



'Thriving, not just surviving' : Making Mixed-Income Neighborhoods Work for Low-Income Households

A Multiyear Assessment of Community Impact Programming

Final Report

Prepared for:
Preservation of Affordable Housing (POAH)

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Executive Summary

INTRODUCTION

Preservation of Affordable Housing (POAH) is a national nonprofit housing developer, owner, and operator of more than 11,000 affordable homes in 11 states and the District of Columbia. In 2018, POAH acquired a significant portfolio of properties in and near the Over-the-Rhine (OTR) neighborhood in Cincinnati, Ohio. As part of POAH's five-year strategic plan to make investments in residents "to improve their health, economic security, education, and community engagement," this study seeks to inform the development and implementation of Community Impact (CI) services, and to assess factors that shape resident participation, experiences, and outcomes. Beginning in the summer 2019, the research team engaged in the first round of one-on-one interviews. Subsequent rounds of interviews occurred in the summer of 2020 during the height of government and private sector-led interventions to protect vulnerable populations from the impacts of the COVID-19 pandemic – as well as late 2021.

The findings of this report lay out a foundation and provide context for understanding the longer-term positive impacts that these services could have on resident perceptions of their economic mobility, neighborhood attachment, health, and sense of well-being. The report is outlined in several chapters, including an appendix that details the analytical framework behind the findings.

- **Approach** – This section details the research design, approach, methodology, as well as notes regarding the statistical validity of the panel data collected.
- **The Neighborhood** – This section lays out the variables identified illustrative of context of the neighborhood demographic and economic changes, which are used in subsequent analyses.
- **Baseline Analysis** – This section details findings of the baseline analysis of a suite of factors (individual, household, and neighborhood) used to develop a portrait of residents and the different ways they experience their homes and neighborhoods. The baseline database served as the foundation for the longitudinal assessment as it pertains to measuring and documenting effectiveness and resident use of Community Impact offerings and the level of benefit Community Impact components have on resident health and wellness, financial mobility, and their experience of living in the greater OTR neighborhood. This chapter is also informed by immense transcription of qualitative information documenting resident narratives that expand on—and give depth to—the same topics of analysis in order to develop data points to use in both validating our quantitatively oriented findings.
- **Final Wave Assessment** – This section details a discussion of the significance of the outputs, similarities, and differences between the waves of responses, and considers the impact that the various external or independent variables could have had on changes in the core indexes established from the baseline survey analysis.
- **Conclusions** – The final chapter discusses the research team's observations with regard to development of a few key propositions. Reflecting on the development of CI over time, the impacts of the COVID-19 pandemic, as well as POAH's meaningful attention to its residents during this time, the research team discuss concluding thoughts on future understanding and rollout of effective programming and interventions to address the quality of resident experiences effectively and holistically.

Viewed from a wider lens, this research presents a unique opportunity to expand the knowledge base for developers, practitioners, and researchers in the field of community development. Understanding the ways in which individual, household and neighborhood dynamics in a mixed-income environment inform resident experiences of – and outcomes associated with – Community Impact over time will provide needed knowledge about how to make mixed-income neighborhoods work for low-income families.

As we discuss throughout the report, the spaces in which people live are achievements. By this we mean that there is nothing “magical” about living in socially-mixed settings, and, in fact, living in proximity reveals underlying injustices with which housing nonprofits and broader society must address if we are committed to an ethic of care and kindness. POAH’s Community Impact team is steeped in this orientation even though it introduces complexity to their work. It is a complexity embraced for real opportunity and to allow life to flourish—not only for “low-income households” but for everyone involved. The rewards of care and kindness cannot be overstated, but the paths toward achieving this are admittedly something to engage anew every day. Those of us involved in this project were and continue to be deeply committed to this work and the lives of the people who offered their time, stories, and wisdom for this report. Overall, this project was founded upon a commitment to action for residents’ well-being.

CONCLUSIONS

In drawing conclusions from this limited time research, it is helpful to reflect on the socioeconomic and locational characteristics that define these residents. They are what in the literature and public policy studies characterize as vulnerable populations. Their household income levels are at the lowest end of the income spectrum. They are minorities. They are women and to a large part, single mothers. They are living in one of the most rapidly gentrifying neighborhoods in the country.

They are vulnerable because any element that changes (deteriorates or creates a challenge to them) in their built environment (their housing), their surroundings, their social networks, their physical or mental health, employment circumstances, or financial circumstances could send them down a pathway to homelessness, a mental health crisis, or worse.

Before this study began, the research team had hypothesized that with consistently delivered (frequency), sufficient (dose), and continuous (duration) supportive service interventions, these low-income minority residents in affordable housing in a rapidly gentrifying neighborhood would experience positive change in their sense of financial mobility and other measures of well-being.

Reflecting on our residents’ socioeconomic circumstances as described, with how the COVID-19 pandemic affected them and the broader community and its yet-to-be-understood long-term traumas and impacts, it is even more profound and meaningful to have observed the positive changes in these residents’ financial stability and other key health indicators that did take place when they occurred, for what reasons, and under what circumstances.

This research team believes that, in the context of broader global, national and localized efforts to implement change in affordable housing resident sense of financial stability and mobility, the lessons-learned from this short three-year effort to collect information from a willing group of resilient residents in privately-operated rental housing offer a glimmer of hope even if through minimal but meaningful intervention. Our observations also, however, point to the need to maintain that intervention in reliable frequency, dose and duration.

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Approach

BACKGROUND

The investment POAH made in the acquisition of 1,100 affordable units in and near OTR not only seeks to preserve housing opportunity and security for many low-income residents, but also to provide enhanced services to them. As part of POAH’s five-year strategic plan to make investments in residents “to improve their health, economic security, education, and community engagement,” this study seeks to inform the development and implementation of Community Impact services, and to assess factors that shape resident participation, experiences, and outcomes.

The existing evidence base that examines the impact of enhanced Community Impact programming on resident outcomes is largely comprised of studies on public housing residents often in neighborhood environments characterized by economic and social segregation. OTR and its surrounding neighborhoods, as we detail in this report, are experiencing unprecedented investments in real estate and commercial development since the early 2000s. Particularly after the Great Recession (~post 2008), OTR has become a mixed-income neighborhood with a bifurcation of low-income populations and much more affluent groups, with the neighborhood displaying classic trends associated with gentrification pressures. In other words, tensions exist between economic development and social value for those who have differential access to cultural, economic, and political resources. Often, policy research starts from a position of being “objective,” but there is nothing objective or unbiased about social inequality. Hence, for this effort to contribute to meaningful Community Impact programming and other opportunities for people we embrace an explicit justice orientation. This is not a static or a priori understanding of ethics. It is an unfolding ethic of care.



COMMUNITY-INFORMED DATA COLLECTION

“We really think we’re making a difference in our community and have enjoyed getting know other residents.”

– Resident Interviewers

METHODOLOGY

In addition to bringing together a range of existing databases (including POAH's administrative data, local and federal data sources) to analyze neighborhood characteristics and change over time, the research team collected primary data through resident-to-resident interviews on a range of individual, household, and neighborhood attributes through interviews with residents. The dataset developed through this study was used to establish and test measures on health and wellness, financial constraints/mobility, as well as resident use and interest in participating in different Community Impact opportunities that POAH is developing.

POAH's local staff supported the research team in identifying a group of residents who wanted to be involved on the project as resident-interviewers. The residents trained with the research team and became certified in data collection protocol (CITI training for Human Subject Research). Residents subsequently interviewed other residents in collaboration with the research team and provided their knowledge about ways to recruit participants. Some residents offered suggestions such as items to include on the survey, as well as field notes from their experiences during the interview phase of the project.

INTERVIEW PROCESS

Prior to survey waves commencing, the research team engaged with resident interviewers and POAH administrative staff in verifying contact details and selected residents' willingness to participate in the each round of interviews.

Interviews were conducted one-on-one and in-person during the first and third wave efforts, while mask mandates limited in-person gatherings and the ability to conduct in-person interviews during the second wave. As such, phone interviews were used during the second wave.

Following each round of interviews, survey data collection and analysis, the research team reviewed the effectiveness and necessity of survey questions, reviewing the information collected against the insight gained through examining the answers. Refinements to the survey questions were made in an effort to streamline the interview duration while ensuring consistency of information collected across the three panel datasets.

Longitudinal Survey Sample Response

Designed as a "panel" study (i.e., the same residents tracked over time regardless of their location of residence in the future), the number of residents identified for interviewing represented a "power sample," meaning that the research team's resident sample was sized to accommodate residents moving out for example, while remaining a statistically valid panel study.

A panel study provided an opportunity to measure changes in individual and household characteristics over time. The findings of such a study may also be generalized across the entire population of residents. In addition to quantitative survey data through one-on-one interviews, the research team collected qualitative data in the form of narratives from residents.

- Baseline sample – the research team began with a power sample of 300 individuals who had been selected from POAH's administrative data that were randomly sampled, representative of the demographics of POAH's residents in OTR, and geographically dispersed (reflecting

POAH's scattered site housing portfolio in OTR and the West End). This initial power sample was identified with the loss of residents anticipated (e.g., residents moving). The baseline interviews yielded 215 completed interviews analyzed in the baseline report of findings.

- The second wave interviews, conducted during autumn 2020, yielded 99 completed interviews that were combined and analyzed against findings from the first wave. The loss of 54 percent of the initial respondents was attributed to the destabilizing impact of the COVID-19 pandemic. Review and verification of resident contact details with POAH staff against internally-maintained administrative data led to the conclusion that a vast majority of residents had moved away from their previous addresses and to units outside of POAH's operation.
- The third wave of interviews yielded 60 completed interviews, which were combined and used in analysis across the other waves of response data. Discussion with POAH staff led to the determination that the further loss of 39 percent in the sampling of panel residents was attributable to residents moving out and attrition.

Documentation of Interventions

The team's methodology relied on both documentation of Community Impact (CI) interventions delivered to residents: 1) through efforts documented and quantitatively reported through POAH staff on the ground in Cincinnati, and 2) through interviewee-reported documentation collected through the survey process.

The research team identified through POAH staff in Cincinnati the following one-time and ongoing interventions and service delivery, information against which the analysis of survey data were analyzed.

Interventions Prior to second Wave Interviews

Following the onset of the COVID-19 pandemic, POAH staff in Cincinnati made wellness calls to all residents to ensure individual's needs were met regarding basic necessities, as well as mental health. Furthermore, prior to the collection of second wave interview data, it was also understood that federal COVID relief stimulus checks had been issued to all households.

As they were applied to the quantitative analysis, the research team interpreted each of these interventions as a combined one-time occurrence. It was understood that wellness calls could not be easily quantitatively differentiated, and it was understood that the federal stimulus checks would likely have been for similar if not the same amount for most residents (notwithstanding that such information was not available to the team). As such, because these interventions occurred nearly simultaneously, their impact was interpreted through the results as a quantitative 'dummy' variable.

Interventions Prior to third Wave Interviews

During the summer of 2021, following the completion of second wave interviews and in advance of the third wave, it was understood that POAH began ramping up for a variety of CI interventions and programming.

POAH worked with property managers, occupancy specialists, and residents to receive funding in SAHF and CARES Act support to pay residents with past due rent balances as a result of the pandemic, reduce the risk of eviction and disconnection of utility services for families.

With funding partner Ohio Capital Corporation for Housing (OCCH) and Cincinnati Recreation Commission OTR branch, the Play Library, Camp Joy and Sweet Sistah Splash, activities with approximately 90 children were engaged in compliance with COVID-safe restrictions. Programs included business basics, outdoor activities, exploration of their neighborhood, and art.

POAH also instituted a Seniors on the Rise (SOR) program designed to assist those residents. POAH partnered with experts like Meals on Wheels, the City of Cincinnati, and Serving Older Adults through Changing Times (SOACT) to provide services for their senior friends. Assistance was given with basic skills like transmitting and reading documents, visits to the grocery store, free food/produce distributions.

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The Neighborhood

This section presents a picture of the significant shifts that have taken place including shifts in the neighborhood demographics and real estate market over a relatively short period of time. These trends illustrate the context in which residents of POAH’s housing find themselves and highlights the importance of a social justice framework for Community Impact programming.



NEIGHBORHOOD CHANGE IN OVER-THE-RHINE

DEMOGRAPHICS

Between 2000 and 2017, OTR’s population dropped from approximately 6,500 to approximately 5,300. Analysis of two key variables illustrates a structural change in racial and socioeconomic composition.

- **Population by Race.** Between 2000 and 2017, the population of OTR decreased by 1,200. The decline is a net effect of a drop in the African American population from nearly 5,000 (in 2000) to approximately 2,400 (in 2017). It also reflects an increase in the White population from 1,300 (in 2000) to nearly 2,500 (in 2017).
- **Households by Income.** By 2017, there were 500 fewer households in OTR than in 2000. Like population, the decline reflects the net loss of approximately 1,300 households with incomes under \$50,000 and the net influx of households with incomes above \$50,000. In 2000, nine out of 10 households had incomes under \$50,000. By 2017, four out of 10 households had incomes over \$50,000.



Analysis of existing home sales, rental rates, and retail space lease rates reveals indicators of fundamental economic shifts in comparison to citywide market trends.

- **Existing home sales.** Although an average of five sales have taken place in the neighborhood each year since 2009, the average price of those sales has escalated at 13 percent per year, compared with an average price escalation citywide of 4 percent per year. OTR sales prices continue to be lower than the citywide average, but over the past decade the differential between the neighborhood and the city has shifted from 70 percent below the city average to approximately 40 percent below. (Similar trends are noted in the West End, where average sales price escalation has been 10.5 percent per year since 2009.)
- **Rental rates.** In 2000, OTR average rental rates (\$0.71 per square foot per month) were slightly under the citywide average (\$0.74 per square foot per month). By 2018, rental rates in OTR had increased at 2.5 percent per year to \$1.10, compared to 1.9 percent annual escalation citywide to \$1.04. Rental property vacancy rates dropped from 9 percent in 2000 to less than 7 percent in 2018.



- **Retail lease rates.** Of all real estate market conditions, none speaks more to the dramatic shifts occurring in OTR than the market for retail space. Between 2006 and 2018, lease rates rose from \$7.00 per square foot to approximately \$23.50 per square foot, an escalation of 10.5 percent per year. By comparison, retail rents downtown increased from \$12.50 in 2006 to \$25.00 in 2018, indicating that OTR retail space is now competitive with the downtown market. In terms of vacancy, retail space vacancy dropped from 6.6 percent to 1.4 percent during this time period, compared to a modest decline in downtown retail vacancy from 4.2 to 3.4 percent. Additionally, net absorption of space (which is indicative of the addition of retail space) totaled approximately 126,000 square feet in OTR versus only 37,000 square feet downtown.

The overlay of baseline survey data analysis in the following sections will demonstrate that as these types of neighborhood changes continue, it will become increasingly important for residents to feel valued, particularly with the influx of newcomers who may have different backgrounds and socioeconomic status. These circumstances also offer an opportunity to POAH to learn about effective models for delivering Community Impact services in other communities experiencing similar market changes.



WASHINGTON PARK

Studies in literature detailing the transformation of public housing developments into mixed-income environments take an objective starting point that benefits accrue to low-income households that live in socially and economically mixed neighborhoods (e.g., the integrationist approach). Some, but not all, of these empirical examinations have found that cross-class and race-based relations in these settings can be challenging to implement and encourage. What empirical treatments do find, however, is that relationships between these different groups need to be nourished by meaningful interaction and opportunities to build neighboring relationships and community.

"[Do I feel looked down upon in OTR?] Mm, I mean, not the people of the same, (chuckle) race... I feel alienated from the people that 's moved in, you know, settled in. We don't (pause), we don't get along or mix."

– Resident

The ways in which the residents experience their everyday lives (i.e., through their surroundings) informs their participation in current Community Impact offerings. In other words, as decades of mixed-income housing studies demonstrate, for neighborhoods to be places of opportunity for differentially raced, classed, and gendered populations, an applied social justice paradigm is mandatory. Neighborhood spaces are constituted by the social relations that are nourished, and the reality of injustices different populations experience need to be revealed and addressed. OTR has been defined, in part, by racialized violence against non-white (particularly Black) populations. Certainly there are also economic, gender, and other axes of injustice that must be acknowledged and addressed. There is no "candy coating" this reality as more critical treatments of socially-mixed neighborhoods clearly demonstrates. POAH, and its Community Impact efforts, are founded on an evolving orientation of social justice.

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Baseline Analysis

This sections provides an overview of: (1) resident demographics including an initial correlational analysis between resident characteristics, their experiences of living in OTR, interest in Community Impact, sense of well-being, and financial mobility characteristics; (2) descriptions of, and initial findings on, the central constructs used to understand the intersection between – and significance of – various dimensions of neighborhood life in correlation to interest in Community Impact; and (3) provides a quantitative framework for understanding the significance of relationships between key CI interventions, demographic characteristics and outcomes, such as (a) Health/Well-Being (mental health in this case), (b) Financial Mobility, (c) Lack of Community Impact in the area, and (d) Interest in Participating in Community Impact.

“I’ve lived here a long time and seen lots of things change.”

– Resident

DEMOGRAPHIC OVERVIEW

At the time of initial data collection, the average age of our respondents was 45, with a range of 19 to 80 years. Thirty percent were between the ages of 19 and 34; 37 percent between the ages of 35 and 54 and 33 percent reported being over the age of 55.

Many were long term residents of the neighborhood, with the average tenure being close to 13 years. Likewise, the average number of years living in their current home was over five years, indicating stable living conditions. The majority of respondents were Black (91 percent) and female (77 percent). Over half of the respondents (53 percent) reported having one or more children under the age of 18 living at home. Less than one quarter of residents reported receiving less than a high school education (21 percent), 53 percent a high school diploma or the equivalent, and 26 percent with some higher education. Notably, 71 percent did not have access to an automobile.

CORRELATIONS

To examine the relationship among resident characteristics, such as demographic variables, socioeconomic characteristics, and factors such as perceptions of neighborhood attachment, sense of belonging, etc., statistical correlation analysis was used. Details of these analyses are found in the technical appendix to this report.

- **Resident Age.** The analysis found that age was positively correlated with financial mobility, meaning that an increase in age was positively associated with an increase in perceived financial mobility (i.e., in the analysis, as a decrease in perceived financial strain), though the relationship was moderate. Likewise, an increase in resident age was correlated with increased neighborhood attachment (see discussion below). Additionally, the analysis found that as age increases, resident interest in Community Impact decreased slightly.

- **Tenure.** The length of time in their current residence is found to be positively associated with neighborhood attachment. Residents living in their residence longer also reported increased mental health. While perhaps unsurprising, this points toward the significance of housing stability for low-income residents' lives and mental health.

While not the main thrust of the analysis, the research team noted that though residents living in POAH housing are generally satisfied in their home and neighborhood, 45 percent indicated a high likelihood of moving within three years, approximately the same magnitude indicated that it was unlikely or very unlikely they would move. When asked where they would move, less than 20 percent indicated to a nearby neighborhood – a possible indication of their trepidation of remaining near a neighborhood that has been changing rapidly demographically and economically.

“Will I have to move? They might be trying to get us out of here, I don’t know. They might be trying to get certain people kicked out, I have no idea (sigh).”

– Resident

- **Gender.** The analysis finds that women perceive significantly higher levels of problems with the physical neighborhood environment than men. Women also report a higher need and/or interest in Community Impact than men.
- **Education.** The analysis finds that the number of years of completed school is positively correlated with increased financial mobility (i.e., decreased financial strain) as well as Community Impact offerings. This is particularly the case for residents who did not only obtained a GED or high school diploma, but especially for residents with any post-k-12 education. One hypothesis is that residents who have higher levels of education have also experienced some upward financial mobility, and thus, see value in participating in programmatic efforts to move them towards greater opportunities.

ANALYTIC CONSTRUCTS

In addition to demographic characteristics of POAH residents, we examined dimensions of neighborhood life including resident perceptions of: (1) their level of neighborhood attachment; (2) the immediate, physical neighborhood environment; and (3) crime and safety. The research team also examined two constructs of Community Impact, (4) interest in additional Community Impact offerings and (5) overall interest in Community Impact.

To measure effects of these demographic variables and central constructs on residents (and to facilitate the measurement in change in these variables over time with subsequent interviews and data collection), the research team also captured baseline estimates measuring (6) sense of well-being, and (7) financial mobility.

This section provides a description of our first three constructs and residents' responses. Also explored are relationships between demographic characteristics, central constructs, and how these are correlated with interest in Community Impact, health/ wellness, and financial mobility. Details of the creation of these constructs is found in the appendix.

- **Neighborhood Attachment:** This construct is a measure of resident affective/emotional connection to social and/or physical aspects of neighborhood space. Approximately 12 percent of residents reported a high level of attachment to their neighborhood, 25 percent indicating a low-level attachment, and the remaining 63 percent reported solidly medium levels of neighborhood attachment. It was found that as neighborhood attachment increases, financial strain decreases slightly, and perceptions of crime and neighborhood environmental problems decrease moderately as well. These correlations suggest that a sense of attachment to neighborhood may act as a resource that can be activated as a mechanism for residents to grow and thrive.
- **Neighborhood Environment:** This construct is a measure of resident perceptions of problems including physical aspects of their immediate neighborhood: physical upkeep of properties (both public and private), abandoned cars and junk in public spaces, as well as noise pollution. Over 50 percent report low levels of problems with the neighborhood environment, 30 percent as a medium problem and 20 percent as a big problem. Interestingly, the analysis finds that women report neighborhood environment as more of a problem than men.

Findings shows that an increase in this construct is correlated with many of our other constructs, most notably, decreases in sense of well-being and increases in financial strain. For example, an increase in perceptions of neighborhood environment problems relate to a decrease in neighborhood attachment. An increase in the perception of neighborhood environment problems is correlated with a moderately-strong increase in identifying needed Community Impact.

- **Crime and Safety:** This construct is a measure of resident perception of crime in the neighborhood based on multiple items about property and crime. We introduce crime by way of a complementary construct: safety. To provide context for the discussion of crime, we note that the neighborhood safety construct created indicates that approximately 45 percent of residents perceive their neighborhood as highly safe, 35 percent reported a medium level of safety, and 20 percent reported low safety. Younger residents in the 19-34 age cohort report the highest

perceptions of crime in relation to all other age cohorts. As with perceptions of problems with the environment, the findings suggest that increases in perceptions of crime are correlated to decreases in neighborhood attachment. As detailed in the appendix, the findings of modeling multiple independent variables to explain variations in perception of crime, suggest that the most significant predictor of perceptions of crime was being a resident in the 19-34 age cohort – that is, younger cohorts are more impacted by prevalence of crime in the neighborhood.

Increased perceptions of crime can affect many dimensions of a resident's life and social relations. Decreased levels of neighborhood attachment are also directly correlated with being in the 19-34 age cohort, who are also correlated with increased financial constraints, since younger people are less attached to their neighborhood, access to Community Impact could provide opportunity for community engagement. This age cohort is also correlated with increased levels of interest in Community Impact offerings.

PREDICTIVE MODELING

This section is an extension of the analyses that examines multiple constructs in the same models to further generate more nuanced understandings of how Community Impact intersects with the lives of residents.

Community & Supportive Services

Interest in Community and Supportive Services were measured with two separate constructs: (1) Community Impact Need, which refers to resident perceptions of the adequacy of current Community Impact available to them, and (2) Community Impact Interest, referring to resident current level of interest in participation in Community Impact. Both constructs find a wide distribution of responses.

