



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

**Do Individuals Differentiate Their Support for the Three Pillars of Sustainability? A Case Study within  
Hotels**

Jason Simon  
Department of Agricultural Economics  
University of Kentucky  
[jason.simon@uky.edu](mailto:jason.simon@uky.edu)

Jerrod Penn  
Department of Agricultural Economics  
University of Kentucky  
[jerrod.penn@uky.edu](mailto:jerrod.penn@uky.edu)

Wuyang Hu  
Department of Agricultural Economics  
University of Kentucky  
[wuyang.hu@uky.edu](mailto:wuyang.hu@uky.edu)

***Selected Poster prepared for presentation at the Southern Agricultural Economics Association's 2016  
Annual Meeting, San Antonio, Texas, February 6-9, 2016***

*Copyright 2016 by Jason Simon, Jerrod Penn, Wuyang Hu. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.*

# Do Individuals Differentiate Their Support for the Three Pillars of Sustainability? A Case Study within Hotels

Jason Simon<sup>1</sup>, Jerrod Penn<sup>2</sup>, Wuyang Hu<sup>3</sup>

<sup>1</sup> Graduate Student, <sup>2</sup> PhD student, <sup>3</sup> Professor, Dept. of Agricultural Economics, University of Kentucky

## Background

- Sustainability or sustainable development has been commonly defined as “Economic and social development that meets the needs of the current generation without undermining the ability of future generations to meet their own needs” (WCED, 1987).
- This definition brought together what is now known as the three pillars of sustainability; 1) economic, 2) social, and 3) environment, all inter-related and important to the societal goal of sustainability.
- The 3 pillars are considered equally important and interlinked requisites for sustainable development, but little effort has considered consumer characterizations and values of the 3 pillars.
- We use a survey to examine if characteristics of the pillars align with consumer’s monetary support.

## Purpose

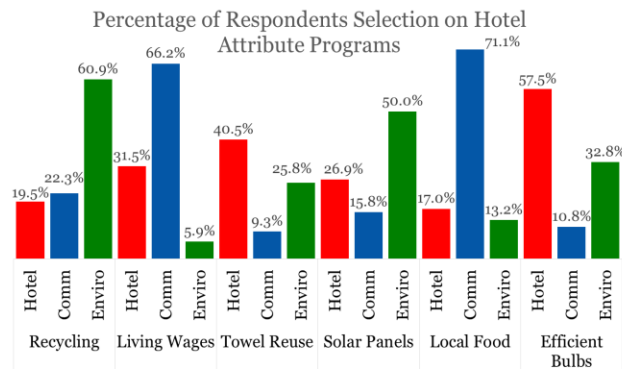
- To understand the relative importance of the three pillars of sustainability to consumers via willingness to pay in a case study of hotels.

## Survey & Choice Experiment

- To ascertain support for the three pillars of sustainability, this study used a choice experiment within a survey of business and leisure travelers.
- Survey administered via Qualtrics in May 2015.
- N=1891
- Each respondent chose two programs they think were most beneficial to the hotel, the local community, and the environment

	the Hotel (Choose 2)	the local Community (Choose 2)	the Environment (Choose 2)
Add a recycling program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provide a “living wage” to all employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Add a towel reuse program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Install renewable energy such as solar or wind	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Purchase 50% of food from nearby farmers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Install energy efficient light bulbs and appliances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Survey & Choice Experiment Cont’d



- Respondents categorize recycling as being most beneficial to the environment, living wages as being the most beneficial to the community (i.e. social pillar), and a towel reuse program as the most beneficial to the hotel (i.e. economic pillar).
- Respondents participated in a choice experiment, composed of 8 choice sets, with 3 alternatives per set.

	Hotel A	Hotel B	Option C
Price	\$150 per night	\$180 per night	
Average Guest Review	●●●○	●●●○	
Number of Reviews	60 reviews	15 reviews	
Indoor Plants			
New Business Practices	Requested Cleaning	Living Wage	Choose Neither. I would not purchase hotel A or B.
Other Amenities			

## Attributes

- Recycling Program:** Recycle bins are placed throughout the entire hotel next to existing trash bins to divert cardboard, plastic, glass and other reusable materials from entering the waste stream.
- Living Wage:** Full-time hotel employees earn higher than the minimum wage to support their families beyond basic subsistence.
- Requested Room Cleaning:** To save water and energy, room cleaning services will only occur upon guest requests.

## Regression Results & WTP

Variable	Coefficient	Std.Error	Willingness to Pay
Recycling Program*	.244	.0248	\$16.20
Living Wage*	.155	.0255	\$10.28
Requested Room Cleaning*	.132	.0246	\$8.80

\*Select results from Choice Experiment

- The WTP for a living wage is \$10.28, recycling programs is \$16.20. and room cleaning by request only is \$8.80.
- We have shown how people categorize these attributes with respect to sustainability, we estimated their WTP, and therefore, their WTP is indicative of the relative value of each pillar of sustainability.

## Conclusions/Discussion

- Based on our choice experiment of hotel features, consumers tend to place the highest value on the Environmental pillar (Recycling), then the Social pillar (Living Wage), finally the Economic pillar (Requested Room Cleaning)
- Similar studies can be done in another context where the pillars can be evaluated.
- An implication would be how hotels advertise their sustainability initiatives and what they especially emphasize to hotel patrons.

## References

- (UN World Commission on Environment and Development) (1987), Our Common Future: Report of the World Commission on Environment and Development, WCED, Switzerland.

## Contact Information

Jason Simon- jason.simon@uky.edu