of renting in university neighborhoods relative to others? And, by extension, how does the price and resident composition change when university revitalization initiatives add new units (often, cast as "luxury" or "high amenity") to the market?

Last, I address a limitation. In this study, the data was limited to university-initiated projects, including university-led developments and those where the university was involved through a subsidiary or as a landowner, partner, or tenant. It did not extend to non-university investors who subsequently developed in target tracts, though that is a contributing factor to neighborhood change. In many respects, it would be difficult to establish motivating factors for private development. Were private projects directly catalyzed by university revitalization efforts? Would developers have invested in these markets regardless of university initiatives? Causation, in this regard, is an unlikely result for a neighborhood outcomes assessment. However, I argue that university revitalization does represent a long-term commitment to place and signals an opportunity for the private sector to leverage institutional investment. Thus, I would expect a more detailed analysis of neighborhood change to reveal strong correlations between initial university investments in place and subsequent private sector development. Future research can begin to shed light on this subject by assessing permit and property data, as well as qualitative interviews and analysis of media and branding messages.

Conclusion

In this study, I demonstrate the prevalence of place-based strategies in university revitalization efforts. These approaches draw from an institution's natural strengths: its ability to plan for,

develop, and manage space within a campus. The findings illustrate how extending the "college town" brand into urban neighborhoods, achieved through bricks-and-mortar projects, appears to be an effective strategy for combating physical disinvestment. This is particularly true in strong cities, but also in other types of cities when there is an emphasis on place-based investment.

In the 21st century, urban universities balance a host of demands, constraints, and visions. Some of these factors are endogenous to the institution, including the ways administrators respond to trends in higher education and campus planning. Others are exogenous, including the ongoing resurgence of urban neighborhoods, downtowns, and mixed-use places, tight rental markets, and patterns of urban disinvestment. Collectively, these factors determine the ways universities engage with space and place; they represent both challenges and opportunities.

For anchor institution scholars and, more importantly, planners in these communities, the question is about finding balance between endogenous and exogenous factors. How can town and gown achieve balance between: the space and place-based factors driving university decision making; the institution's natural capacities (and, therefore, the things they are readily able to contribute to place); the neighborhood's needs, which often extend to neighborhood improvement, but also to affordability and community and/or economic development objectives; and the neighborhood's strengths and contributions to the town-gown identity? I would suggest this is where planning, as both an academic and applied profession, enters the conversation.

Planners have the ability to moderate among the multitude of goals, skills, and needs in university neighborhoods. They are well-positioned to identify opportunities that maximize the potential of anchor institutions, leveraging their skills and resources without solely prioritizing the neoliberal market perspective that often dominates neighborhood improvement. And planners have the ability to (positively) complicate the university revitalization process, enlisting other

actors to complement the anchor strategy and address a broader definition of improvement. For

instance, where an anchor institution is heavily focused on place-based investments, there may be

an opening to coordinate with a community development corporation or workforce development

agency. Where an anchor is primarily targeting traditional engagement strategies, planners may

have an opportunity to leverage the institution's social commitment to place to attract physical

improvement from private investors, as well as community and civic stakeholders to ensure

accountability and affordability. This is the unique opportunity for planning in the burgeoning

anchor institution field: To serve as a facilitator for shared interests between town and gown,

finding opportunities among interests that are not mutually inclusive, but, also, do not need to be

mutually exclusive.

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[1] The university survey defined revitalization activities as institutional initiatives targeting neighborhood-wide (off-campus) quality of life issues, including: physical conditions (e.g. crime and safety, public infrastructure and amenities, housing), socioeconomic conditions (e.g. poverty, unemployment), and/or services (e.g. commercial and retail, neighborhood schools). Respondents reported activities using seven pre-determined categories of engagement, which I identified through a scan of the anchor institution literature. The categories included traditional engagement efforts, including (1) public safety initiatives, (2) public amenity investments, (3) student volunteerism and community service, and (4) support initiatives for K-12 education, and more recent anchor strategies, including (5) housing, (6) commercial, and (7) economic development initiatives. For the latter anchor approaches, the survey solicited additional details about the specific strategies and supporting information.

[2] The three-quarter mile boundary corresponds to a university's typical target area, as compared with reported target areas. In cases where the survey respondent could not provide discrete boundaries, I used the three-quarter mile buffer as a proxy in order to focus the analysis on those tracts with greater proximity to the campus.