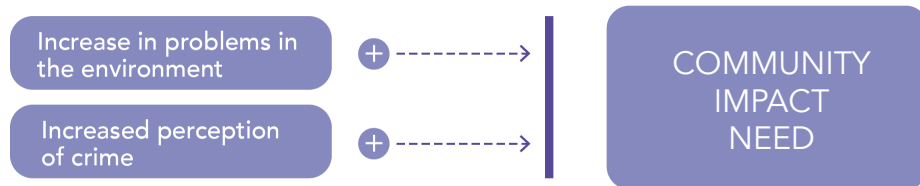
Increases in financial constraints are moderately correlated with resident perceptions that there is a lack of adequate Community Impact programming. Likewise, an increase in resident perceptions of the neighborhood environment and/or that crime is a problem has a strong correlation with increases in residents reporting the need for enhanced and/or new Community Impact offerings. Additional analyses indicate that women and younger people (19-34 age cohort) both are correlated with reporting higher levels of need for Community Impact innovations than other residents. Moreover, the perception of Community Impact Need is moderately associated with having decreased mental health.

Increases in resident interest in Community Impact offerings is correlated with being in a younger age cohort, for women, and with increases in education beyond a GED or high school diploma. Additionally, increases on resident perceptions of the need for enhanced and/or additional Community Impact offerings is moderately correlated with the perception that neighborhood environmental conditions are a problem and strongly correlated with increases in resident perceptions that crime is a problem.

Multiple regression models were used to test the relationship of independent demographic characteristics and dimensions of neighborhood life on the shifts in interest and need for additional Community Impact programming. Although numerous models were tested (presented in the appendix), the graphic on the following page illustrates the factors with the most statistically significant relationship to the Community Impact Need construct.

Among the variables we tested, an increase in resident perception of problems with their environment and an increase in resident perception of crime were the most significant predictors of desire for additional Community Impact programming. Though detailed in the appendix, the magnitude of these relationships combined account for approximately 40 percent of the variation on Community Impact.

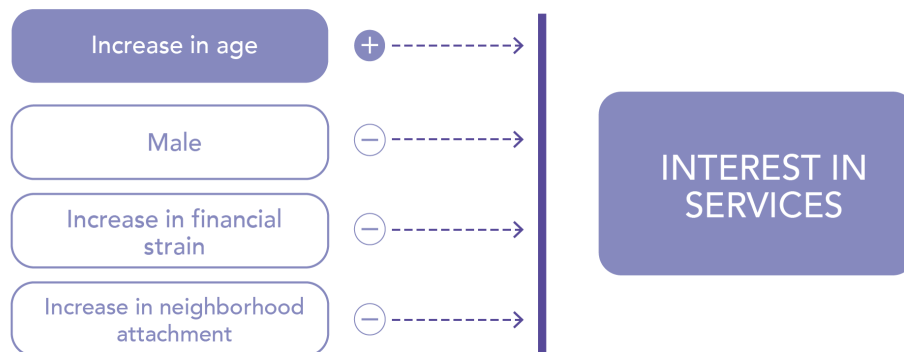
Illustration 1: What is Predictive of Community Impact Need?



Many residents living in POAH properties identified in the model as 'interest in services' – we, likewise, find similar results to the descriptive correlations. Increases in interest in participating in Community Impact is predicted by being in the 19-34 age cohort and by gender, as women are twice as likely to be interested in Community Impact than men. Other factors are associated with decrease in resident interest in Community Impact. Both increase in financial strain and increase in neighborhood attachment predict less interest in Community Impact.

Our initial conclusions are that the neighborhood environment, as shown in Illustration 1, plays a significant role in the lives of POAH residents as it pertains to a range of factors. These findings furthermore suggest potential points of intervention for responding to neighborhood environmental factors. For current and future efforts, it will also be important to understand what drives men, older residents, and those with neighborhood attachment to be less interested. In part, the findings suggest that older residents who may be retired or on disability could be candidates for different messaging that focuses on Community Impact related to their life stage. Likewise, increases in neighborhood attachment with age is also a particularly significant area that warrants further qualitative data collection and analysis to develop a resident-driven understanding of how different factors operate to increase or decrease interest in Community Impact Need.

Illustration 2: What is Predictive of Interest in Community Impact?



Health and Sense of Mental Well-Being

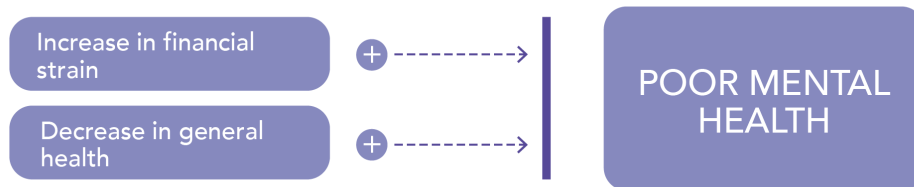
This section provides some basic demographic characteristics of physical health as it relates to residents, and then focuses on the factors that shape resident self-reported mental health (referred to also as "sense of well-

being”). Two-thirds of residents rated their physical health as good or higher, and approximately 99 percent are covered by some type of health insurance. Additional demographic analysis finds older respondents reported worse physical health. This is significant as we turn towards an examination of the factors that are predictive of sense of well-being.

Approximately 30 percent of residents reported that they experienced anxiety-related symptoms at least ‘somewhat often.’ Similarly, approximately 30 percent of residents reported experiencing symptoms of depression at least ‘somewhat often.’ To examine this, a mental health scale was created and found that approximately 50 percent of residents reported positive sense of mental well-being, 18 percent reported a moderate level of sense of mental well-being, and 18 percent reported a low level of sense of mental well-being.

We note that our descriptive, correlation analyses identified relationships between reported decreased mental health when there were increases in perceptions of neighborhood environmental conditions as a big problem, increased financial strain, and a lack of needed Community Impact programs available or accessible to them. As shown in Illustration 3, the most significant predictors of poor mental health are increases in both financial strain and decreases in physical health. In perspective, the magnitude of these relationships combined account for approximately 30 percent of the variation on quality of mental health.

Illustration 3: What is Predictive of Sense of Well-Being?

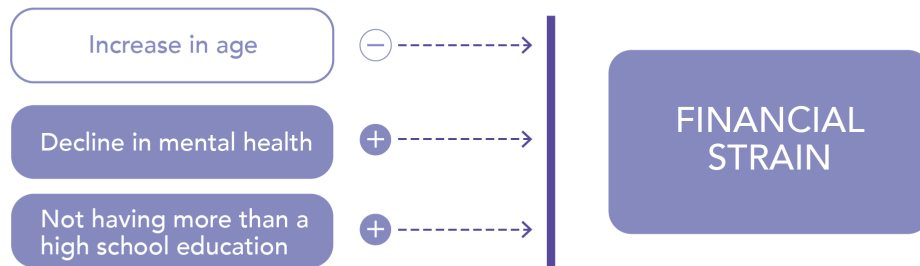


Financial Mobility

Our Financial Mobility scale includes individual survey items concerning respondents' monthly finances. The majority (59 percent) reported their monthly financial mobility as low, 26 percent reported medium financial mobility and only 7 percent reported high financial mobility. As noted in the details provided in the appendix, household income averages are overall low (approximately \$13,000) among residents. Illustrative of financial mobility is that residents noted they were able only to save approximately \$100 over the past 12 months compared to 77 percent of residents reporting no savings over the last 12 months.

Financial mobility (quantified as the inverse of "financial strain" presented in the graphic below) was further explored through a multiple regression model. As illustrated, financial strain decreases with an increase in age, and increases in relation to both a decline in quality of mental health and for residents who have only a GED, high school diploma, or less formal education. Overall, the financial mobility analyses lend support for the following observation: most residents are 'getting by' or surviving in terms of finances, but they are not thriving.

Illustration 4: What is Predictive of Financial Strain?



FINDINGS

As demonstrated through both the narratives from residents in POAH properties as well as quantifiable metrics from survey and administrative data points, important themes emerge around: (1) resident preparedness to participate in, or take advantage of, enhanced CI offerings; (2) housing and neighborhood-level factors that influence residents' financial mobility and wellness (both physical and mental); and (3) how these relate to POAH's current and future efforts to link residents to opportunities through Community Impact initiatives.

- **Neighborhood.** The socioeconomic shift in OTR since 2000 can be characterized as one of rapid neighborhood change. While there has been a net decline in population, a precipitous decline in the African American population has been offset by an increase in the White population. Similarly, there has also been a replacement of low-income households by higher-income households. In real estate, new (re)development has been accompanied by steep increases in for-sale and rental housing price appreciation, as well as steep retail lease rate escalation.
- **Race, Neighborhood, and Market Change.** Resident subpopulations have differing experiences in OTR. Initial findings support the notion that as residents age, they develop strategies to survive and thrive, and gain enhanced sets of capacities and resources from which to draw on to make their everyday lives more manageable than other residents. The overlay of baseline survey data analysis demonstrates, however, that as this type of neighborhood change continues, it will become increasingly important for residents to feel valued, particularly with the influx of newcomers with different backgrounds and socioeconomic status.
- **Opportunities.** Analysis of resident data by age suggests an opportunity and challenge for offering CI to the younger age cohorts. Levels of financial strain, for example, are higher among younger age cohorts and those with lower educational levels or adverse senses of well-being, but this demographic is also less willing or inclined to participate in Community Impact offerings. A subgroup of younger residents, however, particularly single women with children who are still in or trying to (re)enter the workforce, stand to benefit considerably.
- **Financial Mobility.** Analysis of financial mobility, a construct created through multiple factors of information collected through survey data, demonstrates the predominance of resident financial vulnerability, where most (approximately 60 percent) residents scored low on the financial mobility scale and less than 10 percent scored high. Further analysis of this metric against other constructs reveals information about linkages that POAH may be able to leverage in structuring CI. For example, financial mobility seems to increase with age, but decreases with declines in sense of well-being and residents with no more than a high school diploma or GED.

TAKEAWAYS

The following is a discussion and reflection on overarching themes that surfaced through this baseline research. These additional takeaways outline potential contributions to – and enhancements of – ongoing design and rollout of effective Community Impact.

- **Sense of Uncertainty:** Factors associated with an increase in ‘sense of uncertainty’ include increased financial strain, decreased sense of neighborhood attachment, and an increased perception that OTR is rapidly changing, creating new social realities residents must navigate. Some residents report a high likeliness of moving in the next three years (regardless of home and neighborhood satisfaction); some reported anxiety about being displaced; and others responded, nevertheless, positively to changes in the neighborhood (e.g., public parks, entertainment, and activities for all ages). While residents commented on the difficulties of living in a socially mixed neighborhood, they frequently offered their perceptions of newcomers—who they defined primarily as affluent and white—as not being interested in building cross-class and cross-race relations. As an illustration, one stated that living in OTR is like having to negotiate “two different worlds” in the sense that social, political, and cultural aspects of neighborhood life are more complex.

This “sense of uncertainty” could challenge the successful delivery and participation in Community Impact. Pre-Community Impact activities, for example, might mitigate this challenge and focus attention towards increasing resident confidence in their ability to remain in OTR, such as: a) “financial mobility” check-ups to assist residents chart a path forward; b) opportunities to create shopping and/or employment opportunities for residents; and c) engaging residents directly in Community Impact activities, whereby increasing their awareness of neighborhood resources and business.

- **Age.** Analysis indicates that discrete sub-populations would benefit from targeted Community Impact. Older residents, for example, report significant differences on key dimensions of neighborhood life and outcome variables that measure financial mobility and well-being. They report: a) being dependent on others for transportation and daily activities; b) a lower likeliness of moving in the next three years; c) less financial strain; d) lower levels of the neighborhood environment and crime “being a problem”; and e) higher levels of neighborhood attachment. They also are not concerned with entering the workforce. For this and other reasons, they report lower levels of interest in Community Impact. Younger residents (19-34 age cohort), on the other hand, report a much different reality. They report: a) a higher likelihood of neighborhood environment and crime as problem; b) a lower ranking of perceived safety; c) greater degrees of financial strain; d) a lesser sense of attachment to their neighborhood; and e) are more interested in Community Impact.
- **Gender.** Analysis reveals that single women with children under 18 are more likely to express an interest in Community Impact. This group is more likely to perceive crime as a problem. While more research could be done to understand the connections between age, gender, and care-taker status, this group could benefit from programming like: a) after-school childcare; b) opportunities for these residents to meet other women who have similar needs; and c) efforts to expand their skills and employment prospects. Anecdotally, interviewers expressed an interest in leveraging their CITI Training for “Human Subjects Research” (i.e., a prerequisite for conducting

person-to-person interviews) to enlist in the 2020 decennial Census (and make \$18 dollars an hour). Producing a more detailed analysis of the types of pre-CI offerings would increase the likelihood that residents will see the value in participating in CI.

- **Neighborhood Attachment.** Analysis demonstrates that an increase in resident sense of attachment and sense of belonging (emotional connection to the social and physical environment) are positively correlated to an increase in the perception that aspects of their neighborhood environment are not problematic (which further analysis will test against changes in perception of financial strain and mobility). That is, sense of neighborhood attachment may be a route (through targeted CI) towards which economic mobility and positive well-being can be achieved for specific groups of residents.



4

Final Wave Assessment

"It's becoming a better place because they doin' a lot of things with downtown, you know, like a lot of other stuff you can do with the kids and stuff." Another resident responded, "Yep, yes it has, because they fixin' up everything."

"I would not lump restaurants and grocery stores together because that is not one and the same. We don't have a lack of restaurants, but we do have a lack of grocery stores. Plus, it matters what type of restaurants, 'cause you can't really say that all of them are affordable. We in subsidized housing. Everybody can't afford to pay \$12 for some nachos or some chicken, you know what I mean?"

– POAH Residents

Reflecting on all three waves of interviews and the analysis of quantitative and qualitative information obtained throughout, the research team believes that great insight has been gained into the opportunities POAH has to impact the lives of its residents materially and meaningfully.

In retrospect, this project has tested, confirmed, and echoed the findings and conclusions elsewhere in the literature regarding the benefits to social and community interventions (Riccio and Babcock, 2014; Bingham, 1975; Collins et al., 2005; Fraser, Chaskin, and Bazuin, 2013; Cohen et al., 2001; Cohen et al., 2004; Gillespie and Popkin, 2015; Hambrick, 2020; Harvey, 2018; Housing Assistance Council, 2006; Oakley, Fraser, and Bazuin, 2015; Parilla and Thedos, 2010; Popkin et al., 2010; Popkin et al., 2012; Thedos et al., 2012). Specifically, the findings established:



- Higher-level scales (indexes) using multiple factors informed by the literature on constructs that identify financial strain, sense of neighborhood attachment, social cohesion, etc.
- Baseline understanding of the relationship between dependent (scales) and independent variables (socioeconomic and demographic characteristics).
- An understanding of the impact that interventions had on resident perceptions despite the countervailing impact of the COVID-19 pandemic.
- An understanding of the possibilities for future CI impact to be created to further address residents' ability to thrive

The purpose of the analysis of the third wave of interviews was to identify changes in perceived financial hardship, mental well-being, sense of neighborhood attachment, social cohesion, and perception of safety and crime. These were metrics (which were multi-variable indexes) that had been established through statistical modeling, as predictive of overall need or interest in services, well-being, and mobility. The purpose of this final analysis was also to contextualize shifts in the major metrics and provide insight into any statistically significant shifts in the mean (average) scores of each major metric between interview waves.

This chapter lays out the results and conclusions based on an analysis of the quantitative and qualitative information collected through all three wave of interviews with residents of OTR.

DISCUSSION OF FINDINGS

The discussion explores the significance of the outputs, similarities, and differences between the waves of responses, and considers the impact that the various external or independent variables could have had on changes in the core indexes established in the baseline survey findings.

Quantitative findings are illustrated in Figure 1 and convey the extent to which resident experiences shifted over time.¹ Qualitative data collected during the third wave of interviews and focus groups is also discussed below to accentuate resident perceptions of their experiences.

Social Cohesion

On the surface, the results of the analysis in Figure 1 suggest that resident perception of social cohesion measurably dropped, notably in the results of the third wave of interviews. Qualitative information from residents in focus groups also indicate that social cohesion was increasingly difficult to maintain.

In a reflection of the broader challenges with conducting this research across one of the more challenging economic and social circumstances in several generations, a segment of residents stated that their friends and neighbors, with whom they had relations, had left or were planning to leave OTR. Some participants of other focus groups elicited comments about crime and safety (discussed below) that decreased opportunities for residents to comfortably engage others in and around some of the POAH properties. Other residents in focus groups, while not an identified metric for tracking shifts in resident sense of social cohesion, offer observations and comments drawing attention to building maintenance and supervision as important influencing factors. That is, they observed the connection to social cohesion by having well-maintained community spaces where people could feel comfortable to socially interact. Although this was not ubiquitous, a fair number of focus group participants voiced concerns about these issues.

The analysis of quantitative data also indicate that social cohesion dropped noticeably in the third wave, yet further investigation demonstrated that the difference in mean scores between the second and third waves may not have been statistically significant. For example, data were tested both as a trend and as points in time (i.e., treating the second wave in which COVID-19 hit as a dummy variable, i.e., a nonlinear relationship).

Analysis suggested that there was little statistical difference between the means collected (in a difference of means test), implying that the measurable drop in the mean score of the index is more an indicator of the dispersion of responses than a representation of a true drop in the metric. The analysis of the third wave of responses using a fixed effects analysis of the index did, however, confirm and reinforce the findings of the initial results in that sense of social cohesion is positively correlated with an increase in age, but not dependent on gender, race, education, or length in individuals' residences.

Interpreted through this lens, the research team believes that it would be more correct to say that external circumstances (i.e., lingering limited social interactions and stimulation) occurring between the second and third waves contributed detrimentally to resident sense of social cohesion.

¹ Each metric is normalized on a scale of 1 to 10, where 1 equals the lowest magnitude of the scale and 10 equals the highest. All results are scored using a test of the "difference between means" using a t-test at the 95 percent confidence level. The t-test provides a high degree of confidence that the results are statistically different from one another based on the absolute value of the difference between the means, sample sizes, pooled variance, and degrees of freedom.

Sense of Neighborhood Attachment & Social Inclusion

While conceptually linked, neighborhood attachment refers to one's evaluation of attachment to the place they live, while social inclusion refers to resident perception of being valued and included in the social relations that constitute neighborhood life. Although resident sense of neighborhood attachment declined between the baseline and second wave, it did not shift between the second and third waves.

Interestingly, residents in focus groups voiced concerns over the changing social relationships they had with newcomers to the neighborhood. Many stated that they felt less and less welcome in their own neighborhood. They often cited real estate redevelopment efforts that they saw as attracting either more affluent (and white) resident households or more affluent customers and clients. For example, respondents stated the development of businesses in the neighborhood and the closing of the former Kroger supermarket on Vine Street, was symbolic of the lack of development of retail spaces that POAH residents could afford.

Yet, while the act of real estate redevelopment alone was not the primary source of the problem, residents felt that neither the newer residents occupying such development nor the newer customers or workers in surrounding businesses expressed any interest in engaging or connecting socially as previous residents and customers (in the neighborhood) had when passing on the street or in public spaces.

This was a compelling finding because the first wave of quantitative and qualitative data collection established a significant correlation in that residents who had a high level of neighborhood attachment also felt they did not need community impact services. To the contrary, when discussing this issue with residents, the research team found that residents anchored themselves to their neighborhood through their social relations in the neighborhood, i.e., through interactions with other neighbors who were like them economically and racially.

These qualitative findings were explored further through a quantitative analysis to understand the similarities, differences, and fixed effects of the index. Analysis of the difference of means suggested that while the change between the first and second waves was significant, the change between the second and third was not. As with the previous index, this suggested a wider dispersion of responses in the third wave than previous waves.

However, interpreted as a gradual shift over time, analysis of its linearity did reveal that sense of neighborhood attachment had changed over time, rather than – as was the case with social cohesion – something brought about by a particular occurrence in time. Here, analysis found that for each year that passes, neighborhood attachment declined by about three-quarters of a point. In conjunction with the impact of COVID-19 on sense of social cohesion, this was a striking confirmation of the impacts that external factors (i.e., the pandemic) had not only on residents' sense of cohesion but also on their sense of neighborhood attachment or connection to place.

Despite POAH's efforts to intervene with wellness calls and other service interventions, the negative impacts of the pandemic simply seemed to outweigh POAH's best efforts to counteract these circumstances. Analysis of the fixed effects (age, race, gender, education) also confirms the baseline survey analysis in which it was concluded that age was positively correlated with and predictive of higher sense of neighborhood attachment. Here, retrospective analysis of each survey wave confirms that sense of neighborhood increases with age but no other statistical differences exist – e.g., by race, gender or education. Further analysis of this index, including tenure in quartiles also confirmed another finding of the baseline survey analysis, i.e., that residents with less tenure in POAH residences are associated with lower neighborhood attachment.

From the baseline to the second wave, resident perception of inclusion did not measurably change (although a t-test of differences suggested that the differences were statistically significant). There was, however, a decline in the mean value of sense of inclusion between the second wave and final wave of interviews. Interestingly, the best fit model of fixed effects found that time should be treated linearly, yet neither form of analysis suggested that this change in the variable was significant. Further analysis of the fixed effects of this index also suggests that age, race, gender, education, and length of tenure in POAH residences do not factor in this variable.

Perceptions of Problems with Crime and Safety

Along with increases in resident perceptions of problems with crime (referring to resident evaluation of actual problems), resident perception of safety decreased below the baseline data analysis. Both shifts over time presented a challenge to resident well-being. The takeaway from the qualitative data is that residents felt the environment in which they lived was deteriorating in this regard.

Analysis of this index representing perceptions of problems with crime following the second wave revealed a decline in the perception of problems, but a t-test of differences of means concluded that the means were not statistically different. Following the final wave, as well, an increase in the mean index was observed, and a t-test of means concluded also that the differences were not statistically significant. As with other indexes, analysis of all three metrics in retrospect showed that their best fit was modeled with a nonlinear association of time, implying again that the impact of the pre-second wave interventions had a positive impact on resident perceptions. Further analysis, however, concluded that age, gender, race, education, and length of tenure in POAH's residences were not a factor in perceptions of problems with crime.

Perception of safety increased between the baseline and second wave interviews, and when treated as nonlinear in the multi-level modeling, the change (i.e., increase) in this index is statistically significant. This would suggest that residents did perceive, through POAH's efforts and the impacts of the COVID-19 pandemic, an improvement in sense of safety. Between the second and final wave surveys, however, the perception of safety index returned to just below its baseline mean, and the t-test of means suggests that there is a statistically significant difference between the two means. Treated linearly, however, the index does not vary significantly. Further analysis of its fixed effects suggests that it loses significance when covariates are added, such as age, race, gender, education, and length of tenure. However, as with several variables, perception of safety does increase with age, also as concluded through the initial baseline survey data analysis.

