



# Proceedings

## 2015 HERA Conference

Housing Education and Research Association

October 11-15, 2015

Springfield, IL

Refereed Abstracts

Katrin B. Anacker, Editor

# Table of Contents

	Page
<b>Abstract Reviewers.....</b>	<b>2</b>
<b>Refereed Abstracts – Poster Presentations</b>	
<b>USING A HABITAT INTERNATIONAL BUILD EXPERIENCE AS THE CORNERSTONE TO A HOUSING-RELATED STUDY ABROAD AND SERVICE LEARNING PROGRAM.....</b>	<b>7</b>
Andrew T. Carswell, Jorge Ruiz-Menjevar, Ben Jacobs, Blake Bolton, Raymond Chau, Sarah Ernst, Will Johnson, Dilreet Kaur, Jessica Tante, Amanda Vargas	
<b>EXPLORING ENERGY EFFICIENCY AND ALTERNATIVES (E3A): A STATEWIDE IMPLEMENTATION IN MISSOURI.....</b>	<b>10</b>
Kandace Fisher-McLean, Marsha Alexander, Connie Neal, Rebecca Blocker, Patricia Snodgrass, Mark Porth, Jeff Barber, Thomas Fuhrman	
<b>LESSONS LEARNED WHEN A UNIVERSITY HOSTS A TENT CITY.....</b>	<b>12</b>
Sandra C. Hartje	
<b>LIGHTING IMPLICATIONS FOR SAFETY AND SECURITY AT LODGING FACILITIES: AN OKLAHOMA CASE STUDY.....</b>	<b>15</b>
Noriel Jacobs-Gray, Paulette Hebert, Gina G. Peek, Yeasun Chung, Lisa Slevitch, Jerrold Leong	
<b>INTRODUCTION TO AN “AGING-IN-PLACE” SURVEY INSTRUMENT FOR ELDERLY HOMEOWNERS WITH LIMITED RESOURCES.....</b>	<b>20</b>
Sung-Jin Lee, Kathleen R. Parrott, Valerie L. Giddings, Sheryl Renee Robinson	
<b>DESCRIBING THE HOUSING OPPORTUNITIES MADE EQUITABLE COLLABORATIVE (HOMEC<sub>o</sub>).....</b>	<b>24</b>
Deborah Mitchell	
<b>REDUCING MOLD AND ALLERGY TRIGGERS IN FLOODED HOME ENVIRONMENTS.....</b>	<b>27</b>
Patricia Snodgrass	
<b>Refereed Abstracts – Symposia</b>	
<b>MULTIFAMILY AT MID-DECADE: CURRENT TRENDS AND FUTURE OUTLOOK.....</b>	<b>30</b>
Rosemary C. Goss, Erin A. Hopkins, Dustin C. Read, Julia O. Beamish	
<b>RURAL HOUSING: IN SEARCH OF POLICY-DRIVEN RESEARCH.....</b>	<b>33</b>
David Lipsetz, Corianne Payton Scally, Ann Ziebarth, Daniel P. Davis	
<b>Refereed Abstracts – Oral Presentations</b>	
<b>HOUSING SATISFACTION OF SINGLE-PERSON HOUSEHOLDERS OVER 55 IN THE UNITED STATES: A REVIEW OF TWO STUDIES IN RURAL AND URBAN AREAS.....</b>	<b>38</b>
Mira Ahn, Sung-Jin Lee, Hyun Joo Kwon, Suk-Kyung Kim	
<b>URBAN SENIOR HOUSING DEVELOPMENT: THE CASE OF EPISCOPAL HOMES IN SAINT PAUL, MINNESOTA.....</b>	<b>42</b>
Marilyn J. Bruin, Amanda B. Smoot	

<b>SEGMENTING FLORIDA RESIDENTIAL IRRIGATION USERS BY UTILITY-BILL ‘BOTHEREDNESS’ AND HOUSEHOLD BUDGETARY CONSTRAINTS.....</b>	<b>46</b>
Randall Cantrell, Laura Warner, Alexa Lamm, Joy Rumble	
<b>BENEFIT-COST ANALYSIS AND ITS HOUSING APPLICATIONS: THREE EXAMPLES FROM THE PRODUCTION, CONSUMPTION AND GOVERNMENT PERSPECTIVES.....</b>	<b>51</b>
Andy Carswell, Joseph Laquatra, Patryk Babiarz	
<b>INCORPORATING APARTMENT-FRIENDLY CHILDREN’S BOOKS INTO AN UPPER-DIVISION HOUSING COURSE.....</b>	<b>55</b>
Carla Earhart, Blake McBee, Jordan Bottom, Amie Cipolla	
<b>IMAGES OF COMMUNITY CRIME IN FERGUSON, MISSOURI: OLDER ADULTS’ PERSPECTIVES PRIOR TO JULY 2014.....</b>	<b>58</b>
Kandace Fisher-McLean	
<b>THE APPALACHIAN COMPANY TOWN: PAST HOUSING MODELS TO INFORM FUTURE DIRECTIONS.....</b>	<b>68</b>
Gregory Galford, William Biss	
<b>THE FUTURE FOR HOUSING COUNSELORS.....</b>	<b>71</b>
Rita W. Green	
<b>ENVIRONMENTAL SUSTAINABILITY IN THE THIRD-PARTY PROPERTY MANAGEMENT INDUSTRY .....</b>	<b>74</b>
Erin A. Hopkins, Dustin C. Read, Rosemary C. Goss	
<b>MAKING HOME AT GOVERNMENT-SUBSIDIZED HOUSING IN MINNESOTA.....</b>	<b>77</b>
Eunju Hwang, Ann Ziebarth	
<b>A SMARTER CITY: A STUDY OF SUBAREA 8 OF THE ATLANTA BELTLINE AND THE IMPLEMENTATION OF SMART GROWTH AND NEW URBANISM.....</b>	<b>80</b>
Adenola Osinubi	
<b>SERVICE LEARNING AT VIRGINIA TECH: COMMUNITY KITCHENS DESIGN CASE STUDY.....</b>	<b>83</b>
Kathleen Parrott	
<b>EDUCATIONAL NEEDS AND OPPORTUNITIES WITH AGING ADULTS: LISTENING TO LIMITED RESOURCE ELDERLY HOMEOWNERS.....</b>	<b>86</b>
Kathleen R. Parrott, Sung-Jin Lee, Valerie L. Giddings, Sheryl Renee Robinson	
<b>KEEPING IT SAFE: A STUDY EXAMINING AGING IN PLACE AMONG RURAL OLDER ADULTS.....</b>	<b>90</b>
Gina G. Peek, Alexander J. Bishop	
<b>HOUSING HISTORY: LEARNING TO LOOK.....</b>	<b>95</b>
Gina G. Peek, Ann C. Ziebarth	
<b>FINANCIAL LITERACY AND THE USE OF INTEREST-ONLY MORTGAGES.....</b>	<b>99</b>
Gloria L. Preece, Gregory H. G. Schink, Vincent C. Le, Martin C. Seay	
<b>HOME SOLAR ENERGY EDUCATION PROGRAM.....</b>	<b>103</b>
Claudette Hanks Reichel	
<b>HOUSING CHALLENGES ACROSS THE RURAL-URBAN CONTINUUM: A REVIEW OF THE LITERATURE AND IMPLICATIONS FOR POLICY AND PRACTICE.....</b>	<b>106</b>
Kimberly Skobba, Karen Tinsley	

**HEALTHY AND SAFE ENVIRONMENTS FOR CHILDREN/CHILD CARE PROVIDER TRAINING....109**  
Patricia Snodgrass, Rebecca Blocker

**HEALTH EFFECTS OF HOUSING ON URBAN LOW-INCOME ASTHMATIC CHILDREN IN LOWELL,  
MASSACHUSETTS.....111**  
David A. Turcotte, Susan Woskie, Rebecca Gore, Emily Chaves, Kelechi Adejumo

**THE GREAT AMENITY MIGRATION TO RURAL AMERICA: A PILOT STUDY EXAMINING KEY  
INFORMANTS' PERSPECTIVES.....115**  
Ann Ziebarth, Gabrielle Clowdus

## **Reviewers**

Axton E. Betz-Hamilton, *Eastern Illinois University*

Marilyn Bruin, *University of Minnesota*

Karl Flaming, *University of Colorado-Denver*

Leslie Green-Pimentel, *Delta State University*

Sandra Hartje, *Seattle Pacific University*

Caryl Johnson, *University of Virgin Islands*

Hyun-Jeong Lee, *Chungbuk National University*

Sung-jin Lee, *North Carolina Agricultural and Technical University*

Beverly K. Miller, *University of Kentucky*

Kathleen Parrott, *Virginia Tech*

Gina Peek, *Oklahoma State University*

Patricia L. Snodgrass, *University of Missouri Extension*

## **Refereed Abstracts – Poster Presentations**

**USING A HABITAT INTERNATIONAL BUILD EXPERIENCE AS THE  
CORNERSTONE TO A HOUSING-RELATED STUDY ABROAD AND SERVICE  
LEARNING PROGRAM**

Andrew T. Carswell, Jorge Ruiz-Menjevar, Ben Jacobs, Blake Bolton, Raymond Chau,  
Sarah Ernst, Will Johnson, Dilreet Kaur, Jessica Tante, Amanda Vargas\*

Using study-abroad programs as a way of integrating service-learning projects is a growing phenomenon in American college curricula (Bringle, Hatcher, & Jones, 2012; Lewis & Niesenbaum, 2005). As part of a University of Georgia Study Abroad Program in Costa Rica, a group of eight UGA Students and two faculty members traveled to Puntarenas, Costa Rica to participate in an international Habitat for Humanity Build as a service learning component of the experience.

The differences between Habitat for Humanity builds in Costa Rica and the United States are immense in the details, yet similar in a broad sense. In Costa Rica, the work was much more labor intensive, with less volunteers and more physically exhausting work. This is most likely due to the lack of heavy machinery available in rural

---

\* Andrew T. Carswell, Ph.D., Associate Professor, University of Georgia;  
Jorge Ruiz-Menjevar, Graduate Student, University of Georgia;  
Ben Jacobs, Graduate Student, University of Georgia;  
Blake Bolton, Undergraduate Student, University of Georgia;  
Raymond Chau, Undergraduate Student, University of Georgia;  
Sarah Ernst, Undergraduate Student, University of Georgia;  
Will Johnson, Undergraduate Student, University of Georgia;  
Dilreet Kaur, Undergraduate Student, University of Georgia;  
Jessica Tante, Undergraduate Student, University of Georgia;  
Amanda Vargas, Undergraduate Student, University of Georgia.

Costa Rican areas, whereas tasks such as digging holes would not be done manually in the United States. In addition, the basic materials used in Costa Rica, mainly cement, differ vastly from the wood and nails used in US Habitat for Humanity builds. This is likely due to the cost and availability of materials, as well as natural factors and probability of natural disasters. While there are many differences, there are still similarities among builds in the two countries. The impact of Habitat for Humanity on both the family and community are large, and the experience of building a house for a family in need is one from which everyone benefits.

The tasks involved with the project were noteworthy. The initial student labor assignments required digging 37 2' deep holes for reinforcement posts, which was tiring yet rewarding for the students. During the second day, a massive hole was dug for a 5' wide and 5' deep hole for a septic tank to dig, along with a 15' long, 3' deep trench. The walls of the house began to go up, put together like Legos, as one student described, with cement used to keep the frame in place. The third day brought with it both difficulties as well as positive experiences. Fatigue had really set in for the group, and there was a sense of frustration that much of the digging had not yet been completed. The group was treated to a cultural experience at the end of the day, however. The final day brought feelings of accomplishment and reflection, in that the group completed much of the exterior concrete walls of the house and the filling of the trench. There was some frustration that the students would not be able to see the project completed in its entirety. However, the service-learning project was considered a success due to the sweat effort and determination put into the project by the students



and the self-reflection of the cultural differences between the U.S. and Latin America in housing quality, space standards and residential/neighborhood amenities made this a positive experience overall for the students.

The poster session will ultimately serve three purposes. It will provide comments made by the students on a daily basis in a journal reflection exercise that captures their own thoughts and comments on the experience as it happened. There will also be a photographic gallery of the Habitat build project from start to completion over the four days. Finally, there will also be an on-site time-lapse video presentation that represents an encapsulation of the service-learning experience, which will be used as a recruiting tool for future departmental study-abroad programs of this nature.

### **References**

- Bringle, R. G., Hatcher, J. A., & Jones, S. G. (Eds.). (2012). *International service learning: Conceptual frameworks and research*. Stylus Publishing, LLC.
- Lewis, T. L., & Niesenbaum, R. A. (2005). Extending the stay: Using community-based research and service learning to enhance short-term study abroad. *Journal of Studies in International Education*, 9(3), 251-264.

## **EXPLORING ENERGY EFFICIENCY AND ALTERNATIVES (E3A):**

### **A STATEWIDE IMPLEMENTATION IN MISSOURI**

Kandace Fisher-McLean, Marsha Alexander, Connie Neal, Rebecca Blocker,  
Patricia Snodgrass, Mark Porth, Jeff Barber, Thomas Fuhrman\*

The Exploring Energy Efficiency and Alternatives (E3A) Curriculum was developed through a partnership with the University of Wyoming Extension and Montana State University. E3A is a non-biased, research-based Extension curriculum for energy efficiency and small renewable energy technologies for the home, farm, and ranch. The curriculum was adapted to be used throughout the state of Missouri to meet the needs of local homeowners and farmers. One-time regional funding became available to Extension faculty to implement the E3A curriculum statewide between March 2015 and June 2015. Housing and Environmental Design Specialists are in the process of collaborating with Agriculture and Natural Resource Specialists to utilize grant funding to deliver the E3A program statewide. The statewide initiative to implement the E3A program will be completed no later than June 30<sup>th</sup>, 2015. All specialists who are hosting the program throughout the state are currently collecting evaluation data for the program. This poster presentation highlights the initiatives

---

\* Kandace Fisher-McLean, Ph.D., H.H.S., Housing and Environmental Design Specialist, University of Missouri Extension;

Marsha Alexander, H.H.S., Housing and Environmental Design Specialist, University of Missouri Extension;

Connie Neal, H.H.S., Housing and Environmental Design Specialist, University of Missouri Extension;

Rebecca Blocker, H.H.S., Housing and Environmental Design Specialist, University of Missouri Extension;

Patricia Snodgrass, H.H.S., Housing and Environmental Design Specialist, University of Missouri Extension;

Mark Porth, H.H.S., Housing and Environmental Design Specialist, University of Missouri Extension;

Jeff Barber, LEED AP Architect, Housing and Environmental Design Specialist, University of Missouri Extension;

Thomas Fuhrman, Ph.D., Housing and Environmental Design Specialist, University of Missouri Extension.

throughout the state, how the grant money was utilized, and the combined evaluation data for the program statewide.

## LESSONS LEARNED WHEN A UNIVERSITY HOSTS A TENT CITY

Sandra C. Hartje\*

Seattle Pacific University, located in Seattle, WA, hosted Tent City 3 (TC3) during winter quarter 2015. TC3 is a portable, self-managed community or encampment providing safe shelter in tents for up to 90 days in one location and for up to 100 men and women residents who are homeless. It is well organized, operates with a strict code of conduct, and provides its own trash removal, restroom and shower facilities, and security. Tent Cities provide a safe place for residents to leave belongings and flexible hours for workers, enabling the residents the opportunity to search for work, attend appointments and make plans for their future. Tent Cities are needed because there is not enough indoor shelter space for all who need it. In King County, the county in which the university is located, the most recent One Night Count results identified at least 3,772 men, women, and children without shelter during the three hour street count during the early morning of January 23, 2015 in addition to the count of 2,993 in transitional housing and 3,282 in shelters, resulting in a total of at least 10,047. This number represents a 21 percent increase over those found without shelter one year earlier (Seattle/King County Coalition on Homelessness, 2015). Thus, tent cities are a needed, although temporary, resource in providing shelter for people experiencing homelessness. In fact, the City of Seattle has recently approved up to three new homeless encampments for up to 100 people each on city or private land.

---

\* Sandra C. Hartje, Professor, Seattle Pacific University.