[3] To account for changes in Census boundaries, I collected 1990 data from the Neighborhood Change Database, which normalized 1990 tracts to 2010 boundaries. Additionally, I transformed 1990 median home values and rents into 2010 currency using the Consumer Price Index (CPI). Transformed dollar amounts were rounded to the nearest $100 to account for variation in CPI conversion factors.

[4] The university typology classifies an institutional approach by intensity and place-based strategies. The intensity indicator identifies how many of the seven revitalization categories the respondent reported in the survey. Low intensity approaches consist of fewer than four key

strategies; medium intensity efforts include four or five key initiatives; and high-intensity initiatives incorporate six or more of the seven strategies. The place-based indicator focuses on bricks and mortar projects, identifying if strategies were (a) mixed (including off-campus housing and commercial projects), (b) housing focused (alone), or (c) commercial focused (alone). If there was no place-based investment, the entry is blank.

[5] The typology of city markets used median home values and population trends between 1990 and 2010 to develop criteria for weak, moderate, and strong market cities. The approach relied on three perspectives. The first criterion considered the percentage growth in the median home value for the city relative to the national growth rate. Nationally, homes appreciated 37% during this period; thus, a weak market had less than 10% growth, a moderate market realized 10% to 37% growth, and a strong market exceeded the national rate. The second criterion also used median home values, but considered the city's 2010 median home value relative to the national median of $181,400. Cities with median 2010 home values less than 70% of the national value fell into the weak market category; moderate cities had 2010 median home values between 70% and 100% of the national value; and the median home value in strong markets exceeded the national benchmark. The final criterion considered demand in the marketplace by assessing population growth. Weak markets had no or negative growth during the study period; moderate markets grew 5% or less; and strong markets saw their populations increase more than 5% over twenty years. I assessed the degree of change for the three criteria before assigning an aggregate final market type.

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Q%3d%3d#jid=H5L&db=eft

Table 1. Typology of city markets and university revitalization strategies

University	City	City Market Type	Intensity Level	Place-based Strategies
Harvard University	Boston	Strong	High	▲
Northeastern University	Boston	Strong	High	▽H
Ohio State University	Columbus	Moderate	High	▲
University of Pennsylvania	Philadelphia	Moderate	High	▲
University of Wisconsin, Milwaukee	Milwaukee	Moderate	High	▲
Yale University	New Haven	Moderate	High	▲
Duke University	Durham	Moderate	High	▽C
Case Western University	Cleveland	Weak	High	▲
Portland State University	Portland	Strong	Medium	▲
Rutgers-Newark	Newark	Strong	Medium	
the University of Chicago	Chicago	Strong	Medium	▲
University of Illinois-Chicago	Chicago	Strong	Medium	▲
the University of Washington-Tacoma	Tacoma	Strong	Medium	
University of Massachusetts Boston	Boston	Strong	Medium	
the University of Cincinnati	Cincinnati	Moderate	Medium	▲
University of South Florida	St Petersburg	Moderate	Medium	
Syracuse University	Syracuse	Weak	Medium	▽H
Widener University	Chester	Weak	Medium	▽H
the University of Memphis	Memphis	Weak	Medium	
Emory University	Atlanta	Moderate	Low	▽H
University of Nebraska at Omaha	Omaha	Moderate	Low	
the University of Akron	Akron	Weak	Low	

Note: Cases are listed alphabetically by strategy intensity, followed by city market type.

LEGEND

City Market		*Intensity*		*Place-Based Strategies*	
Strong	Above national trends	High	6+ categories of revitalization	▲	Place-based investment in housing AND commercial
Moderate	Similar to national trends	Medium	4-5 categories of revitalization	▽H	Place-based investment in housing alone
Weak	Below national trends	Low	< 4 categories of revitalization	▽C	Place-based investment in commercial alone

Table 2. Mixed factorial ANOVA for median home values and rents ($2010)

