PROCEEDINGS OF THE 2016 ANNUAL CONFERENCE OF THE HOUSING EDUCATION AND RESEARCH ASSOCIATION

Jacksonville, Florida
October 23-26, 2016

Gina Peek and Andy Carswell
Editors
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2002 Minneapolis, Minnesota: October 23-26, 2002

Housing Education and Research Association (HERA)
2003 Washington, DC (held in conjunction with AAFCS): June 28-30, 2003
2005 Denver, Colorado: October 4-7, 2005
2006 Ithaca, New York: October 8-11, 2006
2008 Indianapolis, Indiana: October 7-10, 2008
2009 Santa Fe, New Mexico: November 1-4, 2009
2010 Portland, Oregon: November 3-6, 2010
2014 Kansas City, Missouri: October 5-8, 2014
Abstract Reviewers

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Eunju Hwang
Hyun Joo Kwon
Hyun-Jeong Lee
Sung-Jin Lee
Kathleen Parrott
Patricia Snodgrass
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Pamela Turner
Ann Ziebarth
Case Studies of Alumni Serving Property Management Through Higher Education

Carla Earhart, Danny Spindler, Katelyn Neary, Casey Rusk, and Andrew Shaw*

With significant growth in the number of apartment communities in the US, there is an increased need to prepare an educated talent pool to staff these communities. This poster presentation provides case studies of how alumni of the Ball State Residential Property Management (RPM) Program are contributing to property management higher education in a number of ways. The presentation includes a specific focus on graduate student projects that have the potential to make a lasting impression on educating future property management professionals.

The growing number of universities offering courses in property management is further evidence of the need for educated property management professionals. However, there is often a shortage of qualified faculty to fill university instructional needs. Examples will be shared of how the Ball State University RPM Program is using property management professionals (alumni of our own graduate program) to assist in developing course content and to also serve as adjunct faculty to meet instructional shortages. The industry experience that these adjunct faculty bring to the classroom has been especially advantageous.

The following case studies demonstrate the contributions these alumni are making towards serving property management higher education:

- Case study 1: RPM graduate Casey Rusk serves as Management Specialist for Villas by Watermark (Milhaus Management) in Zionsville, Indiana. As his Creative Project for his graduate degree, Casey developed a learning module on social media marketing for the RPM course _Marketing & Leasing Residential Properties_. He returns to campus periodically to share the results of his project with current students.

- Case study 2: RPM graduate Danny Spindler, President of the Given & Spindler Companies based in Evansville, Indiana, developed the framework for an introductory course in _Commercial Property Management_ for his graduate project. Danny recently taught the material developed from his project as an online seminar course in the RPM program. Plans are to develop the material into an established course in the next round of RPM curriculum revisions. The course development and instructional opportunities contribute to serving property management higher education.

- Case study 3: RPM alumnus Katelyn Neary serves as Portfolio Analyst for Herman & Kittle Properties in Indianapolis. Her graduate project redesigned the course _Advanced RPM_

*Carla Earhart, Ph.D., Professor, Ball State University  
Danny Spindler, President, Given & Spindler Companies  
Katelyn Neary, Consultant, Downtown View LLC  
Casey Rusk, Director of Residential Services, Villas by Watermark  
Andrew Shaw, Graduate Student, Ball State University
Simulation around a property management case study to help students better understand the application of financial management practices in the property management industry.

- Case study 4: Current RPM graduate student Andrew Shaw is developing an RPM instructional module for his graduate project. The focus of his project is to provide hands-on experiences in industry-specific software for property management students. This will allow RPM students to gain these technical skills before entering the workforce.

These case studies demonstrate how the Ball State RPM Program is positioned to not only meet the needs of the property management industry, but to also impact the future of higher education in property management. These needs are being filled through adjunct faculty and development of property management educational course content. Further information about the Ball State RPM graduate program will be shared through this poster presentation.
Temporary Housing and Lighting Industry Recommendations: Case Studies

Paulette Hebert and Gina Peek

Why Do We Care?
Hotels may serve as temporary substitutes for the home (Stringam & Partlow, 2016). Temporary housing may be used by consumers traveling for work or leisure, moving to a new home, or remodeling permanent housing (Extended Stay America, 2016). Hotel occupancies reached high levels last year (Hospitality Net, 2015). Consumers are spending a considerable amount of time and money at hotels and this trend is expected to continue. As noted by CBRE Hotels, according to PKF Hospitality Research (2015), hotel occupancy in the U.S. is projected to "remain at record levels through 2017" (CBRE Hotels, 2015).

Hotels are designed to maintain occupants’ health, safety, and security. Lighting is one important factor. The Illuminating Engineering Society (IES) publishes target ranges for hotel light levels based on the "visual ages" of anticipated observers (building end-users) of different types of spaces. The IES makes specific recommendations for the illumination of visual tasks in hotels (DiLaura, Houser, Mistrick, & Steffy, 2011). Adequate light levels are needed when performing daily visual tasks, e.g., completing transactions during lobby check-in, recognizing faces when one opens the door, personal grooming, etc. (DiLaura et al., 2011).

Why is this an Important Subject for HERA?
Consumers staying in temporary housing have varying needs. Regardless, housing should provide comfort and serve health, safety and security needs based on industry standards and recommendations. Housing educators and their students may better understand temporary housing conditions by performing case studies. This may assist the hotel industry in better supporting the needs of extended travelers.

Research Objectives
The purpose of the study is to consider compliance with lighting industry recommendations for temporary home settings. The objective of the study was to provide students with field experience, using scientific measurement devices to collect and analyze data in hotel case studies.

Methods
Third-year college students (n = 36) in an environmental systems course gathered lighting data using a convenience sample of hotels over a 16-day period. Fisher Science Education S90198 digital light meters were used to collect horizontal and vertical light level measurements (foot candles and lux). Students

* Paulette Hebert, Ph.D., Professor, Oklahoma State University
Gina Peek, Ph.D., Associate Professor, Oklahoma State University
field-noted the type of visual tasks performed in the study areas. A total of 754 data points were collected. Students consulted the 2011 Illuminating Engineering Society (IES) Handbook to determine compliance with current industry recommendations.

Results
Light levels varied across the sites. Generally, some did not meet the IES recommendations for the 25-64 year old "visual ages" group. Most measured levels did not comply with the IES recommendations for persons with "visual ages" of 65 years and older.

Conclusion and Recommendation
These findings are of concern to housing educators since the less-than-recommended lighting levels found in substitute homes may adversely affect health, welfare, and safety. This is especially important for older adults, who require more light to complete the same visual tasks as younger persons. Housing educators are encouraged to reach consumers, older adult groups, and the hotel industry to raise awareness and to recommend compliance with industry-standard light levels to ensure hotel guests' health, safety, and welfare in their temporary homes.

References


Affordable Housing Design in South Korea: Case Studies in Gangnam

Suk-Kyung Kim, Mira Ahn, Sungjin Lee, and Hyunjoo Kwon*

Background and Purpose
Since the first public rental housing was introduced in the 1970s in South Korea, most public rental housing complexes have presented similar architectural features. They usually consist of 5-10 high-rise apartment buildings and shared common spaces – such as playgrounds, sports courts, and gardens. These designs have been repeated using several prototypes of floorplans and apartment buildings that the National Housing Corporation established in the 1990s (Korea National Housing Corporation, 2002).

Between 2014 and 2015, the Land and Housing Corporation of Korea that led public (or social) housing development in Korea completed three housing complexes. They consisted of public rental units and owner-occupied units for middle income families. These complexes were named Gangnam Bogeumjari Housing. Gangnam is the location of these complexes and Bogeumjari means “the cozy and nice place for living” in Korean. These mixed-income complexes were designed by three famous architects from Korea, Japan, and the Netherlands, pursuing unique designs for individual units and community designs. This was one of the first public housing projects to hire world-famous architects for their designs in Korea. Although there have been numerous designers’ efforts for improving design quality for public housing complexes in Korea, these three sites have been highlighted by many designers and the news media. Since these complexes were initially occupied in June 2015, no empirical study has been conducted to examine the effects of these design efforts.

Therefore, the purposes of this study were to assess interior and exterior design features of these three mixed-income housing sites and examine their design effects on residents through interviewing residents about the overall site design, individual building and unit designs. Based on an analysis, the research team made suggestions with a focus on design for improving residential satisfaction in this type of mixed-income housing complex.

Methods
Primarily, this study conducted case studies in three complexes. They were the A3 block designed by Riken Yamamoto, the A4 block designed by Mina Lee, and the A5 block designed by Frits van Dongen, all located in the Gangnam District, in Seoul, Korea. Our research team observed the sites with a design checklist and interviewed five to seven residents in each housing complex to collect their opinions and satisfaction with the housing unit and community space designs. Since there is no standardized tool to

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*Suk-Kyung Kim, Ph.D., Associate Professor, Michigan State University
Mira Ahn, Ph.D., Associate Professor, Texas State University
Sungjin Lee, Ph.D., Assistant Professor, North Carolina Agricultural and Technical State University
Hyunjoo Kwon, Ph.D., Assistant Professor, Purdue University
assess design quality of multifamily housing complexes, the researchers created a checklist that included a diversity of common spaces and interior floor plans, color and textures of exteriors, and so on. For the interview, in addition to the demographic information about the respondents, the team asked about their overall satisfaction with the community design and individual unit design, their opinions for common spaces and individual unit plans, and their suggestions for those spaces.