The qualitative data gathered during the third wave of data collection found that perceptions of safety had decreased, leading people to interact less, not trusting certain neighbors, and leaving a segment of POAH residents feeling isolated out of uncertainty that they were in a safe space in their living situation. A theme that many focus group respondents discussed involved the need for additional attention to securing buildings so that unwanted and potentially dangerous situations could be prevented. They also shared that while they felt it was the responsibility of building management to address these serious concerns, that, at times, 'problem' residents who, for example, engaged in risky behaviors made this difficult. There was unanimity around the need to develop strategies to secure buildings. An additional aspect of securing buildings was the feeling expressed by all focus groups that while residents could report incidents, they put themselves at risk if 'problem people' were aware they were being reported on. Based on these findings, greater attention, and initiatives towards securing buildings, screening out residents who act in unsafe ways, and providing assurance of safety would be helpful.

An additional dimension of safety had to do with the buildings and infrastructure. Residents from multiple buildings stated that there were potentially or actual unsafe living conditions due to a lack of proper building maintenance. In the focus groups, there were multiple examples provided by respondents (and agreed upon by other focus group participants) that building maintenance requests were addressed unevenly and, at times, taking much longer than residents felt was appropriate. When asked how they thought these situations could be improved, two themes emerged. First, that greater care needed to be taken in assuring building managers acted competently, and second that lines of communication were clear as to any plans by POAH to rehab buildings and features within them that were substandard.

Anxiety & Depression

Over time, residents reported being more worried or anxious during the past month, a gradual shift that has occurred through the baseline, second wave and final wave surveys. The analysis over time suggested that while the values are higher over time, they are not statistically different, meaning that the mere passage of time is not associated with changes to individual's sense of anxiety. Further analysis of covariates also suggests that age, gender, race, education, or length of tenure in POAH residences were not differentiating factors.

In each wave of interviews, residents were asked to identify whether during the past month they had felt sad or depressed. In the baseline set of responses, residents indicated feeling sad or depressed somewhere between "somewhat often" and "not very often." Notably, changes in resident perceptions of feeling sad or depressed were not been significant over time. However, not much changed over time in how often respondents felt sad or blue. The analysis of fixed effects revealed that none of the covariates were significant as to impacting the overall score, and further regression analysis demonstrated that there were no significant differences over time.

While the quantitative modeling did not find statistical differences between waves of data collection, the qualitative data did. During the second wave of data collection interview data suggested a sense of hope – likely attached to a decrease in financial strain. Yet, during the focus groups in the third wave of data collection POAH residents discussed a sense of going back to a harder time with less benefits.

While the language residents used was not specific to their own depression or mental health, many respondents did feel as if there had been a break in hardship during the pandemic that was returning when the federal government ended enhanced social benefits. Insofar as the focus group sessions allowed residents to voice these issues without identifying themselves as having mental health issues, this may speak to a more reliable way to understand the reality residents face than in a survey where residents are asked to speak about themselves. From this vantage point, the interpretation of qualitative information points toward the importance of understanding the relationship between financial strain and a variety of mental health factors (as financial strain and mental health are related in modeling).

During the focus groups and with individual interviews, the study finds hidden issues that a nonprofit housing organization might not see in its everyday practice. The central issue residents spoke about were food security and being mentally strained by having to go days, at times, without the financial resources to access adequate nutrition and sustenance. When people are anxious about having food on the table, it is demeaning according to focus group participants. Further, resident focus groups emphasized that people do not understand the severity of the problem because it often goes undocumented.

Food security is a central issue related to residents also reporting that their physical or emotional health was “somewhat often” interfering with their ability to go about day-to-day life during the past month, an increase over the second wave and baseline results. Analysis of these means indicate that the differences were statistically significant over time. Further analysis, however, concluded that age, gender, race, education, and length of tenure in POAH’s residences were not a factor in identifying physical or emotional health interfering with daily life.

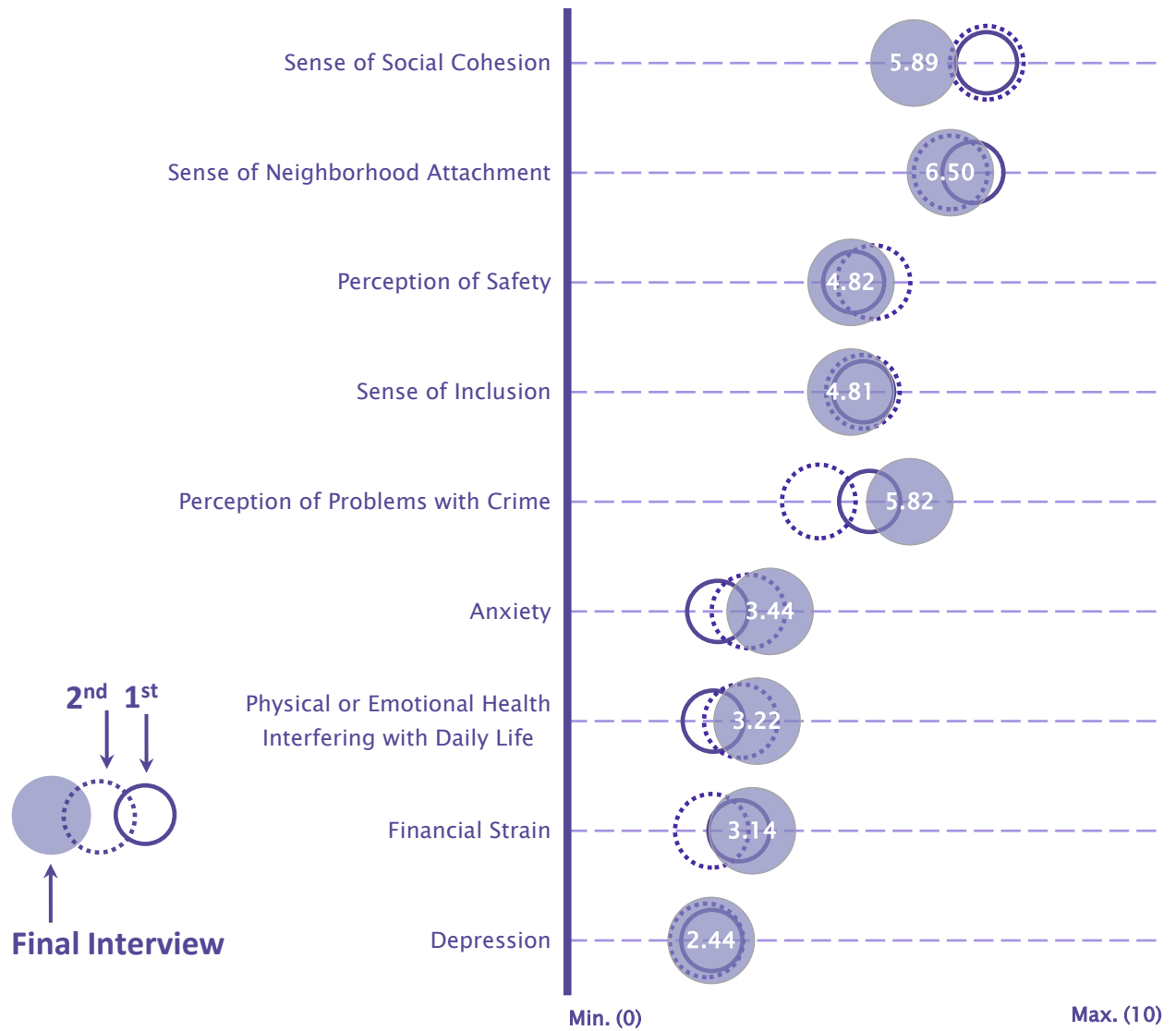
Financial Strain

Resident perception of financial strain declined, and the change was statistically significant. Analysis of the second wave means suggested that the decline in financial strain (i.e., improvement in financial well-being) from the baseline survey was significant. Analysis of the final wave of the survey indicated that the increase in the financial strain mean (i.e., worsening of financial well-being) was significant. Analysis of the fixed effects of this index also suggest nonlinearity of changes over time, implying rather than a gradual deterioration of financial well-being, for example, that the longer-term impacts of the COVID-19 pandemic on resident financial strain had a material impact. One conclusion, in the absence of more detailed information regarding magnitude of interventions, is that the initial assistance POAH provided to its residents to ensure food and financial security following the onset of the pandemic was time-limited while the lingering economic impacts of the pandemic were longer-lived. Further analysis suggests that there were no differences by gender or by race. Also consistent with the analysis of baseline survey data, financial strain also declined with age. And as with analysis of fixed effects with a few other core indexes, length of time in POAH residences was not correlated with any increase in perception of financial strain, suggesting in part that nothing in POAH’s control with regard to the living environment contributed to financial strain.

Both quantitative and qualitative data find that residents in POAH properties had an increase in financial strain between the second and third waves of data collection. This may be one of the most important points of departure for thinking about how public policies impact low-income residents. During the first major wave of COVID, the federal government enacted policies to increase the financial benefits low-income families received. The decrease in financial strain during the second wave of data collection and then increased in financial strain during the third wave is likely one of the most important findings of this study. In essence, benefits matter to the wellness and livelihoods of low-income families, including those living in POAH properties.

We suggest that efforts to affect public policy to increase financial benefits for low-income families could have “game changing” results. Put another way, when low-income residents experience less financial strain – which is connected to many factors of wellness measured in this study – they are positioned for success. For affordable housing nonprofits, pushing policy change to increase financial benefits for low-income families is significant in many respects. Less financial strain permits people to focus on building their skills, using community impact services, and improving their lives.

Illustration 5: Change in Core Metrics Over Time



5

CONCLUSIONS

In drawing conclusions from this limited time research, it is helpful to reflect on the socioeconomic and locational characteristics that define these residents. They are what in the literature and public policy studies characterize as vulnerable populations. Their household income levels are at the lowest end of the income spectrum. They are minorities. They are women and to a large part, single mothers. They are living in one of the most rapidly gentrifying neighborhoods in the country.



OVER-THE-RHINE NEIGHBORHOOD WITH DOWNTOWN IN BACKGROUND

They are vulnerable because any element that changes (deteriorates or creates a challenge to them) in their built environment (their housing), their surroundings, their social networks, their physical or mental health, employment circumstances, or financial circumstances could send them down a pathway to homelessness, a mental health crisis, or worse.

Before this study began, the research team had hypothesized that with consistently delivered (frequency), sufficient (dose), and continuous (duration) supportive service interventions, these low-income minority residents in affordable housing in a rapidly gentrifying neighborhood would experience positive change in their sense of financial mobility.

Reflecting on residents' socioeconomic circumstances as described, with how the COVID-19 pandemic affected them and the broader community and its yet-to-be-understood long-term traumas and impacts, it is even more profound and meaningful to have observed the positive changes in these residents' financial stability and other key health indicators that did take place when they occurred, for what reasons, and under what circumstances.

This research team believes that, in the context of broader global, national, and localized efforts to implement change in affordable housing resident sense of financial stability and mobility, the lessons-learned from this short three-year effort to collect information from a willing group of resilient residents in privately-operated rental housing offer a glimmer of hope even if through minimal but meaningful intervention. Our observations also, however, point to the need to maintain that intervention in reliable frequency, dose and duration.

POAH Mixed Income Housing Study:

Investing in People – Making Neighborhood Change Work for Every Resident

Over-the-Rhine (OTR) has experienced significant change over the past decade. While investment has increased the neighborhood's vibrancy, it has also increased the likelihood for displacement among its lower-income residents. Such displacement not only can lead to long-term social instability but structural economic challenges.

To fight against these challenges, POAH Communities is investing in long-term affordable housing in OTR and supportive services for its residents. POAH is committed to providing service-enriched housing that empowers residents to thrive while also addressing their specific housing needs.

This type of upfront and ongoing investment mirrors cutting-edge social impact funding strategies being piloted in a number of cities around the world. And like these strategies, POAH's investment is aimed at enhancing resident social and financial stability and at avoiding larger, socially and economically destabilizing costs over the long-term.

POAH's commitment in this effort also includes a one-of-a-kind 3-year research study to document and measure the effectiveness of its services and quantify the extent they yield improvements to residents' economic mobility and security.

Partnering with POAH on this ground-breaking effort are nationally-recognized housing researchers Dr. Jim Fraser (University of Minnesota), Dr. Dairde Oakley (Georgia State University), and David Schwartz (Executive Vice President of Economic & Planning Systems).



Economic & Planning
730 17th Street, SW
Denver, CO 80202
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www.epsys.com

The study's framework is designed to answer a series of important questions:

- ⇒ What services or interventions have a positive effect?
- ⇒ What services do residents perceive are more helpful than others?
- ⇒ Is there a target resident group for whom services and interventions are most effective?
- ⇒ What effects do the dose and duration of interventions have?
- ⇒ How does access to services enrich residents' lives (i.e., positively impact resident housing cost, social and economic mobility, and well-being)?
- ⇒ How and to what extent does access to services/interventions impact resident social and economic mobility and security?
- ⇒ What are the immediate and longer-term benefits of access to services?
- ⇒ How do POAH residents interact with their neighborhood and utilize new amenities evolved in OTR?

INVESTMENT

POAH Communities is making a significant investment in this research effort. For more information or to learn how you can become a partner, please contact Jim Fraser at jfraser@epsys.com or David Schwartz at dschwartz@epsysdenver.com / 303.623.3557.

Research & Analysis Framework

The team will conduct a series of scientifically rigorous data collection efforts throughout the process that utilize both long- and short-form surveys. Because the results of this effort will also be viewed by the broader academic community, our team will design these surveys to conform to industry-approved standards through review by designated stakeholders.

The **baseline** survey will survey 400 households and engage local support from the Center for Community Engagement (CCE) located in OTR.

Long-form surveys will be fielded to approximately 300 households each at 18-month intervals to collect robust socioeconomic information.

Short-form surveys will document shorter-term material and perceived impacts to resident perceptions of mobility and security at 6-month intervals.



Analysis: The objective is to document the material and perceived impacts of services; specifically, whether residents' lives, their daily decision-making and perceptions of socioeconomic well-being are positively impacted. Put differently, the analysis seeks to answer whether services influence residents sense of thriving versus merely surviving in the context of a rapidly changing housing market and gentrification. The analysis will look at impacts across a spectrum of delimiting factors—for example, age, education status, and life stage, among other indicators. Overall, the analysis is designed to illustrate the social and economic returns that investments in affordable housing and services have on resident economic opportunity and security. The findings will characterize:

- ⇒ Real and perceived impacts to resident security
- ⇒ Impacts to social and economic mobility
- ⇒ How the impacts differ by age and life stages or educational backgrounds
- ⇒ Whether responses differ for those who have not benefited from services in the past
- ⇒ How these benefits impact the lives and opportunity of children



WHERE TO NOW

Over the course of this longitudinal project, the research team was able to develop a few key propositions based on observations from analysis of resident surveys, focus groups, and one-on-one conversations with residents and staff. Although the development of actions for community impact programming was not the purview of this research effort, the research team believes that the following concluding thoughts should measurably contribute to POAH's understanding and rollout of effective programming and interventions that address the quality of resident experiences effectively and holistically.

Central to these key findings, which are discussed in the section below, the research team believes that the findings illustrate that interventions targeted at supporting resident well-being and financial stability contribute meaningfully to resident perceptions of financial stability, social cohesion and sense of belonging.

In particular, following on the heels of the COVID pandemic, which ushered in massive nationwide economic instability and insecurity, the fact that many of the primary predictive metrics identified from the baseline report to the second wave (e.g., financial strain, sense of social cohesion, neighborhood attachment, etc.) moved in positive directions suggested that the efforts, such as wellness calls, federal financial support, eviction assistance funds, the initial rollout of Family Self Sufficiency (FSS), etc., contributed positively and significantly to resident stability.

On one hand, the ongoing and lingering impacts of the pandemic had shaken the foundation of resident sense of neighborhood attachment and social cohesion. On the other hand, and while the process of rolling out FSS had been disrupted by the pandemic, POAH had just begun examining and identifying how best to introduce trauma and resilience programming.

Nevertheless, analysis of information collected during the third wave of interviews and focus groups, however, affirms the need for further community impact interventions and, in light of the findings from the second wave, points in the direction of positive future outcomes for POAH. Overall, the research team believes that the findings establish a strong case for intervention and document the extent to which POAH's interventions moving forward will have a significant and positive impact on residents' lives.

Finding #1

While the pandemic created different types of hardships for residents between the first and second waves of surveys, the timing and financial materiality of federal assistance and POAH's response yielded measurable and statistically significant improvements in resident perceptions of 1) financial strain, 2) safety, 3) problems with crime, and 4) sense of social cohesion.

- These evidence-based findings suggest significant value in similar future interventions for improving resident lives and experiences.
- As discussed in the previous section, the qualitative findings also revealed serious food insecurity issues arising from the lingering and financially destabilizing impacts of the pandemic.
- These findings also illuminate what could be characterized as a multiplier effect, in which targeted financial and community impact interventions yielded positive changes to resident financial and social perceptions despite countervailing forces (e.g., the effects of the pandemic, job instability and insecurity, neighborhood gentrification, crime in surrounding neighborhoods, etc.).²

While seemingly simple, decreasing financial strain is likely the most important initiative that could be undertaken. In addition to direct financial benefits through social welfare assistance, we suggest that other routes could also be pursued at the local level by developing relationships with government entities and foundations that could provide incentives and rewards for those working. Prior studies have found, for example, that Individual Development Accounts that add financial benefits for low-income workers, would be beneficial. In essence, this is a two-pronged approach with a focus on short-term development of incentivizing work through programs that match employment income through public and privately funded programs to support low-income families.

This cannot be overstated. When people have enough resources to take care of their social needs (housing, healthcare, food, childcare, transportation) then low-income residents and families are positioned more favorably to move up and out of poverty. This is not a new idea, but one that needs to be reevaluated in terms of how public policies and initiatives can take the burden off low-income populations so they can feel less financial strain, which we find is related to many other health and wellness outcomes in our study. Without these types of interventions, low-income families continue to occupy a precarious position in society where one health issue, car repair, or lack of affordable childcare, can undo the best efforts of people to stabilize their lives and thrive.

Potential Actions for Future Consideration

There is an opportunity for incorporating financial interventions with regularity tied to measurable supportive service programming. As discussed earlier, financial strain was alleviated during the pandemic, and our respondents – in many respects both quantitatively and qualitatively – were put on an upward trajectory. This goes beyond what POAH offers through Community Impact services. Rather, this is an opportunity to begin conversation around a two-pronged approach.

² The exact timing and extent of financial intervention and assistance by the federal government during the COVID-19 pandemic were not available to the research team. The timing and outcomes of POAH's wellness calls, while they were understood to have canvassed all residents, were also unavailable at the time of analysis. As such, the research team was not able to estimate the separate quantitative impact of these individual interventions.

- **Action 1:** Engage in public policy debate around the benefits of providing low-income families with additional financial assistance.
- **Action 2:** Explore the establishment of programming that links financial rewards with targeted efforts to strengthen individual and community economic and social stability, such as through the creation of incentives tied to work and or participation in Community Impact programming, job and skills training, etc. Over the last decade, some critical literature concerning the delivery of services within public housing authority property has emphasized a need for greater attention and delivery of intensive case management. The research team believes that such an intervention would best be paired with intensive case management to ensure accountability and success.
- **Action 3:** Explore the development of a shorter-term initiative in which external local partnerships are leveraged to make initial and/or supplemental resources available. This is important because the housing literature and countless studies document the inadequacy of current gap funding resources for meeting resident needs.
- **Action 4:** Explore the use of technology to monitor and collect deeper quantitative and qualitative information on the impact of financial interventions tied to resident interactions and programming.
- **Action 5:** Although indirectly related to financial strain, POAH could explore conducting further research and focus groups to investigate the extent to which residents may be experiencing food insecurity, as discussed in the previous chapter, and develop accessible options for people to have adequate food and nourishment regardless of their situation.

Finding #2

Residents with longer tenure, particularly older residents, possess a greater ability to endure challenging circumstances, especially circumstances in which financial hardships are experienced. This study also affirms that younger residents (those with shorter tenures in their housing) feel less a sense of neighborhood attachment and points to a reality that they may not be best equipped to endure such hardships without intervention.

- The resident sample size diminished between each wave of surveys and focus groups. Residents with short and long tenure in their housing moved out. Not only did these circumstances contribute to difficulty for remaining residents in maintaining a collective sense of neighborhood attachment and social cohesion, but they also contributed to residents demonstrating a survival strategy, in which, according to the literature (and confirmed through the focus groups), resident resilience is further reduced through isolation and a detachment from social engagement.
- This is important because the baseline hypotheses and analysis established that improvements to residents' sense of financial strain were positively impacted by improvements in residents' sense of neighborhood attachment.

Potential Actions for Future Consideration

This finding illustrates a strong nexus and circularity between sense of financial well-being and sense of neighborhood attachment. Because of this, there is a case for creative programming that builds community and neighborhood attachment, and nurtures social cohesion.

- **Action 1:** Explore the delivery of highly-tailored and place-based programming. Such programming would be beneficial when providing residents assurance that their needs are being economically and socially met in and around their neighborhood (i.e., places to shop and interact) in direct contrast to resident perceptions that their neighborhood is being transformed not for them but for the benefit of higher-income populations. In the literature, attention has been trained on the impacts that neighborhood change (whether the redevelopment of subsidized housing or redevelopment of surrounding neighborhoods) can have on resident well-being.
- **Action 2:** Explore the development of more trauma-based and resilience-based programming that seeks to nurture relationships between older and younger residents, particularly those with shorter tenure in POAH's housing. This aligns with current thinking in the housing policy literature in which interventions should take a trauma-informed approach to addressing well-being. This aligns with the literature in which residents are engaged directly as leaders (e.g., older residents serving as role models for younger residents). And this also aligns with the literature that points to trust-building as an essential ingredient. Overall, the development of trauma-informed programming would counteract both the lingering economic impacts of the pandemic (and any other broad or individual event) but also the social impact in which residents have seen many of their friends and neighbors move out.

Finding #3

Resident perceptions of problems with crime and safety also significantly improved with the delivery of both financial and social impact interventions between the first and second waves of resident surveys. However, as the pandemic lingered on and rollout of some CI programming was delayed, it was understood from residents that crime persisted – if not worsened – suggesting that more could be done to mitigate against factors external to POAH’s properties.

- Resident interviews revealed concerning trends in opioid abuse in surrounding buildings (not POAH buildings) and were regarded as a concern to residents.
- Literature regarding property and building maintenance and safety often points to an opportunity to positively impact residents’ perceptions of environment problems through cleanliness and regular maintenance.
- The qualitative data show that when residents perceive unsafe living conditions, they are not focused on upward mobility due to perceived and actual threat to their well-being. There is a scarcity of literature in the social sciences that finds when neighborhood residents perceive or experience unsafe living conditions, whether that be in their building, on their block, or in their neighborhood, it creates negative consequences for social cohesion, neighborhood attachment, mental health outcomes, and the ability to focus on thriving, not just surviving.

Potential Actions for Future Consideration

The research team acknowledges that this finding draws a connection between resident well-being and factors both internal and external to POAH’s property management. Yet, we believe that there are implications for both building and grounds maintenance as well as an opportunity to potentially mitigate these circumstances through creative programming.

- **Action 1:** Explore the development of a collaborative effort that engages residents, building managers, and local officials in a multipronged effort to reduce both the perceptions and reality of crime and increasing resident sense of safety. This action aligns with the housing policy literature in which capacity is often identified as a major constraint to the effective and successful delivery of interventions or programming of any kind in conjunction with housing.
- **Action 2:** Explore opportunities and initiatives to blend trauma- and resilience-based programming with enhanced building security, more rigorous resident screening (i.e., those that act in unsafe ways), and in general, providing greater assurance of safety.