The university hosted TC 3 for the first time in 2012, responding to the initiative of students who were passionate about how hosting the encampment would be educational for the university community and a tangible way of living out the mission of the university. At that time, the encampment was located in a relatively low-visibility location. The university hosted TC3 again in winter quarter 2015, combining student initiative with affirmation by the faculty and support of the administration. Building on the previous experience with TC 3 and with increased attention directed to academic integration, service-learning and awareness building, TC3 moved on to the campus, this time in a highly visible location near the entrance to the campus. Hosting TC3 provided an important learning opportunity for students, the university and the surrounding community.

A coordinating committee of staff, faculty and students facilitated all university efforts – planning for the arrival of the TC3 residents and providing oversight for the duration of their stay. Prior to the arrival, a myriad of activities between the university coordinating committee (UCC) and the TC3 leadership, regarding decision-making about the physical space, safety and security, university access for TC3 residents, and communication had occurred. University faculty, staff and students participated in events and educational programming that included the move in/move out, a welcome reception, Affordable Housing and Homelessness Advocacy day in Olympia, educational forums and films, serving meals, inviting the TC3 residents to the Library Super Bowl party, and the debriefing and reflection from TC3 and SPU communities. In addition, faculty conducted research, classes interacted via curricular projects, and

students participated in co-curricular activities. TC3 residents gave tours, were guest speakers in classes, and regularly visited the Student Union Building. Members of the surrounding community and outside groups also participated.

TC3 relocated to a new location about 12 miles north of the university, Shoreline Free Methodist Church, near the end of winter quarter. Following their move off campus, members of the university met to discuss what was learned from the experience of hosting TC3. This presentation will summarize the results of a survey administered to university people involved in hosting TC3 and perspectives from the Final Report prepared by the UCC. It will consider academic outcomes, recommendations for structuring a future hosting of TC3, the potential for partnering with the City on issues related to homelessness, and understanding homelessness in the context of the broader issues of affordable housing and political participation. The discussion will be enhanced with visual images of TC3's stay on campus.

### **Reference**

Seattle/King County Coalition on Homelessness (SKCCH). (2015, January 23). Press Release: One Night Count. Seattle, WA: Seattle/King County Coalition on Homelessness.

# **LIGHTING IMPLICATIONS FOR SAFETY AND SECURITY AT LODGING**

## **FACILITIES: AN OKLAHOMA CASE STUDY**

Noriel Jacobs-Gray, Paulette Hebert, Gina G. Peek,

Yeasun Chung, Lisa Slevitch, Jerrold Leong\*

### **Introduction**

Safety and security have emerged as major issues in the lodging and hotel community. Improving safety and security is a viable value-creation strategy anticipated to increase prosperity in the lodging and hotel industry. Lighting is one of the most practical and effective ways to improve properties' safety and security at night. Properties may be under-illuminated (need) or over-illuminated (waste).

### **Justification of Research**

Lodging facilities may serve for overnight or extended stays. For those experiencing an extended stay, the lodging essentially becomes temporary housing, that is, a "home away from home." This type of housing increases mobility for professional and personal reasons. While away from the permanent residence, lodging guests desire high levels of safety and security, which is an under researched area of

---

\* Noriel Jacobs-Gray, Doctoral Candidate, Oklahoma State University;  
Paulette Hebert, Ph.D., Professor, Oklahoma State University;  
Gina G. Peek, Ph.D., Assistant Professor and Extension Housing and Consumer Specialist, Oklahoma State University;  
Yeasun Chung, Ph.D., Assistant Professor, Oklahoma State University;  
Lisa Slevitch, Ph.D., Associate Professor, Oklahoma State University;  
Jerrold Leong, Ph.D., Associate Professor, Oklahoma State University.

hotel management (Gill, Moon, Seaman, & Turbin, 2002). Exterior lighting is important to safety and security (Boyce, 2006 p. 175-184; Rich & Longcore, 2013).

### **Purpose of the Research**

The purpose of the research was to explore three Oklahoma lodging facilities' existing lighting conditions, compare existing conditions to international industry recommendations, raise awareness of the importance of safety and security lighting, and deliver results to the lodging community.

### **Methodology**

A team of interdisciplinary faculty and students in the College of Human Sciences, School of Hotel and Restaurant Administration and Design Housing and Merchandising, addressed and identified needs from the local lodging community. The convenience sample lodging facilities studied included three hotels of varying sizes:

- Hotel A (boutique, historic value; 88 rooms);
- Hotel B (mid-level franchise; 81 rooms); and
- Hotel C (franchise residential that encouraged lengthy stays; 120 rooms).

GTE Sylvania DS-2000 light meters were used to measure the visible light levels using industry standards. Horizontal and vertical exterior planes on four areas were considered: Sidewalk and pathway, front entrance, rear entrance, and parking lot. Measurements were then compared to industry recommendations. Night Spectra Quest Spectrum ID Cards were used to examine the spectral composition of lighting fixtures. These analyses were compared to standard spectral distribution charts for lamp types.



## **Results**

The light sources for Hotel A were: incandescent, metal halide, fluorescent, and high pressure sodium; Hotel B: Metal halide, high pressure sodium; and Hotel C Metal halide, and high pressure sodium. Light levels measured in the areas of each hotel (sidewalk and pathway, front entrance, rear entrance, and parking lot) were far greater than (indicates waste) or far less than (indicates need) the 2000 IES recommendations. In some cases lighting levels more than doubled (waste) or were more than two times less than (need) industry recommendations. Hotel A's horizontal and vertical light readings were lower than the industry requirements for three of the areas observed (sidewalk and pathway, rear entrance, and front entrance). All three lodging facilities had vertical readings below industry recommendations for the rear entrance. Results are shown in Appendix A.

## **Conclusions and Implications**

The finding showed all three properties needed to modify their lighting provision as they exhibited evidence of light pollution in one or more areas. This finding may have implications for the improvement of staff and guest safety; a well illuminated facility could promote an enhanced feeling of security. The finding may also be transferable to assist in improving lighting in other industries and lodging facilities as suggested by (Gill et al., 2002).

## References

- Boyce, P. R. (2006). Lemmings, light, and health. *Leukos*, 2(3), 175-184.
- DiLaura, D. L., Houser, K. W., Mistrick, R. G., & Steffy, G. R. (2011). *The lighting handbook*. New York, NY: Illuminating Engineering Society.
- Gill, M., Moon, C., Seaman, P., & Turbin, V. (2002). Security management and crime in hotels. *International Journal of Contemporary Hospitality Management*, 14(2), 58-64.
- Rich, C., & Longcore, T. (Eds.). (2013). *Ecological consequences of artificial night lighting*. Washington DC: Island Press.

### Appendix: Measured Light Levels: Front Entrance

	Hotel A		Hotel B		Hotel C		2000 IES Recommendations	
	LX	FC	LX	FC	LX	FC	LX	FC
Horizontal								
Minimum	2.2 ◇	0.2 ◇	100.1+	9.3+	289.5 +	26.9 +	50	5
Maximum	9.7 ◇	0.9 ◇	171.1 +	15.9 +	490.8 +	45.6 +		
Mean	4.3 ◇	0.4 ◇	129.1 +	12.0 +	372.4 +	34.6 +		
Maximum: minimum uniformity ratio	4.5		1.71		1.7			
Average: minimum uniformity ratio	2		1.3		1.3			
Vertical								
Minimum	9.7 ◇	0.9 ◇	65.7 +	6.1 +	212.0 +	19.7 +	30	3
Maximum	11.8 ◇	1.1 ◇	65.7 +	6.1 +	212.0 +	19.7 +		
Mean	16.1 ◇	1.5 ◇	65.7 +	6.1 +	212.0 +	19.7 +		
Maximum: minimum uniformity ratio	1.2		1.0		1.0			

- ◇ Lower than (need) 2000 IES recommendations  
 + Higher than (waste) 2000 IES recommendations

# **INTRODUCTION TO AN “AGING-IN-PLACE” SURVEY INSTRUMENT FOR ELDERLY HOMEOWNERS WITH LIMITED RESOURCES**

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

Since 2012, the Housing Research Team at North Carolina A&T State University (N.C. A&T) has been involved in an Aging-in-Place (AIP) project to determine the indicators that influence the AIP concept among NC elderly homeowners with limited resources, who are age 55 and over. One of the project outcomes is to develop an AIP protocol which can be applied to NC elderly homeowners with limited resources. This paper introduces the AIP survey instrument designed for limited resource elderly homeowners. Little if any research exists related to the identification and application of AIP strategies utilized by elderly homeowners in North Carolina.

## **Methodology**

There were several steps involved in developing the AIP survey instrument. In January 2013, the Housing Research Team invited housing professionals in the Piedmont Triad area in North Carolina to discuss their concerns and/or experiences regarding the living environment of elderly populations with limited resources. In February 2013, several meetings with the director of a nonprofit housing organization (mainly dealing with home modifications) were held to aid in developing the sample

---

\* Sung-Jin Lee, Ph.D., Assistant Professor, North Carolina A&T State University;  
Kathleen R. Parrott, Ph.D., Professor, Virginia Tech;  
Valerie L. Giddings, Ph.D., Associate Professor, North Carolina A&T State University;  
Sheryl Renee Robinson, Research Associate, North Carolina A&T State University.

recruitment of potential participants. The organization's clients had a total household income that does not exceed 50% of the current county AMI (Area Median Income) for the household size as determined by U.S. HUD. For the sample recruitment, the director sent out a cover letter to their clients to introduce the AIP study. While the Housing Research Team contacted the clients by phone call to ask their interest in their study participation, some clients contacted our Team directly to show their participation interests after receiving the cover letter.

In May 2013, the interview questionnaire, consent letter, and application were approved by the International Review Board (per N.C. A&T Behavioral IRB Study #: 13-0130). Between June 2013 and May 2014, personal interviews were conducted with 30 limited resource homeowners in a central NC city, aged 55 and over, who completed home modifications, based on an open- and closed-ended questionnaire related to their housing problems and challenges. Each interview was tape-recorded. The shortest interview was 25 minutes and the longest interview was 45 minutes (An average interview time was 31 minutes). Each interview was transcribed. From September 2014 to January 2015, content analysis was conducted by the research team. All transcripts were color-coded by the open-ended question topic: housing choice, neighborhood and town, finance and future housing planning, health and physical activity, and home modification. Then, each topic content was read by two people for pulling out and identifying keywords for data coding. Each keyword was counted for frequencies. As a final outcome, an AIP instrument was developed. Professional reviews and pilot tests were conducted; and the AIP instrument was approved by the IRB in March 2015.

## **AIP Survey Instrument for Limited Resource Elderly Homeowners**

The survey instrument included 68 questions covering healthy housing (10 questions), housing choice (3), the neighborhood (6) and town environment (3), financial and future housing planning (13), health and physical activity (10), home (structural) environment (11), and background information (12). Each question and its response choices were based on the frequencies of respondents' comments/citations in the personal interviews. For example, when we asked what they liked most about their neighborhood, "friend(s)/ neighbor(s) helping each other (17 times)" was highly cited, followed by "friendly/nice neighbor(hoods) (9)," "quiet (8)" and etc. From this, a question, "*What do you like MOST about your neighborhood?*" was developed with a nine-response choice. Another example was that 12 respondents mentioned that religion (God) played a part in their health. Based on the respondent's answers, a question was developed, "*Do you believe God takes care of your health?*" with a choice of yes or no. More details about the instrument and the result of the interviews will be provided in the presentation at the conference.

## **Conclusions and Implications**

This AIP survey instrument is unique in its development from the personal interview responses and is being used to help define the AIP strategies for elderly homeowners with limited resources. This study can be beneficial for housing educators, Cooperative Extension specialists, community leaders, governmental agencies and

non-profits which prepare and provide services/resources for elderly homeowners with limited resources.

### **Acknowledgement**

The project described was supported by Project Number, NCX-273-5-13-170-1 from USDA National Institute of Food and Agriculture. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the National Institute of Food and Agriculture.

## **DESCRIBING THE HOUSING OPPORTUNITIES MADE EQUITABLE COLLABORATIVE (HOMECo)**

Deborah Mitchell\*

In the U.S., communities of color will house 40 percent of the U.S. population by 2035 (Brach & Fraserirector, 2000). In Minnesota, communities of color will house 45 percent of this state's population in 2040 (Rose, 2013). Interestingly, there are many racial and ethnic disparities in terms of employment, homeownership, and housing costs. In 2012, there was a 38 percent homeownership gap between households of color and who were non-Hispanic White, the highest disparity gap reported in the U.S. In the Twin Cities, households pay 30 percent or more of their income for housing (Minnesota Compass, n.d.).

Despite numerous studies on disparities in Minnesota, there are only few collaborative efforts to address the economic well-being of households of color, especially African American households. Marginalized groups are struggling with the combined effects of continued discrimination and decreased and decreasing public funding of housing and support services. There is an urgent need for research-based information to identify efficient effective programs and subsidies to serve this population (Olsen, Bhattacharya & Scharf, 2006). Thus, four nonprofits formed a collaborative to strategically focus on the well-being of households living in areas with a high concentration of poverty. The Housing Opportunities Made Equitable Collaborative (HOMECo) consists of Aurora/St. Anthony Neighborhood Development Corporation

---

\* Deborah Mitchell, M.S., Ph.D. Student, University of Minnesota.



(ASANDC); Build Wealth Minnesota (BWM); Camphor Fiscally Fit Center (CFFC) and Model Cities.

In HOMECo's pilot project leaders of this collaborative asked for assistance in documenting and telling their story that may be replicated in other communities. By using the Community Capitals Framework by Flora and Flora (2004), the collaborative uniquely positioned their organization to better understand the needs of households in the Twin Cities. The strength-based framework approach starts with the premise that all communities have assets. HOMECo leaders are directing this pilot project focusing on human, social and cultural capitals, which are important as they highlight individual attributes. This presentation will summarize lessons learned from interviewing key informants involved in HOMECo.

### **References**

- Brach, C., & Fraserirector, I. (2000). Can cultural competency reduce racial and ethnic health disparities? A review and conceptual model. *Medical Care Research and Review, 57*, 181-217.
- Flora, C.B., & Flora, J.L. (2004). *Rural communities: Legacy and change* . Boulder, CO. Westview Press.
- Minnesota Compass. (n.d.). *Disparity overview*. Retrieved from:  
<http://www.mncompass.org/disparities/overview>.
- Olsen, L., Bhattacharya, J., & Scharf, A. (2006). *Cultural competency: What it is and why it matters*. Palo Alto, CA: Lucile Packard Foundation for Children's Health. Retrieved June 1, 2015 from: [www.lpfsc.org/programs/culturalcompetency.pdf](http://www.lpfsc.org/programs/culturalcompetency.pdf)

Rose, J.M. (2013). *Disparity analysis: A review of disparities between White Minnesotans and other racial groups*. St. Paul, MN: State of Minnesota Council of Black Minnesotans (COBM). Retrieved June 1, 2015 from:  
<http://mn.gov/cobm/pdf/COBM%20-%202013%20Research%20Report%20on%20Disparities.pdf>

## **REDUCING MOLD AND ALLERGY TRIGGERS IN FLOODED HOME ENVIRONMENTS**

Patricia Snodgrass\*

There are over 119 million housing units and nearly 4.7 million commercial buildings in the United States (U.S. Census Bureau, 2013). Almost all of them experience leaks, flooding or other forms of excessive indoor dampness at some time, resulting in the growth of some bacteria and molds which in turn had many negative health effects (Center for Disease Control and Prevention, 2004; Institute of Medicine, 2004).

The flood of 2013 brought havoc and devastation to many families in five Missouri counties. As a major team member of the Governor's Partnership for Disaster Recovery, Extension specialists responded in all five counties with needed information on flooded homes for families and businesses. A multi-agency relief center and a call center for any and all service needs of the victims served for long-term recovery and unmet needs. At the multi-agency relief center, an exhibit was put together along with resources on mold, mildew, decontamination, flooded basements, walls and floors, clean-up of a structure and its contents, returning back home safely, safety equipment and what to do for contaminated wells. Extension specialists also made available moisture meters for homeowners and renters to measure moisture in walls and floors of homes.