Major Findings
The site designs of the three complexes showed some commonalities. They provided diverse community spaces on a smaller scale compared to previously completed public housing sites in Korea. Rather than putting one large playground, the designers offered several smaller playgrounds that could encourage different activities for children. The designers also utilized traditional and natural design motives -- such as the shapes of mountains, curved lines of rivers, and used materials like bamboo -- in community spaces. During the site visit, many residents were observed using the community spaces and interacting with their neighbors.

In terms of the housing unit designs, the three complexes successfully provided multiple floorplan options per the floorplan size. Residents were satisfied with this effort to provide diverse floorplans to meet different residential needs within the same square footage. Interviews with residents revealed that most of them were satisfied with the individual unit designs and community space designs. Particularly, they were satisfied with the functionality of the community spaces. They responded they used these spaces in their current housing complex more frequently than in their previous dwellings.

However, several residents in one complex addressed the spatial segregation in community spaces. This complex separated the public housing units from the owner-occupied units and put the common spaces between these two residential unit groups. The residents indicated this spatial separation as a negative factor against the sense of community. This result indicated that a better strategy is necessary in the community space design to embrace the residents from different socioeconomic groups.

Suggestions for Future Public Housing Complex Designs
This initial study to review the design features of three public housing sites recently designed by well-known designers provided several key suggestions for future designs. Common spaces in the public housing should be diverse in functions to meet a variety of lifestyles and needs of residents and encourage residents to utilize the common spaces frequently. The common spaces can also improve the sense of community through appropriate location and design that should link diverse socioeconomic groups within a property. Individual unit’s floor plans in public housing complexes should follow minimum guidelines offered by several national housing agencies in Korea.
However, as this study revealed, an addition or increase in the number of units for residents with disabilities or aging residents needs to be included in the public housing complexes. The individual unit designs that can incorporate green building features as well as residents’ potential health conditions should also be implemented more actively in future public housing sites.

References


Rural North Carolina: A Case Study of Low-Income Elderly Homeowners

Sung-Jin Lee, Valerie L. Giddings, Sheryl Renee Robinson, and Kathleen R. Parrott

In North Carolina, residents aged 65 years and older increased almost 38% between 2003 and 2013 (Administration on Aging, 2014); 80% of whom are homeowners (North Carolina Division of Aging and Adult Services, 2011); and 57% of whom currently live in rural counties where they may lack access to sustainable/accessible housing, transportation, healthcare, and social services (North Carolina Center for Public Policy Research, 2011; Rural Health Information Hub, 2014). Given the nature of rural communities, rural elderly homeowners pursuing aging-in-place can face more challenges than older adults in urban areas that provide more user-friendly services. This was a case study to examine residential and town environments of low-income NC rural elderly homeowners.

Methodology
In spring 2015, the North Carolina A&T Housing Research Team conducted a structured, face-to-face survey in a senior center in a high poverty, rural NC area. Fifty-one elderly homeowners completed the questionnaire. The responses were coded and analyzed using the Statistical Package for the Social Sciences (SPSS) version 22 software. Descriptive statistics were employed for data analysis.

Findings
The average age was 72 years old. The majority were African American (71%), female (78%), and single (61%). Half earned less than $25,000 annually. Regarding the home environment, the majority lived in single, detached homes (89%) and one-story buildings (73%). Half the participants (55%) had lived in their homes more than 35 years; 76% lived in homes built before 1980. All participants planned to live in their house as long as possible (age-in-place). What these rural elderly homeowners liked most about their houses were “feelings of having a home” (28%) and “quiet/comfortable/safe” (28%). Least liked was yard/maintenance (18%) and housing characteristics/features (12%). About 57% expressed no complaints about their living place. Regarding the neighborhood environment, participants liked most that “friends or neighbors help each other” (33%) but liked least “less friendly neighbors, noise, or safety issues” (14%). The rating score for overall satisfaction on housing and neighborhood was located between moderately satisfied (3) and very satisfied (4) ($M$=3.70 and $M$=3.84 respectively; 1 [not at all satisfied] to 5 [extremely satisfied]). Regarding the town environment, they were least satisfied with job opportunity ($M$=2.47) and entertainment ($M$=2.57) while most satisfied with church ($M$=4.08) and connection to friends ($M$=3.82).

Conclusions and Implications

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Even though this case study had a small sample size, it still provided meaningful findings regarding low income elderly homeowners’ living environment in a rural NC area. The elderly homeowners were long-term residents planning to age-in-place, but many were likely to lack the resources to provide the needed home improvements or modifications. A finding that NC rural elderly homeowners with low incomes depend on friends and/or neighbors suggests a need to increase access to community resources and public assistance (e.g. job opportunities) in rural areas to increase well-being for the elderly population. Also, the majority of elderly participants were minorities, female, and single, suggesting a need for greater support for such groups in NC rural areas.

References

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Housing Pathways of Homeless and Foster Youth During College

Kim Skobba and Ebunoluwa Odeyemi

Homeless and foster youth face significant barriers on the path into and through higher education. Despite aspirations to attend college and achieve improved economic well-being, only a small portion of homeless and foster youth attend college and most who start do not complete their degree (Courtney et al., 2004; National Center for Homeless Education, 2013; Wolanin, 2005). Some of the very familiar challenges encountered throughout childhood—the lack of a stable home, financial resources to cover basic needs and lack of a support system—often persist into young adulthood making the transition to college especially difficult (Tierney, Gupton & Hallett, 2008).

Given the support needed to maintain independence in young adulthood, it comes as no surprise that housing is often the first and most significant barrier to college success for youth coming from foster care (Casey Family Programs, 2010). In a study of young adults transitioning from foster care in the United Kingdom, Wade and Dixon (2006) found that how young people fared in housing was not greatly associated with their past but was closely linked to life circumstances after leaving foster care (p. 203). The authors conclude “Therefore, from the perspective of young people, making a home and a successful home life is an understandable first priority when making the journey from care to adulthood” (p.203).

Previous research on the transition out of foster care in the U.S. has consistently found that young adults often experience homelessness and housing instability (Dworsky et al., 2012).

Finding stable housing during college is problematic for homeless and foster youth. Most young adults, lacking sufficient rental and credit histories and the financial resources to pay for a deposit and monthly rent, have difficulty securing an off-campus apartment on their own without the support of an older adult. This poses a particular barrier for homeless and foster youth attending colleges that do not have on-campus housing. Yet, while on-campus housing removes some obstacles to stable housing, many students are left with nowhere to go when the campus housing closes for holidays, semester and summer breaks that are part of the academic calendar (Hallet, 2010). Insufficient financial resources and the lack of time to engage in college programs due to time required to focus on meeting basic needs are also significant barriers for homeless and foster youth transitioning to college (Hallet, 2010).

The proposed poster will include the preliminary results from a qualitative study of the life pathways and early college experiences of young adults who were either homeless or in foster care during high school. The central research question for this research is: “In what ways do previous family and housing

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Note: Poster reviewed by proceedings editors only
circumstances influence experiences in college?”. The purpose of this research is to identify events and interactions that help and hinder academic progress so that higher education and housing policies may be better coordinated to improve access to and successful outcomes for students coming from homelessness and foster care. This research adds to the knowledge base on the early college experiences of homeless and foster youth and the barriers and opportunities they face and includes input and perspective of these students, whose voices are largely absent from the body of evidence used in policy-level discussion (Cunningham & Diversi, 2013). The knowledge gained from this research will equip professionals from post-secondary educational institutions, homeless liaisons from local school districts, case managers from the child welfare system with information and strategies on how to serve these populations more effectively.

Methodology
The research used a qualitative method to examine the experiences of 34 young adult college students in Georgia with a history of homelessness and/or foster care. The sample included 23 women and 11 men; the majority were enrolled in four different colleges. The study used a theoretical sampling method, using key contacts who work with college-bound homeless and foster care youth from colleges in Georgia. Data was collected through an initial face-to-face interview, which covered the participants’ life course biographical information since the age of 15, including housing history, family and life circumstances, education and employment. The initial interview also covered strategies for meeting basic needs and educational history/perceptions about and plans for college. The researchers conducted two follow-up interviews about 3 and 9 months after the initial interview to gather updates on any changes in the participants’ academic or life circumstances, on finances and basic needs, and academic progress and challenges.

Preliminary Findings
The majority of students in the study experienced housing instability through all or part of their high school years. For some, housing instability occurred within the context of family conflict and instability. For others, lack of affordability made it difficult for their parent or parents to find and keep affordable housing. Several students experienced housing instability and unmet material needs after the death of a parent. For most students, housing instability continued while they were in college. Living in on-campus dormitory housing often increased housing stability during the school year. However, the lack of affordability and finding housing over the summer and during longer breaks was a barrier to maintaining on-campus housing and housing stability. Students used a variety of strategies to cope, including becoming a residence hall assistant, doubling up, and staying in car or homeless shelter. The preliminary findings suggest that housing instability during college is a barrier to academic success, making it difficult for students to stay focused on their school work in the short-term and in the longer-term, stay enrolled in school.
References


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Homeflow: More Secure Mortgages Through Improved Housing Maintenance and Occupant Relationships

Randall A. Cantrell†

Background
Though the personal savings rate increased after the financial crisis of 2008 and subsequent recession, it remains low compared to its historical average. A major concern is whether US households are providing adequately for long-term needs, such as maintaining their home, vehicle, health, future retirement and medical expenses. Traditionally, home occupants have invested their savings in financial assets or built equity in a home. If these investments and assets are not adequately maintained, remain stagnant or lose their value, home occupants might not have sufficient levels of future funds needed to buy consumer goods and services, or at least those required to maintain their standard of living. Moreover, when the home investment is not well maintained, the foundation of the family can be negatively affected. The Homeflow program was created to assist home occupants with 1) skills to strengthen their relationships, and 2) knowledge to maintain and upgrade their home.