FURTHER CONSIDERATIONS

As POAH moves forward, it is worth revisiting the eight principles for community building practice in housing settings developed nearly three decades ago in the Phipps Houses/Fordham University Study (Phillips, M. & Cohen, C.S., 1996). The research team believes they are remarkably relevant to the circumstances of POAH's residents and POAH's ongoing efforts to enhance its residents' well-being.

1. *The task of community building is constantly evolving and should be continually evaluated.*
2. *Housing and social work services should be integrated and provided to tenants in distressed communities.*
3. *Staff of social work programs in housing settings should understand and subscribe to a collective vision of the program's purpose.*
4. *Efforts should be made to provide services on-site.*
5. *Social work programs in housing settings should maintain a dual focus upon the individual family and the collective.*
6. *Community development activities should be extended to the surrounding community, and not be limited to the building alone.*
7. *Engagement of clients must take place in a context of needs identified by the client - those needs may be identified by tenants, workers, management.*
8. *Organizations should cultivate the institutional flexibility and capacity to pursue multiple points of intervention in order to address the needs of tenants.*

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Technical Appendices

Technical Appendix

Baseline Dataset

This was an omnibus baseline survey administered to a proportional stratified random sample drawn from the 659 POAH residents who reside in the OTR and nearby neighborhoods. Our sample includes 300 residents. We were able to survey 217 residents in our sample or 72 percent. Of those 97 percent completed the entire survey. This provides us with ample statistical power to generalize our findings to all POAH residents living in this area. During the months of June and July 2019, responses were collected, out of which 185 residents answered 100 percent of questions.

Demographics

- Hispanic or Latino: less than one (1) percent Hispanic
- Race/ethnicity: 91 percent Black/African-American; less than 4 percent White; less than 5 percent American Indian/Alaska Native
- U.S. Military Service: one (1) percent; 99 percent no service
- Marital Status: less than three (3) percent married; less than one (1) percent cohabitating; approximately one (1) percent widowed; more than seven (7) percent divorced; less than seven (7) percent separated; 81 percent single (never married)
- Children Under 18 Living at Home: average of one (1) child at home; 25 percent of residents have two (2) or more children under 18 living at home
- Educational Attainment: 44 percent have a high school diploma; nine (9) percent have a GED; 20 percent have less than a H.S. education; 26 percent have an associate degree, some college, or a bachelors degree
- Age: average age of respondent is 45 years; less than 10 percent over 65 years; 50 percent under 45 years
- Gender: 75 percent female; 22 percent male; less than three (3) percent other

Employment Status

- Full-time or Part-time job: 68 percent not working; 12 percent working full-time; 18 percent working part-time
- Caregiver: four (4) percent describe themselves as a caregiver
- Retired: seven (7) percent describe themselves as retired
- Student: two (2) percent are students
- Unable to work: 10 percent indicate unable to work
- Looking for work: 10 percent are looking for work; 30 percent N/A
- Difficulty finding work in last 12 months: six (6) percent cited a childcare, transportation, or "other" reason

Transportation and Commuting

- Vehicle ownership: 26 percent own a vehicle; 73 percent do not
- Ability to make vehicle repairs: 20 percent indicated their ability to make repairs; five (5) percent were unable; 73 percent N/A
- Getting to work: 13 percent drive vehicle; two (2) percent carpool; 13 percent use public transportation; three (3) percent walk
- Length of commute to work: 10 percent less than 15 minutes; 13 percent 15 to 30 minutes; four (4) percent 31 to 45 minutes; and three (3) percent more than 45 minutes

Finances and Sources of Income in Last 12 Months

- Household income: average annual household income is \$6,380 per year before taxes
- Borrow to pay bills: 29 percent have had to borrow from friends or family; three (3) percent have had to borrow from a payday lender
- Late Paying Rent: seven (7) percent
- Late Debt Payments (car, payday lender, etc.): nine (9) percent

Table 1 Sources of Income

	Source of Income		
	Yes	No	No response
Food stamps	74.0%	22.8%	3.3%
Foster care payments	0.5%	96.3%	3.3%
Child support	9.8%	87.0%	3.3%
SSI supplemental	28.8%	67.9%	3.3%
Social security disability	15.3%	81.4%	3.3%
Unemployment insurance	0.5%	96.3%	3.3%
Workers compensation	0.5%	96.3%	3.3%
Veterans benefits	0.0%	96.7%	3.3%
Private disability insurance	0.5%	96.3%	3.3%
Social security retirement	3.3%	93.5%	3.3%
Cash assistance	3.3%	93.5%	3.3%
TANF	4.2%	92.6%	3.3%
WIC nutrition	3.3%	93.5%	3.3%
Elderly nutrition	0.9%	95.8%	3.3%
Other	5.1%	91.6%	3.3%

Source: Economic & Planning Systems

Baseline Analysis

The section provides details and findings of the baseline statistical analysis that informed subsequent levels of modeling, i.e., regression modeling.

- The first step in the baseline analyses included an examination of descriptive statistics (i.e., distributions of answers within questions) organized by subject matter.
- The second step in the baseline analyses included a factor analysis to develop appropriate and statistically-valid factors for respective subject matters.
- The third step in the baseline analyses involved the creation of scales and standardization of those factors generated in the previous step.
- The fourth step in the analysis involved a bivariate analysis of those scales developed against other scales and other independent variables.

The following sections detail the findings of these steps in the baseline analysis.

Scale Creation

For each scale, missing values were mean-imputed. For example, in the scale below for perceptions of outsiders and use of drugs, if a respondent answered at least two (questions), the third element of the scale was mean-imputed to create the full scale. If a respondent answered one or none, the scale was not created for that response. In larger scales, respondents needed to answer higher number of questions, leaving only one (1) or two (2) to be mean-imputed.

Interest in Community Services

The descriptive statistics in **Table 2** display responses from residents on their perceptions of the following issues in the past 12 months. The results suggest that residents answered questions that were, for themselves and their households, relevant. For example, only 127 residents answered two items assessing lack of childcare.

Table 2 Descriptive Statistics Regarding Perceptions

Have the following things been a problem at Over The Rhine in the last 12 months?	N =	Big Problem	Somewhat of a	
			Problem	Not a Problem
+People not keeping up their property	162	31%	26%	43%
+Trash or Junk in parking areas	190	36%	27%	36%
+Abandoned Cars	148	13%	18%	69%
+Noise	178	34%	25%	41%
Lack of Affordable ++Childcare	127	23%	8%	69%
Lack of Emergency ++Childcare	127	25%	13%	62%
Lack of Health & Dental Offices/Clinics	156	15%	13%	72%
Lack of Grocery Stores/Restaurants	161	11%	11%	78%
Lack of Programs for ++Children	154	25%	14%	60%
Lack of Services for ++Seniors	140	24%	19%	57%
Lack of Public Transportation	157	10%	8%	82%
++Safety in Playgrounds, Parks, or Public Spa	156	24%	16%	60%

Source: Economic & Planning Systems

Two scales were created out of a selection of the above items: “probenvirons” and “proboprograms”, referring respectively to perception of problems with the surrounding environment and perception of problems with lack of the availability of community services.

Problems with Environment

Four (4) items marked with “+” were selected because of their non-collinearity in the creation of this scale. This scale represents problems in the environment surrounding Over the Rhine, such as people not keeping up/maintaining their property, abandoned cars, trash/junk in parking lots, and noise. As shown in **Table 3**, this single factor solution explains 63 percent of the combined variability (with an alpha value of 0.84).

Table 3 Eigenvalues Associated with Problems with Environment Scale

Total Variance Explained	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Component						
1	2.511	62.764	62.764	2.511	62.764	62.764
2	0.636	15.911	78.674	---	---	---
3	0.545	13.621	92.295	---	---	---
4	0.308	7.705	100	---	---	---

Source: Economic & Planning Systems

Problem with Lack of Programs

Five (5) items marked with “++” were selected because of their non-collinearity to create this scale. The scale represents problems with services and programs for children and seniors, lack of childcare, lack of emergency childcare, lack of programs for children and for seniors and lack of safety at parks and playgrounds. As shown in **Table 4**, this single factor solution explains 78 percent of the combined variability (with an alpha value of 0.94).

Table 4 Eigenvalues Associated with Problem with Lack of Programs

Total Variance Explained	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Component						
1	3.932	78.637	78.637	3.932	78.637	78.637
2	0.504	10.082	88.719			
3	0.228	4.566	93.285			
4	0.194	3.89	97.175			
5	0.141	2.825	100			

Source: Economic & Planning Systems

Bivariate Analysis

An analysis of the correlation among variables suggests that “probenvirons” is not associated with race, marital status, age groups, educational attainment, tenure, or work status. Similarly, “proboprograms” is also not associated with race, marital status, age groups, educational attainment, or tenure. Shown in **Table 5**, however, the mean value of “probenvirons” for men and women indicates that women perceive the local environment to be more problematic than men who live in Over the Rhine.

Table 5 ANOVA of Problems in Environment Scale by Gender

Gender	Mean	Standard Deviation	N	ANOVA F test and P-value
Male	3.33	2.3	39	
Female	4.38	2.5	123	F=32.570

Source: Economic & Planning Systems

Table 6 also illustrates that women think that the lack of services and programs for seniors and children is more problematic than men that live in Over the Rhine.

Table 6 ANOVA of Problems in Programs and Services Offered Scale by Gender

Gender	Mean	Standard Deviation	N	ANOVA F test and P-value
Male	2.93	3.2	29	
Female	4.45	3.4	114	F=53.157, P-value=.033

Source: Economic & Planning Systems

Another relationship tested was work status. **Table 7** illustrates that those who are retired or unable to work and those who work full and part time think that the lack of services and programs for seniors and children is more problematic compared to those who stay at home or are looking for work.

Table 7 ANOVA of Problems in Programs and Services Offered Scale by Work Status

Work Status	Mean	Standard Deviation	N	ANOVA F test and P-value
Work full or Part time	4.56	3.6	41	
Stay at home/Carer	3.19	3.4	47	
Looking for work/Student	3.58	2.3	19	
Retired/ unable to work	5.38	3.5	29	F=2.961, P-value=.035

Source: Economic & Planning Systems

Service Interest

The following frequencies (**Table 8**) illustrate high non-response for this specific question. The research team interprets this non-response as inapplicability of the question or that a respondent did not know how to answer the question. It is suggested for future surveys that this question be switched to "yes/no".

Table 8 Descriptive Statistics Regarding Frequency of Help with Job Preparation

How frequently do you receive help with job preparation?		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Several times a month	1	0.5%	2.2%	2.2%
	Once a month	3	1.4%	6.5%	8.7%
	Never, this service isn't offer	23	10.7%	50.0%	58.7%
	Never, but I would be intere:	19	8.8%	41.3%	100.0%
	Total	46	21.4%	100.0%	
Missing	-99	152	70.7%		
	System	17	7.9%		
	Total	169	78.6%		
Total	215	100			

Source: Economic & Planning Systems

The descriptive statistics in **Table 9** display responses from residents on their interest in specified programs and services being available. The results suggest that 15 to nearly 30 percent of respondents are interested in any of the following services.

Table 9 Descriptive Statistics on Service Interest Items

Would it interest you if your community and support services offered:	N =	No	Yes
Child Care	198	81%	19%
Arts Program	198	78%	22%
Entrepreneurship	198	78%	22%
College Prep.	198	85%	15%
Teen Empowerment	198	81%	19%
Volunteering	198	71%	29%
Youth After-School programs	198	71%	29%

Source: Economic & Planning Systems

Six (6) items (not including child-care) were selected because of their non-collinearity to create this scale. As shown in **Table 10**, this single factor solution explains 59 percent of the combined variability (with an alpha value of 0.84).

Table 10 Eigenvalues Associated with Service Interest Scale

Total Variance Explained	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Component						
1	3.562	59.359	59.359	3.562	59.359	59.359
2	0.608	10.13	69.489			
3	0.554	9.234	78.723			
4	0.507	8.458	87.181			
5	0.396	6.593	93.775			
6	0.374	6.225	100			

Source: Economic & Planning Systems

Bivariate Analysis

Analysis suggests that the preceding interest in services is not associated with race, marital status, tenure in POAH's housing, or work status. **Table 11** illustrates, as previous scales have, that women are much more interested in services compared to men.

Table 11 ANOVA of Service Interest Count by Gender

Gender	Mean	Standard Deviation	N	ANOVA F test and P-value
Male	1.62	2	44	
Female	0.48	1	154	F=12.822, P-value=.000

Source: Economic & Planning Systems

Table 12 suggests that older residents are less interested in services than younger age groups. A crosstab of gender by age groups finds that men are significantly more likely to be older compared to women.

Table 12 ANOVA of Service Interest Count by Age Groups

Age	Mean	Standard Deviation	N	ANOVA F test and P-value
Age 19-34	1.86	1.19	57	
Age 35-54	1.69	1.1	70	
Age 55+	0.67	0.859	67	F=7.2652, P-value=.001

Source: Economic & Planning Systems

Table 13 illustrates that those with greater education are interested in more services and programs compared to those to lower levels of educational attainment.

Table 13 ANOVA of Service Interest Count by Educational Attainment

Education	Mean	Standard Deviation	N	ANOVA F test and P-value
Less than High School	0.86	0.39	42	
High School or GED	1.03	0.16	106	
More than High School	2.5	0.33	50	F=13.365, P-value=.000

Source: Economic & Planning Systems

Regression Analysis

All dependent variables in the baseline dataset were standardized before running regression analysis, and all independent variables were grand mean centered, i.e., for example, the mean score for “robberies” is “0”. Information in **Table 14** incorporates secondary data available from the Cincinnati Police Department on incidents of crime. The results suggest that with each one (1) increase in murders within the OTR neighborhood, the scale of perceptions with problems with the environment increases by 0.4. It should be noted, however, that this finding is not significant at the .05 level or below.

Table 14 Regression of Problems of Local Environment

	Model I	Model II
Intercept	.027 (.08)	.163 (.10)
Robberies 2018	-.007 (.01)	-.003 (.01)
Assaults 2018	.036 (.02)	.023 (.02)
Murders 2018	.419 (.16)*	.480 (.16)*
Male		-.48 (.15)*
Female [1]		--
N = 119		

[Note 1] A reference category

Source: Economic & Planning Systems

Table 15 Regression of Problems in Programs Offered

	Model I	Model II
Intercept	.012 (.09)	.509 (.15)*
Robberies 2018	.010 (.01)	.016 (.01)
Assaults 2018	.033 (.02)	.018 (.02)
Murders 2018	.345 (.14)*	.500 (.13)*
Male		-.547 (.17)*
Female [1]		--
Work Status-full or part time		-.318 (.19)
Work status-stay at home		-.567 (.20)*
Work status-looking for work		-.722 (.21)*
Work status: unable to work/retireda		--

[Note 1] A reference category

Source: Economic & Planning Systems

Table 16 GEE Regression of Interest in Number of Services

	Model I	Model II
Intercept	.037 (.09)	.394 (.19)*
Robberies 2018	-.000 (.01)	.009 (.01)
Assaults 2018	.025 (.01)	.014 (.01)
Murders 2018	-.428 (.09)*	-.322 (.08)*
Male		-.562 (.15)*
Female [1]		--
Less than High School		-.746 (.23)*
High School or GED		-.713 (.22)*
More than High School		--
Age-19-34		.370 (.17)*
Age 35-54		.430 (.15)*
Age 55+a		--

[Note 1] A reference category

Source: Economic & Planning Systems

Health

This section details analysis of responses regarding resident perceptions of physical and mental health. It should be noted that the following represent self-reported answers and diagnoses and should not be interpreted as indicative of a medical or mental health professional assessment.

Table 17 Descriptive Statistics for Health, Part 1

Variable	N	Mean / Percent	Standard Deviation	Range
Have Insurance from following sources	200			
Any Insurance	197	99%		
Employer	0	0%		
Molina	35	18%		
Care Source	87	44%		
Paramount	10	5%		
Medicare	12	6%		
Medicaid	25	13%		
Other	29	15%		
Spend nothing each month on prescription medicine	158	83%		
Spending on prescriptions for those that spend	33	48.6	108.5	1 to 600
Ever not afford medicine in a given month	200			0 to 1
Yes	20	10%		
No	180	90%		
Been to the Emergency Room in last 6 months	199			0 to 1
Yes	63	32%		
No	136	68%		
Not get needed Surgery or medical care in last 12 months	199			0 to 1
Yes	15	8%		
No	184	92%		
If Yes above, was lack of money or insurance the reason?	15			0 to 1
Yes	8	53%		
No	7	47%		
When last see primary care provider	200			1 to 7
In last month	90	45%		
2-5 months ago	53	27%		
6-12 months ago	41	21%		
13-24 months ago	9	5%		
More than two years ago	1	1%		
Don't have primary care doctor	2	1%		
Don't know	4	2%		

Source: Economic & Planning Systems

Table 18 Descriptive Statistics for Health, Part 2

Variable	N	Mean / Percent	Standard Deviation	Range
General self-rated Health	199			1 to 5
Excellent	26	13%		
Very Good	31	16%		
Good	76	38%		
Fair	53	27%		
Poor	13	7%		
In past month has Health interfered with daily activities	198			1 to 5
All of the time	11	6%		
Most of the time	22	11%		
Some of the time	50	25%		
A little of the time	35	18%		
None of the time	80	40%		
In the past month how often worried, tense, or anxious	196			1 to 5
Very often	20	10%		
Often	18	9%		
Somewhat often	35	18%		
Not very Often	46	24%		
Not at all	77	39%		
In the past month how often sad, depressed, blue	196			1 to 5
Very often	15	8%		
Often	20	10%		
Somewhat often	36	18%		
Not very Often	48	25%		
Not at all	77	39%		

Source: Economic & Planning Systems

Three (3) items were selected for creation of a mental health scale, including: health interfering with daily activities (H14), feeling anxious or tense (H15), and feeling sad or depressed (H16). Values of these answers were reverse-coded so that higher values equated with a poorer self-reported condition. **Table 19** illustrates that the mental health scale with three (3) items explained 73 percent of the variance with an alpha value of 0.80.

Table 19 Eigenvalues Associated with Health Scale

Total Variance Explained	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Component						
1	2.168	72.256	72.256	2.168	72.256	72.256
2	0.603	20.088	92.344			
3	0.23	7.656	100			

Source: Economic & Planning Systems

An assessment of the mental health scale and the self-rated health score (shown in **Table 20**) illustrates a similarity of metric, i.e. that the mean mental health scale is at approximately the half-way point between the range three (3) and 15, and the mean self-rated health score is at approximately the half-way point between the range of responses one (1) to five (5). Higher values of mental health and self-rated health indicate worse health.

Table 20 Descriptive Statistics on Health

Variable	N	Mean / Percent	Standard Deviation	Range
Mental health scale	196	6.75	3.30	3 to 15
Self Rated Health	199	2.98	1.10	1 to 5

Source: Economic & Planning Systems

Analysis of the mental health scale and self-rated health score indicate that the self-rated health score (see **Table 21**) is more normally distributed than the mental health scale (see **Table 22**). As shown in **Table 23** and **Table 24**, the self-rated health score does not differ significantly by age or work status. Further analysis demonstrates that neither scale differs statistically by gender, race, marital status, or educational attainment.

Table 21 ANOVA of Self Rated health by Tenure

Tenure in Years	Mean	Standard Deviation	N	ANOVA F test and P-value
Two years or less*	2.44	0.91	36	F=18.614, P-value=.001
Between 2 and 5 years	3.3	0.85	37	
Between 5 and 6.5 years	3.07	1.13	41	
More than 6.5 years	3.33	1.1	39	

Source: Economic & Planning Systems

Table 22 ANOVA of Mental Health scale by Tenure

Tenure in Years	Mean	Standard Deviation	N	ANOVA F test and P-value
Two years or less*	5.73	2.6	37	F=96.888, P-value=.031
Between 2 and 5 years	7.82	3.3	36	
Between 5 and 6.5 years	6.53	3.3	40	
More than 6.5 years	7.43	3.6	38	

Source: Economic & Planning Systems

Table 23 ANOVA of Self Rated health by Age Groups

Age	Mean	Standard Deviation	N	ANOVA F test and P-value
Age 19-34	2.49	1.19	57	F=21.269, P-value=.000
Age 35-54	3.08	1.1	72	
Age 55+	3.3	0.859	66	

Source: Economic & Planning Systems

Table 24 ANOVA of Self Rated health by Work Status

Work Status	Mean	Standard Deviation	N	ANOVA F test and P-value
Work full or Part time	2.66	1.09	61	F=10.233, P-value=.038
Stay at home/Carer	3.14	1.03	65	
Looking for work/Student	2.88	1.36	24	
Retired/ unable to work	3.21	1.01	39	

Source: Economic & Planning Systems

As with regression tests of previous scales, health scales were tested as dependent variables using similar arrays of independent variables. In most instances, independent variables were not strong predictors of changes in the dependent variables, as shown in **Table 25** and **Table 26**.

Table 25 GEE Regression of Mental Health on predictors

	Model I	Model II
Intercept	-.082 (.04)*	.163 (.14)
Robberies 2018	.006 (.01)	-.000 (.01)
Assaults 2018	.004 (.013)	.012 (.02)
Murders 2018	.179 (.14)	.169 (.17)
Tenure-2 years		-.71 (.16)*
Tenure-5 years		-.001 (.23)
Tenure 5-6.5 years		-.18 (.18)
Tenure -Over 6.5 years [1]		--
N=157		

[Note 1] A reference category

Source: Economic & Planning Systems

Table 26 GEE Regression of Self-Rated Health on predictors

	Model I	Model II
Intercept	-.138 (.03)*	.123 (.02)*
Robberies 2018	.007 (.01)	.001 (.001)
Assaults 2018	.031 (.01)*	.006 (.002)*
Murders 2018	.017 (.08)	.031 (.02)
Tenure-2 years		-.061 (.04)*
Tenure-2-5 years		.019 (.03)
Tenure 5-6.5 years		.003 (.03)
Tenure -Over 6.5 years [1]		--
Work Status-full or part time		-.053 (.04)
Work status-stay at home		.007 (.03)
Work status-looking for work		-.022 (.04)
Work status: unable to work/retired [1]		--
Age-19-34		-.06 (.02)*
Age 35-54		.020 (.03)
Age 55+a		--
N=159		

[Note 1] A reference category

Source: Economic & Planning Systems

Outsiders and Drugs

Three (3) items were selected to create the scale for perceptions of “outsiders and use of drugs”. The scale presented in **Table 27** uses: groups of young people hanging around (C1_2), outsiders causing trouble (C1_7), and drug dealing or drug use (C1_9). Each value was reverse coded so that higher numbers represented the perception of a more substantial problem. The scale as a single factor explains 79 percent of the variance among the three items and has an alpha value of 0.87.

Table 27 Eigenvalues Associated with Outsiders and Drugs Scale

Total Variance Explained	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Component						
1	2.373	79.098	79.098	2.373	79.098	79.098
2	0.363	12.102	91.2			
3	0.264	8.8	100			

Source: Economic & Planning Systems

As shown in **Table 28**, the mean value for the “outsiders and drugs” scale is 6.4 on a scale with range of three (3) to nine (9). **Table 29** illustrates that women respondents think outsiders and youth coming into the area and doing drugs is a bigger problem than the men think it is. Further analysis demonstrates that there are no differences by race, age, tenure, work status, or education.

