

President's Corner By Vernon L. Smith

IFREE's continuing success depends not only on private foundations, like the Thomas W. Smith Foundation and the Frederick Gardner Cottrell Foundation which have generously funded some of the education and research projects discussed in this newsletter, but also the contributions of many individuals who care and share in supporting IFREE. It all counts! I appreciate your belief and trust in what we are accomplishing. Summer is the busiest time for IFREE-funded activity:

✦ Two just-completed high school workshops drew students from all over who learned economics via first-hand engagement in experiments. The focus was participatory exposure in studying the foundations of economic analysis using the methodology of experimental economics and exploring current topics, problems and experiments. One letter I received from a workshop parent came from "A grateful mom, Charlotte Nakhjavani," who wrote me about her son, Arya: "I cannot tell

you how excited he is to come home and share all that he has learned throughout the day!" Kudo's for Kyle Hampton, Arya's inspiring teacher in the workshops.

✦ In addition to the two week-long workshops, the 6-week long Summer Scholars Program at Chapman is running under the tutelage of Bart Wilson. Students analyze data sets from research experiments, design new experiments, and meet in a reading group to discuss works such as Adam Smith's *Theory of Moral Sentiments*, Hayek's *The Fatal Conceit*, and HBO's *The Wire*."

✦ Another innovative IFREE-sponsored high school workshop, "Virtual World Experiments in Economics," is scheduled in late July at George Mason University. Virginia students will partici-

pate in virtual world experiments involving trading, public good and market bubbles, and will then form teams to build their own economic experiments.

www.kevinmccabe.net/ifree/

✦ At the Center for the Study of Neuroscience at GMU, the Summer 2012 IFREE Interns and Fellows have been working together since June. Recently graduated from high school, the interns are creating virtual world projects in preparation for the July workshops, while the IFREE Fellows are preparing to serve as technical mentors to the incoming workshop students.

✦ IFREE is co-funding a charitable giving workshop at the University of Alaska Anchorage where participants from the non-profit community will gain insights from recent research in experimental economics which sheds new light on charitable giving.

http://econlab.uaa.alaska.edu/charitablegiving/Charitable_Giving/Home.html

✦ IFREE is also funding a workshop for entering freshman to introduce basic economic principles through experiment, games, and decision making where participants are paid cash as they do the best they can when others are also doing their best.

<http://www.uaa.alaska.edu/cbpp/students/econworkshop.cfm>

✦ IFREE is co-funding a workshop hosted by Centro Vernon Smith de Economía Experimental at Universidad Francisco Marroquín October 25-27. The Antigua Experimental Economics Conference and Workshop aims to bring together experimentalists from Latin America and strengthen the ties between Latin America and other parts of the world. www.cvs.ufm.edu/antigua

My first experiment was over 56 years ago! It's just wonderful for me to look back on all that has happened since. Thanks again....Vernon....



IFREE Lecture Series Lauded

Prior to joining the Chapman ESI Master's program in experimental economics, Vivian Ho was a business analyst at North Shore Systems, an industry leader in automated loan processing systems in the commercial lending sector. She chose the ESI program because it complemented the technical design aspect of the business analysis required within North Shore's systems.

Vivian has found that the IFREE-funded Lecture Series at ESI showcases this interaction between economics and computer science. Every Friday during the school year, a nation-

ally/internationally recognized speaker talks about his/her research providing knowledge and insights, ranging from literature reviews to step-by-step process descriptions of his/her research. Vivian has been inspired by her exposure to the varying terminology and data analysis techniques. The speakers in the series are industry practitioners, economic theorists, cognitive scientists, biologists, psychologists, anthropologists, and philosophers.

Vivian appreciates the opportunity to raise questions and visit with the speakers after each talk. As she says, "This leaves students with a melting pot of ideas where the theory of economics is integrated with empirical research, all of which can be put towards our interests and how creative we can be with our thesis projects."



First round of 2012 Small Grants Program Funding

An Experimental Analysis of Speculation and Strategic Demand Reduction in Multi-Object Auctions (Marco Pagnozzi, Università di Napoli Federico II; Krista Jabs Saral, Webster University Geneva)

This work begins with the observation that items purchased at auction are often resold in other markets. Consequently, some bidders at auction may be motivated by their personal value for an item, others by the desire to resell the item in anticipation of profiting from the trade. To investigate this, the researchers propose to have human subjects participate in a series of multi-object auctions, followed by a resale market, in which ‘chatting’ is permitted to negotiate prices for reselling the objects. The experimental manipulation will consist of varying the number of agents in the auction, and whether they are speculators or possess personal values for the items available. The researchers seek to understand bidders’ strategies in the presence of speculators and how the results might inform the design of auctions.