Objectives
This Homeflow presentation will inform participants (i.e., instructors) how to use interactive videos to teach audiences about taking care of their most expensive investment—their home and the relationships of those who occupy it.

Methods
The Homeflow program uses multiple modules to reinforce home maintenance and occupant-relationship building. During each video module, instructors are directed to pause the video and lead the audience through various workbook exercises designed to reinforce the lessons described throughout the modules.

Results
At the conclusion of the full Homeflow training program, which requires more time than allocated during a HERA presentation, participant instructors will be prepared to train audiences using the Homeflow program. After they submit their pre- and post-test data, they will receive aggregated data of all Homeflow programs so they can compare their results to others and use these data to write grants and articles. The Homeflow program currently is being piloted by Habitat for Humanity to train its new home owner candidates in Duval County, Florida (HabiJax). The first class of 15 new homeowners graduated during August of 2016, and the knowledge gain resulting from the pre- and post-test evaluations warranted

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further investment in behavior-change follow-up evaluations with this graduating class as well as plans to begin training the next class during the fall of 2016.

Conclusions
Participants trained to use Homeflow should be better positioned to establish collaborative partnerships with their local Habitat affiliate and other organizations with similar interests. Further, resource guides are included with the Homeflow program so participants can follow the videos in their private time and learn the three topical areas (either more comprehensively or initially): housing, relationships, and finance. This pivotal benefit enables non-expert participants to present the program because they have access to interactive videos, which can be used to facilitate audiences. Over time, these same participants can teach themselves these topical areas by following the resource guides, which are aligned with the videos. The end result is that participants can broaden their areas of expertise to where they can present Homeflow using the static presentation without the videos because they eventually will be knowledgeable enough to do so in any and/or all of the three topical areas of Homeflow.
Jakarta/Pittsburgh: Developing a Model for Housing/Water Infrastructural Research

Gregory Galford, Darlene Motley, Molly Mehling, William Biss, Yandi Andri Yatmo, and Paramita Atmodiwirjo*

Introduction
The issue of housing and how it interfaces with water infrastructure is one that confronts all cities. Many older American cities such as Pittsburgh are struggling to re-invent and re-build aging infrastructural systems that serve their neighborhoods. With prohibitive costs and an aging housing stock, smart choices need to be made for the future to offset current environmental damage done by contaminations from combined storm and sewer systems.

With large and growing cities such as Jakarta, the infrastructure is often non-existent or inadequate for both existing and new housing neighborhoods. The economic advantages of Jakarta attract a constant influx of new Indonesians moving to the capital in a city with an inadequate housing stock. The lack of permanent water infrastructure for these housing needs has created a public health crisis. They are looking to build new systems, but the models of cities such as Pittsburgh are not relevant for their current and future housing needs. This presentation will review an educational experience that was designed to facilitate student comprehension of these complex issues.

Why Should We Care?
The viability of our housing is largely dependent on the systems infrastructure that serves it. None is more important than water, and the ways in which it serves the individual house or collective neighborhood directly translates to the health of the community residents. Viewing how cities are analyzing the problem and how they are implementing smarter strategies for existing and new neighborhoods informs housing education and its related extension services. Looking at how an instructor designed and implemented a US / Indonesian student model of research provides a template for how other courses can examine specific issues of housing education.

Methods
This initial research study was based on utilizing a planned student travel abroad experience and a unique international educational consortium to utilize a qualitative approach using photographic recordings of the housing and infrastructural environment as seen through the eyes of the student researchers. The students used a photographic group analysis method to see the housing situations of

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low income neighborhoods in both Jakarta and Yogyakarta, Indonesia as a way to return to Pittsburgh and see the issues with fresh perspectives.

This initial work with the students will then lead to longer term studies developed by the faculty at both Chatham University in Pittsburgh and the University of Indonesia in Jakarta. The goal is to build on-going research collaborations that involve both faculty and students when looking at issues of housing in urban environments.

Results and Implications

The product for this work is a gallery exhibition of their collective and edited photographic work that involves work from students from both universities. Certain themes will emerge from the work, and will inform future research frameworks. This will also be exhibited in an online blog to provide broader exposure. Examples from this work will be presented. The outline for sequential research between the two universities will be explained. This will include both its faculty to faculty model of teaching and research and their interaction with peer-to-peer student researchers interested in exploring issues related to housing and housing education.
References


Exploring Housing in Mississippi: The Residents’ View

Leslie Green-Pimentel*

Introduction

The Assets and Opportunity Scorecard† reports 20.8% of Mississippi households have incomes below the federal poverty rate, compared to 14.5% nationally (Corporation for Enterprise Development [CFED], 2016). Some 31% of households in the state are housing cost burdened (HCB), ranking the state 33rd for HCB homeowners and 37th for HCB renters (CFED, 2016). The state ranks 16th for homeownership rate (67.7% compared to 63.1% nationally) but ranks 27th in foreclosures, last on delinquent mortgages, and 40th on high cost mortgage loans (CFED, 2016). There is some known research on housing affordability in the state (Hua, 2010; National Low Income Housing Coalition, 2015) and disaster recovery (Bernstein et. al., 2008); however, there is no known research to date on other housing aspects such as quality, safety, or housing aspirations and needs of individuals/communities. Mississippi is included in larger studies that assess the Southern U.S., but findings are not separated by state (e.g. Lee, Parrott, & Ahn, 2011). The purpose of this study is to 1) explore the housing needs, aspirations, and quality of dwelling among Mississippi residents and 2) examine residents’ perceptions of the housing issues facing their communities.

Methods

Sample

Students in an online Sociology of Housing class conducted interviews with persons who were: 18 years of age or older and living on their own (not with a parent/guardian) in Mississippi. Convenience or snowball sampling was used and only one respondent per household could be interviewed. Seven graduate/undergraduate students located throughout the state conducted 39 useable interviews for this exploratory study. Interviews lasted 45-60 minutes each.

Training, Instrument, and Data Analysis

Students were IRB certified and completed two instructor lead trainings on the basics of research and how to conduct interviews. Trainings were administered by webcast in Canvas. The instructor created the interview schedule which included both closed and open ended questions on: demographics, housing aspirations, quality, location and expenditure, housing needs, and issues in the community. Qualitative data was assessed for themes and narratives will be presented. Due to the low sample size, quantitative data will be analyzed using basic descriptive statistics.

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Research Questions
1. What are respondents' housing needs?
2. What are respondents' housing aspirations?
3. What is the quality of respondents' dwelling?
4. What are respondents' perceptions of housing issues facing their community?

Results/Conclusions
Detailed results and conclusions will be given in the presentation; a summary organized by research question follows: 1) Respondents generally reported housing needs as met. However, some reported preferences instead, thus respondents may not understand the difference. 2) As expected, aspirations of renters and persons staying with friends/family was to become homeowners. 3) Most indicated their dwelling was in reasonable condition, but a few reported the quality/environment as poor. 4) Respondents reported some community housing issues were affordability and quality. Findings may benefit financial education efforts in the state to help residents prepare for affordability issues, learn how to distinguish between housing needs and preferences, and meet housing aspirations.

References
Rent Impacts and Cost Savings of Energy Star Appliances on U.S. Multifamily Renters

Erin A. Hopkins and Andy Carswell

Introduction
Achieving cost savings due to energy-efficiency appliances is a crucial issue, not only from a personal finance and environmental perspective, but also from a social equity standpoint as renters typically do not have the power to make proactive energy-efficient appliance decisions for their own benefit. Since property owners typically make the decisions regarding appliance purchases, it is important to diffuse information to property owners regarding the rent impacts and cost savings of energy efficient appliances on renters. As energy efficient products become increasingly common, the goal of this research is to assist multifamily property owners when deciding on various energy efficient appliances.

Background Literature
Traditionally, renters have not been able to enjoy the benefits of energy-efficient savings, particularly those who are low- to moderate-income. Bird and Hernandez (2012) refer to the plight of this group as experiencing “energy poverty”. Davis (2011) particularly emphasized the rental community’s disparity with single family owners when it came to enjoying the benefits of energy efficiency. Carswell and Smith (2009) demonstrated that the early adopters of “green” features in multifamily housing were the more well-heeled types of renters who lived in higher-priced neighborhoods. Other researchers have stated the need for incentives toward diffusing energy-efficient technologies to a broader audience (Bhattacharjee and McCoy, 2012; Laquatra, 1987; Laquatra, 1992). In many ways, consumer choices supporting adoption of energy-efficient features provides a logical extension for existing literature that suggests utilizing making benefit-cost analysis decisions before such adoption takes place (Hopkins, 2016; Laquatra and Carswell, 2015).

Data
The 2011 American Housing Survey (AHS) will be utilized to examine the rent impacts and cost savings effects of Energy Star appliances on multifamily renters. This version of the AHS was selected as it is the only version to have introduced data on Energy Star appliance prevalence among housing residents. Since we are focusing solely on the multifamily sector, a total of 22,664 households were included within the study. This represents 12.2 percent of the overall sample within AHS.