---

\* Patricia Snodgrass, Housing and Environmental Design Specialist, Healthy Homes Specialist, University of Missouri Extension.

## **Objectives**

The poster session will provide an interactive discussion for attendees to:

1. Identify resources to educate families and businesses following a flood.
2. Discover specific information, tools and strategies to prevent mold and allergy triggers following a flood.
3. Implement evaluation strategies to assess changes in knowledge and determine which actions were implemented following this disaster event.
4. Document program impact with follow-up evaluation tools.

Over 129 families received one-on-one help and information they needed with 85 percent of recipients learning and applying new information to protect their health and that of their family. Education following a flood improves knowledge of families and businesses to implement strategies resulting in a reduction of mold and allergy triggers and restored living environments.

## **Reference**

Committee on Damp Indoor Spaces and Health, Board on Health Promotion and Disease Prevention, Institute of Medicine. (2004). *Damp Indoor Spaces and Health*. Washington, DC: National Academies Press.

## **Refereed Abstracts – Symposia**

## MULTIFAMILY AT MID-DECADE: CURRENT TRENDS AND FUTURE OUTLOOK

Rosemary C. Goss, Erin A. Hopkins, Dustin C. Read, Julia O. Beamish\*

In recent years many cities have seen an in-migration of residents, causing a revitalization of a significant number of neighborhoods. For Millennials, and even an increasing number of empty nester Baby Boomers, the urban attraction of living, working, and recreating without long commutes to the suburbs has become a lifestyle choice. For the majority of those who make this decision multifamily rental housing will be the most common type of housing although many Baby Boomers can afford to buy a condominium. Clearly there has emerged a significant “renter by choice” demographic. This symposium will examine who these renters are and why they have made this housing choice, as well as what they are experiencing in terms of apartment and community design and services, the role of sustainability, and some possible land use provisions that will encourage better neighborhood design. Presenters will share observations gathered from industry professionals, literature reviews, social media, and case studies. The symposium will conclude with a set of questions to stimulate further discussion.

**Renters by choice.** The first key factor to address is to identify the residents who are migrating to urban neighborhoods and the reasons for the transitions. Millennials, some Boomers, and soon Generation Z, i.e., those born after the

---

\* Rosemary C. Goss, Ph.D., Professor, Virginia Tech;  
Erin A. Hopkins, Ph.D., Assistant Professor, Virginia Tech;  
Dustin C. Read, Ph.D., J.D., Assistant Professor, Virginia Tech;  
Julia O. Beamish, Ph.D., Professor, Virginia Tech.

Millennials, will all be living downtown. Reasons for their lifestyle choice, for example, the 24-7 environment, resort style living, convenience and flexibility, will be examined along with how the demand for services might change as these generations age.

**Design.** Another key factor in city revitalization is the design of multifamily residences and communities that entice consumers to move to these areas. As residents of various ages and lifestyles continue to choose multifamily housing in urban areas, the size and layout of the residence can be an important consideration. Design features can enhance and facilitate residents' lifestyle choices. The design of common areas and the determination of services offered also influence the perceived image of successful urban living. Examples of trends in design features for residencies and communities will be presented.

**Sustainability.** As sustainability continues to be an increasingly important concern of multifamily residents, sustainable practices are another area of concern within urban areas. Best practices for providing a sustainable environment from both a design and operations perspective will be examined. Furthermore, the level of interest by property owners and managers will be assessed. Future sustainable policy implications will also be discussed.

**Regulatory Issues.** The symposium will continue with a discussion of the steps municipal governments are taking to accommodate migration back to urban areas through the implementation of progressive land use regulations and economic development strategies. Specific efforts being made by a growing number of municipalities to foster the development of vibrant "live, work, play" environments,

including a variety of housing options will be shared. Special attention will be devoted to the role multifamily rental housing plays in these projects.



## **RURAL HOUSING: IN SEARCH OF POLICY-DRIVEN RESEARCH**

David Lipsetz, Corianne Payton Scally, Ann Ziebarth, Daniel P. Davis\*

Rural America is changing. Shifts in populations, agriculture and manufacturing industries, and natural resources among other things have affected rural opportunities and prosperity (Bailey, Jensen, & Ransom 2014). These shifts have significant implications for the present and future housing needs of rural communities. With historically high homeownership rates, rural communities were hit hard by the Great Recession (Nelson & Cromartie, 2014). Access to credit has remained a problem (MacTavish, Ziebarth, & George 2014). Multifamily rental housing needs can also be overshadowed by ownership concerns as they affect a smaller but still significant proportion of the rural population (Housing Assistance Council, 2013). Low incomes for both homeowners and renters can result in high housing cost burdens and the need for subsidies to put quality housing and other necessities within reach of rural families (Kropczynski & Dyk, 2012). These shifts and challenges also have consequences for the demand, supply, and quality of community institutions and services, such as healthcare, education, and transportation (Brown & Schafft, 2011).

Over the past several years there have been numerous public investments in rural housing and community services to alleviate economic disadvantage by providing quality housing and services. The U.S. Department of Agriculture's (USDA) Rural

---

\* David Lipsetz, Chief of Staff, U.S. Department of Agriculture Rural Development, Rural Housing Service; Corianne Payton Scally, Ph.D., Expert Consultant, U.S. Department of Agriculture Rural Development, Rural Housing Service; Ann Ziebarth, Ph.D., Professor, University of Minnesota; Daniel P. Davis, Senior Manager, Community Development, Federal Reserve Bank of St. Louis.

Development agency is a significant contributor through its Rural Housing Service (RHS), with close to \$108 billion of active investments in rural homeownership, rental housing, and community facilities (U.S. Department of Agriculture Rural Development, 2013). In its most recent fiscal year, RHS assisted over 146,000 rural homeowners access affordable mortgages and over 470,000 households afford rental housing. More than 1,000 community facilities were also supported through investments to support healthcare, safety, education, and other community needs. Other federal programs are also mobilized through states to assist rural housing and community service needs, such as the Low Income Housing Tax Credit program (Rapoza Associates, 2013), the Community Development Block Grant, and the HOME Investment Partnership Program.

Given the extensive demographic and economic shifts facing rural communities, and the significant public investment at stake, there are important questions to ask about the present and future needs for rural housing and community facilities and services. This session will raise some of these critical policy questions including, but not limited to:

1. What drives rural housing demand? What roles do demographics, housing quality and availability, and affordability play?
2. How does housing matter for rural health, education, and economic outcomes?
3. How does access to services such as healthcare and transportation effect rural housing decisions?
4. What is the economic impact of the housing industry within rural communities?

5. What is the role and impact of public investment in rural housing?

In light of these questions, we will consider the current state of knowledge on rural housing needs and programs, discuss data options and limitations, suggest potential research partners and resources, and encourage applied policy-driven research to improve investments in and outcomes for rural families and communities.

### References

- Bailey, C., Jensen, L. & Ransom, E. (Eds.) (2014). *Rural America in a globalizing world: Problems and prospects for the 2010s*. Morgantown, VA: West Virginia University Press.
- Brown, D.L. & Schafft, K.A. (2011). *Rural people & communities in the 21<sup>st</sup> century: Resilience & transformation*. Malden, MA: Polity Press.
- Housing Assistance Council. (2013). Rental housing in rural America. Retrieved from <http://www.ruralhome.org/sct-information/mn-hac-research/rural-rrb/654-rrn-rural-rental-housing>
- Kropczynski, J. & Dyk, P. (2012). Insights into housing affordability for rural low-income families. *Housing and Society*, 39(2), 125-148.
- MacTavish, K., Ziebarth, A. & George, L. 2014. Housing in rural America. In C. Bailey, L. Jensen, & E. Ransom (Eds.), *Rural America in a globalizing world* (pp. 677-692). Morgantown, VA: West Virginia Press.
- Nelson, P. & Cromartie, J. (2014). Subprime lending and its impacts on rural housing markets. *Housing and Society*, 41(2), 145-176.

Rapoza Associates. 2013. The low income housing tax credit: Overcoming barriers to affordable housing in rural America. Retrieved from <http://ruralhousingcoalition.org/wp-content/uploads/2013/08/rapozaRuralLihtcRpt+CaseStudiesFinal1.pdf>

U.S. Department of Agriculture Rural Development. 2013. *2012 Progress Report*. Retrieved from [http://www.rd.usda.gov/files/reports/RD\\_2013ProgressReport.pdf](http://www.rd.usda.gov/files/reports/RD_2013ProgressReport.pdf)

## **Refereed Abstracts – Oral Presentations**

**HOUSING SATISFACTION OF SINGLE-PERSON HOUSEHOLDERS OVER 55  
IN THE UNITED STATES:  
A REVIEW OF TWO STUDIES IN RURAL AND URBAN AREAS**

Mira Ahn, Sung-Jin Lee, Hyun Joo Kwon, Suk-Kyung Kim\*

The increase in single-person households is a recent demographic trend in the U.S. Of particular concern are single householders over the age of 55 who tend to experience financial difficulties and physical issues (Joint Center for Housing Studies, 2014), that have been historically associated with their housing satisfaction (Hwang & Ziebarth, 2006).

The purpose of this abstract is to review the results of two studies on housing satisfaction of rural and urban single householders over the age of 55 and to show that housing satisfaction can be interpreted differently when different approaches are utilized. Each study was conducted with 2011 American Housing Survey (AHS) although there were differences between the variables chosen for analysis (see Table 1). Both studies employed simultaneous multiple regressions to examine the hypothesized relationship between selected factors and housing satisfaction.

---

\* Mira Ahn, Ph.D., Associate Professor, Texas State University;  
Sing-Jin Lee, Ph.D., Assistant Professor, North Carolina A&T State University;  
Hyun Joo Kwon, Ph.D., Assistant Professor, Purdue University;  
Suk-Kyung Kim, Ph.D., Associate Professor, Michigan State University.

### **Study 1: Housing satisfaction of rural single-person householders over 55**

**(N = 1,017)** (Ahn & Lee, forthcoming)

In the rural study, housing satisfaction was discussed as a potential indicator of quality of life. Based on previous studies, a model was developed to test the hypothesized relationship between the housing satisfaction of single-person householders over 55 and their personal, physical, financial, and environmental characteristics. Results show that the following variables explain housing satisfaction: age, gender, health status, age and structural type of the house, and Census region. Health status was the variable that impacted housing satisfaction the most.

### **Study 2: Housing satisfaction of urban single person householders over 55 (N =**

**16,816)** (Lee, Ahn, Kwon, & Kim, forthcoming)

In the urban study, housing adjustment theory was utilized to develop a research framework to depict the relationships of housing satisfaction (dependent variable) with demographic and housing variables (independent variables). Results show that age, gender, race/ethnicity, education, health status, government income assistance, age, quality, size and structural type of the house, tenure status, housing affordability, neighborhood satisfaction, and census region, were significantly related to housing satisfaction. Neighborhood satisfaction had the strongest effect on housing satisfaction. These variables were discussed in terms of resources and constraints contributing to their housing satisfaction.

## **Discussion**

The urban study (Study 2) has a larger number of significant variables than the rural study (Study 1). Variables of age, gender, health status, census region, age of house, and structure type were significant for housing satisfaction of single person householders over 55 in both rural and urban areas. Race/ethnicity, education, quality and size of the house and tenure status were significant for urban study only although the variables are included to both studies. This finding may imply that urban single-person householders over 55 are more diverse in terms of their demographic and housing characteristics.

Each study has a different approach in interpreting housing satisfaction. Study 1 (rural) regards housing satisfaction as a potential indicator of quality of life and Study 2 (urban) regards it as the result of interaction with resources and constraints. Our findings show that, regardless of the approach, paying attention to the housing satisfaction according to the location would be beneficial in initiating or reinforcing location (urban or rural areas)-specific housing policies and programs.

### **References**

- Ahn, M., & Lee, S. (forthcoming). Housing satisfaction of older-single households in U.S. rural communities: A predictor of quality of life for the age of 55 or older. *Journal of Applied Gerontology*.
- Hwang, E., & Ziebarth, A.C. (2006). Impacts of residential environments on housing satisfaction among Korean American elders. *Housing and Society*, 33(2), 1-21.
- Joint Center for Housing Studies of Harvard University. (2014). *Housing America's older adults: Meeting the needs of an aging population*. Cambridge, MA: Joint Center for Housing Studies of Harvard University.



Lee, S., Ahn, M., Kwon, H., & Kim, S. (forthcoming). Housing satisfaction of 55+ single-person householders in U.S. urban communities. *Journal of the Korean Housing Association*.

**Table 1. Overview of the Results of Multiple Regression from Two Studies**

	Rural study (Ahn & Lee, forthcoming) (N = 1,017)		Urban study (Lee et al., forthcoming) (N = 16,816)	
Dependent variable	Housing satisfaction			
Independent variables		15 variables		16 variables
	Personal variables	Age* Gender* Education	Demographic variables	Age* Gender* Education* Health status* Household income Government income assistance* <i>Marital status</i> <i>Race*</i> Census region*
	Physical variables	<i>Disability</i> Health status**		
	Financial variables	Household income <i>Housing cost</i> <i>Government housing assistance</i> Government income assistance		
Environmental variables	Age of house* Housing quality Structure size Structure type* Tenure status Census region*	Housing variables	Age of house* Housing quality* Structure size* Structure type* Tenure status* <i>Neighborhood satisfaction**</i> <i>Housing affordability*</i>	

Note. Dependent variable: Housing satisfaction score.

\*Significant with  $p < .05$

\*\* Most significant variable revealed from each regression.

Italic denotes the variables that were selected only once in either rural or urban model.

**URBAN SENIOR HOUSING DEVELOPMENT:  
THE CASE OF EPISCOPAL HOMES  
IN SAINT PAUL, MINNESOTA**

Marilyn J. Bruin, Amanda B. Smoot\*

The purpose of this study was to examine a non-profit developer of affordable senior housing by interviewing six low-income African American elders, the developer/CEO, and the architect. The project is a component of a larger study to describe home, community, health and aging among African American Elders. The case study describes how well-designed, mission-driven, subsidized senior housing, combined with individual and neighborhood resources support residents.

The research is guided by a generic qualitative approach defined by flexibility and iteration rather than an explicit or established set of philosophical assumptions from a single qualitative orientation (Caelli, Ray & Mill, 2003). A generic qualitative methodology is underpinned by the characteristics represented in all qualitative approaches, for example, the objective of providing a deep understanding of a phenomenon from the perspective of the research participants. Yet, the flexibility and iteration in a generic approach may help to overcome frameworks that have portrayed marginalized groups as deficient and fits the transformative-emancipatory paradigm of describing the experience of African American elders (Mertens, 2003).

---

\* Marilyn J. Bruin, Ph.D., Professor, University of Minnesota;  
Amanda B. Smoot, Doctoral Candidate, University of Minnesota.

Six African American elders, living in three subsidized senior housing properties owned and managed by Episcopal Homes, answered structured interview questions. Initial data analyses of the six interviews revealed positive descriptions and powerful quotations. The findings prompted us to interview the developer/manager (CEO) and the architect to add insights to decisions made about design, location, and management and how the decisions impact the residents' experience.

The African American elders described an ability to overcome discrimination and setbacks, and expressed a strong sense of well-being. They also linked quality of life to the built and social environments. The interviewees described a long-standing sense of community attachment strengthened by life-long experiences as members of a marginalized group (Leavitt & Saegert, 1990). When asked about discrimination, one elder responded

*If it [racism] were here, I would address it. And hope that it would be addressed but I have not felt it. I don't expect to feel it, not at this point in time. We have Asian people here, we have Black people here, we have White people here, we seem to all get along, say hello.*

*[What] I like best about my neighborhood is the diversity.*

The residents' comments align with the CEO's commitment to senior housing.