Enforcing Compliance with Voluntary Agreements in the Absence of Strong Institutions: An Experimental Analysis (Todd L. Cherry, Appalachian State University; David M. McEvoy, Appalachian State University)

This project is motivated by the context of international environmental agreements (IEAs) which can be understood in terms of addressing free rider problems in the provision of public goods. The research will use experimental methods to investigate incentive and enforcement questions in complying with voluntary agreements to achieve a desired public outcome. For example in the first stage of the games proposed, players can decide whether or not to join an agreement. Players who join pay a deposit. In the second stage, players make contributions to the public good, and if a player complies with the agreement, his deposit is refunded proportionally. The experimental design will vary key economic characteristics of individual decision makers that are postulated to affect compliance, such as whether all the subjects incur the same or different costs if they fail to comply with the agreement.

(Visit ifreeweb.org for information on IFREE’s Small Grant application information.)



Grant Completion Report Highlights

AN INVESTIGATION INTO TWO MECHANISMS TO COMBAT THE WINNER’S CURSE IN PROCUREMENT AUCTIONS (*Wei-Shiun Chang, Humboldt University, Berlin; Timothy C. Salmon, Southern Methodist University*)

Researchers examined two mechanisms commonly in use to combat problems stemming from the Winner’s Curse in procurement auctions. The first mechanism is known as the Average Bid Auction and involves awarding the contract to the seller who bids closest to the average. The second mechanism involves a standard low price auction but with a second stage allowing winning bidders to renegotiate the auction price. Both mechanisms are approaches to try to prevent winning bidders in an auction from losing money and then potentially defaulting later costing the buyer more money in re-contracting costs. The researchers find that the Average Bid Auction performs better than expected at solving the Winner’s Curse problems while not leading to the buyer overpaying. The renegotiation option, however, failed to do anything but give sellers with a credible threat to walk away from a contract an advantage over both other sellers and the buyer. These studies represent important work in trying to understand the circumstances under which these mechanisms might be of help to businesses and governments interested in using auctions for procurement.

BIDDER BEHAVIOR AND PERFORMANCE OF AUCTION INSTITUTIONS WITH COSTLY PARTICIPATION (*Diego Aycinena, UFM, Guatemala*)

In most auctions, participation is both costly and endogenous. Understanding the effects of costly entry decisions of potential bidders is crucial. This is of practical importance given that the auctioneer’s revenue will depend on the ability to attract bidders, and the auction format that an auctioneer selects may play an important role in terms of the number of bidders it attracts. Researchers investigated multiple auction formats in which there is a cost to participate and bidders must decide whether to incur that cost or not (once they know their value for the object being auctioned). Their results suggest that revenue is greater in first price auctions relative to ascending (English) clock auctions, regardless of whether the number of entrants in an auction is revealed or not. In first price auctions, not revealing the number of bidders further increases revenues for the auctioneer. Efficiency seems to be higher in ascending clock auctions, although results are only statistically significant when the number of bidders is not revealed, suggesting a trade-off between efficiency and revenues. Researchers also find a small revealed preference for first-price auctions.

RELUCTANT PRO-SOCIALITY (*Jason Dana, University of Pennsylvania*)

This research suggests that a substantial amount of giving is due to social pressure rather than a desire to give. In simple lab experiments, researchers found that people often opt out of knowing the consequences of their actions for others so that they do not feel compelled to give, but found that paying people to receive such information has strong effects: The more payment that is offered, the more likely people are to receive information, and when learning that they can sacrifice some of their own payment to raise another person’s, they are more likely to act generously on that information. While the public is often suspicious of incentives to prompt pro-social behavior, researchers find that larger payments do not crowd out intrinsic motivations for generosity.



Beyond Mandates: Electric Power Market Study

By invitation of The Singapore Ministry of Industry and Trade in March 2008, Stephen Rassenti and ESI colleagues, offered a two day workshop, “Experimental Economics and Public Policy,” for students and faculty in the Civil Service College in Singapore. Electric power emerged as the subject of most immediate relevance to the Ministry, and several follow up discussions led to a detailed proposal for developing the software and running experiments evaluating alternative regulation-constrained wholesale market scenarios specified by the Electricity Management Authority (EMA) to be funded by the Ministry. These experiments were to examine the evolution of competition amongst the 5 major producers of electric power in a Singapore environment where demand was expanding rapidly, and any one of the incumbents or an outside investor could choose to invest in additional generating capacity.