Methodology

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There are two major research questions that this presentation will address. They are:

Capitalization of Energy Star Appliances into Rent Costs
Utilizing a hedonic style regression normally used in single-family house price scenarios, we determined the effect of these energy-efficient appliances on overall rents. Methodologically, the equation had the household’s rent (PRENT) as the dependent variable. The independent variables included a vector of neighborhood and property specific variables that served as control variables. These included, but are not limited to, such variables as bedrooms, bathrooms, square footage, and neighborhood quality. Additionally, an experimental set of variables included nine Energy Star appliance variables as well as a combination of such appliances.

Effect of Energy Star Appliances on Overall Utility Savings
Because the AHS separates out renters’ utility payments from rental payments, we had the opportunity to see the direct effect that these appliances have on monthly electricity costs (AMTE) and on monthly gas costs (AMTG). The right-hand variables for this particular model included those for each of the nine appliance variables included as experimental variables. Also included were a series of climate related variables, cooling and heating degree days (CDD and HDD). For good measure, two interaction variables were also included that combined the presence of Energy-Star air conditioning units with CDD and HDD, in order to test for premium savings as climate either increased or decreased, respectively. Amount of square footage, number of units, and area fair market rents were also included as control variables.

Results
Preliminary results provided mixed results with respect to Energy Star appliances’ effects on both rent premiums captured and ultimate energy cost savings. The first phase of the rent model showed disappointing connections between Energy Star appliances and rent levels achieved. The model overall had fairly low explanatory power as well. Regarding the energy cost savings model, many of the Energy Star variables did not show significant cost savings when compared against non-Energy Star appliances. The presence of high cooling and heating degree days based on location did, however, show a significantly positive impact on energy costs, which was expected. When Energy Star air conditioning appliances were combined with cooling degree days, there was a savings premium the hotter the climate. Fair market rents, number of units within the building, and square footage of the building all had significant effects in the expected directions.

Discussion and Implications
While the R-squared measure for these models were not particularly high for either of the two models, there are potentially some reasons for that. The reason for the ambiguity of the directional patterns of the Energy Star appliance variables in the energy cost model likely is the result of some randomness in
energy consumption behavior by the tenants studied here, which cannot necessarily be captured by AHS data. The strength of the interaction variable regarding the presence of Energy Star air conditioning units suggests energy cost relief however, in hot climates. Because the results of the preliminary rent model were not significant in terms of rent premiums due to energy-efficient appliances, we are inclined to believe that more appropriate measures such as residential satisfaction may capture latent evidence of value added, perhaps through higher satisfaction of one's unit through any cost savings derived from such green appliances, or perhaps because of pride in having such green features within the rental household.

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A Resident Survey About Fair Housing in Mid-Michigan Region

Suk-Kyung Kim and Jaechoon Lee

Fair housing prohibits discrimination in housing at local, state, and federal levels (HUD 2016). This study was conducted to set the achievable goals to establish a regional fair housing plan for the Tri-County Region that includes Clinton, Eaton, and Ingham Counties in Michigan. This area has not updated its comprehensive housing plan for about twenty years, suggesting the demand to conduct housing need assessment in the region. The fair housing is one of the important issues to be included in the comprehensive housing plan. This study was thus designed to assess fair housing needs and examine residents’ opinions regarding the fair housing issues. The primary goals of this study were to investigate residents’ experiences and opinions about fair housing issues in the Tri-County Region in the mid-Michigan area and to provide suggestions to resolve any housing inequality issues.

Research Methods
The research team conducted an intensive survey to carry out overall housing need assessment in the region, which included respondents’ opinions and experiences relevant to housing affordability, housing quality, and fair housing issues. Out of a 12-page questionnaire that included diverse questions on their housing, three pages were allocated for fair housing related questions. The questions were designed to assess residents’ knowledge of fair housing laws and rights, their experiences with loan or rental housing discrimination, their opinions on insufficient housing choices, and their suggestions for the regional fair housing plan.

Sample
The survey targeted 4,000 randomly selected residents in the region. The sample for the survey was selected using a stratified random sampling. The survey participants were selected based on the household income, homeownership, and the location of the residency. To include the opinions of low-income families, the research team used the annual household income of $19,000 as the cutoff, which accounted for 16% of households in the region. The survey targeted 1,000 out of 4,000 participants from the low-income bracket and 3,000 responses from other incomes. Additionally, the survey included college and graduate students to identify the fair housing issues in this population since the target area has experienced an increase in college students. The research team included 1,000 students randomly selected from the university registrar’s office.

Survey Distribution

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The survey was administered by the Office for Survey Research at Michigan State University between November 2013 and May 2014. First, the survey questionnaire was developed and formatted in an online survey. Second, the cover letters that included the link to the survey were sent to the target participants. In case the participants had no access to the online survey, they could request a hard copy of the questionnaire mailed to them. After completing the survey, the respondents returned the survey via mail and the research team included their survey in the data coding. Postcard reminders were sent after two weeks. Each respondent received a five dollar gift card. Finally, 797 responses were collected, which included 781 valid responses for the statistical analysis. Out of them, 570 responses came from the residents and 211 from university students.

Major Findings
This section highlights major findings from the statistical analysis of the responses to fair housing related questions. More detailed results will be presented at the conference.

Information about Fair Housing
Out of 781 valid responses, 525 responded that they heard about fair housing laws and rights. However, only 15.9% of 525 respondents indicated that they were very familiar with and 58.9% responded that they were somewhat familiar with these law and rights. The research team investigated the number of low-income residents who lacked information about fair housing rights. A total of 122 respondents fell into the low-income category. About 71.3% indicated that they heard of fair housing laws and rights, but 28.7% still had never heard of it. This indicated a need for informing low-income residents about the fair housing law and rights. Main sources that inform the residents about fair law and rights are community centers (17.0%), federal or state government websites (12.0%), and city or township websites (9.5%). It is thus necessary for fair housing agencies to utilize the community center or websites for informing residents about fair housing and equal opportunities.

Loan or Rental Discrimination Experiences
To examine respondents’ experiences of housing related discriminations, respondents were asked about their experiences of financial discrimination and rental housing discrimination. About 7.2% of 525 respondents who had heard of fair housing laws and rights reported their experience of financial discrimination by loan officers or mortgage brokers. When looking at only low-income residents, the percentage of those who had this experience went up to 9.8%. Regarding rental housing discrimination, 8.6% out of 525 residents experienced such discrimination, as did 15.7% of low-income residents. About 9.1% of students indicated that they also experienced rental housing discrimination.
Suggestions and Implications

It is suggested that low-income, renter, or students group should be properly informed about the fair housing law and rights through various media. The Tri-County Region has also experienced an increase in the number of refugees and international students, although this study did not specifically target these groups. They should also be provided the education or training opportunities about the fair housing rights. The study revealed that many respondents obtained the information about fair housing rights from the community centers or federal or state government websites. The online information should thus be easily accessible. Additionally, survey participants suggested that the fair housing law and rights should embrace more diverse groups, such as refugees, non-citizens, and lesbian, gay, or transgendered persons.

The findings of this study provided an empirical foundation for developing a fair housing initiative for the residents living in the region. Aligned with the findings of this study, the Five-Year Fair and Affordable Housing Initiative proposed by the Greater Lansing Housing Coalition (2014) reflected the need for promoting fair housing choices of the residents in the Tri-County Region.

References


Why Do They Want to Age-in-Place and Who Are They?

Hyun Joo Kwon, Mira Ahn, and Jiyun Kang

Purpose
This study aimed at identifying segments of senior residents based on their reasons for “aging-in-place”, defined as living in one’s home and community with some level of independence, rather than a residential care (Center for Disease Control and Prevention, 2013). It will also examine the significant differences among the identified segments on the basis of demographic and housing characteristics, perceptions on four well-beings (psychological, environmental, physical, and financial), as well as a desire for aging-in-place.

Methodology
Data was collected through an online survey with a random sample of non-Hispanic, white, older persons (60+), living in their home in the U.S. (N=328). To explore the reasons for aging-in-place, 35 items were developed based on literature. Perceptions on four well-beings (Psychological well-being: individual's self-assessment of personal happiness and satisfaction with oneself, social relationships, and life; Environmental well-being: Individual’s perception on the environmental quality of home and neighborhood; Physical well-being: feelings and self-assessment about one's own health condition; and Financial well-being: individuals’ subjective evaluation and confidence about their financial condition) were measured with modified existing measurements.

Findings
From an exploratory factor analysis with 35 individual reasons for aging-in-place, 29 reasons were grouped into seven reasons: housing, health, local services, social interaction, safety and security, family, and finances. A cluster analysis identified three groups of senior residents based on those seven reasons for aging-in-place: the easygoing town keepers (n=78), the finance-cautious worriers (n=77), and the balanced achievers (n=173). These segments are distinctive regarding the demographic and housing characteristics and perceptions of four well-beings. One-way ANOVA and chi-square analyses revealed that the easygoing town keepers were more likely to have lower education and income, live in a rural mobile home, and be homeowners. This group showed neutral mean scores for the four types of well-being. Slightly more than 90% of them expressed desire to age-in-place. The finance-cautious worriers were in the lowest income bracket among the three segments and were more likely to be male, live in multi-family housing located in city areas, and to be renters. They showed the lowest scores of the four well-beings, and only 70% wanted aging-in-place. The balanced achievers had the highest income and

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education, and were more likely to live in a single-family home located in suburban areas. They showed the greatest scores for the four types of well-being and 98.3% wanted aging-in-place.