*My parents worked seven days a week. When they sold the farm, they got \$60,000. That will not buy a year in a nursing home . . . They deserved quality and dignity, not opulence. I think about my parents and people like them when I think about what housing to provide.*

*. . . serving the urban core, serving the most in need . . . is just in my DNA.*

. . . *diminished income does not mean diminished quality of life.*

The architect was inspired by a letter from a resident in one of his first low-income senior projects,

(The resident said) *it was the nicest place he had ever lived, nice to hear.*

The architect also mentioned the personal gratification of *making a facility that make a difference for people.*

The architect described graduating as one of the top five students from an university program rated as one of the five best programs in the United States, *So I have a pretty high level of design.*

Now with twenty-five years of experience and fifteen completed subsidized senior buildings, he summarized their design *as fun and simple.*

*... on low-income senior 550 sq. ft. units, there is only so much you can do. . . Have to work around guidelines and codes but that's a part of design. Parameters help set design. I have been doing it long enough I can ignore the budget, I know enough it just comes out within the budget. . .Every project we try to do a little nicer . . .better . . . we do not want people to walk in and say "This is HUD housing." We are not making a cheap housing project.*

In sum, we find the comments from the African American elders describe attractive, functional, and exemplary designs. The CEO and architect are committed to design, build, and manage buildings in urban racially diverse sites. As they design and develop housing, they listen to potential residents housing providers through focus groups. Based on the elders' descriptions Episcopal Homes reflects the values and needs of the community and the residents the non-profit organization seeks to serve.

## References

- Caelli, K., Ray, L., & Mill, J. (2008) "Clear as Mud': Toward greater clarity in generic qualitative research." *International journal of qualitative methods*: 2 ( 2): 1-13.
- Leavitt, J., & Saegert, S. (1990). *From abandonment to hope: Community-households in Harlem*. New York, NY: Columbia University Press.
- Mertens, D. M. (2003). Mixed methods and the politics of human research: The transformative-emancipatory perspective. In A. Tashakkor, & C, Teddlie (Eds.). *Handbook of mixed methods in social and behavioral research* (pp. 135-164). Thousand Oaks, CA: SAGE Publications.

# SEGMENTING FLORIDA RESIDENTIAL IRRIGATION USERS BY UTILITY-BILL 'BOTHEREDNESS' AND HOUSEHOLD BUDGETARY CONSTRAINTS

Randall Cantrell, Laura Warner, Alexa Lamm, Joy Rumble\*

## Background

Decision-Ade™ (Cantrell & Sewell, in press), a publication detailing a discriminant analysis segmentation strategy, offers a method for grouping respondents based on Utility Bill "Botheredness" (*UBB*) (i.e., one's reaction to receiving, opening, and paying monthly utility bills) and Household Budgetary Constraints (*HBC*) (i.e., how well the home's income is managed). The following statements represent the *UBB* and *HBC* variables, which range from 1 = highly disagree (i.e., lowest level) to 10 = highly agree (i.e., highest level), and are the basis for the composite scores (i.e., CScores) discussed in the Procedures Section.

*UBB* (provides a means for gauging respondents' range of botheredness to utility bills):

- When thinking of past utility bills, I am bothered.
- My current utility bill bothers me.
- My utility bill is too expensive.

*HBC* (provides a comparative means to respondents' self-reported household income):

---

\* Randall Cantrell, Ph.D., Assistant Professor, University of Florida;  
Laura Warner, Ed.D., Assistant Professor, University of Florida;  
Alexa Lamm, Assistant Professor, University of Florida;  
Joy Rumble, Assistant Professor, University of Florida.

- By the end of the month, my bank account is mostly depleted.
- My household budget is tight most months.
- I frequently have problems making ends meet.

### **Rationale**

Most homeowners focus on heating and cooling costs (Wardlaw, 2013), but residential irrigation costs also can contribute substantially to utility bills. Thus, this research identifies residents responsible for operating irrigation systems who are most bothered by their utility bill (hereafter referred to as the *Bothereds*); the rationale is they will be more motivated to change their behavior than those less bothered by their utility bill. However, it is not a requisite that *Bothereds* also must have a high HBC level, so it is important to understand whether respondents are bothered because of financial reasons or non-financial reasons (e.g., they are personally challenged to lower their energy usage). This knowledge helps distinguish those *Bothereds* more capable of making behavior changes involving technology upgrades, which can be costly, from *Bothereds* who are more limited by their financial resources.

### **Objective**

Apply Decision-Ade™ to segment Florida residential irrigation users into one of the following educational program types:

- those targeted specifically to audiences that can likely afford to change behaviors focused on technologies and practices

- those targeted specifically to audiences that initially can likely only afford to change behaviors focused mostly on practices rather than technologies

### **Methodology**

A web-based survey was randomly administered throughout Florida to residents ( $n = 1,065$ ) who were at least 18 years of age and responsible for operating their irrigation system. A survey company was used to invite qualified panel members to respond to this study's IRB-approved survey. Panel members randomly received one invitation to respond until the agreed-upon quota was met.

### **Procedures**

Three *UBB* segments were explored based on their composite score (i.e., CScore).

- Highest...CScores of 7-10 ( $n = 331, 33.1\%$ )...*Bothereds*
- Middle... CScores of 5-6 ( $n = 380, 35.7\%$ )...*Non-bothereds* (mid-level)
- Lowest... CScores of 1-4 ( $n = 352, 33.1\%$ )...*Non-bothereds* (low-level)

Each *Bothereds'* CScore was compared to his/her self-reported average monthly water bill to explore whether high water bills might be related to his/her botheredness, and:

- CScores = 10 were paying more than \$150/month ( $n = 24, 7.3\%$ )
- CScores = 9 were paying \$101-\$150/month ( $n = 81, 62.9\%$ )
- CScores = 8 were paying \$51-\$100/month ( $n = 155, 46.8\%$ )
- CScores = 7 were paying up to \$50/month ( $n = 63, 19.0\%$ )

Decision-Ade™ segments along *HBC* in order to verify that *Bothereds* are not most bothered strictly because they are most financially challenged; some simply do not like



paying utility bills. Thus, *HBC* was compared to each *Bothereds'* self-reported household income to gauge how well that income was managed.

## Results

The *Bothereds* had members with CScores in all ranges of *HBC*. Those with *HBC* CScores of:

- 1 (i.e., least constrained) were earning more than \$150K/year ( $n = 26$ , 7.8%)
- 2-6 were earning \$75K-\$149.9K/year ( $n = 106$ , 32.1%)
- 7-10 were earning up to \$75K/year ( $n = 199$ , 60.1%)

## Conclusions

*Bothereds* earning \$75,000 in annual household income presumably are motivated to change behavior in their residential irrigation practices. However, without the knowledge of their *HBC* level, it is a guessing game to determine whether they can afford to change behaviors focused on technologies, practices, or a combination of the two. This is the insight offered by Decision-Ade™; it simultaneously considers motivation (i.e., botheredness) and feasibility (i.e., budget constraint) when targeting a program to an audience.

## Implications

Though 60.1% of the *Bothereds* were in the highest *HBC* Segment, 39.9% of them were in the lowest two *HBC* segments. Thus, about 60% of the *Bothereds* should be most receptive to water-use conservation changes focused on practices because

they are limited in their financial resources. Conversely, as many as 40% of the *Bothereds* should be capable of making behavioral changes incorporating both water-use practices and technological upgrades because of their less-constrained financial situation.

### **References**

- Cantrell, R., Sewell, C., (in press). Decision-Ade™: An innovative process for segmenting U.S. homeowners by utility-bill "botheredness" and budget constraints, *Journal of Architectural Engineering*.
- Wardlaw, M. (2013). Home buyers value environmentally friendly features. Retrieved June 18, 2015 from <http://www.realtor.org/news-releases/2013/10/home-buyers-value-environmentally-friendly-features>.

### **Acknowledgements**

This research was made possible by funding through the University of Florida's Center for Landscape Conservation & Ecology.

# **BENEFIT-COST ANALYSIS AND ITS HOUSING APPLICATIONS: THREE EXAMPLES FROM THE PRODUCTION, CONSUMPTION AND GOVERNMENT PERSPECTIVES**

Andy Carswell, Joseph Laquatra, Patryk Babiarz\*

## **Introduction**

Benefit-cost analysis (BCA) is a type of quantitative tool that has been available for several decades (citations). BCA became a mainstream method of evaluation for government during the late 1970s and early 1980s (Guess & Farnham, 2011). Maynes (1976) ushered BCA into the consumer realm through his introduction of a BCA model predicated on consumer's expected probability of events occurring. In the housing realm, BCA is somewhat more limited in scope.

## **Types of Housing BCA Models**

This presentation examines three specific cases in which housing-related BCA studies have applicability to the productive, consumer and regulatory sectors of the housing economy.

---

\* Andy Carswell, Ph.D., Associate Professor, University of Georgia;  
Joseph Laquatra, Ph.D., Professor, Cornell University;  
Patryk Babiarz, Ph.D., Assistant Professor, University of Georgia.

### *Production Sector*

This example is a case study that has been developed by the authors with a home builder as one of the central figures (Carswell & Babiarz, in press). A prospective buyer household realizes its leverage in a soft market and presses the builder for a type of seller concession. BCA helps the builder understand the overall wisdom of offering a seller concession, and it is helpful in creating an upper boundary for such an expense. The case involves a lender as a third party within the transaction, and some of the constraints placed on the buyer and seller due to bank policy help to complicate the situation further.

### *Housing Consumer*

Another housing BCA application occurs when a consumer decides to make an improvement upon an existing property. An increasingly common type of home improvement is that involving energy-efficiency. Traditional methods of measuring the overall net benefits of energy efficiency improvements have had some documented limitations (Laquatra, 1986, 2003). The authors will provide an illustration of an expansion of these traditional methods of measurement by adding in the home equity component, essentially recognizing that added energy improvements ultimately translate to higher sales prices in the open market. This illustration emphasizes the point that traditional methods of determining the effects of energy-efficient improvements tend to understate their true impacts.

## *Government Sector*

There are several examples in which government agencies have installed BCA to assess the impacts of their own regulatory actions. One interesting BCA that local governments have employed involves an innovative homeless service delivery method known as “Housing First”, in which local governments essentially provide a market-rate housing unit for a (near) homeless individual or family, with the understanding that the housing provision will reduce the social costs of homelessness in the process, thus providing a social benefit (Tsemberis, 2010). The presenter will provide a summary and illustration of the literature and variables involved in such existing BCAs, and will suggest even more ways of branching the analysis out further.

## **Implications**

Each of the sector-specific BCAs mentioned above provide housing educators with various techniques that help illustrate the applicability of the BCA model within the housing field. The results of each of these BCAs suggests that traditional evaluation models are enhanced through: a) the use of optimization modeling techniques (in the builder example); b) the implementation of hedonic price modeling (in the consumer model); and c) the development of secondary and tertiary benefits of government intervention.

## References

- Carswell, A.T., & Babiarz, P. (in press). Benefit-cost analysis and optimization modeling for a seller/builder buydown mortgage. *Journal of Real Estate Practice and Education*.
- Gladwell, M. (2006). Million-dollar Murray. *The New Yorker*, 13, 96.
- Gramlich, E. M. (1981). *Benefit-cost analysis of government programs*. Prentice Hall.
- Guess, G. M., & Farnham, P. G. (2011). *Cases in public policy analysis*. Georgetown University Press.
- Laquatra, J. (1986). Housing market capitalization of thermal integrity, *Energy Economics*, 8(3); 134-138.
- Laquatra, J. (2003). The value of energy efficiency. *Home Energy*, 20(6): 30-32.
- Maynes, E. S. (1976). *Decision-making for consumers: An introduction to consumer economics*. New York: Macmillan.
- Tsemberis, S. (2010). Housing First: ending homelessness, promoting recovery and reducing costs. *How to house the homeless*, 37-56.

# INCORPORATING APARTMENT-FRIENDLY CHILDREN'S BOOKS INTO AN UPPER-DIVISION HOUSING COURSE

Carla Earhart, Blake McBee, Jordan Bottom, Amie Cipolla\*

## Introduction

“Immersive Learning” is the hallmark of a Ball State University education, in which interdisciplinary teams of students work together to address a community issue. This presentation focuses on an immersive learning project in the upper-division course *Housing and Society*, involving students from academic backgrounds in Residential Property Management and Education who worked together to elevate the awareness and appreciation of apartments and apartment residents in the greater Muncie, Indiana area.

## Course/Project Objectives

The *Housing and Society* class is a fairly new course at the university and is described as...

*Exploration of the relationship between housing norms and public policy, mass media, fine/applied art, literature, entertainment, education, and/or personal relationships, from an individual and societal perspective; emphasis on how these factors reflect and influence housing beliefs, decisions, and aspirations.*

---

\* Carla Earhart, Ph.D., CFCS, Professor, Ball State University;  
Blake McBee, CAM, NALP, Undergraduate Student, Ball State University;  
Jordan Bottom, CAM, NALP, Graduate Student, Ball State University;  
Amie Cipolla, NALP, Undergraduate Student, Ball State University.

The project adopted by the class in Spring 2015 was “Housing Heroes in Children’s Literature.” Objectives of this course project included:

- Develop a comprehensive list of children’s books with a housing focus in the text and/or images;
- Evaluate these books to determine which ones have a positive focus on apartments;
- Work with area schools, preschools, youth-related agencies/programs, and/or community libraries to assess their collection of housing-related books;
- Provide copies of “apartment-friendly” books at these locations to fill any gaps in their collections.

### **Results**

Students reviewed over 50 children’s books from area bookstores, the university library, and personal collections. Fewer than 20 of these titles were determined to be apartment-friendly and considered appropriate for inclusion in the book collections at area schools and libraries.

One group of students served as project assistants, while interdisciplinary teams of students worked with a total of six outreach locations. Assessment of the book collections at these locations were deemed to be lacking in apartment-friendly literature. As a result, these student teams selected apartment-friendly books to donate to these locations. Many of the groups also read the apartment-friendly books to the children in these locations.

A public showcase of the project results provided an opportunity for the student teams to share their accomplishments. In addition to posters highlighting the



interactions with their outreach locations, the posters also reported on interviews with two of the authors whose book series focus specifically on apartment-friendly books for children. Refreshments and bookmarks were also provided to attendees.

### **Summary/Conclusion**

The project was overwhelmingly successful; however, several lessons were learned in carrying out this project and will be used in future offerings of this course. Other faculty may want to use this project model in carrying out similar housing-related course activities at their own universities.

### **Acknowledgement**

Credit is extended to the Ball State University Residential Property Management Advisory Board for funding for this project.

**IMAGES OF COMMUNITY CRIME IN FERGUSON, MISSOURI:  
OLDER ADULTS' PERSPECTIVES PRIOR TO JULY 2014**

Kandace Fisher-McLean\*

**Introduction**

Crime and fear of crime impact the overall quality of a person's life, including older adults who desire to age-in-place. For this study, older adults were recruited because they previously indicated they were concerned that crime in Ferguson had increased and their quality of life was negatively affected. On the other hand, according to statistics presented by the Federal Bureau of Investigation (United States Department of Justice, 2013), and through discussions with other reputable sources, crime had not changed significantly in Ferguson during the past 20 years.

Therefore, it seemed there could be other changes within the community that symbolized crime to older adults. As they aged, their community changed and evolved. They were essentially the only thing that remained constant in their ever-changing world. They feared the changes taking place around them and one way they interpreted these changes was as a variance in crime, and that their community was generally going downhill. These changing factors can be categorized as social and physical factors or "cues" and can include changes in the racial makeup, changes in the overall population age, increases in litter, graffiti, and neglected and abandoned homes and properties. Because social and physical cues can symbolize crime, it also seemed that

---

\* Kandace Fisher-McLean, Ph.D., H.H.S., Housing and Environmental Design Specialist, University of Missouri Extension.

older adults in Ferguson would perceive that their quality of life had diminished if they socially withdrew from activities because they fear for their safety.

For the purpose of this study, older adults were characterized as those who were 60 years of age and older. Data collection (photographs taken by research participants and interviews) took place between October 2013 and June 2014, offering perspectives of crime prior to the events of August 2014 that resulted in the death of Michael Brown. Fifteen older adults from 8 of the 12 neighborhoods within Ferguson, Missouri volunteered to participate in the study. Eleven older adult females (7 white, 4 black) and 4 older adult males (3 white, 1 black) were interviewed. Eight of the 15 research participants were recruited directly through local neighborhood watch groups they attended. Five of the 15 research participants learned about the study through others who passed along information to them. One research participant learned about the study by reading about it in the local newspaper, and one research participant was contacted directly by the researcher.