City (Target Tracts, n)	MEDIAN HOME VALUES ($2010), β			
	Space	Time	Interaction	Pillai's Trace (p)
Akron, OH (5)	$(72,588)***	$22,469***	$(14,309)	.243
Atlanta, GA (12)	$60,895	$52,131***	$149,894***	0.000
Boston, MA (33)	$(21,048)	$109,875***	$114,267***	0.001
Chester, PA (7)	$(143,480)***	$19,574***	$(21,017)	.275
Chicago, IL (32)	$(19,033)	$98,188***	$74,581***	.001
Cincinnati, OH (7)	$(21,387)	$24,976***	$(5,739)	.693
Cleveland, OH (6)	$(62,315)*	$11,052***	$34,931**	.029
Columbus, OH (13)	$(60,170)***	$18,521***	$40,856***	.004
Durham, NC (10)	$(59,252)***	$18,080***	$29,480**	.029
Memphis, TN (4)	$(427)	$2,835	$(10)	1.0
Milwaukee, WI (10)	$82,221***	$53,998***	$33,452**	.041
Newark, NJ (14)	$(100,356)**	$104,941***	$42,266	.122
New Haven, CT (15)	$(64,567)***	$(15,246)***	$31,986**	.038
Omaha, NE (3)	$4,817	$34,048***	$(16,182)	.521
Philadelphia, PA (13)	$17,418	$46,526***	$39,212**	.042
Portland, OR (6)	$40,336	$194,255***	$108,345***	.006
St Petersburg, FL (3)	$(91,860)**	$56,032***	$71,867	.152
Syracuse, NY (5)	$(84,198)***	$(16,907)***	$3,827	.808
Tacoma, WA (3)	$(122,430)***	$109,117***	$78,116	.215

| City (Target Tracts, n)	MEDIAN RENT ($2010), β			
	Space	Time	Interaction	Pillai's Trace (p)
Akron, OH (5)	$(162)*	$18	$2	.984
Atlanta, GA (12)	$(49)	$0	$117	.229
Boston, MA (33)	$(15)	$(5)	132**	0.054
Chester, PA (7)	$(168)*	$1	$(29)	.809
Chicago, IL (32)	$(191)***	$89***	$180***	.000
Cincinnati, OH (7)	$(139)**	$24	$51	.355
Cleveland, OH (6)	$(229)**	$(1)	$1	.994
Columbus, OH (13)	$(138)**	$(21)	$106*	.095
Durham, NC (10)	$(302)***	$(34)	$174**	.049
Memphis, TN (4)	$(43)	$41*	$(16)	.926
Milwaukee, WI (10)	$204***	$(7)	$(23)	.652
Newark, NJ (14)	$(287)***	$79***	$86	.231
New Haven, CT (15)	$(148)**	$(90)***	$156*	.064
Omaha, NE (3)	$8	$(31)	$(35)	.884
Philadelphia, PA (13)	$(20)	$25**	$75	.209
Portland, OR (6)	$(70)	$105***	$11	.883
St Petersburg, FL (3)	$(385)***	$66***	$67	.647
Syracuse, NY (5)	$(187)**	$(72)***	$72	.497
Tacoma, WA (3)	$(387)***	$173***	$(39)	.774

Note: p ≤ 0.01***; p ≤ 0.05**; p ≤ 0.1*

Table 3. ANOVA: Between Group Comparison of Means (target and non-target)