Table 28 Descriptive Statistics for Outsiders and Drugs

Variable	N	Mean / Percent	Standard Deviation	Range
Outsiders, youth and drug problems	192	6.39	2.38	3 to 9

Source: Economic & Planning Systems

Table 29 ANOVA of Outsiders, youth and drugs by Gender

Work Status	Mean	Standard Deviation	N	ANOVA F test and P-value
Male	5.74	2.4	43	
Female	6.58	2.3	149	F=4.349, P-value=.038

Source: Economic & Planning Systems

Table 30 ANOVA of Outsiders, youth and drugs by Marital Status

Work Status	Mean	Standard Deviation	N	ANOVA F test and P-value
Married/Cohabit	8.9	0.4	7	F=44.998, P-value=.015
No Longer married	6.1	2.3	26	
Never Married	6.3	2.3	159	

Source: Economic & Planning Systems

As with regression tests of previous scales, the scale of outsiders and drugs was tested as a dependent variable using similar arrays of independent variables. In this analysis (shown in **Table 31**), incidents of murder explained greater variation in the dependent variable, though the coefficient was not statistically significant.

Table 31 Regressing outsider drug problems on neighborhood crime

	Model I	Model II
Intercept	.009(.08)	.010 (.09)
Robberies 2018	-.009 (.01)	-.01 (.01)
Assaults 2018	.042 (.016)*	.042 (.014)*
Murders 2018	.46 (.14)*	.46 (.12)
Male		-.27 (.17)
Female [1]		--
Married		1.13 (.18)*
No longer married		.02 (.19)
Never married [1]		--

N=153

[Note 1] A reference category

Source: Economic & Planning Systems

Social Cohesion Scale

The following analysis details findings of the creation of a scale to represent sense of neighborhood attachment and cohesion among residents.

Neighborhood Attachment

The creation of survey questions was guided by literature (e.g., Sampson and colleagues) in the establishment of a social cohesion scale. In the following analysis, neighborhood satisfaction (Na2) was included and reverse coded to be measured in the same direction as the attachment series of variables. **Table 32** illustrates that a single factor explains 75 percent of the underlying variance in the following items (excluding NA_2 and NP_1 through NP5) with an alpha value of 0.934: feel in a place that is my home (NA1_1), feel in a place that holds a lot meaning to me (NA1_2), feel in a place where I belong (NA1_3), feel in a place I'd miss if I had to leave (NA1_4), feel in a place I am proud of (NA1_5), and feel in a place that is important to me (NA1_6).

Table 32 Eigenvalues Associated with Neighborhood Attachment Scale

Total Variance Explained	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Component						
1	4.493	74.889	74.889	4.493	74.889	74.889
2	0.448	7.47	82.359			
3	0.395	6.589	88.948			
4	0.269	4.485	93.434			
5	0.213	3.558	96.992			
6	0.18	3.008	100			

Source: Economic & Planning Systems

The scale “Nattach” was created by summing the above-referenced six (6) items. A correlation was run assessing how well the scale correlated with the factor and with two items—satisfaction (na2) and the single ranking item for attachment to neighborhood (na4). The scale and factor correlated perfectly and is moderately associated with satisfaction (negative due to coding differences) and moderately strong with the single attachment rating item. The analysis suggests strong evidence of a good scale.

Table 33 Correlation Analysis of Neighborhood Attachment

		Neighborhood attachment scale computed by summing na1_1 - na1_6	REGR factor score 1 for analysis 6	How satisfied are you with your neighborhood?	On a scale from 1 to 10 how attached do you feel to where you live?
Neighborhood attachment scale computed by summing na1_1 - na1_6	Pearson Correlation	1	1.000**	-.436**	.630**
	Sig. (2-tailed)		0	0	0
	N	209	209	209	208
REGR factor score 1 for analysis 6	Pearson Correlation	1.000**	1	-.434**	.629**
	Sig. (2-tailed)	0		0	0
	N	209	209	209	208
How satisfied are you with your neighborhood?	Pearson Correlation	-.436**	-.434**	1	-.463**
	Sig. (2-tailed)	0	0		0
	N	209	209	215	214
On a scale from 1 to 10 how attached do you feel to where you live?	Pearson Correlation	.630**	.629**	-.463**	1
	Sig. (2-tailed)	0	0	0	
	N	208	208	214	214

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Economic & Planning Systems

Social Cohesion Scale

The following analysis of the neighborhood attachment scale explains 58 percent of the underlying variation in the five (5) items with an alpha value of 0.81, which included the following items: the neighborhood is a good place to raise kids (NP1_1), people around here are willing to help neighbors (NP1_2), people in this neighborhood generally get along with each other (NP1_3), people in this neighborhood can be trusted (NP1_4), and people in this neighborhood share the same values (NP1_5).

Table 34 Eigenvalues Associated with Social Cohesion Scale

Total Variance Explained	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Component						
1	2.88	57.594	57.594	2.88	57.594	57.594
2	0.829	16.588	74.182			
3	0.551	11.029	85.211			
4	0.384	7.688	92.899			
5	0.355	7.101	100			

Source: Economic & Planning Systems

The scale "scohesion" was created also by summing the five items, referenced above. A correlation was run (shown in **Table 35**) assessing how well the scale correlated with the factor and with the "nattach" scale and two items—satisfaction (na2) and the single ranking item for attachment to neighborhood (na4). The scale and factor correlated perfectly, and is moderately associated with the three other items. This is also strong evidence of a good scale.

Table 35 Correlation of Social Cohesion Scale

		Neighborhood social cohesion scale computed by summing np1_1 - np1_5	factor derived from five cohesion items EFA on Np1_1 - Np1_5	Neighborhood attachment scale computed by summing na1_1 - na1_6	How satisfied are you with your neighborhood?	On a scale from 1 to 10 how attached do you feel to where you live?
Neighborhood social cohesion scale computed by summing np1_1 - np1_5	Pearson Correlation	1	.999**	.602**	-.544**	.446**
	Sig. (2-tailed)		0	0	0	0
	N	210	210	205	210	209
factor derived from five cohesion items EFA on Np1_1 - Np1_5	Pearson Correlation	.999**	1	.601**	-.540**	.445**
	Sig. (2-tailed)	0	0	0	0	0
	N	210	210	205	210	209
Neighborhood attachment scale computed by summing na1_1 - na1_6	Pearson Correlation	.602**	.601**	1	-.436**	.630**
	Sig. (2-tailed)	0	0	0	0	0
	N	205	205	209	209	208
How satisfied are you with your neighborhood?	Pearson Correlation	-.544**	-.540**	-.436**	1	-.463**
	Sig. (2-tailed)	0	0	0	0	0
	N	210	210	209	215	214
On a scale from 1 to 10 how attached do you feel to where you live?	Pearson Correlation	.446**	.445**	.630**	-.463**	1
	Sig. (2-tailed)	0	0	0	0	0
	N	209	209	208	214	214

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Economic & Planning Systems

Table 36 Correlation o Neighborhood Attachment Scale

		Neighborhood social cohesion scale computed by summing np1_1 - np1_5	factor derived from five cohesion items EFA on Np1_1 - Np1_5	Neighborhood attachment scale computed by summing na1_1 - na1_6	How satisfied are you with your neighborhood?	On a scale from 1 to 10 how attached do you feel to where you live?
Neighborhood social cohesion scale computed by summing np1_1 - np1_5	Pearson Correlation	1	.999**	.602**	-.544**	.446**
	Sig. (2-tailed)		0	0	0	0
	N	210	210	205	210	209
factor derived from five cohesion items EFA on Np1_1 - Np1_5	Pearson Correlation	.999**	1	.601**	-.540**	.445**
	Sig. (2-tailed)	0		0	0	0
	N	210	210	205	210	209
Neighborhood attachment scale computed by summing na1_1 - na1_6	Pearson Correlation	.602**	.601**	1	-.436**	.630**
	Sig. (2-tailed)	0	0		0	0
	N	205	205	209	209	208
How satisfied are you with your neighborhood?	Pearson Correlation	-.544**	-.540**	-.436**	1	-.463**
	Sig. (2-tailed)	0	0	0		0
	N	210	210	209	215	214
On a scale from 1 to 10 how attached do you feel to where you live?	Pearson Correlation	.446**	.445**	.630**	-.463**	1
	Sig. (2-tailed)	0	0	0	0	
	N	209	209	208	214	214

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Economic & Planning Systems

Inclusion Scale

To create the inclusion scale, items SI1_1 through SI1_5 were also reverse-coded to ensure that higher values equate with greater values of the perception or sentiment being expressed. After testing numerous combinations of components, the scale illustrates that the following scale explains 72 percent of the underlying variation in the following items: have felt I am playing a useful part in the Over the Rhine community (SI1_1), have felt what I do is valued by others around here (SI1_2), and have felt accepted by the broader Over the Rhine community (SI1_3).

A correlation (shown in **Table 37**) was run assessing how well the scale correlated with the factor and with the “nattach” and “scohesion” scales and two items—satisfaction (na2) and the single ranking item for attachment to neighborhood (na4). The scale and factor correlated perfectly and is moderately associated with the three other items. This is also strong evidence of a good scale.

Table 37 Correlation of Inclusion Scale

		inclusion in Over the rhine community scale computed by summing si1_1 - si1_3	REGR factor score 1 for analysis 3	Neighborhood social cohesion scale computed by summing np1_1 - np1_5	Neighborhood attachment scale computed by summing na1_1 - na1_6	How satisfied are you with your neighborhood?	On a scale from 1 to 10 how attached do you feel to where you live?
inclusion in Over the rhine community scale computed by summing si1_1 - si1_3	Pearson Correlation	1	.999**	.537**	.506**	-.389**	.362**
	Sig. (2-tailed)		0	0	0	0	0
	N	214	214	209	208	214	213
REGR factor score 1 for analysis 3	Pearson Correlation	.999**	1	.536**	.503**	-.388**	.360**
	Sig. (2-tailed)	0	0	0	0	0	0
	N	214	214	209	208	214	213
Neighborhood social cohesion scale computed by summing np1_1 - np1_5	Pearson Correlation	.537**	.536**	1	.602**	-.544**	.446**
	Sig. (2-tailed)	0	0	0	0	0	0
	N	209	209	210	205	210	209
Neighborhood attachment scale computed by summing na1_1 - na1_6	Pearson Correlation	.506**	.503**	.602**	1	-.436**	.630**
	Sig. (2-tailed)	0	0	0	0	0	0
	N	208	208	205	209	209	208
How satisfied are you with your neighborhood?	Pearson Correlation	-.389**	-.388**	-.544**	-.436**	1	-.463**
	Sig. (2-tailed)	0	0	0	0	0	0
	N	214	214	210	209	215	214
On a scale from 1 to 10 how attached do you feel to where you live?	Pearson Correlation	.362**	.360**	.446**	.630**	-.463**	1
	Sig. (2-tailed)	0	0	0	0	0	0
	N	213	213	209	208	214	214

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Economic & Planning Systems

Perception of Safety

Analysis of responses regarding perceptions of safety are: safety in home, building and neighborhood, plus crimes involving weapons a problem in neighborhood and is police responsive a problem. Using responses from just C2_1 through C2_3, the scale "psafety" explains 81 percent of variation in underlying variables and an alpha value of 0.88. The scale was computed by reverse coding and then summing three items so that higher values reflect greater perception of safety. A correlation, as shown in **Table 38**, was run assessing how well the scale correlated with the factor and with the inclusion, nattach and cohesion scales and two items—satisfaction (na2) and the single ranking item for attachment to neighborhood (na4). The scale and factor correlated perfectly and was moderately associated with the three other items.

Table 38 Correlation of Perception of Safety Scale

		Perception of safety scale in Over the rhine community home, blding and neighborhood by summing c2_1r - c2_3r higher=safier	factor derived from 2 safety items c2_1 - c2_3	inclusion in Over the rhine community scale computed by summing si1_1 - si1_3 higher included	Neighborhood social cohesion scale computed by summing np1_1 - np1_5 higher = more cohesion	Neighborhood attachment scale computed by summing na1_1 - na1_6 higher = more attachment	How satisfied are you with your neighborhood?	On a scale from 1 to 10 how attached do you feel to where you live?
Perception of safety scale in Over the rhine community home, blding and neighborhood by summing c2_1r - c2_3r higher=safier	Pearson Correlation	1	1.000**	.316**	.462**	.486**	-.572**	.505**
	Sig. (2-tailed)		0	0	0	0	0	0
	N	210	210	209	206	205	210	209
factor derived from 2 safety items c2_1 - c2_3	Pearson Correlation	1.000**	1	.314**	.460**	.486**	-.568**	.505**
	Sig. (2-tailed)	0	0	0	0	0	0	0
	N	210	210	209	206	205	210	209
inclusion in Over the rhine community scale computed by summing si1_1 - si1_3	Pearson Correlation	.316**	.314**	1	.537**	.506**	-.389**	.362**
	Sig. (2-tailed)	0	0	0	0	0	0	0
	N	209	209	214	209	208	214	213
Neighborhood social cohesion scale computed by summing np1_1 - np1_5	Pearson Correlation	.462**	.460**	.537**	1	.602**	-.544**	.446**
	Sig. (2-tailed)	0	0	0	0	0	0	0
	N	206	206	209	210	205	210	209
Neighborhood attachment scale computed by summing na1_1 - na1_6 higher = more	Pearson Correlation	.486**	.486**	.506**	.602**	1	-.436**	.630**
	Sig. (2-tailed)	0	0	0	0	0	0	0
	N	205	205	208	205	209	209	208
How satisfied are you with your neighborhood?	Pearson Correlation	-.572**	-.568**	-.389**	-.544**	-.436**	1	-.463**
	Sig. (2-tailed)	0	0	0	0	0	0	0
	N	210	210	214	210	209	215	214
On a scale from 1 to 10 how attached do you feel to where you live?	Pearson Correlation	.505**	.505**	.362**	.446**	.630**	-.463**	1
	Sig. (2-tailed)	0	0	0	0	0	0	0
	N	209	209	213	209	208	214	214

** Correlation is significant at the 0.01 level (2-tailed).

Source: Economic & Planning Systems

Crime Scale

The crime scale was created with seven (7) items, including: vandalism or graffiti (c1_1), robbery or assault of people on the street (c1_3), burglary of homes when people are away (c1_4), gangs (c1_8), drug dealing or drug use (c1_9), drinking in public (c1-10), and car break-ins or car theft (c1_11). This scale explains 64 percent of the variation in the underlying factors and has an alpha value of 0.88. Responses were reverse-coded when necessary so that higher values reflected greater problems of crime. A correlation, shown in **Table 39**, was run assessing how well the scale correlated with the factor and with the psafety, inclusion, nattach and scohesion scales and two items—satisfaction (na2) and the single ranking item for attachment to neighborhood (na4). The scale and factor correlated perfectly and is moderately associated with the three other items.

Table 39 Correlation of Crime Scale

		Perception of crime as a problem scale in Over the rhine community summing 7 c1_1r - c1_11r higher=more crime	factor derived from 7 items from c1_1r-c1_11r	Perception of safety scale in Over the rhine community home, blding and neighborhood by summing c2_1r - c2_3r higher=safer	inclusion in Over the rhine community scale computed by summing si1_1 - si1_3 higher included	Neighborhood social cohesion scale computed by summing np1_1 - np1_5 higher = more cohesion	Neighborhood attachment scale computed by summing na1_1 - na1_6 higher = more attachment	How satisfied are you with your neighborhood?	On a scale from 1 to 10 how attached do you feel to where you live?
Perception of crime as a problem scale in Over the rhine community summing 7 items from c1_1r-c1_11r	Pearson Correlation	1	1.000**	-.450**	-.204*	-.369**	-.270**	.381**	-.282**
	Sig. (2-tailed)		0	0	0.033	0	0.005	0	0.003
	N	110	110	108	109	108	108	110	109
Perception of safety scale in Over the rhine community home, blding and neighborhood by summing si1_1 - si1_3	Pearson Correlation	1.000**	1	-.454**	-.205*	-.369**	-.273**	.381**	-.287**
	Sig. (2-tailed)	0	0	0	0.032	0	0.004	0	0.002
	N	110	110	108	109	108	108	110	109
Neighborhood social cohesion scale computed by summing np1_1 - np1_5	Pearson Correlation	-.450**	-.454**	1	.316**	.462**	.486**	-.572**	.505**
	Sig. (2-tailed)	0	0	0	0	0	0	0	0
	N	108	108	210	209	206	205	210	209
Neighborhood attachment scale computed by summing na1_1 - na1_6 higher = more	Pearson Correlation	-.204*	-.205*	.316**	1	.537**	.506**	-.389**	.362**
	Sig. (2-tailed)	0.033	0.032	0	0	0	0	0	0
	N	109	109	209	214	209	208	214	213
How satisfied are you with your neighborhood?	Pearson Correlation	-.369**	-.369**	.462**	.537**	1	.602**	-.544**	.446**
	Sig. (2-tailed)	0	0	0	0	0	0	0	0
	N	108	108	206	209	210	205	210	209
On a scale from 1 to 10 how attached do you feel to where you live?	Pearson Correlation	-.270**	-.273**	.486**	.506**	.602**	1	-.436**	.630**
	Sig. (2-tailed)	0.005	0.004	0	0	0	0	0	0
	N	108	108	205	208	205	209	209	208
Perception of crime as a problem scale in Over the rhine community summing 7 items from c1_1r-c1_11r	Pearson Correlation	.381**	.381**	-.572**	-.389**	-.544**	-.436**	1	-.463**
	Sig. (2-tailed)	0	0	0	0	0	0	0	0
	N	110	110	210	214	210	209	215	214
On a scale from 1 to 10 how attached do you feel to where you live?	Pearson Correlation	-.282**	-.287**	.505**	.362**	.446**	.630**	-.463**	1
	Sig. (2-tailed)	0.003	0.002	0	0	0	0	0	0
	N	109	109	209	213	209	208	214	214

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Economic & Planning Systems

Predictive Modeling

This section details the structures and findings of selected ordinary least squares (OLS) regression models using primary and secondary data as both dependent and independent variables.

Regression Model Structures

Survey questions were designed to test the relationship between pre-identified dependent and independent variables in literature-based regression model structures, shown in **Table 40**. Four scales were tested as to measure theoretical components of economic mobility and social determinants of health:

- Financial strain
- Self-rate mental health
- Perception of problems with lack of community programs or services
- Interest in services

Two model structures were tested: Model 1 contains a longer array of independent variables to illustrate the variation in coefficients and significance of them; and Model 2 contains a shorter array of independent variables that yield p-values of greater significance levels, and thus, more explanatory or predictive power. **Table 41** illustrates bivariate relationships used in determining which of the following (**Table 40**) scales and socioeconomic variables would be most effective in the regression model structures.

Table 40 Regression Model Structure

Financial Strain		Mental Health		Problem with Lack of Programs		Interest in Services (Dich.)	
Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
menthlth	menthlth	H13	H13	prob environ	prob environ	finstrain	finstrain
Log(age)	Log(age)	finstrain	finstrain	crime	crime	male[0]	male[0]
educat	educat	Log(age)		educ		Log(age)	Log(age)
prob environ		educat		work status		Nattach	Nattach
crime		prob environ		Log(age)		educ	
male[0]		crime		male[0]		work status	
probl programs		male[0]		finstrain		probl environ	
service interest		probl programs		service interest		probl programs	
nattach		service interest		nattach		outside drugs	
outside drugs		nattach		outside drugs		menthlth	
		outside drugs		menthlth		crime	

Source: Economic & Planning Systems

Appendix A: Baseline Report

Table 41 Correlation Matrix of All Scales

		probenvirons	probprograms	serviceint	psafety	crime	inclusion	Scohesion	Nattach	finstrain	outsidedrugs	menthlhth	H13	
probenvirons	Pearson Correlation	1	0.62274	0.05184	-0.36017	0.83774	-0.1352	-0.32832	-0.15123	0.17787	0.7792	0.1861	-0.08523	
	Prob > |r| under H0:		<.0001	0.5315	<.0001	<.0001	0.0863	<.0001	0.0547	0.0268	<.0001	0.024	0.2997	
	N =	162	130	148	160	144	162	162	162	155	161	147	150	
probprograms	Pearson Correlation	0.62274	1	0.18005	-0.25683	0.61708	-0.1546	-0.1529	0.01363	0.2589	0.58354	0.20976	-0.00003	
	Prob > |r| under H0:			0.0374	0.0021	<.0001	0.0652	0.0683	0.8716	0.0023	<.0001	0.0158	0.9997	
	N =	130	143	134	141	122	143	143	143	137	139	132	135	
serviceint	Pearson Correlation	0.05184	0.18005	1	-0.08555	-0.02113	-0.02448	0.06214	0.02677	0.28297	0.01021	0.08271	-0.0092	
	Prob > |r| under H0:				0.232	0.8036	0.7321	0.3845	0.7082	<.0001	0.8928	0.2504	0.8977	
	N =	148	134	198	197	141	198	198	198	197	177	195	198	
psafety	Pearson Correlation	-0.36017	-0.25683	-0.08555	1	-0.44385	0.30815	0.46379	0.48205	-0.2077	-0.43284	-0.21348	-0.04608	
	Prob > |r| under H0:			0.0021		<.0001	<.0001	<.0001	<.0001	0.0028	<.0001	0.0027	0.5181	
	N =	160	141	197	213	152	213	213	213	205	190	195	199	
crime	Pearson Correlation	0.83774	0.61708	-0.02113	-0.44385	1	-0.16374	-0.36159	-0.18976	0.1373	0.85418	0.16245	-0.12023	
	Prob > |r| under H0:			0.8036	<.0001		0.0424	<.0001	0.0184	0.0984	<.0001	0.056	0.1541	
	N =	144	122	141	152	154	154	154	154	146	154	139	142	
inclusion	Pearson Correlation	-0.1352	-0.1546	-0.02448	0.30815	-0.16374	1	0.53987	0.50279	-0.11566	-0.22847	-0.06494	-0.02375	
	Prob > |r| under H0:		0.0863	0.7321	<.0001	0.0424		<.0001	<.0001	0.0978	0.0014	0.3658	0.7385	
	N =	162	143	198	213	154	215	215	215	206	192	196	200	
Scohesion	Pearson Correlation	-0.32832	-0.1529	0.06214	0.46379	-0.36159	0.53987	1	0.59706	-0.13107	-0.4352	-0.17578	0.0104	
	Prob > |r| under H0:		<.0001	0.3845	<.0001	<.0001	<.0001		<.0001	0.0604	<.0001	0.0137	0.8838	
	N =	162	143	198	213	154	215	215	215	206	192	196	200	
Nattach	Pearson Correlation	-0.15123	0.01363	0.02677	0.48205	-0.18976	0.50279	0.59706	1	-0.12089	-0.20026	-0.07712	-0.04922	
	Prob > |r| under H0:		0.0547	0.8716	0.7082	<.0001	0.0184	<.0001		0.0835	0.0054	0.2826	0.4888	
	N =	162	143	198	213	154	215	215	215	206	192	196	200	
finstrain	Pearson Correlation	0.17787	0.2589	0.28297	-0.2077	0.1373	-0.11566	-0.13107	-0.12089	1	0.17122	0.37434	0.02766	
	Prob > |r| under H0:		0.0268	0.0023	<.0001	0.0028	0.0984	0.0978	0.0604	0.0835		0.0201	<.0001	0.6982
	N =	155	137	197	205	146	206	206	206	206	184	195	199	
outsidedrugs	Pearson Correlation	0.7792	0.58354	0.01021	-0.43284	0.85418	-0.22847	-0.4352	-0.20026	0.17122	1	0.19919	-0.00182	
	Prob > |r| under H0:		<.0001	<.0001	0.8928	<.0001	<.0001	0.0014	<.0001	0.0054	0.0201		0.008	0.9807
	N =	161	139	177	190	154	192	192	192	184	192	176	179	
menthlhth	Pearson Correlation	0.1861	0.20976	0.08271	-0.21348	0.16245	-0.06494	-0.17578	-0.07712	0.37434	0.19919	1	0.05034	
	Prob > |r| under H0:		0.024	0.0158	0.2504	0.0027	0.056	0.3658	0.0137	0.2826	<.0001	0.008		0.4835
	N =	147	132	195	195	139	196	196	196	195	176	196	196	
H13	Pearson Correlation	-0.08523	-0.00003	-0.0092	-0.04608	-0.12023	-0.02375	0.0104	-0.04922	0.02766	-0.00182	0.05034	1	
	Prob > |r| under H0:		0.2997	0.9997	0.8977	0.5181	0.1541	0.7385	0.8838	0.4888	0.6982	0.9807	0.4835	
	N =	150	135	198	199	142	200	200	200	200	199	179	196	200

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Economic & Planning Systems

Perception of Self-Rated Mental Health

In the following regression analysis of self-rated mental health as the dependent variables, it should be noted that higher values in the mental health scale are associated with worse mental health.