### **Theoretical Framework**

Numerous theories helped to understand and interpret older adult's perceptions of crime. First, Lawton's Environmental Docility Theory (1974), states "the less competent the individual in terms of personal disability or deprived status, the more susceptible is his behavior to the influence of immediate environmental situations." Therefore, the thought was that if older adults in Ferguson perceived certain physical and social changes (potential environmental demands) taking place as an increase in

crime, their ability to adjust may be exceeded. This increases the perception that they will be victimized and increases the chance that they will withdraw from the community.

The Broken Window Theory is also strongly applicable in how older adults' feel about the presence of crime in their neighborhood. Essentially, as Kelling and Wilson (1982) describe, "if a window in a building is broken and left unrepaired, all the remaining windows will soon be broken." One unrepaired window sends a message to those passing by that no one cares and invites others to break more windows. On the other hand, "residents react to the symbolism of these incivilities by withdrawing from social activity in the neighborhood (Brown, Perkins, and Brown, 2004)." According to Taylor, Shumaker, and Gottfredson (1985), "signs of neighborhood decay make residents infer that their community is going downhill and that nobody is doing or can do anything about it and residents begin to fear for their own safety."

The Social Disorganization Theory offers some of the "most promising research on fear of crime" and "stresses the relationships among demographic characteristics, social integration, and fear of crime (Adams and Serpe, 2000)." As cited by Adams and Serpe (2000), this theory suggests that people will feel that their neighborhood is safer if they engage socially with those who live near them (Hartnagel, 1979; Lewis and Salem, 1986; Riger, LaBailly, and Gordon, 1981). Residents who socially engage in community organizations, church groups, and neighborhood watch groups have a reduced fear of crime.

In Oscar Newman's Defensible Space Theory, crime is hindered through the defensible space of residential areas "by creating the physical expression of a social fabric that defends itself" with "real and symbolic barriers, strongly defined areas of

influence, and improved opportunities for surveillance – that combine to bring the environment under the control of the residents” (Newman, 1972, p. 3). Newman’s defensible space principles were useful in addressing the needs of the older adults in Ferguson because they address not only the built environment, but its interaction with sociological explanations for crime (Jacobs, 1961; Newman, 1972). One major theme of the Defensible Space Theory is to empower residents to feel as if they have control over their physical environment. By utilizing defensible space principles to take control of the built environment, it is also hoped that residents will feel socially and psychologically empowered to ease the fears they experience with their personal situation.

During previous conversations with older adults in Ferguson, one question seemed particularly relevant: “why do these people want to stay here if they are so frightened by crime that they do not want to walk in the local park by themselves?” The research investigated the older adults’ situations from an outsider’s perspective because their sense of place was not understood. Relph’s (1976) Theory of Place Attachment describes, “place attachment as the authentic and emotional bond with an environment that satisfies a fundamental human need” (cited by Scannell and Gifford, 2009). As cited by Morgan (2010), place attachment is “the experience of a long-term affective bond to a particular geographic area and the meaning attributed to that bond. Where a person lives in a particular locale over an extended period, that person will often develop feelings of affection for, and a sense of belonging, or being of that place, so that place becomes ‘one anchor of his or her identity’ (Hay, 1998).” Although some of the residents no longer felt as safe in their community as they once did, their community still felt like the comforts of home after 30 – 50 years of residence there.

## **Methodological Framework**

This qualitative, transcendental phenomenological study investigated 15 older adults' perceptions of crime in Ferguson, Missouri. Phenomenology is not just a philosophy, but also a method used to conduct research and understand the findings (Creswell, 2009, p. 13). Phenomenology is a way of thinking that stresses attention to one's personal encounters and interpretations of their environment. As a phenomenological researcher, it is important to comprehend how the environment is perceived by those who experience it (Trochim, 2001, p. 159 - 160). In particular, as cited by Moustakas (1994) Transcendental Phenomenology emphasizes subjectivity and discovery of the essences of experience (Husserl, 1965, p. 5-6) and encompasses a series of steps to analyze the data to arrive at an understanding of the phenomenon under investigation (Creswell, 2007, p. 159). In the case of this study, older adult's perceptions and experiences with crime were investigated to understand fear of crime and the effect it had on their quality of life.

**Data collection.** This study utilized auto-photography and photo-elicitation as data collection methods. Auto-photography involved giving research participants a camera to photograph items in their environment (Nolan, 2006). Photo-elicitation utilized the photographs that they took to interview them. In this study, photography provided a qualitative research tool to help understand what physical elements and places older adults perceived as symbolizing crime in their neighborhood. Research participants were supplied with a disposable camera and asked to photograph physical elements and places that they felt symbolized crime in their neighborhood. Once the research participants were finished taking the photos, they were interviewed about photos they

took. Photo-elicitation or photo interviewing assisted in developing a more casual discussion (Tinkler, 2014). This method worked remarkably well to not only uncover the physical elements and places contributing to crime, but also set the stage to discuss to deeper social issues and messages surrounding crime in their community.

**Data analysis.** As previous outlined, Transcendental Phenomenology is not only a philosophical stance, but includes a series of concrete steps for data analysis. Through the Transcendental Phenomenological process, the researcher sets aside all prejudgments of the subject matter from the very beginning of the study. After the research participants finished taking pictures and concluded with the interview portion, research participant interview transcripts were analyzed to identify important statements. Non-repetitive, non-overlapping statements were then grouped into themes. The themes were used to develop textural (what was being experienced) and structural descriptions (how the phenomenon was experienced) of older adult's perceptions of crime in their community. Quotes from research participants were paired with the photos that they took to demonstrate the thematic areas. The descriptions of their experiences with crime composing the individual themes were further combined to assemble the final combined essence of the experience (Moustakas, 1994; Moerer-Urdahl and Creswell, 2004; Creswell, 2007, p. 159).

## **Results**

The results of this study indicate that concerns with crime in the form of neighborhood disorder exist. Through the transcendental phenomenological process, 12 themes emerged: community image, interaction with nature, undesirable attitudes and

behaviors, littering, historic buildings and homes, community safety, community investment, vacant property, racial integration and community transformation, natural surveillance, maintenance, and rental property. Within these thematic areas older adults gave examples of run down rental properties, vacant buildings, loitering youth, increased littering, etc. as contributing to the impression that their community was not as desirable as it once was. However, for the most part, older adults did not worry about personal victimization. The presence of lower level neighborhood disorder (littering, loitering, run down properties, graffiti, etc.) created some anxiety about whether signs of physical and social deterioration suggest the onset of future significant decay in the community. Older adults also gave numerous examples of attributes that contributed positively to their life experiences such as the beautiful parks throughout town, the upkeep on historic homes, and ongoing investment by city officials, entrepreneurs, and local homeowners to make Ferguson a better place. Therefore, these older adults attachment to place combined with their social and physical investment in the community seem to counter the fear of crime they could experience from the presence of neighborhood disorder. Thus, their quality of life has not been gravely affected.



## References

- Adams, R. E. & Serpe, R. T. (2000). Social integration, fear of crime, and life satisfaction. *Sociological Perspectives*, 43(4), 605-629.
- Brown, B. B., Perkins, D. D., & Brown, G. (2004). Incivilities, place attachment and crime: Block and individual effects. *Journal of Environmental Psychology*, 24, 359-371.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2<sup>nd</sup> ed.). Thousand Oaks, CA: SAGE Publications, Inc. Retrieved August 3, 2015 from [https://is.vsfs.cz/el/6410/zima2013/B\\_KV/um/Creswell\\_2007\\_Qualitative\\_Inquiry\\_and\\_Research\\_Design\\_\\_Choosing\\_among\\_Five\\_Approaches\\_\\_2nd\\_edition.pdf](https://is.vsfs.cz/el/6410/zima2013/B_KV/um/Creswell_2007_Qualitative_Inquiry_and_Research_Design__Choosing_among_Five_Approaches__2nd_edition.pdf)
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3<sup>rd</sup> ed.). Thousand Oaks, CA: SAGE Publications, Inc.
- Jacobs, J. (1961). *The death and life of great American cities*. New York, NY: Random House.
- Kelling, G. L. & Wilson, J. Q. (1982, March). Broken windows: The police and neighborhood safety. *Atlantic Monthly*, 29-38.
- Lawton, M. P. (1974). Social ecology and the health of older people. *The American Journal of Public Health*, 64(3), 257-260.

- Moerer-Urdahl, T. & Creswell, J. (2004). Using transcendental phenomenology to explore the “ripple effect” in a leadership mentoring program. *International Journal of Qualitative Methods*, 3(2). Retrieved August 3, 2015 from [http://www.ualberta.ca/~iiqm/backissues/3\\_2/pdf/moerer.pdf](http://www.ualberta.ca/~iiqm/backissues/3_2/pdf/moerer.pdf)
- Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: SAGE Publications Inc.
- Morgan, P. (2010). Towards a developmental theory of place attachment. *Journal of Environmental Psychology*, 30, 11-22.
- Newman, O. (1972). *Defensible space: Crime prevention through urban design*. New York, NY: Macmillan.
- Nolan, C. M. (2006). Auto-photography as research practice: Identity and self-esteem research. *Journal of Research Practice*, 2(1) M1. Retrieved August 3, 2015 from <http://files.eric.ed.gov/fulltext/EJ805685.pdf>
- Relph, E. (1976). *Place and placelessness*. London: Pion.
- Scannell, L. & Gifford, R. (2010). Defining place attachment: A tripartite organizing framework. *Journal of Environmental Psychology*, 30(1), 1-10.
- Taylor, R. B., Shumaker, S. A., & Gottfredson, S. D. (1985). Neighborhood-level links Between physical features and local sentiments: Deterioration, fear of crime and confidence. *Journal of Architectural and Planning Research*, 2, 261-275.
- Tinkler, P. (2013). *Using photography in social and historical research*. Thousand Oaks, CA: SAGE Publication, Inc. Retrieved August 3, 2015 from [http://www.sagepub.com/upm-data/53648\\_Tinkler\\_chapter\\_9.pdf](http://www.sagepub.com/upm-data/53648_Tinkler_chapter_9.pdf)

Trochim, W. M. (2001). *The research methods knowledge base*. Cincinnati, OH:

Atomic dog publishing.

United States Department of Justice: Federal Bureau of Investigations (2013). *Uniform*

*crime reporting statistics*. Retrieved August 3, 2015 from

<http://www.ucrdatatool.gov/Search/Crime/Local/JurisbyJuris.cfm?CFID=3347988>

8&CF TOKEN=60320537

# **THE APPALACHIAN COMPANY TOWN: PAST HOUSING MODELS TO INFORM FUTURE DIRECTIONS**

Gregory Galford, William Biss\*

## **Introduction**

The history of American housing types has always included the planned company town. The growth in nineteenth century manufacturing often included a need to provide for the housing needs of the worker. The company town is an important component of past housing history. This paper analyzes the social and spatial aspects of company towns in Appalachia, utilizing photos and mapping. This paper argues that an understanding of the subtle architectural and planning cues of company towns informs the social and economic foundations of current housing and neighborhood design.

The Appalachian coal company town is one component of the broader history of American housing. The remote mountains of Appalachia contained little more than subsistence farms prior to the discovery of large coal seams and the introduction of the railroad to ship the coal to eastern cities. The need for the importation of miners forced coal mining operators to build whole towns with housing, education and shopping in extremely remote locations. Many of these towns have disappeared due to economic changes in the coalfields. Due to their remote locations in rugged landscapes, they were

---

\* Gregory Galford, AIA, Assistant Professor, Chatham University,  
William Biss, March, Assistant Professor, Chatham University.

not as much in the public view. Living conditions for families were difficult as everything was owned by the companies. Strikes meant eviction from their homes. These towns were planned with strong templates that utilized the threedimensional landscape to help define visual and social hierarchies among the residents. Within these towns, the housing size, style and location were all indicators of economic and social status and power.

### **Rationale**

These housing and town models are often studied from social and economic perspectives. This study will focus on the architectural implications as well. Seeing these issues from a design perspective informs our greater knowledge of the topic. This particular housing history is part of the heritage of housing design and education. The Appalachian company town is an important component of the history of the American house and the American town.

### **Methods**

This presentation will be a literature review of the primary and secondary texts regarding the design and social history of the Appalachian company town. Most of the focus is on the coalfields of West Virginia, Virginia and Kentucky. Some material may refer to company towns of other industries, such as timber extraction.

## Results and Implications

The nineteenth century company town was based on particular economic and social goals. The coal company town within Appalachia is a unique variant of these models. Their isolation and topological challenges gave them a unique character. The historical analysis will inform current models designed by architects and urban planners. This will also strengthen this as a line of study within HERA.

## References

- Drake, R. (2001). *A history of Appalachia*. Lexington, KY: University Press of Kentucky.
- Montrie, C. (2003). *To save the land and people: A history of opposition to surface coal mining in Appalachia*. Chapel Hill, NC: University of North Carolina Press.
- Mulrooney, M. M. (1991). A legacy of coal: The coal company towns of Southwestern Pennsylvania. *Perspectives in Vernacular Architecture*, Vol. 4, pp.130-137.
- Shnayerson, M. (2008). *Coal river*. New York: Macmillan.
- Thomas, J. B. (1998). *An Appalachian New Deal: West Virginia in the Great Depression*. Lexington, KY: University Press of Kentucky.
- Williams, J. A. (2002). *Appalachia: A history*. Chapel Hill, NC: University of North Carolina Press.

## THE FUTURE FOR HOUSING COUNSELORS

Rita W. Green\*

The effort to expand affordable housing often includes counseling in an effort to educate and prepare homebuyers for the acquisition of the most expensive asset most consumers will ever purchase. As a result, counseling programs are geared primarily toward first-time homebuyers, minority families and other populations whose homeownership rates fall below the national average. The 1968 Housing and Urban Development (HUD) Act gave public and private organizations the authority to provide housing counseling. Legislation in 1971 was implemented to establish a system to approve housing counseling agencies.

The Dodd-Frank Wall Street Reform and Consumer Protection Act amended the housing counseling statute to improve the effectiveness of the program by requiring that individual counselors, as well as agencies, be certified by HUD as competent to provide housing counseling services.

To become HUD certified, all individuals working with a HUD approved counseling agency must demonstrate competency by passing an examination. A website about the exam has been established at <http://www.hudhousingcounselors.com/>. That website also includes online preparation for the exam in addition to a downloadable study guide. The development of a practice exam is anticipated at a later date. Although the length of the exam has not been determined, the exam will cover six major areas of housing counseling which include:

---

\* Rita W. Green, Ed.D., Assistant Extension Professor, Mississippi State University.

- Financial management
- Property maintenance
- Homeownership and tenancy responsibilities
- Fair housing laws/requirements
- Housing affordability
- Avoidance of, and responses to, rental/mortgage delinquency and avoidance of eviction/mortgage default.

HUD approved counseling agencies and their counselors must be in compliance with the certification requirements no later than one year after the effective date of the final rule, which has yet to be determined but is expected this year. Only staff that provides housing counseling to clients must be certified. An individual has to successfully pass the HUD certification test only once to become certified and currently, there is no limit to the number of times a counselor may sit for the exam.

The purpose of this presentation is to raise awareness about the proposed rule regarding testing requirements as well as examine potential implications of this requirement for the housing counseling profession. Feedback from 197 organizations and individuals who responded to HUD's call for comments about the requirement were reviewed and revealed concerns that may impact the future of housing counselors as well as consumers who rely on their services. Those concerns include unintended consequences like:

- Compliance costs for obtaining and maintaining certification which adds a financial burden for nonprofit counseling agencies
- Barrier of entry into the housing counseling profession created by this rule



- Potential reduction of counseling services due to compliance costs
- Additional regulatory burden for agencies that have to follow state guidelines

These potential outcomes should be seriously considered as HUD prepares to release its final rule regarding certification of counselors. It is also important that housing counseling agencies address these concerns to determine how to strike a balance between meeting the needs of clientele while maintaining compliance with the new rules.

