



Illinois Wesleyan University Digital Commons @ IWU

John Wesley Powell Student Research
Conference

2002, 13th Annual JWP Conference

Apr 21st, 9:00 AM - 10:00 AM

Demand Elasticity and Commodity Substitutability in Simulated Economy

Amy Attivissimo, '02

Illinois Wesleyan University

James D. Dougan, Faculty Advisor

Illinois Wesleyan University

Follow this and additional works at: <http://digitalcommons.iwu.edu/jwprc>

Amy Attivissimo, '02 and James D. Dougan, Faculty Advisor, "Demand Elasticity and Commodity Substitutability in Simulated Economy" (April 21, 2002). *John Wesley Powell Student Research Conference*. Paper 8.
<http://digitalcommons.iwu.edu/jwprc/2002/posters/8>

This Event is brought to you for free and open access by The Ames Library, the Andrew W. Mellon Center for Curricular and Faculty Development, the Office of the Provost and the Office of the President. It has been accepted for inclusion in Digital Commons @ IWU by the faculty at Illinois Wesleyan University. For more information, please contact digitalcommons@iwu.edu.

©Copyright is owned by the author of this document.

Poster Presentation P3

**DEMAND ELASTICITY AND COMMODITY SUBSTITUTABILITY IN
SIMULATED ECONOMY**

Amy Attivissimo and James D. Dougan*
Department of Psychology, Illinois Wesleyan University

Hursh (1980) suggested that behavioral experiments with animals mirror many of the conditions found in an economy. In a Skinner box, rats supply their labor (bar pressing) in exchange for a commodity (food). Subsequently, numerous authors have found that animal behavior is well described by economic laws. The present project examined demand elasticity and commodity substitution. Twelve rats were exposed to a series of Fixed Ratio (FR) schedules in which the number of responses required for reinforcement increased each day. In some conditions, the rats were given free food immediately prior to the session. Demand elasticity was calculated by plotting the log food consumption (pellets per session) as a function of the log price (responses required per pellet). As predicted by economic theory, the availability of free food (a substitutable commodity) increased the demand elasticity of food consumption.