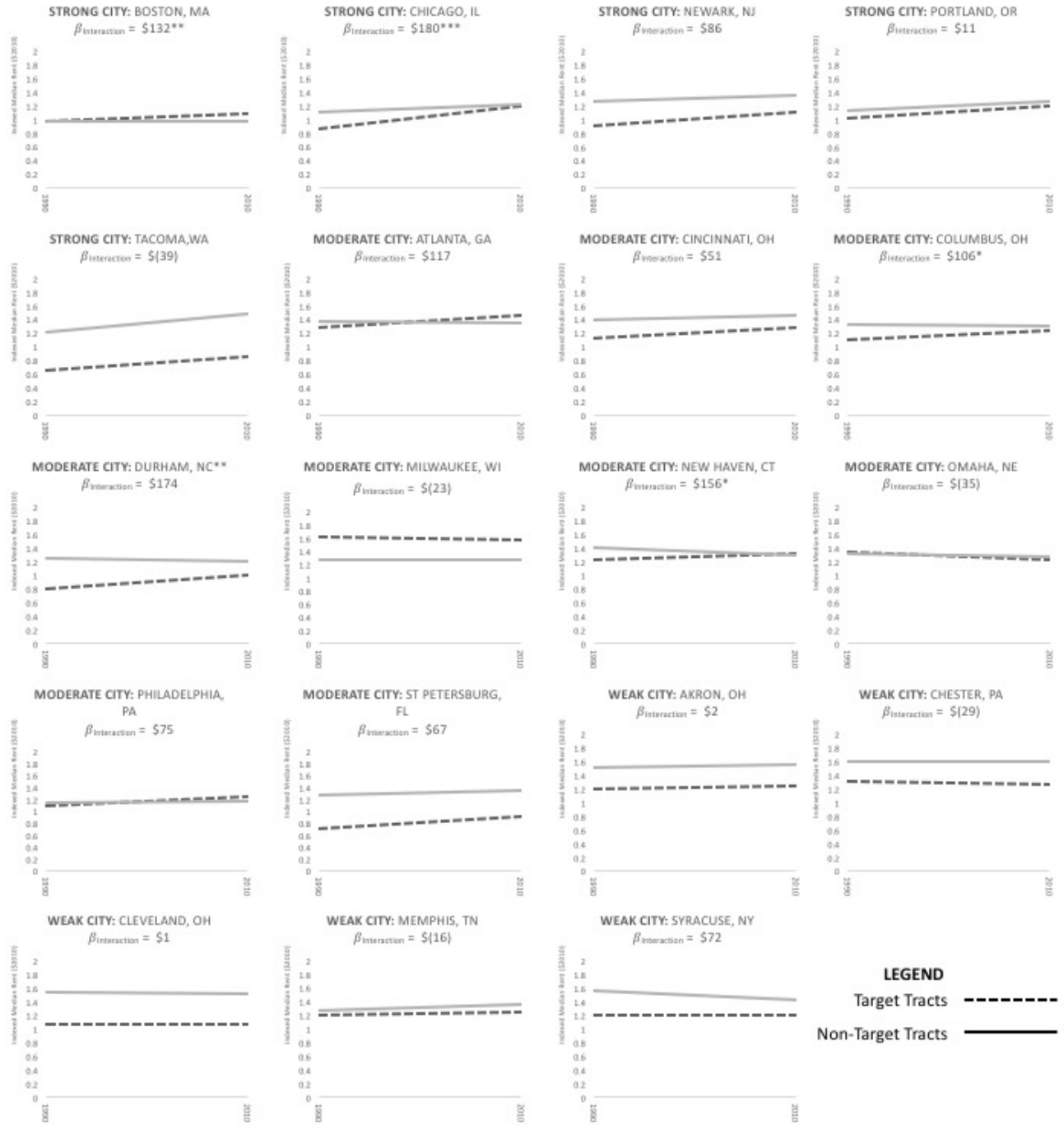| City	Median Home Value (indexed)			Median Rent (indexed)		
	1990	2010	Result	1990	2010	Result
Akron	0.013**	0.008***	Target < Non-Target (no change)	0.093*	0.241	Target < Non-Target (sig change)
Atlanta	0.150	0.000***	Target > Non-Target (sig change)	0.629	0.408	Target = Non-Target (no change)
Boston	0.470	0.006***	Target > Non-Target (sig change)	0.752	0.169	Target = Non-Target (no change)
Chester	0.001***	0.004***	Target < Non-Target (no change)	0.086*	0.142	Target < Non-Target (sig change)
Chicago	0.447	0.031**	Target < Non-Target (sig change)	0.000***	0.843	Target = Non-Target (sig change)
Cincinnati	0.289	0.280	Target = Non-Target (no change)	0.017**	0.155	Target = Non-Target (sig change)
Cleveland	0.062*	0.378	Target = Non-Target (sig change)	0.037**	0.074*	Target < Non-Target (no change)
Columbus	0.001***	0.409	Target = Non-Target (sig change)	0.020**	0.561	Target = Non-Target (sig change)
Durham	0.004***	0.251	Target = Non-Target (sig change)	0.001***	0.178	Target = Non-Target (sig change)
Memphis	0.990	0.991	Target = Non-Target (no change)	0.804	0.704	Target = Non-Target (no change)
Milwaukee	0.000***	0.000***	Target > Non-Target (no change)	0.000***	0.002***	Target > Non-Target (no change)
Newark	0.021**	0.185	Target = Non-Target (sig change)	0.000***	0.047**	Target < Non-Target (no change)
New Haven	0.012**	0.231	Target = Non-Target (sig change)	0.023**	0.915	Target = Non-Target (sig change)
Omaha	0.902	0.819	Target = Non-Target (no change)	0.970	0.882	Target = Non-Target (no change)
Philadelphia	0.505	0.086*	Target > Non-Target (sig change)	0.731	0.470	Target = Non-Target (no change)
Portland	0.105	0.003***	Target > Non-Target (sig change)	0.294	0.490	Target = Non-Target (no change)
St Petersburg	0.048**	0.761	Target = Non-Target (sig change)	0.002***	0.059*	Target < Non-Target (no change)
Syracuse	0.000***	0.001***	Target < Non-Target (no change)	0.020**	0.208	Target = Non-Target (sig change)
Tacoma	0.004***	0.421	Target = Non-Target (sig change)	0.000***	0.004***	Target < Non-Target (no change)