## **ENVIRONMENTAL SUSTAINABILITY IN THE THIRD-PARTY PROPERTY MANAGEMENT INDUSTRY**

Erin A. Hopkins, Dustin C. Read, Rosemary C. Goss\*

Efforts to promote environmental sustainability in the real estate industry continue to proliferate throughout the United States in response to both economic and social forces. This trend has received a considerable amount of attention in the academic literature, yet relatively little is known about the importance of environmental sustainability to third-party property management firms. This gap in the extant research is noteworthy because these firms are responsible for operating millions of multifamily housing units across the country and the number continues to grow. Third-party property management firms are therefore well positioned to help reduce the environmental impact of the housing stock if they have the ability and inclination to encourage the owners they represent to embrace environmentally sustainable business practices. Unfortunately, the existing real estate literature offers little guidance as to the importance of environmental sustainability initiatives to third-party property management firms.

The research presented in this paper seeks to answer the aforementioned question of importance of environmental initiatives to third-party property management firms by examining the perspectives of twenty-five executives working on behalf of

---

\* Erin A. Hopkins, Ph.D., Assistant Professor, Virginia Tech;  
Dustin C. Read, Ph.D., J.D., Assistant Professor, Virginia Tech;  
Rosemary C. Goss, Ph.D., Professor, Virginia Tech.

some of the most prominent third-party property management firms in the United States. The data used to complete this study was collected through a series of interviews conducted with executives representing firms on the National Multifamily Housing Council's (NMHC) annual list of the "50 Largest U.S. Apartment Managers" in 2015. While participating in semi-structured interviews, the research participants were asked whether they believed that environmentally sustainable business practices were important to prospective clients when evaluating third-party property management firms. The interviewees were additionally asked to identify any environmentally sustainable business practices they attempt to promote throughout the business development process to differentiate their firm from other property management firms in the multifamily sector.

The results suggest that the majority of large, third-party property management firms are leveraging environmental sustainability to win business. However, a great deal of variability appears to exist in the strategies used to achieve this objective. The sustainability initiatives adopted by these firms fall on a spectrum from basic efforts to encourage water conservation and recycling to much more comprehensive initiatives involving environmental evaluations of all properties under management. At the same time, a large number of large, third-party property management firms have chosen not to promote environmental sustainability at all in their business development process.

The findings of this study support two conclusions. First, sustainability initiatives are increasingly being used by large, third-party property management firms in the business development process. However, there are various barriers, such as the perception that "people like it, but won't pay for it", which remain a significant obstacle.

Second, firm characteristics tend to influence the form of sustainability promoted by fee managers in the multifamily housing sector. Some firms are well positioned to take advantage of increased market demand for these services while others are not. Thus, efforts need to be made to encourage sustainability initiatives in the industry by providing clear definitions; increasing information sharing between property managers and owners; and educating property owners and managers about the benefits of sustainability and the associated costs. Such efforts may serve to promote the adoption of sustainability initiatives by third-party property management firms.

# **MAKING HOME AT GOVERNMENT-SUBSIDIZED HOUSING IN MINNESOTA**

Eunju Hwang, Ann Ziebarth\*

## **Purpose**

The number of elderly immigrants has rapidly increased, but there still is a dearth of research on their changing environments. The purpose of this study was to listen to older Korean immigrants' experience living at government-subsidized housing and how they create "home" at their current housing to learn what purpose their current dwelling has given to their life.

## **Methods**

The phenomenological approach was used since it emphasizes unique subjective experiences (Atkinson & Delamont, 2010). Older Koreans living in government-subsidized housing in Minnesota were recruited through local housing agencies and face-to-face interviews were conducted in Korean. The interviews started with the research question asking, "What is the meaning of living at your current housing?" and follow-up questions for clarification were asked accordingly. The total participants were nine women and three men and their age ranged from 56 to 87. They all lived in high-rise buildings with assisted living program less than two years. The interviews were tape-recorded and transcribed in Korean first. Then, the authors read the transcripts and systematically questioned the meanings presented. The identified

---

\* Eunju Hwang, Ph.D., Assistant Professor, Virginia Tech;  
Ann Ziebarth, Ph.D., Professor, University of Minnesota

meaning units were highlighted and merged to develop qualitative themes.

### **Emergent Themes**

*As my health declines.* Many of the participants pointed out that as their functionality decreased, they had to move into their current housing. In their previous home, the physical aspect of housing did not compensate for their decreasing functionality. They lost their ability to perform routine housekeeping chores. This led to a loss of independence and also increased their social isolation.

*Connect me to community.* Until the participants were notified by a property manager that their only option would be a nursing home after an annual inspection, they did not consider moving into the building with more services. Housing managers and service providers linked them to community resources and activities.

*I belong here.* Maintaining psychological control through services provided on-site helped older Koreans feel independent. Paying for help enabled the participants to avoid the feeling of becoming a burden to their family. They developed activity groups and shared their common interests. The meaning of neighbors was extended to people that were involved with various activities within the Korean community. Neighbors were individuals with whom residents interacted, not merely people living close to the participants' apartment. All the activities helped them to maintain a sense of continuity in remaining active and to feel a sense of belonging.

## **Conclusion**

The older Korean participants in this study emphasized their interactions with service providers, and activities connecting them to the Korean community. Their definitions of neighborhood and neighbors were somewhat extended to the larger Korean community. When housing was provided with the culturally competent service coordination, the older Koreans were active recipients. Home meant a place linking an individual to one's neighbors, as a locus of intense emotional experience and a center of social activities which is the core of place making for the participants.

## **Reference**

Atkinson, P., & Delamont, S. (2010). *Qualitative research methods*. London, UK: SAGE.

# **A SMARTER CITY: A STUDY OF SUBAREA 8 OF THE ATLANTA BELTLINE AND THE IMPLEMENTATION OF SMART GROWTH AND NEW URBANISM**

Adenola Osinubi\*

This study presents an analysis of an area of the city of Atlanta, which is experiencing major transformations with many neighborhoods suffering from urban decay undergoing rehabilitation. In Atlanta, a sustainable project called the Atlanta BeltLine is currently underway, one of the largest, wide-range urban redevelopment projects in the country (The Atlanta BeltLine, 2015). For this study, an analysis of Subarea 8, one of the 12 Subareas in the Atlanta BeltLine, is conducted, utilizing spatial methods. Subarea 8 includes Atlantic Station, which is a sustainable and mixed-use redevelopment initiative of the historic Atlantic Steel Mill. This initiative is one of the largest urban brownfield redevelopments in the country, and a quintessential example of a successful smart growth model for how people can live, work and play in a community that improves the land, air and water (The Jacoby Group, 2013). A large portion of Subarea 8 is commercial with a reasonable amount of residential use areas

This study assesses the economic development initiatives of seven neighborhoods located in Subarea 8 by analyzing socio-economic and development factors, using data obtained from both local and national sources, on infrastructure development and status, population changes, demographics, and neighborhood amenities. The goal of this study is to also identify how the implementation of mixed use, Trail Oriented Developments (TrODs), and Transit Oriented Developments (TODs)

---

\* Adenola Osinubi, Doctoral Student, The University of Georgia.



affect economic development, transformation, and growth of an area. TrODs are an emerging planning tool that seeks to combine the active transportation benefits of a trail with the revitalization potential associated with well-designed and well-managed urban parks to help create more livable communities (Rails-to-Trails, 2007). TODs are a planning tool that seeks to mix residential, retail, office, open space and public uses in a walkable environment, making it convenient for residents and employees to travel by transit, bicycle, foot, or car (Transit, 2011). TODs are typically built within an average 2,000-foot walking distance of a transit stop and core commercial area.

This study could potentially help the City of Atlanta to better evaluate the needs of communities in regards to housing and amenities and to determine if these community redevelopment and rehabilitation initiatives could be the solution for communities suffering from urban decay. So far, only a limited number of studies have been conducted on these aspects

Based on urban economic theory as the underlying driving force, this study utilizes Geographic Information Systems (GIS) to conduct a comparison analysis of pre- and post- development of Subarea 8 for the years 2000 to 2010. The main areas of focus include an analysis of demographics, i.e., race and ethnicity; income; crime; transportation; amenities; and current and future land use, land conditions, and development.

Results show that the population increased in Subarea 8 from 2000 to 2010 although there are racial and ethnic divisions in certain neighborhoods. For example, a higher proportion of non-Hispanic Whites live close to amenities. In some areas crime is a constant problem. Subarea 8 is still in need of development and rehabilitation. There

are many deteriorating structures in residential and commercial areas although their foundation is in good condition, indicating good potential for rehabilitation and redevelopment. Currently, the area is well equipped regarding public transportation, with multiple bus stops in many neighborhoods, and bike routes throughout the subarea. However, many amenities are lacking; i.e., schools are absent, the number of senior centers insufficient, and green space is limited

The future use plan issued by the City of Atlanta discusses the city's long-term goals for different development and growth opportunities and provides zoning and project plans. Areas currently zoned as commercial are in the process of being rezoned for residential and mixed-use purposes, and areas with a high proportion of deteriorating structures have been identified as priority areas, with plans for rehabilitation and development. .

### **References**

The Atlanta Beltline. (2015). The Atlanta beltline: The 5 w's and then some. *Atlanta Beltline Overview*. Retrieved July 26, 2015 from <http://beltline.org/about/the-atlanta-beltline-project/atlanta-beltline-overview/>

The Jacoby Group. (2013). Atlantic Station: Real Estate. Retrieved July 26, 2015 from <http://thejacobygroup.com/atlanticstation/>

Rails-to-Trails (2007). *From Trail Towns to TrOD: Trains and Economic Development*. Washington, DC: Rails-to-Trails.

## **SERVICE LEARNING AT VIRGINIA TECH: COMMUNITY KITCHENS DESIGN CASE STUDY**

Kathleen Parrott\*

Two student teams in an advanced residential design class (senior level) of eight students each completed a service learning project designing kitchens. **Team One's** (five students) project redesigned a kitchen for a church in southwest Virginia. The congregation wanted to support a growing social outreach ministry and to integrate an expanded on-site child care program seeking licensure. **Team Two's** (three students) project, with a county Extension Service in central Virginia, redesigned a former private school dining hall kitchen into a teaching/demonstration space and incubator facility for food-based businesses.

The two projects had the following themes in common:

- Meet commercial codes as defined by state and county health departments as well as all applicable building codes.
- Include spaces frequently used by volunteers and for educational programs.
- Accommodate clients with limited budgets and lacking knowledge of kitchen design.

Distance and cost prohibited students visiting the client sites. However, extensive resources were provided for each project by the instructor of the class, including:

- Photography of the existing spaces.

---

\* Kathleen Parrott, Ph.D. Professor, Virginia Tech.

- Notes on project goals and parameters from the client
- Notes from the professor's visit to each site.
- Floor plans of the spaces.
- Experts were invited to the studio for presentations or consultations or were made available electronically.
- Email access to the clients.

Each completed project included detailed floor plans, color perspectives, and product specifications with cost estimates. A design statement explained the plans with alternative ideas including implementation of the project in stages.

### **Reflecting on the Projects**

A student post-project survey addressed service learning, project evaluation, and group processes. Most students (6 of 8) believed the projects were of value to their résumés, but only one student tied that value to the service aspect. Mastering commercial codes and products (5 of 8) and communicating with real world clients (3 of 8) were the most valued learning experiences. Not seeing the actual space and client communication (5 of 8) were most frequently cited as project challenges. All students reported that a team project required adjustment in working styles. **Team Two** (three students) reported working together effectively. **Team One's** (five students) members did not agree on whether team members worked well together and provided equal contributions to the project. This is interesting to note as **Team One** had more students due to their concern about the scope of their project.

The clients were contacted five months after receiving the students' designs. While neither project had been built, the clients praised the quality of the students' work and the value of the designs to their forward progress. **Team One's** church kitchen committee indicated they were "most impressed" and that they were aided in fundraising on their project by the student designs. The church provided **Team One students** with a small honoraria. The Extension Service had received some grant funds toward their project and expected the county government to include the project in the FY16 budget. The Agent indicated that their progress would not have happened without the **Team Two** design.

Photography, electronic communications, and resources gathered by the professor proved an adequate and effective, although not ideal, basis for advanced design students to engage in a real world, service-oriented design project. While the service aspect was not important to students, résumé enhancement, knowledge gained, and client experience from project participation was valued.

**EDUCATIONAL NEEDS AND OPPORTUNITIES WITH AGING ADULTS:  
LISTENING TO LIMITED RESOURCE ELDERLY HOMEOWNERS**

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

The aging adult represents both challenge and opportunity to educators committed to education to improve the quality of life. Aging in place describes the desire of many older adults to remain in their homes as long as it is reasonably possible (American Association of Retired Persons, 2000; Wiles, Leibing, Guberman, Reeve & Allen, 2011). This choice can be supported and facilitated by education (Chen, 2001; Lipman, Lubell, & Salomon, 2012).

A study was initiated to assess strategies of elderly limited resource homeowners to age in place. Phase I was site visits and personal interviews with homeowners who had recently completed home modifications. From content analysis of the data, opportunities and needs for education became apparent. This paper will summarize findings from the study that revealed educational needs of older adults. The conference presentation will further elaborate on the educational opportunities that evolved from the research findings.

---

\* Kathleen R. Parrott, Ph.D., Professor, Virginia Tech;  
Sung-Jin Lee, Ph.D., Assistant Professor, North Carolina Agricultural and Technical State University;  
Valerie L. Giddings, Ph.D., Associate Professor, North Carolina Agricultural and Technical State University;  
Sheryl Renee Robinson, Research Associate, North Carolina Agricultural and Technical State University.

## **Methodology and Data Description**

Personal interviews with 30 limited-resource (income not exceeding 50% of the current county Area Median Income) elderly homeowners (age 55+) in a central North Carolina city, who completed home modifications, were conducted for 30-45 minutes. Participants were recruited by the director of the non-profit housing organization that had completed their home modifications then contacted by the researchers. Responses were tape recorded and transcribed for content analysis.

Most participants were female ( $n = 29$ ), single ( $n = 28$ ), and elderly (average age = 73). Eighteen participants lived alone. Only one reported an income over \$25,000 annually. Half reported their education level as high school graduate or less. The majority lived in one-story, single, detached housing ( $n = 29$ ). Nineteen reported better housing conditions from the home modifications; 21 participants reported that their homes still needed improvements.

## **Findings**

### *Health*

All participants noted one or more health conditions that required resources to manage or could limit their ability to live alone. Thirty-nine conditions were identified. Only half ( $n = 14$ ) were able to manage most of the activities of daily living.

### *Financial Issues*

The financial situation of participants was insecure. The majority did not have pension funds and depended on government resources as primary income sources. Half had mortgage payments ( $n = 16$ ), and most had no emergency financial resources.

### *Neighborhood*

Neighborhood was important, especially connections to the neighbors ( $n = 17$ ) and friendliness ( $n = 9$ ). The best feature of their homes often was the neighborhood ( $n = 7$ ) or neighborhood features ( $n = 6$ ).

### *Family*

Nine participants lived with children or grandchildren, but it varied as to whether this was support or a liability. Five participants specifically depended on family as caregivers. Six participants chose their home because of specific connections to their family.

### *Church/Religion*

Almost half ( $n = 12$ ) credited God for healing medical problems or prayed for help with health problems. For some, their pastor was an important support person. A church they attended or a neighborhood church could be important for its sense of security and a source of emergency help.

## **Educational Opportunities**

The findings emphasize the need for educational content (i.e. materials or resources) on managing health conditions and improving financial well-being among aging adults. The additional findings on neighborhood, family, and church/religion



generate ideas for methods and tools for planning appropriate educational programs that will be effective with older adults.

### References

- American Association of Retired Persons. (2000). *Fixing to stay: A national survey of housing and home modification issues*. Retrieved July 17, 2015 from [www.assets.arp.org/rgcenter/ilhome\\_mod.pdf](http://www.assets.arp.org/rgcenter/ilhome_mod.pdf)
- Chen, N. (2001). The meaning of aging. *Journal of Extension* [On-line], 39(6) Article 6IAW2. Retrieved July 17, 2015 from <http://joe.org/joe/2001december/iw2.php>
- Lipman, B., Lubell, J. & Salomon, E. (2012). *Housing an aging population: Are we prepared?* Retrieved July 17, 2015 from [www.nhc.org/media/files/AgingReport2012.pdf](http://www.nhc.org/media/files/AgingReport2012.pdf)
- Wiles, J. L., Leibing, A., Guberman, N., Reeve, J., & Allen, R. E. S. (2011). The meaning of "Ageing in Place" to older people. *The Gerontologist*, 52 (3), 357-366.