Conclusion & Implications
Aging-in-place has been considered an ideal and holistic response to the needs of aging individuals by assisting to enhance quality of life and maximize financial resources (Gonyea & Burnes, 2013). The relationships between housing and demographic characteristics and aging-in-place have been focused on by researchers in gerontology and housing areas (Kwon & Beamish, 2013; Oswald, Jopp, Rott, & Wahl, 2011). However, there has been a lack of effort to identify how combined factors work as unique drivers of aging-in-place for a certain segment of elderly population. This study aimed to fill this gap by trying to identify segments based on the reasons for aging-in-place. This study suggests that some seniors need more social support, however, some get more benefits from financial support for health and housing for successful aging-in-place. It is expected that the results of this study can provide practical assistance for policy makers and community service providers to develop and implement policies and programs to support aging-in-place more effectively and appropriately.

References
From Drawing Board to Tiny House: Student Engagement with Cultures of Building

Christopher Manzo, Katrina Lewis, and Dustin Headley*

The paper will critically examine the process of Design/ Simulate/ Build pedagogy (Hinson, 2001) and Service Learning (Cho, 2015) of students via traditional studio learning that transitions into the fabrication of a livable Tiny House – wood framed, less than 200 s.f., and built on a trailer bed - in partnership with [Location] Habitat for Humanity (HfH). Using the ‘Culture of Building’ (CoB) framework articulated by Christopher Alexander (Alexander, 1977) and Howard Davis (Davis, 2006), the authors will compare and analyze four CoBs their students’ experienced within the context of their studio design exercise leading to the fabrication of a Tiny House (tH1). The four Cultures of Building (CsoB) that were experienced are: an Academic Design Studio, a Design/ Simulate/ Build Studio, HfH’s own CoB, and the broader CoB within which all building projects in the US operate.

In the fall 2015 semester of a second-year residential design studio, [the authors] co-taught a six-week ‘Tiny House’ design exercise, emphasizing typical residential issues of designing around users’ needs, wood frame construction, and designing the environment at all scales. This Academic CoB values iteration, embracing risk, and excellence. Students researched a typical Tiny House ‘client’ and ideation was tested by drawing 1:1 on asphalt to better understand movement through plan and section. Each student built ½” scale frame models to reinforce an understanding of wood frame construction. The authors’ case study (tH1) began out of the students’ desire to take their model making, drawing, and design work further: i.e. enlarge their CoB (Manzo, 2016).

In the Spring of 2016, a group of students, volunteers, and faculty built a student designed Tiny House for [HfH] (Kip, 2003). Within [the department] there is a strong culture of Design/ Make, Make/ Design; or design via making (Dean, 2002). This haptic approach to teaching design allows for issues of materiality, gestural expression, detailing, and craftsmanship to impact final design choices at all scales throughout the making process (Fathy, 1973). HfH has a strong CoB that values consistency, clarity, simplicity, frugality, and fairness grounded in their mission to eradicate poverty housing: ‘A world where everyone has a decent place to live’ (HFH Int., 2015). All student activity took place within the larger CoB of [location] which values expediency, low cost, and efficiency (Davis, 2006). While HfH and [department] shared the same goal, each CoB approached the issues of making very differently. The authors will structure the HERA presentation in the following manner: 1) defining a Tiny Home; 2) timeframe and student demographics; 3) the Studio pedagogical setting in the Fall and its shift via the Spring build of tH1; 4) articulate a theoretical and analytical framework to evaluate and compare CsoB; 5) analyze the

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HFH partnership; 6) summarize lessons learned, and 7) propose guidelines when engaging CsoB not familiar to a studio setting pedagogy.

References
Housing Education Partnerships Impacting Individuals and Families

Jackie Ogden*

Residents in Savannah, Georgia and the County of Chatham had the opportunity to learn more about housing related topics through the services of their local UGA Cooperative Extension office in Chatham County. Whether learning the basics of being a first time renter, launching the search to the steps of first time home ownership, or understanding energy & water conservation best practices are just a few of the many decisions that impact individuals and families with their housing choices. Yet, there are a multitude of consumer housing related topics being asked by consumers including: how to make your home healthier, home safety tips, steps to prepare for natural disasters, living greener, availability of radon, soil & water tests, and environmental & mold concerns to make informed housing decisions.

Housing education collaborations have been established by Chatham County Extension to deliver successful Cooperative Extension housing and environmental education programs to individuals and families throughout the County. Through partnerships Chatham County Cooperative Extension Family & Consumer Sciences Agent is able to reach consumers living in the urban county which includes eight municipalities and with a population of more than 225,500 residents. The delivery of County Cooperative Extension housing and environmental education programs is planned using citizens' input in collaboration with community partners. The Chatham County Extension Family and Consumer Sciences Agent’s housing education delivery reaches diverse socio-economic urban consumers to provide research-based and unbiased housing resources and programs to assist in making informed decisions for making consumer housing decisions. The increase of Chatham County families living in poverty has reached over 26%. This increase in the poverty rate has signaled a community-wide network of collaborations to develop solutions to assist individuals living in poverty with their housing decisions. Neighborhoods with housing in need of repairs of aging properties has been on the rise thus seeking best practices to home maintenance & repairs has also increased with the solution to build housing capacity through community partnerships.

Working with non-profit agencies, municipalities, neighborhood associations, government agencies and communities has resulted in the successful delivery of renters education, first time home buyers education, healthy homes education and sustainable green living to impact individuals and families. This session will provide participants with examples to the success of developing community collaborations to foster housing and environmental partnerships that empower individuals and families to be informed consumer in their housing decisions. UGA Cooperative Extension resources will be provided.

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Rural needs are often unheard or forgotten, causing these communities to slowly dissipate. Due to being overlooked, the relationship between rural areas and urban areas is not well understood, and may lead to policies and funding mechanisms that are formulated for urban problems (Van Zandt, et al, 2009). Rural places are vulnerable to high rates of inadequate owner and rental housing due to older housing stock in conjunction with non-adoption or enforcement of codes, lack of lending institutions, lower family incomes, and fewer housing options (Bokemeier and Garkovich 1991; Fitchen 1991; Morris and Winter 1992; Ziebarth et al. 1997; Belden and Wiener 1999; Housing Assistance Council 2002, as cited by Morton, Allen, & Li, 2004). Like urban communities, rural and small city areas experience problems with blight and housing. Deteriorating properties is a challenge for suburban and rural areas, due in part to increasing concentrations of foreclosed homes and the spatial diffusion of poverty (Huang et al., 2015). Although rural blight is a known issue, limited research has been done on this area. Rural and small city housing suffer from higher levels of most housing maintenance and condition problems, and higher levels of more severe structural problems (Van Zandt, et al, 2009). Housing quality and affordability issues continue to be an issue for rural communities (Yust et al., 2006). Recognizing these issues, and the lack of extensive research analyzing rural community and small city housing and neighborhood condition, this paper seeks to conduct an analysis of housing and neighborhood needs of both rural and small urban communities.

This study seeks to answer the question, how does community member involvement affect housing conditions and neighborhood blight issues in rural and small city areas, and what housing conditions and neighborhood blight problems are present in rural and small city areas? The goal of this study is to increase our understanding of the housing and neighborhood issues faced by nonmetropolitan communities in Georgia and will potentially help to understand the impact community members have on community issues, and problem resolution.

To conduct this study, data was collected through a survey process in 2016, using both electronic and paper methods. The 36-question survey was distributed to 1206 mayors and other staff members of local Georgia municipalities, with 322 responses. Survey respondents were contacted using a mayor and city staff database from the Georgia Municipality Association. Due to the nature of the database, this study was limited to the responses of only city staff and mayors that were part of the database, excluding other non-official residents. A variety of questions focusing on each member’s community features, amenities, and the member’s perception of their community were asked. For the purpose of this study, the questions

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focusing on housing conditions, neighborhood conditions, blight, and community member involvement was assessed, for rural and small urban areas. Although, the full dataset included members of all rural-urban continuum codes, results for rural and small cities were the main focus of this study.

Results of this study were based on the perceptions of city staff and mayors. The responders from rural and small cities, identified that when it comes to solving problems, the characteristics of community members and residents include, both men and women equally, moderate income, white, adults. Fifty-two percent and 43.5 percent of the responders identified using code enforcement and neighborhood clean-up events respectively, to address housing and neighborhood issues. Youth groups and civic organizations and associations were identified as not very involved in decision making regarding housing and economic opportunities/development. Regarding neighborhood and housing conditions respondents identified older housing units in need of rehabilitation, dilapidated vacant houses, cost of housing, crime, pockets of blight, illegal dumping, and low home values as being some of the major problems plaguing their cities. Sixty percent and 46.2 percent of the responders stated that quality of housing and neighborhood conditions respectively, has remained the same in the past three years. Fifty-two percent stated that the current housing stock in their city was not adequate for economic development. Based on the results of the survey, it is evident that rural and small cities experience similar housing and economic development problems as their urban counterparts, with little to no support from outside organizations.
References


Multifamily Sustainable Kitchen Design Project

Kathleen Parrott, Erin Hopkins, Julia Beamish, and Margaret Carneal

There have been recent increases in construction and consumer demand for multifamily living in apartments, townhouses, flats or similar units (Caulfield, 2014; Harrison & Hudson, 2015). The design of multifamily residences needs to provide sustainable and aesthetically pleasing spaces. Kitchens, heavily used spaces, give strong returns on investment and drive multifamily property rentals and sales (Joint Center for Housing Studies, 2015). This case study focuses on the design of a sustainable multifamily kitchen space.