As shown in **Table 42**, the explanatory power of financial strain on mental health is significant. As financial strain worsens, self-reported mental health worsens.

The H13 variable is a general physical health scale, where higher values are associated with worse physical health. This is displayed as a nominal variable to illustrate the distinctions and significance between the dependent variable and the higher (i.e., worse) self-ratings of physical health. The explanatory power of greater degrees of poor physical health (4 and 5 on the scale) on mental health are significant. A shift of 4 over 3 on the general health scale can be interpreted as indicative of worsening self-reported mental health by a coefficient of 1.69. A shift of 5 over 4 on the general health scale can be interpreted as indicative of worsening self-reported mental health by a coefficient of 2.34.

Table 42 Regression Model with Perception of Self-Rated Mental Health as Dependent Variable

	Model I				Model II				
	Estimate	Std Error	t Ratio	Prob>|t|	Estimate	Std Error	t Ratio	Prob>|t|	
Intercept	-1.98915	4.31232	-0.46	0.6457	Intercept	6.07941	2.78235	2.18	0.0301*
finstrain	1.02874	0.26828	3.83	0.0002*	finstrain	0.92059	0.16351	5.63	<.0001*
H13[2-1]	0.50618	1.05588	0.48	0.6329	H13[2-1]	0.42276	0.75362	0.56	0.5755
H13[3-2]	0.90742	0.8683	1.05	0.2989	H13[3-2]	0.54441	0.60821	0.9	0.3719
H13[4-3]	1.94688	0.7383	2.64	0.0099*	H13[4-3]	1.68668	0.50632	3.33	0.0010*
H13[5-4]	3.21086	1.85934	1.73	0.0877	H13[5-4]	2.33835	0.86185	2.71	0.0073*
probenvirons	-0.11211	0.22833	-0.49	0.6246	H13[1--99]	-2.16188	2.83363	-0.76	0.4465
Log(age)	0.88523	1.05669	0.84	0.4044		---	---	---	---
male[0]	0.0569	0.39982	0.14	0.8872		---	---	---	---
outsidedrugs	0.29159	0.23735	1.23	0.2225		---	---	---	---
serviceint2[0]	-0.45387	0.32408	-1.4	0.1649		---	---	---	---
probprograms	0.02107	0.11255	0.19	0.8519		---	---	---	---
educat[2-1]	0.40792	0.81506	0.5	0.618		---	---	---	---
educat[3-2]	-0.12652	0.74109	-0.17	0.8648		---	---	---	---
Nattach	0.00805	0.06121	0.13	0.8957		---	---	---	---
crime	0.02673	0.14715	0.18	0.8563		---	---	---	---

Source: Economic & Planning Systems

Financial Strain

In the following regression analysis of financial strain as the dependent variables, it should be noted that higher values in the mental health scale are associated with worse financial strain. That is, as mental health worsens, financial strain increases.

Age is expressed as a continuous variable logarithmically. As the log of age increases, financial strain decreases, implying that older adults experience less financial strain. Education is expressed as a nominal variable to illustrate the effects that degrees of change between classifications (no high school education; high school education or GED; more than high school). As shown, “not having more than a high school education” is positively associated with higher degrees of financial strain.

Table 43 Regression Model with Financial Strain as Dependent Variable

	Model I				Model II				
	Estimate	Std Error	t Ratio	Prob>|t|	Estimate	Std Error	t Ratio	Prob>|t|	
Intercept	2.20939	1.53985	1.43	0.155	Intercept	4.1238	0.87512	4.71	<.0001*
workcat2[2-1]	-0.24491	0.27059	-0.91	0.368	menthlhth	0.14374	0.02375	6.05	<.0001*
workcat2[3-2]	0.18635	0.36114	0.52	0.6072	Log(age)	-0.98444	0.22018	-4.47	<.0001*
workcat2[4-3]	-0.85861	0.42797	-2.01	0.0480*	educat[2-1]	-0.13362	0.20505	-0.65	0.5154
male[0]	0.08292	0.1401	0.59	0.5555	educat[3-2]	0.64121	0.18636	3.44	0.0007*
Log(age)	-0.35869	0.38072	-0.94	0.3488					
probprograms	0.06554	0.04181	1.57	0.1207					
probenvirons	0.14028	0.07945	1.77	0.081		---	---	---	---
menthlhth	0.11334	0.03316	3.42	0.0010*		---	---	---	---
outsidedrugs	0.02875	0.08571	0.34	0.7381		---	---	---	---
educat[2-1]	-0.28122	0.29288	-0.96	0.3397		---	---	---	---
educat[3-2]	0.7211	0.25873	2.79	0.0065*		---	---	---	---
crime	-0.09218	0.05138	-1.79	0.0763		---	---	---	---
Nattach	0.01228	0.02116	0.58	0.5633		---	---	---	---
serviceint2[0]	-0.07104	0.11617	-0.61	0.5425		---	---	---	---

Source: Economic & Planning Systems

Interest in Services

In the following regression analysis of interest in services as the dependent variables, it should be noted that age is expressed as a continuous variable logarithmically. An increase in the log of age is associated significantly with a greater desire for community services.

The “male” variable is a dummy variable to indicate gender. The logistical model illustrates that males are less interested in community services than females. Higher values in the neighborhood attachment scale are associated with greater sense of positive neighborhood attachment. As neighborhood attachment increases, desire for community services declines. Higher degrees of financial strain, however, are associated with lower desire for services.

Table 44 Logistic Model with Interest in Services as Dependent Variable

	Model I					Model II			
	Estimate	Std Error	t Ratio	Prob>|t|		Estimate	Std Error	t Ratio	Prob>|t|
Intercept	-6.84676	3.39989	4.06	0.0440*	Intercept	-2.26738	1.84242	1.51	0.2185
finstrain	-0.16407	0.26239	0.39	0.5318	Log(age)	1.15396	0.48676	5.62	0.0178*
Log(age)	2.01315	0.84949	5.62	0.0178*	male[0]	-0.53833	0.2048	6.91	0.0086*
Nattach	-0.03308	0.04694	0.5	0.4811	Nattach	-0.06669	0.03002	4.93	0.0263*
male[0]	-0.42428	0.29952	2.01	0.1566	finstrain	-0.28453	0.13756	4.28	0.0386*
educat[2-1]	0.58726	0.67136	0.77	0.3817		---	---	---	---
educat[3-2]	-0.36762	0.61034	0.36	0.547		---	---	---	---
crime	0.02983	0.10393	0.08	0.7741		---	---	---	---
mentalth	-0.12854	0.08204	2.45	0.1172		---	---	---	---
probprograms	-0.08576	0.09485	0.82	0.3659		---	---	---	---
probenvirons	0.11169	0.17871	0.39	0.532		---	---	---	---
workcat2[2-1]	0.38283	0.60199	0.4	0.5248		---	---	---	---
workcat2[3-2]	-0.42044	0.78719	0.29	0.5933		---	---	---	---
workcat2[4-3]	0.22767	0.9801	0.05	0.8163		---	---	---	---

Source: Economic & Planning Systems

Problems with Lack of Programs

Problems with programs is a 5-item scale. As noted previously, this scale gets at problems with services and programs for children and seniors, lack of childcare, lack of emergency childcare, lack of programs for children and for seniors and lack of safety at parks and playgrounds. Problems with environment is a 4-item scale. This scale gets at the problems in the environment surrounding Over the Rhine such as people not keeping up their property, abandoned cars, junk in parking lots, and noise. As perceived problems with the environment increases, so does perceptions on problems with the lack of programs. Crime is a 7-item factor. Higher values are associated with greater problems of crime. As the crime scale increases, perceptions on problems with a lack of programs for children, adults, and seniors increases.

The model illustrates that perceived need of lack of programs increases with an increase in the perception of crime and problems with the environment.

Table 45 Regression Model with Problems with Lack of Programs as Dependent Variable

	Model I				Model II				
	Estimate	Std Error	t Ratio	Prob>|t|	Estimate	Std Error	t Ratio	Prob>|t|	
Intercept	-1.13493	3.72736	-0.3	0.7615	Intercept	-0.5639	0.74685	-0.76	0.4518
probenvirons	0.21814	0.20015	1.09	0.2787	probenvirons	0.52272	0.17211	3.04	0.0030*
Log(age)	-0.64501	0.95117	-0.68	0.4995	crime	0.19334	0.0966	2	0.0477*
crime	0.28731	0.12814	2.24	0.0275*		---	---	---	---
workcat2[2-1]	-0.31866	0.66772	-0.48	0.6344		---	---	---	---
workcat2[3-2]	0.26307	0.88394	0.3	0.7667		---	---	---	---
workcat2[4-3]	1.76095	1.06109	1.66	0.1006		---	---	---	---
male[0]	0.08765	0.34995	0.25	0.8028		---	---	---	---
finstrain	0.38606	0.25663	1.5	0.1361		---	---	---	---
mentahlth	0.05106	0.08783	0.58	0.5625		---	---	---	---
Nattach	0.05564	0.05294	1.05	0.2962		---	---	---	---
serviceint2[0]	-0.24284	0.29047	-0.84	0.4054		---	---	---	---
outsidedrugs	0.12689	0.21169	0.6	0.5504		---	---	---	---

Source: Economic & Planning Systems

Economic Context

The following tables also report details of contextual information reported in the main body of the baseline report.

Neighborhood Demographics

Between 2000 and 2017, OTR’s population dropped from approximately 6,500 to approximately 5,300. Analysis of two key variables illustrates a structural change in racial and socioeconomic composition. As shown in **Table 46**, between 2000 and 2017, the population of OTR decreased by 1,200. The decline is a net effect of a drop in the African-American population from nearly 5,000 (in 2000) to approximately 2,400 (in 2017). It also reflects an increase in White population from 1,300 (in 2000) to nearly 2,500 (by 2017).

Table 46 Population by Race, 2000-17

	Population			
	2000	2017	Total	Ann. %
Race / Ethnicity				
White	1,316	2,491	1,175	3.8%
Black or African American	4,933	2,426	-2,507	-4.1%
American Indian and Alaska Native	24	10	-14	-5.0%
Asian	29	80	51	6.2%
Native Hawaiian and Other Pacific Islander	1	0	-1	-100.0%
Some other race	58	26	-32	-4.6%
Two or more races	136	260	124	3.9%
Subtotal	6,497	5,293	-1,204	-1.2%

Source: Economic & Planning Systems

By 2017, there were a little over 500 fewer households in OTR than in 2000, as shown in **Table 47**. Like population, the net decline reflects the net decline of approximately 1,300 households with incomes under \$50,000 and the net influx of households with incomes above \$50,000. In 2000, 9 out of 10 households had incomes under \$50,000. By 2017, 4 out of 10 households had incomes over \$50,000.

Table 47 Households by Income, 2000-17

Income Category	Households by Income			
	2000	2017	Total	Total
Less than \$5,000	844	353	-491	-232
\$5,000 to \$9,999	821	266	-555	-501
\$10,000 to \$14,999	383	235	-148	-234
\$15,000 to \$19,999	213	175	-38	-147
\$20,000 to \$24,999	163	189	26	-57
\$25,000 to \$34,999	264	210	-54	-88
\$35,000 to \$49,999	212	180	-32	-64
\$50,000 to \$74,999	157	311	154	-190
\$75,000 to \$99,999	15	133	118	-63
\$100,000 to \$149,999	12	293	281	-40
<u>\$150,000 or more</u>	<u>22</u>	<u>240</u>	<u>218</u>	<u>-69</u>
Total Households	3,106	2,585	-521	-1,685

Source: Economic & Planning Systems

Analysis of existing home sales, rental rates, and retail space lease rates also reveal indicators of fundamental economic shifts in comparison to citywide market trends. Although an average of five (5) sales have taken place in the neighborhood during each year since 2009, the average price of those sales has escalated at 13 percent per year, compared with an average price escalation citywide of four (4) percent per year, as shown in **Table 48**. OTR sales prices continue to be lower than the citywide average, but over the past decade the differential between the neighborhood and the city has shifted from 70 percent below (the city average) to approximately 40 percent below. (Similar trends are noted in the West End, where average sales price escalation has been 10.5 percent per year since 2009.)

Table 48 Existing Home Sales, 2009-19

	2009	2019	Total Δ	Ann. %
Average Sales Prices				
Over-the-Rhine	\$40,000	\$137,000	\$97,000	13.10%
West End	\$30,169	\$81,596	\$51,428	10.46%
Cincinnati	\$146,361	\$220,236	\$73,874	4.17%
as % Above / Below City				
Over-the-Rhine	n/a	-4%		
West End	n/a	40%		
Cincinnati	n/a	5%		
as % Above / Below City				
Over-the-Rhine	-73%	-38%		
West End	-79%	-63%		

Source: Economic & Planning Systems

In 2000, OTR average rental rates (\$0.71 per square-foot per month) were slightly under the citywide average (\$0.74 per square-foot per month), as shown in **Table 49**. By 2018, rental rates in OTR had increased at 2.5 percent per year to \$1.10, compared to 1.9 percent annual escalation citywide to \$1.04. Rental property vacancy rates dropped from 9 percent in 2000 to less than 7.0 percent in 2018.

Table 49 Apartment Rents and Vacancy, 2000-17

Multifamily Market Conditions	2000	2017	2018	Total Δ	Ann. %
Rental Rates					
Over-the-Rhine	\$0.71	\$1.05	\$1.10	\$0.40	2.50%
Downtown	\$1.05	\$1.68	\$1.70	\$0.66	2.74%
Cincinnati	\$0.74	\$1.02	\$1.04	\$0.30	1.92%
Vacancy					
Over-the-Rhine	9.4%	7.2%	6.8%	-2.6%	-1.80%
Downtown	20.2%	19.3%	10.5%	-9.7%	-3.58%
Cincinnati	8.9%	6.3%	5.5%	-3.4%	-2.66%

Source: Economic & Planning Systems

Of all real estate market conditions, as shown in **Table 50**, none speaks more to the dramatic shifts occurring in OTR than the market for retail space. Between 2006 and 2018, lease rates rose from \$7.00 per square-foot to approximately \$23.50 per square-foot, an escalation of 10.5 percent per year. By comparison, retail rents downtown increased from \$12.50 in 2006 to \$25.00 in 2018, indicating that OTR retail space was now competitive with the downtown market. In terms of vacancy, retail space vacancy dropped from 6.6 percent to 1.4 percent during this time period, compared to a modest decline in downtown retail vacancy from 4.2 to 3.4 percent. Additionally, net absorption of space (which is indicative of the addition of retail space) totaled approximately 126,000 square feet in OTR versus only 37,000 square feet downtown.

Table 50 Retail Lease Rates, 2006-18

Retail Market Conditions	2006	2018	Total Δ	Ann. Δ	Ann. %
Lease Rates (NNN)					
Over-the-Rhine	\$7.06	\$23.49	\$16.43	\$1.37	10.54%
Downtown	\$12.50	\$25.00	\$12.50	\$1.04	5.95%
Cincinnati	\$11.74	\$12.66	\$0.92	\$0.08	0.63%
Vacancy					
Over-the-Rhine	6.6%	1.4%	-5.2%	-0.4%	-12.07%
Downtown	4.2%	3.4%	-0.8%	-0.1%	-1.81%
Cincinnati	7.4%	4.9%	-2.5%	-0.2%	-3.35%
Absorption					
Over-the-Rhine	-8,057	4,184	125,980	n/a	n/a
Downtown	-29,627	1,082	37,502	n/a	n/a
Cincinnati	-441,802	702,763	4,126,730	n/a	n/a

Source: Economic & Planning Systems

Incidents of Crime

Secondary data used in the testing of scales (such as perceptions of safety, crime, and neighborhood attachment) as dependent variables in regression models included crime statistics from the Cincinnati Police Department. **Figure 1** and **Figure 2** illustrate grid matrices overlaid against the four Census tract boundaries that comprise Over the Rhine.

Figure 1 Robberies, Burglaries, Thefts in 2018

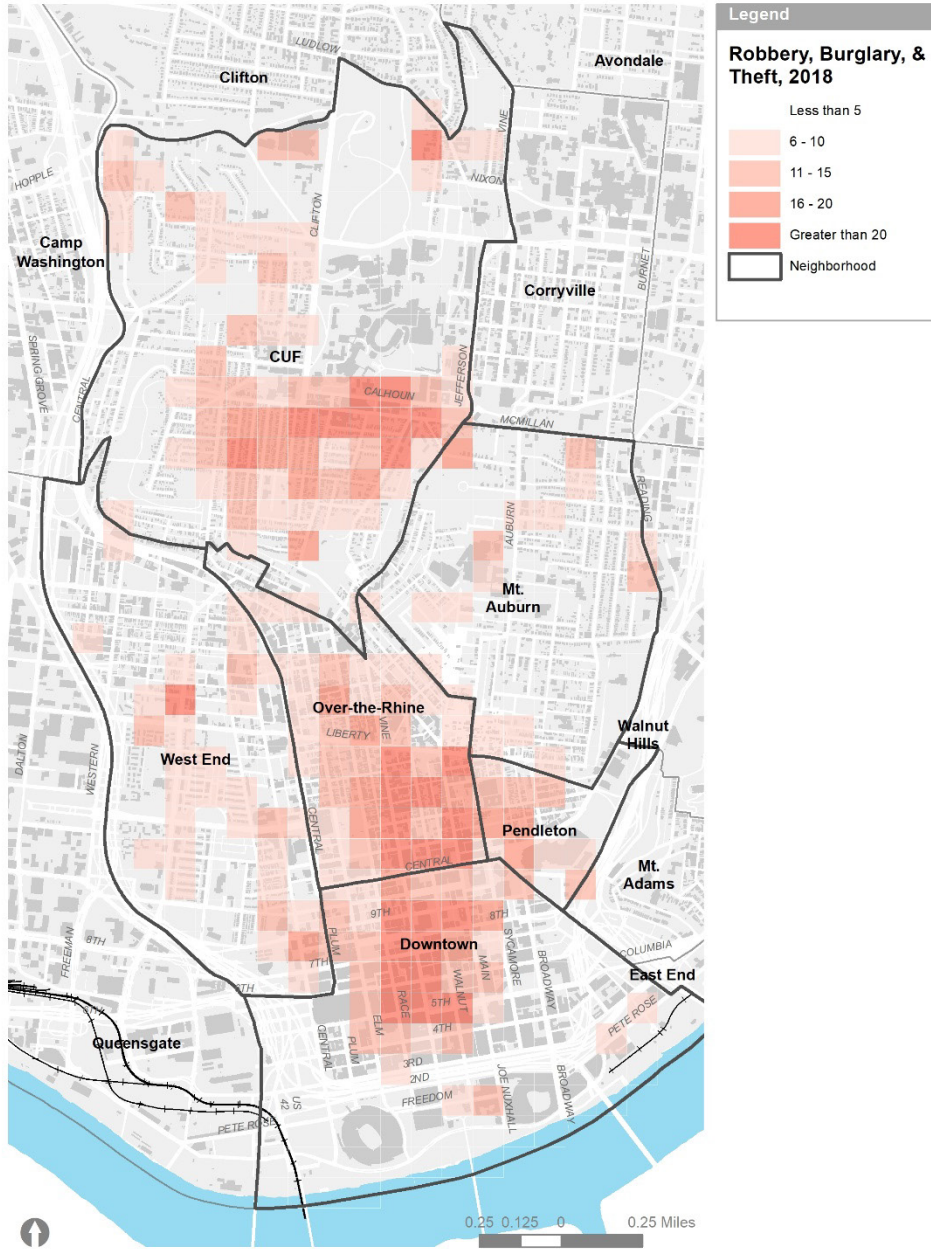
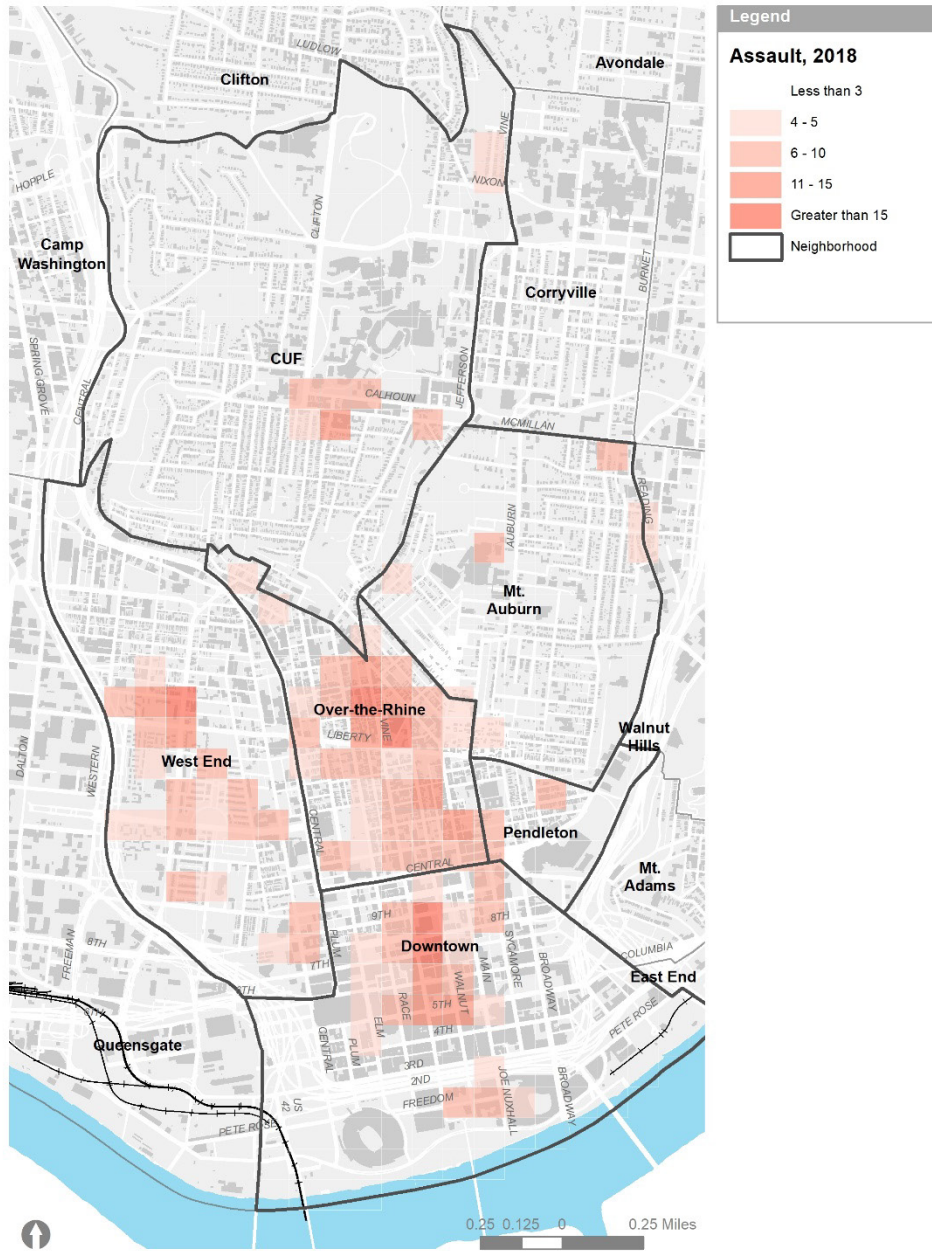


Figure 2 Assaults in 2018



Appendix 2

Survey Questions Overview

The survey instrument was organized into the following categories; the number of questions under each category are noted in parentheses.