# **KEEPING IT SAFE: A STUDY EXAMINING AGING IN PLACE AMONG RURAL OLDER ADULTS**

Gina G. Peek, Alexander J. Bishop\*

## **Introduction**

Aging in place is profoundly impacted by functional capacity. As an increasing number of persons with chronic conditions live longer, independent living will require greater inner strengths, social provisions, and safer living environments to regulate impact of age-associated disablement on personal safety.

## **Purpose of the research**

The purpose of the research was to examine how rural older adults who age in place sustain a safe and secure living environment. The primary aim of the project was to understand areas for improving the home ecology of aging in rural Oklahoma.

## **Research objective**

The objective of the research was to assess two areas important to the ability to age in place: (1) functional capacity/hazard indicators and (2) home conditions.

---

\* Gina G. Peek, Ph.D., Assistant Professor and Extension Housing and Consumer Specialist, Oklahoma State University;  
Alexander J. Bishop, Associate Professor, Oklahoma State University.

## Methodology

A cross-collaborative research team (Human Development Family Science [HDFS] resident faculty and Cooperative Extension Housing and Consumer Specialist) conducted the study. County extension educators were critical to the study success.

Theoretical background: The disablement process model (Verbrugge & Jette, 1994) states that there are three key areas that contribute to disability: (1) predisposing risk factors; (2) intraindividual factors, and (3) extraindividual factors.

## Procedures

The Cooperative Extension infrastructure was used to recruit participants and collect data. Family and Consumer Sciences county educators recruited adults aged 65 or older from a convenience sample. Recruiting methods included posting study flyers at senior centers and directly asking Oklahoma Home and Community Education (OHCE) members, friends, and family. The study sample was based on a 2 x 2 design (age and gender). The sample included 33 participants distributed across across 23 homes in six counties located in northwestern Oklahoma.

**Table 1.** Sampling results

Age	Gender		Total
	Women	Men	
Old (65-74 years)	n = 12	n = 8	N = 20
Old-old (75+ years)	n = 8	n = 5	N = 13
Total	N = 20	N = 13	N = 33

Measurement instrumentation for the project was two-part. First, one-on-one interviews were conducted using four clinical objective assessments. Second, homes were evaluated using the Cougar Home Safety Assessment 4.0 (Fisher & Ewonishon, 2006). Participants were sent reports based on the Cougar 4.0 assessments.

## **Results**

One-on-one interviews: The participants, on average, faced difficulties including health issues and limited psychosocial resources. Regardless, the population was resilient and able to complete activities of daily living. Home evaluations: Every home had at least one issue related to (1) electrical, fire, or carbon monoxide poisoning; (2) risk of falls; and (3) emergency preparedness. Regarding limitations, the results may be non-representative of other older adult populations. The small sample size limits statistical power or the ability to achieve 'significant' findings of interest. Thus, results are descriptive in nature.

## **Conclusions**

Information regarding resources and home safety that contribute to aging in place for rural older adults was gained. Some participants have limiting factors affecting the capacity to care for their homes and viably remain in place. Participants experienced nuisances or difficulties with housing as demonstrated by home inspections in which all houses had at minimum one or more significant safety issue(s).

## Implications

Results of this study are being used to inform programming that may affect health welfare and safety. As a result of this study, a series of factsheets and other Extension programming is being developed to help provide education to reduce risk associated with aging in place.

## References

- Fisher, G., & Ewonishon, K. (2006). *Cougar Home Safety Assessment 4.0*. Dallas, PA: College Misericordia.
- Fillenbaum, G. G. (1988). *Multidimensional functional assessment of older adults: The Duke Older Americans Resources and Service Procedures*. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Pearlin, L. I., Lieberman, M. A., Menaghan, E. G., & Mullan, J. T. (1981). The stress process. *Journal of Health and Social Behavior*, 22, 337–356.
- Rosenberg, L., Kottorp, A., Winblad, B., & Nygård, L. (2009). Perceived difficulty in everyday technology use among older adult with or without cognitive deficits. *Scandinavian Journal of Occupational Therapy*, 16, 216-226.
- Rosenberg, L., Nygård, L., & Kottorp, A. (2009). Everyday technology use questionnaire: Psychometric evaluation of a new assessment of competence in technology use. *OTJR: Occupation, Participation, & Health*, 2, 52-62.
- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 4, 719–727.

Tinetti, M. E., Richman, D., & Powell, L. (1990). Falls efficacy as a measure of fear of falling. *Journals of Gerontology: Psychological Sciences*, 45, 239-243.

U.S. Centers for Disease Control and Prevention. (2013). Healthy places terminology.

Retrieved April 1, 2015 from <http://www.cdc.gov/healthyplaces/terminology.htm>

## **HOUSING HISTORY: LEARNING TO LOOK**

Gina G. Peek, Ann C. Ziebarth\*

### **Introduction**

Teaching the history of housing is a challenge for educators. Information and learning concepts are often expressed verbally and presented as text; however, images may serve as a better means of conveying information. This presentation illustrates how using images and applying theoretical frameworks and systematic analyses can extend learning opportunities in the classroom and community. Typical programming on architectural history is limited to a catalog of architectural styles and how they change over time. Using catalogs of images can contribute to much more interesting research questions and answers as well as providing learning opportunities regarding historic preservation decision-making, an increase in understanding of social change, and a critical analysis of power and privilege that is embodied in material culture.

### **Theoretical Framework**

The work of geographer Peirce Lewis (1982) provides a framework for looking at cultural landscapes, that is, human made landscapes. The cultural landscape may consist of “everything from city skylines to farmers’ silos, from golf courses to garbage dumps, from ski slopes to manure piles, from millionaires’ mansions to the tract houses of Levittown, [...] – in fact, whole countrysides, and whole cities, whether ugly or

---

\* Gina G. Peek, Ph.D., Assistant Professor and Extension Housing and Consumer Specialist, Oklahoma State University;  
Ann C. Ziebarth, Professor, University of Minnesota.

beautiful makes no difference”(Lewis, 1982, p. 1).

Applying analysis that is concerned with relations of power and inequality moves the study of historic housing within the cultural landscape a step further. Viewing historic housing from this perspective provides a means of interpreting the material cultural landscape read through Lewis' framework. The process of cultural landscape reading is illustrated using images of historical residential architecture,. Some suggestions for implementing the methodology in classroom teaching and community programming are also provided.

### **Methods**

Lewis states that most Americans do not have skills needed to read the cultural landscape although these skills can be learned. He provides six axioms in which a cultural landscape may be read, as follows:

- 1) The axiom of landscape as clue to culture;
- 2) The corollary of cultural change;
- 3) The regional corollary;
- 4) The corollary of convergence;
- 5) The corollary of diffusion; and
- 6) The corollary of taste.

This presentation will illustrate each axiom using archival research. The three archives used include (1) The Library of Congress, (Library of Congress, n.d.) (2) The Minnesota State Historical Society archives, and (3) the National Register of Historic Places (National Park Service, n.d.).



Subsequently, Lewis' axioms will be applied the company town of Morgan Park, Minnesota (Alanen, 2007). Relying especially on the axiom of landscape as a clue to culture and the corollary of cultural change, this example will illustrate how relations of power and inequality are built into the cultural landscape. In conclusion, additional suggestions for employing images and theoretical perspectives in educational programming about historic housing will be presented.

### **Implications**

Educators, regardless of whether they are a resident or extension faculty, interested in housing and the ordinary day-to-day qualities that form people's life and culture may find this framework useful. Educators may teach this content as is or adapt it to their own cultural landscape area of interest. The content may inform innovative learning experiences for youth, adults, and even local historical society members. Students may discover how history informs the understanding of contemporary housing issues.

### **References**

- Alanen, A. R. (2007). *Morgan Park: Duluth, U.S. Steel, and the Forging of a Company Town*. Minneapolis, MN: University of Minnesota Press.
- Lewis, P. F. (1982). Axioms for reading the landscape: Some guides to the American scene. In T. J. Schlereth (Ed.), *Material culture studies in America* (pp. 174 - 182). Lanham, MD: AltaMira.

Library of Congress. (n.d.). Prints & photographs online catalog. Retrieved May, 2015  
from <http://www.loc.gov/pictures/>

National Park Service. (n.d.). National register of historic places. Retrieved May, 2015  
from <http://www.nps.gov/Nr/>

## **FINANCIAL LITERACY AND THE USE OF INTEREST-ONLY MORTGAGES**

Gloria L. Preece, Gregory H. G. Schink, Vincent C. Le, Martin C. Seay\*

### **Introduction**

Financial literacy of U.S. households continues to be a growing concern. In a recent study by Ludardi and Sheresberg (2013) only forty percent of those surveyed were able to answer all three financial literacy questions correctly. Limited financial literacy, combined with the complexities of an interest-only mortgage product, can lead to increased default situations (Fishbein & Woodall, 2006). Compared to fixed and adjustable rate mortgages, interest-only borrowers make no principal payments. This often becomes troublesome for the borrower, as they are left with few options at the time of the balloon payment. Thus, they often amortize the remaining principal amount into a new mortgage or pay off the loan balance with cash. Given the decrease in home values during the financial crisis, many consumers could not refinance their mortgage balance and defaulted. The purpose of this paper is to investigate the relationship between financial literacy and the use of interest only mortgages in the years leading up to the financial crisis.

---

\* Gloria L. Preece, Lecturer in Business, Indiana University Kokomo;  
Gregory H. G. Schink, Ph.D. Student, Kansas State University;  
Vincent C. Lee, Lecturer of Finance, Doane College;  
Martin C. Seay, Assistant Professor, Kansas State University

## **Theoretical framework**

Within the lens of the theory of bounded rationality (Simon, 2000), financial literacy is a measure of an individual's ability to make utility maximizing economic decisions. Financial literacy is made up two components; financial knowledge and the financial skills to apply that knowledge (Huston, 2010).

## **Hypotheses**

H<sup>1</sup>- Financial knowledge is negatively associated with the use of interest-only mortgages.

H<sup>2</sup>. Financial skills are negatively associated with the use of interest-only mortgages.

## **Methodology**

### *Data*

Data are used from the 2009 National Financial Capability Study (NFCS). For this study the sample was restricted to mortgage holders who had purchased their home within the preceding 10 years and had recent knowledge of their credit scores. A final sample size of 3,367 observations was used.

### *Financial Literacy*

Financial literacy was measured in two ways; financial knowledge and financial skills. Objective financial knowledge was measured using three generally accepted financial knowledge questions regarding compound interest, mortgages, and diversification (Knoll & Houts, 2012), as well as a measure of an individual's self-rated subjective financial knowledge. Financial skills were measured based on questions

asking individuals to rate their math ability and their ability to complete day-to-day financial matters.

### *Control variables*

A variety of demographic and economic variables were included. Demographic variables include race, age, gender, education, presence of children, and marital status. Economic control variables include credit score, income, the presence of financial assets, employment status, risk tolerance, and length of homeownership.

### *Analytical Method*

For the current study, a series of three logistic regression analyses were conducted to compare the factors associated with choosing an interest only mortgage as compared to: a) all mortgage types; b) fixed-rate mortgages; and, c) adjustable-rate mortgages.

## **Results**

Results indicate that individuals with financial knowledge were significantly less likely to use an interest-only mortgage. Similarly, individuals who indicated having higher levels of financial skills, as measured by math ability, were less likely to use an interest-only mortgage. These differences were noted in the comparison of interest-only mortgages and all other mortgages, as well as the comparison of interest-only mortgages to fixed rate mortgages. Only limited differences were noted between individuals who used an interest-only and those that used adjustable-rate mortgages.

## References

- Fishbein, A. J., & Woodall, P. (2006). *Exotic or toxic? An examination of the non-traditional mortgage market for consumers and lenders*. Washington, DC: Consumer Federation of America.
- Huston, S. J. (2010). Measuring financial literacy. *Journal of Consumer Affairs*, 44(2), 296-316.
- Knoll, M. & Houts, C. R. (2012). The financial knowledge scale: An application of item response theory to the assessment of financial literacy. *Journal of Consumer Affairs*, 46(3), 381-410.
- Lusardi, A. & Scheresberg, C. B. (2013). Financial literacy and high-cost borrowing in the United States (Working Paper 2013-18969). Retrieved July 13, 2015 from <http://www.nber.org/papers/w18969>.
- Simon, H. A. (2000). Bounded rationality in social science: Today and tomorrow. *Mind & Society*, 1(1), 25-39.

## HOME SOLAR ENERGY EDUCATION PROGRAM

Claudette Hanks Reichel\*

Homeowner interest and investment in home solar power systems has grown rapidly due to technology improvements, decreasing costs, solar incentive programs and policies, and creative finance (solar leasing). Unfortunately, the rapid growth and generous incentives have spurred predatory and questionable business practices resulting in many cases of consumer problems and complaints, such as high pressure or misleading sales tactics, inflated predicted savings, high lease escalation rates, low power output, damage to homes and others.

This presentation will share highlights of Home Solar Energy Extension Education Program to develop and provide educational materials and outreach on home solar power that:

- present objective and credible information for consumers about solar power benefits, limitations, technology options, installation, issues and financial considerations;
- answer key consumer questions and provide guidelines to avoid potential problems (such as poor results, damage to the home, deceptive sales practices, diminishing savings or return on investment, etc.); and
- enable solar consumers nationwide to make well-informed choices that achieve the benefits they seek.

---

\* Claudette Hanks Reichel, Ed.D., Professor, Louisiana State University AgCenter – Extension Service

This home solar energy education project included the following program development stages and components:

- issue and need identification via dialogue with a wide variety of stakeholders, educators and a review of solar consumer issues and complaints;
- an extensive review of literature, including consumer education materials and resources from government, academic, industry and media resources resulting in a bibliography of 43 sources listed in the publication;
- development of a user-friendly yet comprehensive publication, ***Solar Power for Your Home: A Consumer's Guide***, written in question and answer format, and including a cut-out page of questions to ask when considering a solar power system purchase or lease;
- peer review by 17 professionals from various relevant disciplines, perspectives and geographic locations (consumer advocates, educators, energy consultants, scientists, solar industry, utility industry, etc.) ; and
- educational outreach via nationwide dissemination of the digital publication, promotional activities and presentations.

The new *Solar Power for Your Home* consumer guide is now published by the LSU AgCenter and available as a free online pdf publication. Limited print copies are available to stakeholders for display and promotional purposes. Public and private entities are encouraged to freely post, share and print the pdf file for free distribution to consumers. An adaptable slide presentation is also available to educators.

Outreach efforts have begun and are ongoing. Examples thus far have included national news releases to popular press (referenced by Consumer Reports) and utility



industry newsletters; presentations at national meetings of utility regulators, consumer advocates, solar scientists and HERA; national webinars, notification of Extension housing educators, and display or sharing at local and state events such as home shows, building official training workshops and solar events.

A national outcome/impact evaluation is beyond the scope of this project and funding, yet would be a worthwhile endeavor. A survey of publication users and comparison with non-users among solar consumers would provide valuable insights to modify this effort and shape future national outreach programs and publications.

**HOUSING CHALLENGES ACROSS THE RURAL-URBAN CONTINUUM:  
A REVIEW OF THE LITERATURE AND IMPLICATIONS  
FOR POLICY AND PRACTICE**

Kimberly Skobba, Karen Tinsley\*

The housing challenges of rural and urban communities are often considered in isolation. Federal housing policies in the United States address rural and urban housing needs through two distinct yet parallel tracks (Basmajian & Rongerude, 2012). However, the key factors that contribute to meeting the housing needs within a community are the same. Meeting community housing needs requires housing that is affordable, available, of adequate quality, appropriate for existing and potential residents, located in neighborhoods with amenities (e.g. medical services, schools, shopping, transportation) and of sufficient quantity and quality (Ziebarth, Brown, & Elgathian, 2000). However, many communities across the rural-urban continuum experience problems with housing quality, availability and affordability. As a whole, rural homes are more likely to have physical inadequacies than their urban counterparts, regardless of whether homes are rented or owned (Morton, Allen, & Li, 2004). However, housing quality issues are also a problem in distressed urban neighborhoods, suggesting that housing needs are a combination of local community characteristics (Mallach, 2008).