The unique Virginia Tech Center for Real Life Kitchen Design opened in 1998 as a collaborative effort of faculty and the kitchen industry. The Center has six fully operational kitchens representing various price levels and space designs used for classes, research, continuing education programs, and meetings. To continue the Center as a cutting-edge teaching and research space, in fall 2015, a team of industry partners, students, and faculty began to plan, design, and implement a major renovation. Students in a senior design studio developed comprehensive designs for two kitchens, including the Starter Kitchen.

Starter Kitchen to Sustainable Kitchen

The original Starter Kitchen was a space-saving one-wall layout, suitable for multifamily housing markets, and typical of an apartment or retirement home. The student assignment was to redesign the kitchen, with slightly more space\(^1\), demonstrating new technology and a focus on sustainability, and preparing a complete set of drawings and specifications. As the project evolved, students envisioned the kitchen in an upscale, urban environment, with each student describing their target client and location. Students were able to integrate background knowledge from classes in residential property management and environmental housing issues into their designs and the Starter Kitchen became the Multifamily Sustainable Kitchen!

Analyzing the Multifamily Sustainable Kitchen Designs

As the faculty team reviewed students’ design to create a single design for the actual renovation, the question arose: How sustainable would the Multifamily Sustainable Kitchen really be? A content analysis was conducted to evaluate sustainability features of the student designs. A frequency count using a matrix of “sustainable features identified by student” by “student ID” identified 25 different sustainable features. A review identified eight additional sustainable features observed by the faculty reviewer.

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Margaret Carneal, Instructor, Virginia Tech
The 33 distinct sustainable features and 55 total features identified in the student projects grouped into five categories: design features (such as open shelves instead of cabinets or a composting center); material choices; product choices (such as products with a third party environmental certification); lighting or controls; and general, miscellaneous or not defined (such as locally-produced or “eco-friendly” products) (Table 1). Product choices (33%) were most frequently included in student designs, and were in all projects. The most frequently selected sustainable feature was ENERGY STAR® appliances (5 of 8), perhaps because this is a widely known sustainable choice.

Conclusions
Taken as a group, there was a wide variety of sustainable features in the student projects. The emphasis on selecting sustainable products creates marketing opportunities, and gives visibility to the features. However, students focused on identifying only a few sustainable features in their individual project and did not consistently emphasize sustainability across all aspects of their design and product specifications.
### Table 1. Sustainable features

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**References**


Teaching International Students: A Cultural Growth Opportunity

Kathleen Parrott and Eunju Hwang*

Increasingly, students are not native to the country in which we are teaching, whether it is the United States or elsewhere. For example, at the authors’ large state University, about 10% of students are international, from 40 different countries (Lovegrove, 2015), and this number is increasing. Cultural diversity adds interest and presents opportunities. However, when teaching residential design particular challenges arise. There may be curriculum and accreditation requirements requiring a class focus on understanding residential design from the perspective of the culture and country where the class is taught. How do you assimilate and integrate international students, use their unique perspective as a resource, and still meet specific curriculum needs? The authors summarized their multiple experiences with international students in teaching residential design in two settings: a large U.S. lecture class and a multi-national Asian university class.

International students can feel overwhelmed with the need to function continuously in their non-native language. Residential design classes introduce additional unfamiliar words and concepts. Cultural factors vary among countries and challenge learning about residential design, including:

- Family structures and sizes influencing common house designs.
- Social and religious customs and lifestyle factors affecting the relationships of residential spaces.
- Foods prepared and eaten in the home, and spaces dedicated to these activities.
- Technology and its role in the home.
- Typical house forms, influenced by factors including climate, terrain, available materials, and historic events.
- Governmental organizations that determine codes for individual residential buildings, neighborhoods, and community planning.
- Housing policies and accessibility regulations used to assess built environments and communities.

Recognizing the challenge of a culturally diverse classroom is a start. What comes next? Teaching techniques successful for the authors include:

- Learn the native countries of students and how to pronounce their names. Identify second-generation students who also want their cultural heritage recognized.
- Create an atmosphere of inclusiveness and welcome. Even native students may not understand new concepts, so create opportunity for questions during and outside of class.

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• Identify references, such as to a house style, building practice, code, or accessibility regulation, as typical of the country where the class is being taught, recognizing it is not the same throughout the world.

• Consider how to be flexible on assignments. Can the students do an assignment that reflects a design or building practice from their own country? Does internationalizing an assignment benefit the entire class?

• Try in-class activities with small groups, mixing international and native students. This allows students to get to know each other and exchange ideas. Sharing helps all the students to understand their own culture better.

Integrating international students into the residential design classroom can take more time. For example, the instructor may need organize multiple small group activities, prepare visuals that assist students with learning new terminology in non-native languages, or provide tutoring. However, the personal reward can be conversations and insights into the international students’ countries and cultures.

In the presentation, projects and in-class activities contributing to building cultural competency, students’ work samples, and student feedback on multicultural teams will be shared.

Reference
Historic Homes and Owner Satisfaction

Andy Carswell and Gina Peek

Why Do We Care?
There are options and consequences associated with homeownership in historic districts. Preservation has had positive impacts on jobs creation and other economic activity relative to new construction. Homes in certain historic districts were able to command higher prices. Preservation has impacted heritage tourism, especially important to international visitors. Examples of sustainability include waste reduction. Finally, social impacts include buildings reuse, creation of affordable housing, and improving walkability. Extant literature primarily focuses on these externalities. One unexplored aspect of living within a historic area is whether the homeowners are in fact satisfied with the neighborhood (Rypkema and Cheong, 2011; Rypkema, Cheong, & Mason, 2011).

Why is this an Important Subject for HERA?
Housing satisfaction is worthy of scholarship. It is estimated that there are over 2,300 historic districts in the U.S. (National Trust for Historic Preservation, 2016). Historic district residents may have differing levels of satisfaction. Understanding satisfaction related to historic districts will allow housing professionals to dialogue at family, community, and societal levels.

Research Objectives
As stated, there are options and consequences associated with historic districts. For some, the experience is one that they either may have bought into or have gained a sense of pride after the neighborhood was designated. For others, the hassles involved with compliance within historic areas may make the experience tenuous. At the root of our research is the basic question: “Is living in a historic district associated with an increase in satisfaction?”

Theory
This research uses the work from Morris and Winter’s Housing Adjustment Theory (1975) to explore housing norms. Housing Adjustment Theory is appropriate for the research as it involves housing norms applicable to this discussion. Specifically, the norms that are considered include: (1) Structure type norms; (3) Quality norms, and (3) Residential norms.

Methodology

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The 2013 American Housing Survey (AHS) will be used for this research. This study uses variables including those related to satisfaction, age, tenure, presence of a neighborhood association and whether a fee is used. While there are no existing variables specifically stated as “historic”, we provide a few operations to help derive a historic variable. For our purposes, there are a few criteria that need to be captured to create what we feel is a proxy variable for a home within a historic district. The most important variable will be the property age variable. As stated by the National Trust for Historic Preservation (n.d), age criteria includes properties aged 50 years or older. The age of the unit is derived using the BUILT variable. For our purposes, anything built within “1950-1959” and earlier qualifies the building as historic given accepted age parameters. There are also variables within AHS that suggest a type of organizational neighborhood structure. Within the AHS, the variables CEFGFBLOCK, IFFEE, and CONFEE will be determine presence of an organization and any associated fees. These variables allow us to determine whether the designated historic property belongs to a neighborhood group (CEFGFBLOCK), which specifies some degree of neighborhood control. The IFFEE variable indicates whether a homeowner pays a fee to be a part of that particular neighborhood, which if so, suggests even more vested interest. Finally, the variable CONFEE determines the size of the neighborhood fee, which may both indicate degree of exclusivity and can impact satisfaction.

References
Community Engagement in Mitigating Uranium and Radon in Well Water

Uttam Saha, Dana Lynch, Pamela R. Turner, Leticia Sonon, and Gabrielle Walters

In 2010, routine water testing revealed high uranium concentrations exceeding EPA’s maximum contaminant levels (MCLs) of 30 parts per billion (ppb) in some private drinking water wells in central Georgia. High level of uranium in well water was often associated with a high level of radon gas. Uranium and radon in well water originate from naturally occurring granite bedrock. Drinking water that contains high levels of these contaminants can have adverse health consequences. County residents reported numerous health problems, including cancer, kidney problems, autoimmune disorders, gastrointestinal symptoms, and neuropathy. Residents and local officials expressed the need for more public education, testing, and informational resources. This paper provides an overview of how community engagement contributed to the success of creating a healthy home environment that is free from the harmful effects of these contaminants.

Several public education workshops were conducted primarily in Monroe and Bibb counties, which are located in central Georgia. The 1- to 3-hour workshops were attended by 25 to 500 county residents. The objectives of the workshops were: (1) Educate consumers about uranium and radon, (2) Promote testing household water for uranium and the air for radon; and (3) Provide information on treatment systems to remove these contaminants. Post workshop survey showed overwhelming positive response from over 90% of the attendees in terms of knowledge gained and ability to handle well water problems.

To encourage testing, households were offered free radon air sampling kits and half-price uranium water testing. Extension fielded questions from various stakeholders (well owners, health department and social workers, journalists, public officials) to allay concerns and clarify issues. Homeowners with homes testing high radon in air were encouraged to test their water for radon. In some instances, test data showed that high level of radon in water was associated with high radon in air when the shower and/or washing machine were in use. Such high concentration cannot be removed by a common household water treatment system. The best option would have been to obtain water from the public water system but extending county water distribution lines to areas with high uranium and radon required a multimillion-dollar investment.