A key feature of the experimental electricity markets was the currently government mandated share of total generator capacity subject to “Vesting Contracts”: a complex set of price restraint rules intended to protect residential consumers from price volatility, guarantee generating units a minimum wholesale price, and prevent the exercise of market power in Singapore’s grid. The experiments also examined various forms of consumer funded capacity markets intended to encourage future investment in generation. Although six experimental treatments involving various degrees of mandated vesting contracts and capacity markets were executed in the laboratory, the EMA did not want to use its funds for baseline comparisons without the mandate.

A balanced scientific study, however, required an experimental treatment without the mandate. By drawing on funds restricted to experimental research by the Frederick Gardner Cottrell Foundation, IFREE was able to finance these additional baseline experiments. What these experiments now reveal is important: *Consumers fared better in the absence of the mandates due to greater competition and lower cost; and there was no evidence that without the mandates there would be inadequate investment in competitive capacity.*

This example illustrates how a small supplement of IFREE funds enabled a significant addition to be made to an existing research investigation before final publication.

Auctions: New Solutions to Old Problems

Desirable items often have complementary characteristics leading individuals to value them more highly in combination than singly. Jewelry (ear rings, necklace, and /or bracelet), services (manicure, pedicure), and land rights (surface, water,

minerals, grazing, timber) are examples. A basic idea behind combinatorial (combo) auctions is to provide a method of awarding items in packages, based on bidding.

The problem, however, can become quite complex if there are many items. For example, if there are three items, A, B and C, then there are seven combinations: all three, any of three pairs, and each singly. Consequently, the first proposed combo auction was computer assisted. Even so, the computer processing time can be long if there are a large number of items; also bidders may find formidable the task of bidding on all the items and combinations that they value.

Experimenters came up with new solutions starting in the 1990s that reduce the burden on bidders by providing price feedback. It works this way: the auction uses ascending price “English clocks,” one for each item. Each clock starts at a low price for each item, and the prices are increased in a series of rounds. In each round bidders elect those items on which they are active (agree to purchase at the current clock prices). Bidders can also place conditions on their bids of the form: I want both A and B or neither, or I want C or D, but not both. The clock price increases on any item if there is more than one active bidder, otherwise it stops. The auction ends in the first round that no clock increases.

Although these auctions greatly outperform single item formats, they can encounter two problems. First, the full information ascending price auction format invites collusion by bidders who have agreed, as the auction proceeds, to work out joint strategies. (A simple example is for you and I to agree that neither will raise the other’s bid; say, you bid on A and I’ll bid on B). Secondly, in complex combos individuals may focus too much on their most highly valued package, push prices up, and become inactive on their lesser valued ones, failing to acquire their packages with highest value net of price paid.

Stephen Rassenti, IFREE Distinguished Scholar, teamed up with ESI graduate student David Monroe in an IFREE-funded project through the Frederick Gardner Cottrell Foundation to explore a promising solution to these weaknesses. The researchers use clocks that start at a high price, where no one wants to buy, and then descend, as in Dutch Flower Auctions. (ESI researchers had earlier implemented the Dutch clock auction format to award parking spaces to individuals at Chapman University: see IFREE Newsletter Fall 2010.) In this combo procedure an item’s clock price stops falling with the first active bid, and collusion as stated above cannot occur. If the higher valued packages attract more aggressive bidding, those packages are awarded early, but other packages look better as their prices fall and are more likely to be included in the final allocation. As soon as each item can be allocated to some bidder, the auction ends; this generally happens in many fewer rounds than in the ascending price auction.

Addressing and finding ways to overcome problems in the design of new markets holds the potential for enabling people to create more gains from trade and specialization.



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Build IFREE

IFREE's Mission Statement:

To advance the understanding of exchange systems and the testing and application of market-based institutions by:

- *funding* basic research in economics through experimental methods,
- *supporting* the scholarly development of students and pre- and post-doctoral visitors,
- *sponsoring* innovative hands-on participatory learning in experimental economics in a variety of settings, and
- *promoting* extended discussion of experimental economics research applications to policy.

At the heart of IFREE are the contributors who bring life to the IFREE mission through their financial support of projects funded by IFREE.

IFREE, founded in 1997, is a public 501(c)(3), tax-deductible charitable foundation. Contributions made to IFREE can be provided as general support or directed to a specific research or outreach program.

To learn more about the work of IFREE please contact us!

Thank you for your support!

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