- Administrative (3 Questions)
- Household type and composition (9 Questions)
- Residence information (14 Questions)
- Perceptions of social inclusion (4 Questions)
- Observations and perceptions of crime (5 Questions)
- Employment status (7 Questions)
- Transportation (7 Questions)
- Demographics (5 Questions)
- Financial situation (20 Questions)
- Health condition (17 Questions)
- Effectiveness and interest in services (6 Questions)

Survey Instrument Disclaimer

Each resident, upon initiating the survey with a resident interviewer (Maven) was read a disclaimer so that they understood the basic aspects of sharing their personal information, such as: participation was voluntary, their names would not be a part of records kept; records of their responses were kept in password-and-firewall protected computer records, etc. The following is the verbatim introduction read to each survey respondent:

You are being asked to take part in a research study. If you decide to take part, we will ask you to answer some survey questions. We are asking you to participate in this research study because you are a resident in one of POAH's properties in Over-the-Rhine or surrounding neighborhoods. We expect to interview 250 residents for this portion of the study. If you agree to participate, we will ask you to answer some survey questions. We would like to learn about how you feel about your neighborhood and housing, as well as your economic situation. We also want to know about current services and amenities you utilize and what additional services POAH can provide that are most helpful to residents.

Completion of this survey will take about one hour. The actual time may vary, depending on your circumstances. In this study you will not have any more risks than you would in a normal day of life.

There is no direct benefit from this study. But there are general benefits associated with your participation. This includes helping us learn more about what services are most helpful in enriching your lives and how such services may impact your social and economic mobility.

Your records will be kept private to the extent allowed by law. The principal investigator will have access to your records. Members of the research team will also have access. Your name will not be used on study records. We will use an ID number instead. Records will be stored

with Qualtrics secured software. Storage will be on password-and-firewall protected computers. We will not use your name or other information which may point to you. This includes in study presentations and publications. All findings will be summarized. You will not be personally identified.

With your permission we would like to tape record this interview. The tape recorder will be turned off before we ask for your phone and email address at the end.

Participation is voluntary for both the survey and the tape recording. If you do not want your interview tape recorded, we will not tape it. You may skip any question you don't wish to answer. You can stop taking the survey at any time.

Survey Instrument

A1 In order to determine how POAH can provide community services with their partners that will positively affect your well-being, we need to gather a lot of important information about your life, home and neighborhood. Nothing you say can be traced back to you, nor can your participation affect any housing subsidy you may be receiving. Your name will never be linked to your answers. To show our appreciation to you for completing this long survey, we would like to offer you a \$20.00 gift card. Remember that you do not have to answer any questions that you do not want to answer and can stop at any time.

HH1 How long have you lived in your current home? (fill in years and months in boxes)

- months (1) _____
- years (2) _____

HH2 How long have you lived in your current neighborhood? (fill in years and months in boxes)

- months (1) _____
- years (2) _____

HH3 Are you Hispanic or Latino?

- Yes (1)
- No (2)
- Don't know (3)

HH4 Which one of these groups would you say best represents your race?
(Choose one)

- White (1)
- Black or African American (2)
- Asian (3)
- American Indian or Alaska Native (4)
- Other (Specify) (5) _____

HH5 Have you ever served on active duty in the United States Armed Forces?

- Yes (1)
- No (2)

HH6 Are you currently ... (choose one)

- Married (1)
- Living with someone but not married (2)
- Widowed (3)
- Divorced (4)
- Separated (5)
- Single (Never married) (6)

HH7 How many children under 18 years of age live in your household? (Children that you are rearing full time)

- Scale 0 (1) ... 10+ (11)

HH8 How many adults beside yourself live in your household?

- Scale 0 (1) ... 10+ (11)

Residence Questions

A2 Now we are going to ask a few questions about your current home.

PR1 Overall how would you describe the condition of your current home? Would you say it was excellent, good, fair, or poor condition? (Choose one) USE TEXT BOXES ONLY IF RESPONDENT MAKES AN ADDITIONAL COMMENT.

- Excellent (1) _____
- Good (2) _____
- Fair (3) _____
- Poor (4) _____

PR2 Do you have ...

- Yes (1) No (2)
- Internet access (1)
- an email account (2)
- cell phone service (3)
- Home phone (landline) service (4)

PR3 Is your internet service free?

- Yes (1)
- No (2)

PR4 Since moving in to your current home, have you ever experienced disruptions in internet services due to non-payment?

- Yes (1)
- No (2)

PR5 Since moving in to your current home, have you ever experienced disruptions in cell phone services due to non-payment?

- Yes (1)
- No (2)

PR6 Since moving in to your current home, have you ever experienced disruptions in home phone services due to non-payment?

- Yes (1)
- No (2)

PR7 What was your housing situation just before you moved into your current home (Choose one)

- A public housing community (1)
- Own your own home (2)
- Rent an apartment on your own in the private market (3)
- Live with family or friends and pay part of the rent or mortgage (4)
- Live with family or friends and did not pay rent (5)
- Live in a group shelter (6)
- Live in some other housing arrangement (7)

PR8 What is special or important to you about your home?

NP1 For this next set tell me how much you agree or disagree with the following statements (choose one response).

Strongly disagree (1) Disagree (2) Neither agree nor disagree (3)
Agree (4) Strongly agree (5)

- This neighborhood is a good place to raise kids. Do you.... (1)
- People around here are willing to help neighbors. Do you.... (2)
- People in this neighborhood generally get along with each other. Do you... (3)
- People in this neighborhood can be trusted. Do you.... (4)
- People in this neighborhood share the same values. Do you.... (5)

NA1 For this next set continue to tell me how much you agree or disagree with the following statements (choose one response): When I'm in my neighborhood...

Strongly disagree (1) Disagree (2) Neither agree nor disagree (3)
Agree (4) Strongly agree (5)

- I feel I'm in a place that is my home. Do you (1)
- I feel I'm in a place that holds a lot of meaning to me. Do you.... (2)
- I feel I'm in a place where I belong. Do you.... (3)
- I feel I'm in a place I'd miss if I had to leave. Do you.... (4)
- I feel I'm in a place I'm proud of. Do you.... (5)
- I feel I'm in a place that's important to me. Do you... (6)

NA2 Which of the following statements best describes how satisfied you are with your neighborhood? Would you say you are... (Choose one) USE TEXT BOXES ONLY IF RESPONDENT MAKES AN ADDITIONAL COMMENT.

- Very satisfied (1)
- Somewhat satisfied (2)
- In the middle (3)
- Somewhat dissatisfied (4)
- Very dissatisfied (5)

NA3 In the last 12 months, what neighborhood and community organizations have you been a part of?

NA4 On a 1 to 10 scale where 1 is not at all attached and 10 is strongly attached, how attached do you feel where you live?

Social Inclusion Questions

SI1 Now we are going to talk about the Over the Rhine Community. For this next set tell me how much you agree or disagree with the following statements (choose one response).

Strongly disagree (1) Disagree (2) Neither agree nor disagree (3)
Agree (4) Strongly agree (5)

- I have felt I am playing a useful part in the Over the Rhine community. (1)
- I have felt what I do is valued by others around here. (2)
- I have felt accepted by the broader Over the Rhine community. (3)
- I have felt alone and isolated in the broader Over the Rhine community. (4)
- I have felt some people in the broader Over the Rhine community look down on me because of how and who I am. (5)

SI2 Within the next three years, how likely is it that you will move away from your neighborhood?

- Very likely (1)
- Somewhat likely (2)
- Somewhat unlikely (3)

- Very unlikely (4)
- Don't know (5)

SI3 Where are you likely to move?

- Nearby neighborhood (1)
- Within the neighborhood (2)
- Within the city (3)
- Outside the city (4)
- Other, please specify (5)

SI4 Since you've lived here, would you say that your neighborhood has

- Become a much better place (1)
- Become a somewhat better place to live (2)
- Stayed about the same (3)
- Become a somewhat worse place to live (4)
- Become a much worse place to live (5)
- Other, please specify (6) End of Block: social inclusion

Crime Questions

A3 Now I am going to ask how you feel about crime and other problems in your neighborhood.

C1 In the last 12 months, please tell me if each of the following was a big problem, somewhat of a problem or no problem at all in over the Rhine community

Big problem (1) Somewhat of a problem (2) Not at all a problem (3)
Don't know (4)

- Vandalism or graffiti (1)
- Groups of young people hanging around (2)
- Robbery or assault of people on the street (3)
- Burglary of homes when people are away (4)
- People who don't keep up their property (5)
- Trash or junk in yards, streets, or parking lots (6)
- Outsiders causing trouble (7)
- Gangs (8)
- Drug dealing or drug use (9)
- Drinking in public (10)
- Car break-ins or car theft (11)
- Abandoned cars (12)
- Noise (for example, from cars or loud music) (13)
- Lack of affordable child care (14)
- No last minute or emergency child care available (22)
- Lack of health clinics, dental offices, or eye doctors (15)

- Lack of restaurants or grocery stores (16)
- Lack of programs for children such as recreational or tutorial programs (17)
- Lack of services for seniors (18)
- Lack of public transportation (19)
- Safety in parks, playgrounds, or public spaces. (20)
- Other (21)

C2 For this set of questions, please rate how safe you feel. Would you say you are very safe, moderately safe, moderately unsafe, or very unsafe

Very Safe (1) Moderately Safe (2) Moderately Unsafe (3) Very Unsafe (4)

- How safe do you feel in your home (1)
- How safe do you feel in your building (2)
- How safe do you feel in your neighborhood (3)

C3 To what degree are violent crimes such as robberies, assaults, or other crimes involving guns or weapons a problem in your neighborhood? USE TEXT BOXES ONLY IF RESPONDENT MAKES AN ADDITIONAL COMMENT.

- Not a problem (1)
- A small problem (2)
- A moderate problem (3)
- A serious problem (4)

C4 How responsive would you say the local police are when you or your neighbors call them for help?

- Very responsive (1)
- Somewhat responsive (2)
- Somewhat unresponsive (3)
- Very unresponsive (4)
- My neighbors and I would not call the police for help (5)
- My neighbors and I have not had a need to call the police for help (6)
- Don't Know (7)

Employment

A4 Now we are going to ask some questions on employment status

E1 Are you currently working full or part time, for pay? (Choose one)

- Yes, working full time (35 hours /week or more) (1)
- Yes, working part time (2)
- No, not working (3)

E2 How many full time jobs are you currently working?

E3 How many part-time jobs are you working?

E4 If you are not currently working for pay, are you (Choose all that apply)

- stay at home (1)
- a caregiver (for disabled adult or child in the home) (2)
- retired (3)
- student (4)
- unable to work (5)
- unemployed and looking for work, OR (6)
- unemployed and not looking for work (7)
- something else, please specify (8)

E5 In the last 12 months have you experienced difficulty finding a job for some particular reason?

- Childcare (1)
- Health (2)
- Transportation (3)
- Other (please describe) (4)
- No (5)

E6 In the last 12 months how often have you had to miss work for ...

Once a week (1) Once a month (2) A few times per year (3)
Rarely (4) Never (5) Not applicable (6)

- Childcare reasons (1)
- Health reasons (2)
- Transportation reasons (3)
- Other reason, please specify (4)

Transport

A5 Now we are going to ask a few questions about transportation.

T1 Does anyone in your household own a car, van or truck that runs?

- Yes (1)
- No (2)

T2 if your car has broken down in the last 12 months, were you able to (afford to) repair it?

- Yes (1)
- No (2)

T3 How do you get to work?

- Drive myself in a car (1)
- Carpool (rely on someone else) (2)
- Rideshare/ Cab (3)
- Public transportation (4)
- Walk (5)
- Ride bike (6)

T4 How long does it take you to get to your public transit stop? (Choose one)

- Less than 15 Minutes (1)
- 15-30 Minutes (2)
- 31-45 Minutes (3)
- 46 Minutes to an Hour (4)
- More than an Hour (5)

T5 How long does it take you to get to work? (Choose one)

- Less than 15 Minutes (1)
- 15-30 Minutes (2)
- 31-45 Minutes (3)
- 46 Minutes to an Hour (4)
- More than an Hour (5)

T6 How long does it take you to get to the grocery store? (choose one)

- Less than 15 Minutes (1)
- 15-30 Minutes (2)
- 31-45 Minutes (3)
- 46 Minutes to an Hour (4)
- More than an Hour (5)

Demographics Questions

A6 Now we are going to ask for some basic demographic information

D1 What is the highest level of education you have completed?

- Less than high school (1)
- High school diploma (2)
- GED (3)
- Associate degree (4)
- Some college (5)
- Bachelor's degree (6)
- Graduate degree or higher (7)

D2 In what year were you born? (4 digits)

D3 How do you identify? As male, female, or something else?

- Male (1)
- Female (2)
- other, please specify (5)

D4 In the past month, how much time did you spend doing volunteer activities for or through an organization, that is, activities for which you were not paid, except perhaps expenses? Please include activities that are done for or through charities, schools, youth, or religious organizations.

- None (1)
- Less than an hour (2)
- 1-2 hours (3)
- 3-4 hours (4)
- 5-8 hours (5)
- 9 or more hours (6)

Financial Questions

A7 Now we are going to ask you a few questions about finances. If you are uncomfortable telling me the answers to these questions, I will hand you the ipad so you can answer them without me seeing the answers.

F1 During the last 12 months, what has your typical monthly household income been? (before taxes and from all sources)?

F2 At any time during the last 12 months, did your household receive income from the following programs?

- Food stamps (1)
- Foster care payments (2)
- Child support payments (3)
- SSI (Supplemental security income) (4)
- Social security disability benefits (5)
- Unemployment insurance (6)
- Workers' compensation (7)
- Veteran's benefits (8)
- Private disability insurance (9)
- Social security retirement benefits (10)
- Cash assistance from relatives or anyone not living here (11)
- TANF or general assistance (12)
- Women, infant, and children nutrition program (13)
- Elderly nutrition program (14)
- Income from any other source (15)

F3 In the last 12 months, how much have you typically spent (out of pocket) on rent per month?

F4 In the last 12 months, did your household have to borrow money to pay bills from friends or family? Would you say... (Choose one)

- Yes (1)
- maybe (3)
- No (2)

F5 In the last 12 months, how many times have you borrowed money to pay bills from friends and family?

Scale 1 (1) ... 12 (12)

F6 In the last 12 months, did your household have to borrow money to pay bills from a payday lender? Would you say... (Choose one)

- Yes (1)
- maybe (3)
- No (2)

F7 In the last 12 months, how many times have you borrowed money to pay bills from a payday lender?

Scale 1 (1) ... 12 (12)

F8 During the last 12 months, were you ever more than 15 days late paying your rent? USE TEXT BOXES ONLY IF RESPONDENT MAKES AN ADDITIONAL COMMENT.

- Yes (1)
- Maybe (2)
- No (3)

F9 In the last 12 months, have you missed any debt payments (e.g., auto loan, payday lender, medical, utility bills, etc.)?

- Yes (1)
- Maybe (2)
- No (3)

F10 How often did your household put off buying something you need because you didn't have money? Would you say... (Choose one)

- Never (1)
- Rarely (2)
- Occasionally (3)
- Frequently (4)
- All the time (5)

F11 During the last 12 months have you been threatened with either a verbal or written notice of eviction for late rent payment? USE TEXT BOXES ONLY IF RESPONDENT MAKES AN ADDITIONAL COMMENT.

- Yes (1)
- Maybe (2)
- No (3)

F12 1. During the past 12 months, at the end of most months, what was your household's financial situation?

- we had more than enough money left over (1)
- we had some money left over (2)
- we had just enough to make ends meet (3)
- we did not have enough to make ends meet (4)

F13 During the past 12 months, were you able to save any money?

- Yes (1)
- No (2)

F14 About how much money did you save in the last 12 months? (in dollars)

F15 During the last 12 months, did you incur (add) any new debt?

- Yes (1)
- Maybe (3)
- No (2)

F16 About how much new debt did you incur (add) in the last 12 months?

F17 In the last 12 months, how frequently would you say you have done the following?

More than once a week (1) Once a week (6) Several times a month (2) Once a month (3) A few times per year (4) Never (5)

- Eaten in a restaurant with NO TABLE SERVICE (e.g., fast food) (1)
- Eaten in a restaurant WITH TABLE SERVICE (2)
- Purchased household items (clothing, shoes, etc.) priced under \$400 (3)
- Made major purchases (car, laptop, etc.) priced over \$400 (4)
- Use services provided by your local government, such as public schools, parks and recreation facilities, libraries, health or nursing care facilities, daycare, transportation, or social services (5)
- Use services provided by (nongovernmental) nonprofit organizations, such as education, childcare, sports, recreation, arts, religious, health, transportation, or social services (6)
- Other (7)

F18 In the NEXT 6 months, how likely do you think you will be to do the following?

Extremely likely (1) Somewhat likely (2) Neither likely nor unlikely (3)
Somewhat unlikely (4) Extremely unlikely (5)

- Eat in a restaurant with NO TABLE SERVICE (1)
- Eat in a restaurant WITH TABLE SERVICE (2)
- Purchase household items (clothing, shoes, etc.) priced under \$400 (3)
- Make major purchases (car, laptop, etc.) priced over \$400 (4)
- Use services provided by your local government, such as public schools, parks and recreation facilities, libraries, health or nursing care facilities, daycare, transportation, or social services (5)
- Use services provided by (nongovernmental) nonprofit organizations, such as education, childcare, sports, recreation, arts, religious, health, transportation, or social services (6)

F19 How often did...

Never (1) Rarely (2) Occasionally (3) Frequently (4) All the time (5)

- the food you buy ran out, but you didn't have money to get more. Would you say. (1)
- you cut the size of your family's meals or skip meals because there wasn't enough money for food? Would you say... (2)
- your family get emergency food from a church, a food pantry, a food bank, or eat in a soup kitchen? Would you say... (3)

Health Questions

A8 Now we are going to ask a few questions about health.

H1 Do any of the children living in your household need full time care due to a mental or physical health disability?

- Yes (1)
- No (2)

H2 What type of care do they need?

H3 Do any of the other adults living in your household need full time care due to a mental or physical health disability?

- Yes (1)
- No (2)

H4 What type of care do they (adults) need?

H5 What type of health insurance are you currently covered by, if any? Mark all that apply.

- Employer-sponsored insurance (1)
- Molina (2)
- CareSource (3)
- Paramount (4)
- Medicare (5)
- Medicaid (6)
- Other (please specify) (7)
- Not covered by any health insurance (8)
- Don't know (9)

H6 About how much do you spend in a typical month on prescription medicine? (out of pocket)

H7 Has there ever been a month when you were not able to afford medicine needed for a medical condition?

- Yes (1)
- No (2)

H8 Have you been to the emergency room for a health problem that you had in the last 6 months?

- Yes (1)
- No (2)

H9 During the last 12 months, did you or anyone in your household not get or postpone getting medical care or surgery when it was needed?

- Yes (1)
- No (2)

H10 Was lack of insurance or money a reason why you/they did not get the recommended medical care or surgery?

- Yes (1)
- No (2)

H11 When was the last time that you saw a primary health care provider?

- In the last month (1)
- 2 to 5 months ago (2)
- 6 to 12 months ago (3)
- 13 to 24 months ago (4)
- More than two years ago (5)

- Do not have a primary health care provider (6)
- Don't Know (7)

H12 When was the last time that you saw a dentist?

- In the last month (1)
- 2 to 5 months ago (2)
- 6 to 12 months ago (3)
- 13 to 24 months ago (4)
- More than two years ago (5)
- Do not have a primary health care provider (6)
- Don't Know (7)

H13 How would you say your current health is?

- Excellent (1)
- Very good (2)
- Good (3)
- Fair (4)
- Poor (5)

H14 During the past 4 weeks, how much of the time has your physical or emotional health interfered with your day to day activities (like visiting friends, working, running errands etc.)?

- All of the time (1)
- Most of the time (2)
- Some of the time (3)
- A little of the time (4)
- None of the time (5)

H15 During the past 4 weeks, how often would you say you have felt worried, tense, or anxious?

- Very Often (1)
- Often (2)
- Somewhat Often (3)
- Not Very Often (4)
- Not At All (5)

H16 During the past 4 weeks, how often would you say you have felt sad, depressed, or blue?

- Very Often (1)
- Often (2)
- Somewhat Often (3)
- Not Very Often (4)

- Not At All (5)

Service Effectiveness

A9 Now we are going to ask about service effectiveness and interests

SE2 How frequently do you receive help with any of the following services?

Once a week or more (1) Several times a month (2) Once a month (3) Never, this service isn't offered (4) Never, but I would be interested in this service (5) Never, not interested (6) Don't Know (7)

- Budget management and credit counseling? (1)
- Counseling from a social worker? (2)
- Nutrition and wellness (cooking classes or grocery shopping) (3)
- How to shop on a budget (12)
- Substance abuse (NA and AA) meetings on site (4)
- Parenting skills (strengthening families, how to deal with difficult children) (5)
- Life coaching (empowerment classes –self-esteem, positive, self-talk) (6)
- GED classes (7)
- Computer classes (8)
- Job preparation classes (resume writing, how to get or keep a job, interviewing skills) (9)
- Substance abuse assistance/recovery/etc. (10)
- Other, please specify (11)

SE3 What other types of community and supportive service opportunities would interest you? Choose all that apply

- childcare (1)
- arts experiences/programs (2)
- entrepreneurship (3)
- college prep (4)
- teen empowerment (5)
- volunteering (6)
- youth after school and summer programming (7)
- Other, please specify (8)

SE4 Are you interested in furthering your education?