Our program laid out the evidence-based groundwork that led to increased collaboration with state health and environment agencies, EPA, and community advocates that resulted in the county securing financing
to extend water lines to the areas of the county impacted by contaminated well water. Another positive outcome was the ability to secure grant funds for Extension to purchase a liquid scintillator to test for radon in water. This provides service to the residents of the state and a new revenue stream. The program has enhanced our understanding about the nature and extent of uranium and radon problems in the state and how we can make an even greater impact by engaging with community advocates and various stakeholders. The program has also made a significant impact by educating homeowners and improve their knowledge on determining appropriate mitigation strategies, thereby creating a healthier environment and improve their quality of living.
The Home Improvements and Structural Alterations Benefits Program:
What do Veterans with Disabilities Need to Know?

Luz M Semeah, Julia Beamish, Sherry Ahrentzen, Huanguang Jia, Diane C. Cowper Ripley, Charles Edward Levy, and William C. Mann

Inaccessible home environments for individuals with disabilities can negatively impact their health-related quality of life, increase accidents, diminish activities of daily living, and increase preventable institutional healthcare stays due to fall incidences. One emergent population segment with housing accessibility necessities is Veterans with disabilities (Semeah, 2013; U.S. Government Accountability Office, 2009, 2010). The 2013 American Community Survey data show that of 19.6 million U.S. Veterans, 18.3% live with a service-connected disability (Erickson, 2015). Individuals needing home modifications (HM) to improve accessibility often lack knowledge of financing mechanisms, experience the stress of coordinating HM logistics, and thus, do not complete the application process.

One program available to Veterans with disabilities is the Home Improvements and Structural Alterations (HISA) program, which provides financial assistance for HMs. Established in 1973, this Veteran Affairs (VA) benefit program, was designed to facilitate continued medical treatment and promote access to essential areas within the home. Both renters and homeowners are eligible whether their disability is service-connected or not. This presentation will provide information about HISA and share preliminary data from a qualitative study that interviewed stakeholders on program utilization.

Background

HISA applications are initiated as an HM order from a treating provider (e.g. physician). The consult must go before a HISA committee composed of social workers, staff physicians, therapists, patient and Veterans Service Organizations representatives for review and approval. The Veteran’s application package includes: 1) An estimate from a contractor with plans and photos of areas to be modified, and 2) Notarized written permission from property owner authorizing prescribed modification if the property is rented.

The GAO (2010) found that Veterans underutilized and lacked awareness of programs like HISA. In 2009, the total number of users was 2,535 (Veterans Health Administration [VHA], Freedom of Information Act
By 2014, 5,616 were utilizing the program, even though the HISA program obligation was only 1.1% of the Prosthetics and Sensory Aids Services' $2,455,233,044 total budgetary appropriation.

Methods
Three groups of VHA’s HISA stakeholders in the North Florida/South Georgia Health System were interviewed: 10 Veterans with disabilities who received an HM; 9 VA providers who ordered HMs for Veterans; and HISA Committee members who reviewed and approved prescriptions for HMs. The interviews were transcribed and analyzed using the constant, comparative method (Glaser & Strauss, 1967).

Findings
Providers perceived that HMs were needed to make Veterans’ homes accessible and safe. Both providers and Veterans reported a lack of information about HM services and HISA grants. Veterans were dissatisfied with insufficient or inappropriate HMs which negatively impacted their quality of life and health. Finally, HISA committee members noted that understanding the intent and goals of HM services was inconsistent among stakeholders which limited the approval rate of requests.

Conclusions
The HISA program’s administration is complex and misinterpretation of rules can negatively impact eligibility, resulting in denial of grant awards. New HISA regulations issued in January 2015 may streamline the application process, reduce Veteran application requirements, and eliminate administrative burdens experienced by VA staff. Marketing the program to increase awareness should be considered.

References


Learning From Experience: Redesigning a Service-Learning Course Using Learning-Oriented Assessments

Kim Skobba and Karen Tinsley*

Learning-oriented assessments, in which the primary focus is on the development of productive student learning processes, offer a way of developing and assessing learning outcomes that foster ways of thinking and practicing in the field of housing and community development. Learning-oriented assessments are guided by three key principles, including assessment tasks that offer learning that mirrors real-world applications of the subject matter and promotes the learning required of program graduates, actively engages students with criteria and feedback so that they develop evaluative expertise, and an emphasis on student engagement with feedback so that it is “feedforward” (Carless, 2007, 2014). Carless describes this engagement with assessment of real life problems as a major means of supporting the development of ways of thinking and practicing (WTP).

Ways of thinking and practicing (WTP) is a concept that describes the depth and breadth students learn through engagement that develops a sense of what it means to be part of given disciplinary and professional community (McCune & Hounsell, 2005). This concept is particularly important in the study of housing and community development, an applied field of study. Community development is defined as “a participatory effort to mobilize community assets that increases the capacity of residents to improve their quality of life” (Green & Haines, 2016, p. 13). The practice of housing and community development requires mastery of diverse knowledge and skills, including understanding of poverty and neighborhood dynamics, the ability to plan and manage community development processes, leadership and teamwork, and the analytical skills needed to understand and address community problems.

The purpose of this paper is to examine the use of learning-oriented assessments to enhance ways of thinking and practicing for students enrolled in a housing and community development course. The course provides students with a theoretical foundation of community development and the development and application of the analytical tools needed to analyze the housing and neighborhood needs of place-based communities. While the course has been successful in many ways, the service-learning projects for the course varied considerably from year to year, meaning that students learned different concepts and skills depending on the project. The measurement of learning outcomes was minimal and ad hoc. To ensure that students are exposed to a consistent and wider range of ways of thinking and practicing in housing and community development, the authors developed six modules that include learning-oriented assessments. The six modules include: gathering community input, social network analysis, housing conditions assessment, analysis of secondary data, basic mapping skills, and report development with findings and recommendations. The paper will include a summary of module content and a discussion of

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learning-oriented assessments and processes as a conceptualization of how learning-oriented assessments may be integrated into housing-related courses to foster ways of thinking and knowing in housing and community development.

References
Improving Asthma: Home Environmental Interventions With Children and Older Adults

David A. Turcotte, Susan Woskie, Rebecca Gore, Emily Chaves, Kelechi Adejumo, and Rosemary Rungu

Research has documented that housing conditions can negatively impact the health of residents, particularly vulnerable populations (Northridge, 2010). Asthma has many known indoor environmental triggers including dust, pests, smoke and pets, as evidenced by approximately 7.1 million children (U.S. EPA, 2013) and 18 million adults (CDC, 2014) of the U.S. population who have asthma. We propose to contrast methods of conducting multifaceted home interventions to reduce asthma severity among low-income asthmatic children and older adults from a diverse urban setting. We have conducted three HUD-funded multifaceted home environmental intervention projects, two with children and one with older adults in low-income households, involving environmental assessments, data collection, education, and some property remediations. Our results provide significant evidence that these multifaceted home interventions work to improve environmental quality and health of asthmatic children so we applied similar methods to an older adult population with asthma to test a hypothesis that we would see similar results. Health and environmental improvements will be described from two completed intervention research projects conducted with children and a third project with older adults. Although several studies have conducted multifaceted home intervention research with asthmatic children (Crocker et al, 2011; Turcotte et al, 2014), multifaceted home intervention research has not been conducted with older adults with asthma.

Methodology and Procedures
A comprehensive health and environmental assessment and subsequent intervention were completed in 176 households enrolled in two studies involving 258 children with asthma and 90 households in one study involving 93 older adults. The two largest populations among children/older adults included Hispanics (57/45%) and Asians (13/19%). Health and environmental assessments conducted in English, Khmer and Spanish included survey questionnaires, visual observations, and environmental sampling at baseline and follow-up 11-12 months later to evaluate impact of the intervention on the health of the child/family and older adults. Home health workers provided asthma prevention education, and targeted environmental intervention to decrease asthma triggers. Environmental assessment includes evaluation of asthma trigger activities (ATAs) and exposures before and after healthy homes intervention. Major analysis included health effects on wheeze and asthma attacks, doctor and ER visits and hospitalizations,

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Rosemary Rungu, Graduate Student, University of Massachusetts Lowell
as well as an asthma scale assessment on child/older adult physical health, child/adult social activity, and child/older adult emotional health.

Results
The study population of diverse, low-income children with asthma showed a statistically significant health improvement from baseline to follow-up. Final assessments with older adults are being concluded and preliminary results show statistically significant health improvement from baseline to follow-up in the following areas: doctor visits due to asthma, symptoms and impact quality of life indicators and ACT score, a measure of asthma control adequacy.

Conclusions
The findings suggest that culturally/linguistically appropriate, multifaceted interventions decrease most measures of asthma severity and healthcare utilization in these low-income children and older adults with asthma.

Implications
The study demonstrates that a relatively low cost comprehensive home environmental intervention can significantly improve the health and emotional well-being of our study population of asthmatic children and older adults. Consequently, policymakers need to consider the utilization of such interventions and changes in housing conditions to enhance health status of older adults with asthma, as well as asthmatic children.
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Housing Expectations and Aspirations Of Gay Men And Lesbians As They Age

Michael Urness and Becky L. Yust*

The housing concerns of senior gay and lesbian persons have not been well researched or explored and nearly all published articles that do exist acknowledged that gaps exist in current understandings. Many researchers of senior housing were self-critical of these deficiencies. This paper sought to answer the questions: What are the housing expectations and aspirations of gay and lesbian people as they age? What resources do they identify that make their aspirations achievable? What constraints may hinder their realization of their housing aspirations? How does their current housing situation shape their approach to these questions?