---

\* Kimberly Skobba, Ph.D., Assistant Professor, University of Georgia;  
Karen Tinsley, Ph.D., Public Service Associate, University of Georgia.

The purpose of this paper is to examine and integrate previous research on rural and urban community housing challenges in an effort to 1) understand both commonalities and differences and to 2) identify implications for the field of housing and community development.

Balancing housing needs and community characteristics presents a challenge for many communities, regardless of location. Local housing markets are diverse and are influenced by a combination of economic, physical and locational factors. Non-metropolitan areas exhibit this diversity in communities. This diversity includes chronically poor rural communities, which have high poverty rates and are physically isolated rural areas with low home values and resource-dependent rural communities facing economic and population decline. It also includes ex-urban and amenity-rich small towns with attractive physical features and accessible locations that experience growth as they attract affluent professionals, retirees, and newcomer residents and businesses. (Hamilton, Hamilton, Duncan, & Colocousis, 2008). In between are communities with weakened economies but also the potential for amenity-based growth. Though they differ in terms of density, urban communities offer a similar pattern of diversity with differences in location, demographic, and housing characteristics that correspond to local housing market characteristics (Owens, 2012; Mallach, 2008). Whether in urban or rural areas, high poverty communities show evidence of disinvestment through a prevalence of dilapidated homes, high level of vacancies, low levels of homeownership and high housing cost burdens. High growth, high amenity areas tend to have lower rental vacancy rates and fewer affordable housing options, making it difficult for long-term, less-affluent residents to find and keep a place to live.

While policies tend to divide along urban and rural lines, housing and community development challenges and solutions may be based more on demographic, economic and location-specific characteristics than metro/non-metro status. This paper will examine previous research to identify policies and practices that focus on local conditions shared by urban and rural communities, while identifying areas of particularity.

### References

- Basmajian, C. & Rongerude, J. (2012). Hiding in the shadow of Wagner-Steagall. *Journal of American Planning Association*, 78(4), 406-414.
- Hamilton, L.C., Hamilton, L.R., Duncan, C.M. & Colocousis, C.R. (2008). Place matters: Challenges and opportunities in four rural Americas. *Carsey Institute Reports on Rural America*, 1(4). Durham, NH: University of New Hampshire.
- Owens, A. (2012) Neighborhoods on the rise: A typology of neighborhoods experiencing socioeconomic ascent. *City & Community* 11(4), 345-369.
- Mallach, A. (2008). Managing neighborhood change: A framework for sustainable and equitable revitalization. Montclair, NJ: National Housing Institute.
- Morton, L.W., Allen, B.L., & Li, T. (2004). Rural housing adequacy and civic structure. *Sociological Inquiry*, 71(4), 464-491.
- Ziebarth, A., Brown, K. & Elgatian, P. (2000). Community housing development: Building a brighter future. Circular 1367. Champaign, IL University of Illinois Extension.

## **HEALTHY AND SAFE ENVIRONMENTS FOR CHILDREN/CHILD CARE PROVIDER TRAINING**

Patricia Snodgrass, Rebecca Blocker\*

In the U.S., nearly 11 million children under age 5 are in some type of child care setting (National Association of Child Care Resources and Referral Agencies, 2013). Thus, child care provider training is a need in many states. In 2014 and 2015 two Missouri Extension housing specialists responded to the need for child care provider training with three training sessions developed and conducted in Missouri. These three sessions were – first, Reducing Safety Hazards in Childcare Environments; second, Reducing Asthma and Allergy Triggers in Childcare Environments; and third, Emergency Response Trainings. These three sessions were part of meeting Day Care licensing requirements as a part of Missouri’s Professional Development Initiative for Early Childhood and Afterschool Professionals. The Eco-Healthy Child Care (EHCC) designation/certification, a program of Children’s Environmental Health Network, was also presented in the training.

The long-term impacts of those attending these trainings show that child care centers have made physical changes to increase security and are better prepared for

---

\* Patricia Snodgrass, Housing and Environmental Design Specialist, Healthy Homes Specialist, University of Missouri Extension;  
Rebecca Blocker, Housing and Environmental Design Specialist, University of Missouri Extension.

emergency response. For example when asked, at the beginning of the training session, none of the child-care providers participating in these trainings knew the phone number of the Poison Control Center. Also, an exhibit provided in the training session taught the providers about poison look- a-likes. As a result of these training sessions, over half of those attending the sessions plan to use less toxic chemicals and cleaning supplies in their day care centers. Similarly, over half of those attending the training plan to change behaviors and methods to control asthma triggers. For example, almost all attendees did not know about third-degree smoke and perfumes/fragrances and the significant affect they can have as an allergy trigger.

Ninety-eight percent of the child care providers participating in the training indicated that they would recommend this program. In sum, this partnership provides quality education to enhance the skills and knowledge of child care providers in our state.

### **References**

- Gilden, R., McElroy, K., Friedmann, E., Witherspoon, N.O., Paul, H. (2015). Evaluation of the Children's Environmental Health Network's Environmental Stewardship Checklist Responses. *Journal of Environmental Health, 77*, 22-28.
- National Association of Child Care Resources and Referral Agencies. (2013). About child care. Retrieved July 2, 2015 from <http://www.naccrra.org/aboutchildcare>

## **HEALTH EFFECTS OF HOUSING ON URBAN LOW-INCOME ASTHMATIC CHILDREN IN LOWELL, MASSACHUSETTS**

David A. Turcotte, Susan Woskie, Rebecca Gore, Emily Chaves, Kelechi Adejumo\*

Research has documented that housing conditions can negatively impact the health of residents, particularly vulnerable populations, such as asthmatic children (Northridge, 2010). Asthma has many known indoor environmental triggers including dust, pests, smoke and pets and is the most common chronic childhood disease, as evidenced by almost 7.1 million children who have asthma (U.S. EPA, 2013). Children are particularly vulnerable to home hazards and may develop lifelong health problems as a result of their home environment (Etzel, 2003). The purpose of the research was to demonstrate how to reduce asthma burden and improve health outcomes for asthmatic children and their families within diverse, low-income communities located in Lowell, Massachusetts. The main objectives were to conduct home environmental assessments and individualized interventions focused on reducing indoor allergen levels and asthma triggers and to evaluate to what extent housing types affect baseline health status and outcomes changes associated with home interventions in low-income urban households with asthmatic children. Although several studies have conducted home intervention research with asthmatic children (Crocker et al, 2011; Turcotte et al,

---

\* David A. Turcotte, Research Professor, University of Massachusetts Lowell;  
Susan Woskie, Professor, University of Massachusetts Lowell;  
Rebecca Gore, Statistical Application Programmer, University of Massachusetts Lowell;  
Emily Chaves, Assistant Program Manager, University of Massachusetts Lowell;  
Kelechi Adejumo, Ph.D. Student, University of Massachusetts Lowell.

2014), housing types have not been compared with regards to health status of asthmatic children or home asthma intervention outcomes. This study explores the differences in baseline and outcome environmental and health characteristics between three housing types.

### **Methodology and Procedures**

A comprehensive health and environmental assessment and subsequent intervention were completed in 176 households enrolled in our study involving 258 children with asthma living in public, market-rate and government subsidized (section 8) private housing. The U.S. Department of Housing and Urban Development (HUD) proved two grants to support these studies. The two largest populations included Hispanics (57 percent) and Asians (13 percent). Health and environmental assessments conducted in English, Khmer and Spanish included survey questionnaires, visual observations, and dust sampling at baseline and at follow-up 11-12 months later to evaluate impact of the intervention on the health of the child/family. Home health workers provided asthma prevention education, and targeted environmental intervention to decrease asthma triggers and to improve household safety. Major analysis included health effects on wheeze and asthma attacks, doctor and ER visits and hospitalizations, as well as an asthma scale assessment on child physical health, child/family social activity, and child/family emotional health compared by housing types (public, market rate, and section 8). Analysis included ANOVA to compare health status means and Chi-Square tests of interdependence and Kruskal Wallis tests to compare environmental data.



## **Results**

The study households showed several statistically significant differences in measures of asthma severity and quality of life indicators at baseline, such as ER visits, child physical health, family social activities and emotional health levels and asthma medication use based on housing types. The environmental conditions in homes of the study population showed statistically significant differences with presence of mold, bathroom exhaust vents, gas stoves, cleaning chemical use, and application of pesticides. The study population also showed a statistically significant improvement in a child's physical health from baseline to follow-up, as well as key changes in risk indexes by housing types.

## **Conclusions**

Findings suggest that culturally/linguistically appropriate, multi-component interventions decrease most measures of asthma severity and healthcare utilization in this low-income population of urban children, but a child's asthma status and the impact of in-home interventions on health also differs by housing type.

## **Implications**

This 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 diverse, urban, low-income asthmatic children and their caregivers, but differing conditions among housing types can impact health status and outcome change. Policymakers need to consider the utilization of such interventions and

changes in housing conditions to enhance health status of asthmatic children and families.

### **Acknowledgment**

Funding was provided by the US Department of Housing and Urban Development, Office of Healthy Homes and Lead Hazard Control (grants MALHH0171-8 and MALHH0225-10).

### **References**

- Crocker, D.D., Kinyota, S., Dumitru, G.G., Ligon, C.B., Herman, E.J., Ferdinands, J.M., et al. (2011); Effectiveness of home-based, multi-trigger, multicomponent interventions with an environmental focus for reducing asthma morbidity: a community guide systematic review. *Am J Prev Med*, Aug;41(2 Suppl 1):S5-32.
- Etzel, R. A. (2003). How environmental exposures influence the development and exacerbation of asthma. *Pediatrics*. 112, 233-239.
- Northbridge, J. (2010). The role of housing type and housing quality in urban children with asthma. *Journal of Urban Health*, 28, 211-224.
- Turcotte, D., Alker, H., Chaves, E., Gore, R., & Woskie, S. (2014). Healthy Homes: In-Home Environmental Asthma Intervention in a Diverse Urban Community. *American Journal of Public Health*, 104(4):665-71.
- U.S. Environmental Protection Agency. (2013, March). *Asthma Facts*. Retrieved from [http://www.epa.gov/asthma/pdfs/asthma\\_fact\\_sheet\\_en.pdf](http://www.epa.gov/asthma/pdfs/asthma_fact_sheet_en.pdf)

**THE GREAT AMENITY MIGRATION TO RURAL AMERICA:  
A PILOT STUDY EXAMINING KEY INFORMANTS' PERSPECTIVES**

Ann Ziebarth, Gabrielle Clowdus\*

Recreational homes are key to development in amenity-rich rural communities (Abrams, Goesnell, Gill, & Klepeis, 2012; Moss, 2006). The number of amenity migrants, who can be defined as a population seeking recreational homeownership in natural amenity-rich rural areas, has grown at an unprecedented rate (Moss, 2006). The literature reveals that on average these migrants tend to be older, significantly wealthier and more educated than the permanent local residents of the area (Pesch & Bussiere, 2014). The in-migration of former second homeowners can cause a ripple effect of change for rural communities. As retirees transition from recreational use of their second homes to year round occupancy rural communities are faced with increased pressure to meet new service needs and respond to conflicting priorities often occurring between longtime residents and newcomers. Social structures, cultural affinities, political demands, economic dynamics, and environmental issues must be addressed as an emerging new population enters rural communities. The purpose of this pilot study was to test an interview schedule exploring key community leaders' perceptions of the impacts of amenity migrant relocation into their area.

Previous studies have sought to understand the perspective of locals and amenity migrants (Gallent, Mace, & Tewdwr-Jones, 2005; Green, Marcouiller, Deller, Erkkila, & Sumanthi, 1996; Matarrita-Cascante, Sene-Harper, & Stocks, 2015) but

---

\* Ann Ziebarth, Ph.D., Professor, University of Minnesota;  
Gabrielle Clowdus, Ph.D. Student, University of Minnesota

relatively little research has examined the perceptions of those in positions of influencing policy, budgets, and development. With this pilot study, we engaged with local experts to understand: the character of recreational counties, the dynamics of the dual populations, and considerations for community development plans. Key informant interviews were conducted with three community influencers from three rural recreational counties of Minnesota for this qualitative, phenomenological study.

The preliminary interview schedule was as follows:

The Ice Breaker: "Tell me about the character of this county."

Question #1: "What is the history of recreational housing in your county?"

Probe: employment, property values, public services, zoning and land use

Question #2: "How would you describe local residents and recreational residents? And how do each influence county planning and development?"

Probe: How do residents find out about community projects, meetings, activities, and development plans? Is this different for local residents and recreational residents?

Question #3: "What are the most pressing issues affecting your community? How does this impact residents?"

Probe: "Is there competition over resources? ... How so?"

Prompt: tourism business, public services such as healthcare, access to natural amenities, recreational homes becoming full time homes for retirees?

Final Question: “Ok, we’re coming to the end of our interview is there anything I’ve missed? What have I not asked that I should be asking?”

Interviews were digitally recorded and transcribed. Data were analyzed following Rubin and Babbie’s qualitative content analysis methodology (1989) and Wolcott’s three-stage process of *describing, analyzing, and interpreting* (1994).

Findings indicate that interviewees are able to describe the housing and development conundrum, recognizing the uneven distribution of assets, skills, and stages of life, but are not yet able to articulate what this might mean if substantially more retirees transition into permanent residents over the next 10 years in their counties, as recently projected from a survey of second homeowners (Pesch & Bussiere, 2014). Furthermore, planners are not equipped with substantial management plans, shared visions, or future goals that incorporate these newcomers into their rural communities.

As second homeowners become fulltime year-round residents, service demands on local government will increase. Not only are retiring amenity migrants equipped with pre-conceived notions of what a county *should* supply with regard to infrastructure and amenities, migrants bring their dependency on urban conveniences, vocalization about quality of services, and an ability to influence the local government, while their contribution to the resources of the local government through local property taxes decline. In order to mitigate these added pressures, local officials can access the human capital of the amenity migrants to counteract potential additional costs.

In conclusion, our research employs the framework of Community Resourcefulness (MacKinnon & Derickson, 2012) as a basis for recommending a mutually beneficial community development strategy for both local residents and amenity migrants. This strategy would include:

(1) Focus on common interests of both groups to promote, protect, and preserve the natural amenities;

(2) Utilize the skills and technical knowledge of the affluent, educated amenity migrant population for the general well-being of the community; and,

(3) Acknowledge indigenous and 'folk' knowledge of the established local population as a resource for community planning.

## References

- Abram, S., Murdoch, J., & Marsden, T. (1998). Planning by numbers: Migration and statistical governance. In P. Boyle & K. Halfacree (Eds.), *Migration into rural areas: Theories and issues* (pp. 236–251). London: Wiley.
- Gallent, N., Mace, A., & Tewdwr-Jones, M. (2005). *Second homes: European perspectives and UK Policies*. Hampshire: Ashgate.
- Green, G. P., Marcouiller, D., Deller, S., Erkkila, D., & Sumathi, N. R. (1996). Local Dependency, Land Use Attitudes, and Economic Development: Comparisons between Seasonal and Permanent Residents. *Rural Sociology*, 61(3), 427-445.
- MacKinnon, D., & Derickson, K. D. (2012). From resilience to resourcefulness. *Progress in Human Geography*, 37(2), 253-270.

- Matarrita-Cascante, D., Sene-Harper, A., & Stocks, G. (2015). International amenity migration: Examining environmental behaviors and influences of amenity migrants and local residents in a rural community. *Journal of Rural Studies*, 38, 1-11.
- Moss, L. (2006). *The amenity migrants: Seeking and sustaining mountains and their cultures*. Oxfordshire: Cabi.
- Pesch, R., & Bussiere, M. (2014). Profile of Second Homeowners in Central and West Central Minnesota. *Extension Center for Community Vitality*.
- Rubin, A., & Babbie, E. (1989). *Research methods for social work*. Belmont, CA: Wadsworth.
- Wolcott, H. (1994). *Transforming qualitative data, description, analysis, and interpretation*. Thousand Oaks, CA: Sage.