- Yes (1)
- Maybe (2)
- No (3)

SE5 What are you interested in studying?

SE6 Before we close out the survey, please provide us with your contact information so we may follow up with you in the future.

The following are reports of multi-level modelling used in the final analysis of the baseline, second wave and final wave of surveys conducted of a resident panel in OTR between 2018 and 2021.

Financial strain scale

Higher values indicate greater financial strain. The scale ranges from 0 or no financial strain to 9 major financial strain. The financial strain scale was created by summing the survey responses to the following variables: f4r f8r f9r f10 f12r, where the alpha is .6.

time	Mean	N	Std. Deviation
.00	1.4563	206	1.24373
1.00	1.1183	93	.93075
2.00	1.5714	56	1.43789
Total	1.3859	355	1.21214

The following is an analysis treating time nonlinearly, which is more consistent with the later analyses.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	1.630348	.149309	310.971	10.919	.000	1.336565	1.924131
[time=.00]	-.171314	.155368	199.252	-1.103	.272	-.477691	.135063
[time=1.00]	-.489659	.170795	179.580	-2.867	.005	-.826682	-.152637
[time=2.00]	0 ^b	0	.	.	.	.	.

a. Dependent Variable: Financial strain scale created by summing f4r f8r f9r f10 f12r alpha is .6.

b. This parameter is set to zero because it is redundant.

There is no difference between men and women or between blacks and whites in terms of financial strain. Those with more than high school education experience .546 greater financial strain compared to those with a high school degree or less. As age increases by one year, financial strain declines on average by .68.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	4.302101	.791755	175.496	5.434	.000	2.739515	5.864687
lgage	-.685693	.209211	162.056	-3.278	.001	-1.098825	-.272562
male	.085993	.187052	185.150	.460	.646	-.283035	.455020
black	-.224551	.250239	165.197	-.897	.371	-.718630	.269527
gths	.545748	.161528	168.103	3.379	.001	.226863	.864633
[time=.00]	-.227572	.169779	190.307	-1.340	.182	-.562461	.107318
[time=1.00]	-.563276	.189452	177.311	-2.973	.003	-.937147	-.189405
[time=2.00]	0 ^b	0	.	.	.	.	.

a. Dependent Variable: Financial strain scale created by summing f4r f8r f9r f10 f12r alpha is .6.

b. This parameter is set to zero because it is redundant.

The following adds tenure in POAH residence to test out the significance of the relationship. As documented by the following, tenure is not associated with financial strain.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	4.615701	.970730	126.485	4.755	.000	2.694726	6.536677
lgage	-.785047	.249109	120.201	-3.151	.002	-1.278256	-.291838
male	.124935	.201845	143.897	.619	.537	-.274029	.523899
black	-.173571	.284420	115.303	-.610	.543	-.736936	.389794
gths	.457210	.173632	120.929	2.633	.010	.113458	.800963
[time=.00]	-.105035	.172465	159.685	-.609	.543	-.445641	.235571
[time=1.00]	-.448338	.188778	154.768	-2.375	.019	-.821253	-.075423
[time=2.00]	0 ^b	0	.	.	.	.	.
[tencat=1.00]	-.321189	.234894	117.789	-1.367	.174	-.786351	.143973
[tencat=2.00]	.050174	.222031	125.578	.226	.822	-.389233	.489582
[tencat=3.00]	-.168982	.225336	121.622	-.750	.455	-.615072	.277107
[tencat=4.00]	0 ^b	0	.	.	.	.	.

a. Dependent Variable: Financial strain scale created by summing f4r f8r f9r f10 f12r alpha is .6.

b. This parameter is set to zero because it is redundant.

Neighborhood attachment

The following analysis of responses looks into the neighborhood attachment scale computed by summing survey response variables na1_1 through na1_6 higher, where the higher the score, the greater the sense of attachment. The results suggest that time is significant linearly, whereas treating time non-linearly does not fit as well as a linear measure of time. For each year that passes, neighborhood attachment declines by .778 or about $\frac{3}{4}$ ths of a point, as shown in the table below.

Report

time	Mean	N	Std. Deviation
.00	20.6558	215	5.57805
1.00	19.5789	95	5.44524
2.00	19.5085	59	5.70956
Total	20.1951	369	5.57702

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	20.616715	.368454	319.199	55.955	.000	19.891810	21.341620
time	-.778190	.332009	231.337	-2.344	.020	-1.432337	-.124043

a. Dependent Variable: Neighborhood attachment scale computed by summing na1_1 - na1_6 higher = more attachment.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	1.066009	3.287585	176.009	.324	.746	-5.422152	7.554170
time	-.849999	.351357	225.762	-2.419	.016	-1.542357	-.157641
lgage	5.034959	.882098	171.280	5.708	.000	3.293775	6.776142
black	.135493	1.071855	178.597	.126	.900	-1.979637	2.250623
male	1.188230	.781926	195.141	1.520	.130	-.353881	2.730341
gths	.885260	.678287	175.451	1.305	.194	-.453392	2.223911

a. Dependent Variable: Neighborhood attachment scale computed by summing na1_1 - na1_6 higher = more attachment.

Additional tests were run including other variables such as race, gender or education, as well as tenure. Including tenure in quartiles where the bottom quartile is tenure less than 24 months, and the top quartile (4) is close to 5 years. The results suggest that residents with less tenure are associated with less neighborhood attachment.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	2.359847	4.020883	147.827	.587	.558	-5.585987	10.305681
time	-1.078384	.370909	196.987	-2.907	.004	-1.809846	-.346922
lgage	4.991977	1.038000	144.082	4.809	.000	2.940302	7.043653
black	.575373	1.187551	133.963	.485	.629	-1.773402	2.924149
male	.886808	.845207	164.860	1.049	.296	-.782018	2.555634
gths	1.218816	.714332	139.679	1.706	.090	-.193485	2.631118
[tencat=1.00]	-1.809503	.975575	139.002	-1.855	.066	-3.738387	.119381
[tencat=2.00]	-2.143055	.928928	146.837	-2.307	.022	-3.978850	-.307260
[tencat=3.00]	-1.193639	.935702	141.718	-1.276	.204	-3.043376	.656098
[tencat=4.00]	0 ^b	0	.	.	.	.	.

a. Dependent Variable: Neighborhood attachment scale computed by summing na1_1 - na1_6 higher = more attachment.

b. This parameter is set to zero because it is redundant.

Social Cohesion

Analysis of social cohesion suggests that this metric is dropping over time. Analysis suggests this metric should be treated nonlinearly (i.e., as a series of dummy variables) rather than treating time linearly. This scale was computed by summing np1_1 - np1_5 higher, where the higher score represents more social cohesion.

Report

time	Mean	N	Std. Deviation
.00	14.2326	215	4.09032
1.00	14.2604	96	3.77037
2.00	11.7719	57	3.25147
Total	13.8587	368	3.98110

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	14.367397	.259051	316.974	55.462	.000	13.857720	14.877074
time	-.962100	.230723	229.967	-4.170	.000	-1.416702	-.507498

a. Dependent Variable: Neighborhood social cohesion scale computed by summing np1_1 - np1_5 higher = more cohesion.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	3.996458	2.562965	201.183	1.559	.120	-1.057262	9.050178
[time=.00]	2.194434	.513525	201.249	4.273	.000	1.181854	3.207014
[time=1.00]	2.311641	.573308	191.466	4.032	.000	1.180831	3.442451
[time=2.00]	0 ^b	0	.	.	.	.	.
lgage	1.921360	.680343	190.979	2.824	.005	.579408	3.263311
black	.484085	.822919	201.401	.588	.557	-1.138558	2.106728
male	.663225	.598316	208.730	1.108	.269	-.516292	1.842741
gths	.602370	.522959	194.851	1.152	.251	-.429016	1.633756

a. Dependent Variable: Neighborhood social cohesion scale computed by summing np1_1 - np1_5 higher = more cohesion.

b. This parameter is set to zero because it is redundant.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	2.882230	3.259553	149.169	.884	.378	-3.558630	9.323089
[time=.00]	1.869723	.519772	167.454	3.597	.000	.843572	2.895874
[time=1.00]	2.025733	.569669	165.300	3.556	.000	.900967	3.150499
[time=2.00]	0 ^b	0	.	.	.	.	.
lgage	2.382445	.839960	145.122	2.836	.005	.722309	4.042581
black	.494884	.971892	148.496	.509	.611	-1.425641	2.415409
male	.438676	.674059	160.804	.651	.516	-.892473	1.769824
gths	.749812	.580656	144.387	1.291	.199	-.397873	1.897497
[tencat=1.00]	-.732757	.790392	140.782	-.927	.355	-2.295329	.829815
[tencat=2.00]	-.436065	.750779	150.039	-.581	.562	-1.919529	1.047399
[tencat=3.00]	-.124601	.759608	144.665	-.164	.870	-1.625964	1.376763
[tencat=4.00]	0 ^b	0	.	.	.	.	.

a. Dependent Variable: Neighborhood social cohesion scale computed by summing np1_1 - np1_5 higher = more cohesion.

b. This parameter is set to zero because it is redundant.

Inclusion in over the Rhine Community

Models were run with time treated as linear and as nonlinear. The best fitting model included time as linear. However, there is no significant change in inclusion over time however it is measured. A higher score represents greater sense of inclusion. This scale was computed by summing si1_1 - si1_3, where the higher score represents greater sense of inclusion. The results suggest that there is no statistically significant difference over time.

time	Mean	N	Std. Deviation
.00	10.0512	215	2.63552
1.00	10.0303	99	2.40516
2.00	9.6250	56	2.39365
Total	9.9811	370	2.53799

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	10.076493	.168471	315.524	59.812	.000	9.745025	10.407961
time	-.148638	.151339	227.264	-.982	.327	-.446844	.149569

a. Dependent Variable: inclusion in Over the Rhine community scale computed by summing si1_1 - si1_3 higher included.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	5.180745	1.649176	189.261	3.141	.002	1.927617	8.433872
time	-.147508	.159977	208.248	-.922	.358	-.462890	.167874
lgage	1.261430	.444015	186.748	2.841	.005	.385500	2.137360
black	.092139	.534991	192.273	.172	.863	-.963066	1.147344
male	.330153	.391142	206.049	.844	.400	-.441001	1.101306
gths	-.201166	.341288	191.412	-.589	.556	-.874334	.472002

a. Dependent Variable: inclusion in Over the Rhine community scale computed by summing si1_1 - si1_3 higher included.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	6.277749	2.143069	140.503	2.929	.004	2.040919	10.514579
time	-.127839	.169132	165.921	-.756	.451	-.461768	.206090
lgage	1.076130	.554237	137.494	1.942	.054	-.019800	2.172059
black	.196847	.637214	135.192	.309	.758	-1.063350	1.457044
male	.613201	.445885	154.400	1.375	.171	-.267621	1.494022
gths	.153126	.382823	136.518	.400	.690	-.603904	.910156
[tencat=1.00]	-.731350	.520955	132.364	-1.404	.163	-1.761824	.299124
[tencat=2.00]	-.598037	.494553	140.835	-1.209	.229	-1.575745	.379670
[tencat=3.00]	-1.152995	.500718	136.833	-2.303	.023	-2.143141	-.162849
[tencat=4.00]	0 ^b	0	.	.	.	.	.

a. Dependent Variable: inclusion in Over the Rhine community scale computed by summing si1_1 - si1_3 higher included.

b. This parameter is set to zero because it is redundant.

Perception of safety higher values

Perception of safety scale in Over the Rhine community home was computed by summing c2_1r - c2_3r higher, where a higher score indicates greater perception of safety. The results suggest that the results do not vary linearly over time. However, when time is treated as nonlinear, the results suggest that the second survey wave 2 (time 1) is statistically significant. Respondents perceived Over the Rhine to be much safer at wave 2 compared to wave 3. This model fits best, however, it loses significance when covariates are added. Assessing the impact across all variables, age seems to be the only factor consistently associated with outcomes.

Report

time	Mean	N	Std. Deviation
.00	9.7230	213	2.25984
1.00	10.3838	99	2.14622
2.00	9.6316	57	2.16821
Total	9.8862	369	2.23073

Estimates of Covariance Parameters^a

Parameter	Estimate	Std. Error	Wald Z	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Residual	3.279019	.385020	8.516	.000	2.604932	4.127541
Intercept [subject = ID] Variance	1.720727	.447317	3.847	.000	1.033797	2.864105

a. Dependent Variable: Perception of safety scale in Over the Rhine community home, building and neighborhood by summing c2_1r - c2_3r higher=safser.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	9.537543	.276217	330.931	34.529	.000	8.994180	10.080907
[time=.00]	.193621	.290285	223.094	.667	.505	-.378430	.765672
[time=1.00]	.761132	.317313	200.042	2.399	.017	.135425	1.386840
[time=2.00]	0 ^b	0	.	.	.	.	.

a. Dependent Variable: Perception of safety scale in Over the Rhine community home, building and neighborhood by summing c2_1r - c2_3r higher=safser.

b. This parameter is set to zero because it is redundant.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	4.782849	1.465484	190.867	3.264	.001	1.892225	7.673473
[time=.00]	.114728	.307442	203.160	.373	.709	-.491459	.720914
[time=1.00]	.650589	.339459	189.081	1.917	.057	-.019024	1.320201
[time=2.00]	0 ^b	0	.	.	.	.	.
lgage	1.281846	.387040	176.435	3.312	.001	.518022	2.045671
black	.026407	.464953	182.744	.057	.955	-.890959	.943774
male	.315859	.340603	196.605	.927	.355	-.355845	.987563
gths	-.326689	.296517	180.874	-1.102	.272	-.911766	.258388

a. Dependent Variable: Perception of safety scale in Over the Rhine community home, building and neighborhood by summing c2_1r - c2_3r higher=safser.

b. This parameter is set to zero because it is redundant.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	3.870181	1.868516	143.289	2.071	.040	.176764	7.563599
[time=.00]	.138833	.315744	170.089	.440	.661	-.484448	.762114
[time=1.00]	.533115	.341671	165.046	1.560	.121	-.141496	1.207725
[time=2.00]	0 ^b	0	.	.	.	.	.
lgage	1.666284	.479834	137.439	3.473	.001	.717472	2.615096
black	-.480378	.551397	135.131	-.871	.385	-1.570862	.610106
male	-.018706	.385910	154.468	-.048	.961	-.781048	.743636
gths	-.148829	.331083	135.936	-.450	.654	-.803568	.505909
[tencat=1.00]	-.071520	.451159	132.995	-.159	.874	-.963895	.820855
[tencat=2.00]	-.394649	.427927	140.585	-.922	.358	-1.240652	.451355
[tencat=3.00]	.270886	.432814	135.836	.626	.532	-.585039	1.126811
[tencat=4.00]	0 ^b	0	.	.	.	.	.

a. Dependent Variable: Perception of safety scale in Over the Rhine community home, building and neighborhood by summing c2_1r - c2_3r higher=safser.

b. This parameter is set to zero because it is redundant.

Perception of CRIME

Perception of crime as a problem scale in Over the Rhine community was computed by summing 7 c1_1r - c1_11r, where a higher score indicates perception of more crime. Analysis suggests that this metric is nonlinear. Following the second survey wave (time=1), perception of crime dropped by just over 3 units.

time	Mean	N	Std. Deviation
.00	12.8247	154	4.85224
1.00	10.7500	40	4.08091
2.00	14.5479	43	3.93463
Total	12.7872	237	4.69471

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	14.278914	.647451	194.378	22.054	.000	13.001983	15.555845
[time=.00]	-1.578700	.687201	130.788	-2.297	.023	-2.938167	-.219233
[time=1.00]	-3.064504	.857644	110.856	-3.573	.001	-4.764007	-1.365002
[time=2.00]	0 ^b	0	.	.	.	.	.

a. Dependent Variable: Perception of crime as a problem scale in Over the Rhine community summing 7 c1_1r - c1_11r higher=more crime.

b. This parameter is set to zero because it is redundant.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	27.271138	3.886776	168.604	7.016	.000	19.598121	34.944154
[time=.00]	-2.165185	.736758	116.982	-2.939	.004	-3.624299	-.706072
[time=1.00]	-3.647811	.920256	105.704	-3.964	.000	-5.472367	-1.823255
[time=2.00]	0 ^b	0	.	.	.	.	.
lgage	-3.319473	.977191	155.521	-3.397	.001	-5.249752	-1.389193
black	.860918	1.227256	154.197	.701	.484	-1.563487	3.285323
male	-.505879	.814883	154.274	-.621	.536	-2.115649	1.103891
hs	-.513663	.901552	160.908	-.570	.570	-2.294063	1.266737
gths	-1.459987	.981720	147.655	-1.487	.139	-3.400024	.480050

a. Dependent Variable: Perception of crime as a problem scale in Over the Rhine community summing 7 c1_1r - c1_11r higher=more crime.

b. This parameter is set to zero because it is redundant.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	27.007590	4.669736	130.903	5.784	.000	17.769674	36.245505
[time=.00]	-2.098406	.779798	98.952	-2.691	.008	-3.645703	-.551109
[time=1.00]	-3.565026	.959837	96.195	-3.714	.000	-5.470239	-1.659813
[time=2.00]	0 ^b	0	.	.	.	.	.
lgage	-3.375339	1.187037	124.654	-2.843	.005	-5.724696	-1.025982
black	1.621390	1.554540	119.485	1.043	.299	-1.456626	4.699406
male	-.307297	.934947	126.234	-.329	.743	-2.157496	1.542903
gths	-.990166	.809751	111.206	-1.223	.224	-2.594709	.614378
[tencat=1.00]	-.705547	1.145222	121.227	-.616	.539	-2.972774	1.561679
[tencat=2.00]	-2.141038	1.089186	121.058	-1.966	.052	-4.297358	.015283
[tencat=3.00]	-.799324	1.072072	120.723	-.746	.457	-2.921822	1.323174
[tencat=4.00]	0 ^b	0	.	.	.	.	.

a. Dependent Variable: Perception of crime as a problem scale in Over the Rhine community summing 7 c1_1r - c1_11r higher=more crime.

b. This parameter is set to zero because it is redundant.

Physical / Mental Health

This question asked residents in past 4 weeks, how much their physical or mental health interfered with day to day activities. The results (H14) were reverse-coded and the analysis evaluates the results over time. Over time, health interference is the same at Time 1 and 2 but is significantly lower at baseline. Higher values mean more interference. While overall, people experience little interference, it is increasing over time. Adding in covariates, we see that logged age is the only significant predictor.

Report

time	Mean	N	Std. Deviation
.00	1.2374	198	1.24600
1.00	1.4706	85	1.33263
2.00	1.6111	54	1.29464
Total	1.3561	337	1.28089

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	1.593460	.165832	316.249	9.609	.000	1.267186	1.919733
[time=.00]	-.363416	.177093	234.853	-2.052	.041	-.712311	-.014522
[time=1.00]	-.140618	.198428	218.258	-.709	.479	-.531699	.250463
[time=2.00]	0 ^b	0	.	.	.	.	.

a. Dependent Variable: reverse code of h14 health interfered with daily activities.

b. This parameter is set to zero because it is redundant.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	-.505420	.854232	186.313	-.592	.555	-2.190630	1.179789
lgage	.691844	.225946	174.862	3.062	.003	.245911	1.137777
male	-.295043	.200517	208.273	-1.471	.143	-.690347	.100260
black	-.377655	.268535	192.483	-1.406	.161	-.907305	.151995
gths	.081374	.172961	181.108	.470	.639	-.259903	.422651
[time=.00]	-.468234	.186708	217.639	-2.508	.013	-.836220	-.100247
[time=1.00]	-.244552	.211212	207.560	-1.158	.248	-.660948	.171844
[time=2.00]	0 ^b	0	.	.	.	.	.

a. Dependent Variable: reverse code of h14 health interfered with daily activities.

b. This parameter is set to zero because it is redundant.

Anxious

This score (H15) asked respondents whether in the last 4 weeks how often they felt worried, tense, anxious. Higher values mean more often felt worried. Values are low but are getting larger over time. The analysis regressed values over time to test linearity. Similar to H14 (physical and mental health), the baseline results were much lower than during times 1 and 2 (second and third waves respectively). Further adding in covariates found that nothing by time is associated with feeling worried or tense.

time	Mean	N	Std. Deviation
.00	1.2755	196	1.33805
1.00	1.5476	84	1.45953
2.00	1.7222	54	1.41976
Total	1.4162	334	1.38974

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	1.701811	.185936	328.249	9.153	.000	1.336034	2.067589
[time=.00]	-.428923	.205258	261.361	-2.090	.038	-.833093	-.024753
[time=1.00]	-.157843	.231662	240.930	-.681	.496	-.614184	.298498
[time=2.00]	0 ^b	0	.	.	.	.	.

a. Dependent Variable: reverse code of h15 felt anxious tense.

b. This parameter is set to zero because it is redundant.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	1.884436	.897269	169.489	2.100	.037	.113172	3.655699
lgage	.102295	.236578	157.629	.432	.666	-.364976	.569566
male	-.189768	.212576	198.930	-.893	.373	-.608960	.229424
black	-.516643	.282520	172.237	-1.829	.069	-1.074291	.041004
gths	.231509	.181050	167.056	1.279	.203	-.125932	.588951
[time=.00]	-.548855	.213255	236.122	-2.574	.011	-.968981	-.128729
[time=1.00]	-.366711	.242007	221.090	-1.515	.131	-.843647	.110224
[time=2.00]	0 ^b	0	.	.	.	.	.

a. Dependent Variable: reverse code of h15 felt anxious tense.

b. This parameter is set to zero because it is redundant.

Depression

This score (H16) asked residents whether in past 4 weeks how they often felt sad, depressed or blue. Results were reverse-coded so that higher values represented feeling sad more often. In general, the result indicate that respondents did not often feel sad or blue, and that not much change occurred over time in how often respondents felt sad or blue with regressions confirming this. An assessment of covariates also confirmed reach significance either.

time	Mean	N	Std. Deviation
.00	1.2245	196	1.27726
1.00	1.1807	83	1.23115
2.00	1.2222	54	1.36902
Total	1.2132	333	1.27754

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	1.145462	.165153	310.623	6.936	.000	.820501	1.470422
[time=.00]	.090064	.175677	229.238	.513	.609	-.256085	.436213
[time=1.00]	.002682	.196648	208.831	.014	.989	-.384987	.390351
[time=2.00]	0 ^b	0	.	.	.	.	.

a. Dependent Variable: reverse code of h164 felt sad, blue, depressed.

b. This parameter is set to zero because it is redundant.

Estimates of Fixed Effects^a

Parameter	Estimate	Std. Error	df	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Intercept	1.115814	.888764	191.631	1.255	.211	-.637202	2.868831
lgage	.048614	.235461	180.876	.206	.837	-.415990	.513219
male	-.113119	.208531	210.948	-.542	.588	-.524191	.297952
black	-.182818	.279127	197.439	-.655	.513	-.733271	.367636
gths	.299176	.179478	188.847	1.667	.097	-.054863	.653215
[time=.00]	.045920	.188942	215.762	.243	.808	-.326488	.418329
[time=1.00]	-.093249	.212950	201.395	-.438	.662	-.513145	.326648
[time=2.00]	0 ^b	0	.	.	.	.	.

a. Dependent Variable: reverse code of h164 felt sad, blue, depressed.

b. This parameter is set to zero because it is redundant.