After receiving IRB approval, a purposeful snowball sample of gay men and lesbians over age fifty in the Minneapolis/Saint Paul metro area were interviewed using a standard battery of seven questions with open follow up and demographic data was collected. Interviews lasted roughly an hour each and were recorded using a digital audio recorder and then transcribed and reviewed against recordings.

Qualitative analysis of interviews revealed six themes that were common among participants. Participants placed high value on their sexual orientation being respected and valued in their community and especially if they were to receive in home care or enter a retirement facility. The value of privacy and independence was a priority for participants, sometimes sacrificing financially to ensure their desires were fulfilled. The importance of community connections was regarded highly for its social merit as well as its contribution to networks of assistance that could aid in the demands of aging. The physical accessibility of the home was a topic that was confronted by all participants. The impact of wealth and privilege revealed that the LGBT community is not a monolith; different segments have different challenges. Finally, in consideration of future challenges, many participants had not considered and/or denied their impending aging and associated life changes.

The findings of this paper fill gaps in the understanding of the value gay men and lesbians place on the competing aspects and attributes of their housing. Among the findings were that the gay men interviewed tended to come out later in life than lesbians and had greater financial resources to secure adequate housing. While participants relied on friends and peers to stay in their homes and recounted giving similar help to their elders, they didn't see any indication of younger people following in their footsteps. Participants sought to live in LGBT communities, but recognizing that the demographics may make that difficult, they instead sought neighborhoods of diversity instead of homogenous areas. In addition to filling

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gaps in existing research, the study suggests improvements to the Housing Adjustment Theory that could better explain housing selection of minority populations.
This paper examines language used by housing professionals and researchers to illuminate the possibility of implicit biases and how terminology continues to shape assumptions in the discourse of housing. Our approach was rooted in post-structuralist discourse analysis (Foucault, 1976), and content analysis was the methodology. Foucault’s framework argues that language exercises a productive power that dictates how we see and understand the world; language does not merely describe an objective reality, it constructs reality. Previous researchers have used Foucault’s framework in application to the field of housing (e.g., Flint, 2004; Flint & Rowlands, 2003; Jacobs & Manzi, 2000). According to Foucault (1976), there can be disciplinary power enacted through language to privilege certain activities or states of being when compared to others. There are many housing-related examples in the media that contribute to the power of terms to shape opinions: use of the phrase “housing unit” when describing multifamily housing implying lower status compared to descriptions of “single-family homes.” This project chose to assess how contributors to the second edition of the Encyclopedia of Housing (2012) used terms to describe various housing topics. The editors of the Encyclopedia categorized entries into 20 categories¹. Using 20 categories of the Encyclopedia, we used content analysis of each entry in the categories to compare the use and frequency of ten commonly used terms that describe people and structures related to housing and the context of how they were used. The ten terms were selected because they describe not only an objective reality, but also address implicit attitudes towards households and housing as framed by Foucault. Six terms were chosen to describe households: “client,” “homeowner,” “household,” “renter,” “resident,” and “tenant.” The terms “homeowner,” “household,” and “resident” were considered more favorable in constructing reality than “client,” “renter,” and “tenant.” Four terms were chosen to describe the housing structure: “apartment,” “home,” “house,” and “unit.” The terms “home” and “house” were considered more favorable than “apartment” and “unit.” The analysis of frequencies of the presence of the terms in entries by category revealed that there were differences in the way terms were deployed and that some terms were nearly absent from entries in certain categories. Sometimes that may occur because of legal precedence, e.g., use of “tenant” in tenant/landlord laws, but other terms have simply been used as a numerical description in meeting affordable housing goals, e.g., “unit.” Entries about behavioral aspects of housing almost completely ignored “renters” while those entries involving cross-national research had few mentions of “homeowners.” These findings suggested that terms used in the entries in the Encyclopedia of Housing (2nd ed.) display the constructed discourse that

¹ The Encyclopedia editorial team identified 20 categories that needed to be covered in the 2nd edition. For each of the 20 categories, they identified entries that should be included for which they solicited authors.
privileges homeowners and single-family housing over renting and multifamily units. The findings could be used to advance our appreciation for language we use in educational settings and addressing research questions.

References


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Managing The Message in Multifamily Housing: Incorporating Media Issues into a University Housing Course

Carla Earhart, Jacob Gretencord, Kelsey Seal, and Casey Kitchen

Introduction
In the Shelterforce article “Managing the Message”, author David Holtzman (2006) describes how the right choice of words, stories, and images can have a remarkable effect on how the public views apartments, thereby dispelling apartment-related stereotypes through the use of more appropriate media influences. This article, along with recent research conducted by the course instructor, served as the foundation for this upper-division Housing course. The purpose of this presentation is to share how the incorporation of these media concepts into learning activities can be used to enhance housing education.

Learning Activities
The structure of this course allowed for a great deal of flexibility in meeting course objectives. Limited lecture was used in the course; instead, learning activities of the course included:

- Field trips to housing developments
- Guest speakers on housing topics and media topics
- Mini projects related to housing/media issues
- Writing articles for the Housing Guide of the campus newspaper
- Final project related to housing/media issues

Many learning opportunities resulted from these activities for both the students and the instructor. Each of these learning activities will be described in more detail in the conference presentation.

The final projects allowed students (individually or in pairs) to increase and share their knowledge on a variety of topics that bridge housing issues and media issues. Many of the project topics focused on the use of social media in housing. Other topics included:

- Use of stock photos in promoting housing opportunities
- Use of photos in apartment-related news articles
- Fair Housing issues in Facebook photos
- Apartment rating and review sites
- Student housing in the media

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The course culminated in a public event to showcase course results, including not only a display of student work, but also a reception and nationally-recognized keynote speaker. A team of student volunteer leaders took on additional responsibilities in the course, working with the instructor to plan and implement the showcase event. Showcase attendees included students, faculty, staff, administrators, and area housing professionals. Funding for the showcase was provided by the Ball State University Residential Property Management Advisory Board.

Summary/Conclusion
From the perspective of the students and showcase attendees, the course was overwhelmingly successful, allowing students to focus on a non-traditional topic in a non-traditional learning format. Several positive comments were received at the showcase, especially from younger students who are now looking forward to taking a similar course themselves in the future. Suggestions for improvement came from housing professionals who believe more housing professionals should have attended the outstanding event, and that increased publicity along with an alternate time and location might have generated better attendance.

From the instructor’s perspective, several lessons were learned in developing and carrying out the course and will be used in future offerings of this course. These lessons included issues such as course prerequisites, course structure, project guidelines, and showcase promotion. Reflections of the instructor will be shared through the conference presentation, along with examples of student work.

Reference
Assessing Residential Satisfaction Within Publicly Assisted Housing Households in Georgia

Ebunoluwa Odeyemi

Public housing issues have attracted a lot of attention in a way that much focus had been on the challenges of the program with limited attention on some of its advantages. Racial segregation and concentration of poverty are some of the main concerns that had impacted public housing over the years. Focusing on the perspectives of the residents as to whether they are satisfied with both their homes and neighborhood could change some ideologies of the housing program. Residential satisfaction is a construct that has traditionally encompassed a few dimensions of an individual's housing. From a dwelling unit perspective, it comprises of satisfaction with the entire building structure, living spaces, the number of rooms, and other aspects that meet the expectations of the occupants. Easy access to existing facilities and proximity to services such as schools, health care, transit services and other components that contribute to comfortable living conditions improves residential satisfaction. Parks, Carswell, and James III (2009) defined residential satisfaction as the pleasure a person received from living in a particular place. Ross, Shlay, and Picon (2012) noted that neighborhood satisfaction is an essential ingredient of residential satisfaction.

The purpose of this presentation is to identify the current state of knowledge on public housing research as it relates to residential satisfaction for households living in public housing and households participating in the HCVP. The primary assumption is that families that receive housing choice vouchers experience greater residential satisfaction than those living in public housing units. Also, research had shown that those using the voucher system relocate to better neighborhoods (Clark, 2005; Sard, 2001; Ross, Shlay & Picon, 2012). The proposed study targets households who are renters and either reside in public housing units or acquired their rental property through the Housing Choice Voucher Program (HCVP). The idea is to ascertain whether the general notion about housing voucher recipients experiencing a higher level of satisfaction applies to the households in the cities of Savannah, Columbus and Athens, Georgia. The cities were selected based on some particular characteristics that include – Savannah: a major port and historic town, Columbus: due to its geographical location and population, and Athens: a prominent college town in Georgia.

This study could potentially be policy driven in the attempt to promote sustaining the existing public housing programs. Also, for the public housing authorities in these cities to develop practical tools that would improve the housing conditions of the households. Another objective of this study is to assess specific features that families consider vital to residential satisfaction. To achieve this, the central questions guiding this proposed research is that, but not limited to (a) On a scale of "1" being not satisfied

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and "5" highly satisfied, rate how satisfied you are with your residences? (b) Identify some features that contribute to your present level of satisfaction. (c) Would you rather live in this neighborhood or somewhere else? In light of these questions, I will expound on some of the gaps in the literature on publicly assisted housing programs, discuss data options – use of primary data (surveys) and limitations.

References

Floor plans showing before and after space (square footage and wall frontage) available will be provided in the presentation.