Note: $p \leq 0.01$***; $p \leq 0.05$**; $p \leq 0.1$*

Figure 1. Indexed median home values by tract type, mean values (1990 and 2010)
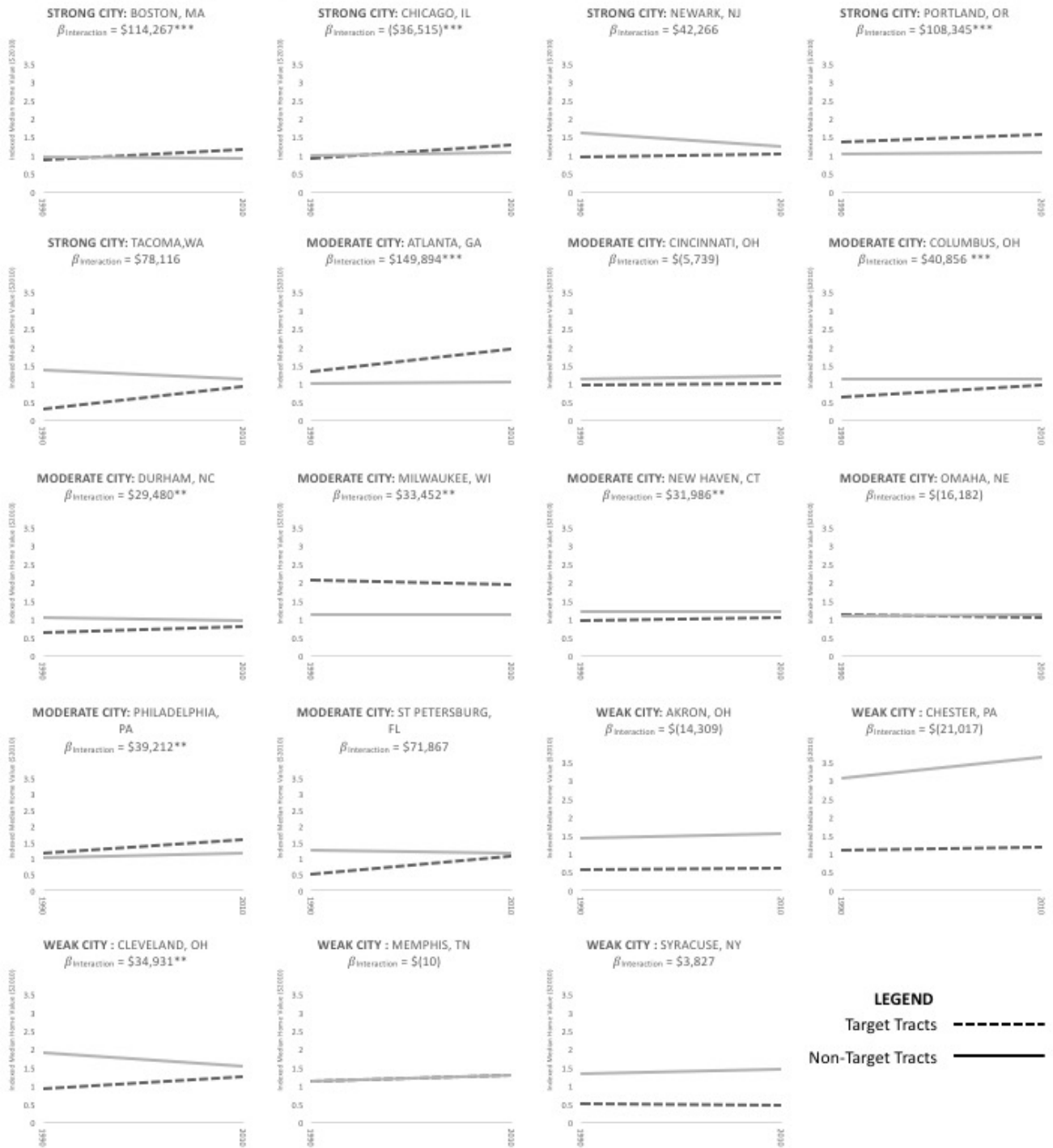
Note: Reported p-values are derived from Pillai's Trace test, where p ≤ 0.01***; p ≤ 0.05**; p ≤ 0.1*

Figure 2. Indexed median rents by tract type, mean values (1990 and 2010)

Note: Reported p-values are derived from Pillai's Trace test, where p ≤ 0.01***; p ≤ 0.05**; p ≤ 0.1*