## TABLE 3 – Direct correlation coefficients of key variables, commodity futures trading exercise, 1970-72

	Futures Grade	Course Grade	GPA N	umber of Trades
Course Grade	.20			
GPA	.28	.66*		
Number of Trades	.35	03	.17	
Dollar Gain	.09	.17	03	12

\*Significantly different from zero at 5% level of significance.

Subjective evaluation

Much more empirical research is needed on the value of alternative forms of the futures exercise and other "real-world" exercises. In the meantime, logic still suggests that there are tangible benefits from incorporating such exercises in ag econ courses.

Many students express surprised fascination with the completion of real-world marketing and pricing decisions. The exercise format leads them to read news stories and market comment with caution. They learn the value of individual inquiry in helping to reach trading decisions. The process of developing an economic hypothesis about future market behavior and testing it by a real-world decision, leads to re-evaluation of their theoretical framework, data sources and application of theory to the data. They learn that answers to economic problems do not come in neat packages (even to instructors) and that the marketplace is an arbitrary master. The hope is that in subsequent employment they will approach economic problems with similar scientific caution.

## Summary

Evaluation of three years experience of a commodity futures trading exercise in a senior level agricultural prices course yielded little evidence that prior training aided performance in the exercise, or that the exercise deepened the student's understanding of economics. Grading of the exercise was strongly influenced by the student's skill in typical academic procedures such as report writing. One implication of the analysis was that the exercise required a greater length or concentration of class effort to contribute significantly as a learning device. We need to know much more about why and how such exercises can help our ag econ students learn better.

## SUBURBAN RECRUITMENT: A Developing Function of A College of Agriculture

Clifford L. Nelson and Robert K. Heritage

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Many land-grant universities are located in or near large urban centers. Currently at the University of Maryland, close to half of all undergraduates in agriculture have urban or suburban origins. Many turn out to be outstanding students. Colleges of agriculture are having to look more and more to these sources for their enrollees. Less than 5% of our population nationally live on farms and the trend is for even less. Therefore the historically typical source for most agriculture students is likely to produce even fewer students in the future.

The College of Agriculture of the University of Maryland has conducted over the past 4 years two major programs for high school age students. Although recruitment is considered as a possible outcome of these programs, education and public relations are the major goals. The first program, Science in Action, has been designed for outstanding science students in every high school in the state. Invitations are issued to science teachers through county science supervisors (Maryland has county-wide school districts) in cooperation with the State Department of Education Specialist in Science.

Science in Action, since its inception, has had over 2600 students to the one-day program. The program during the day includes an explanatory assembly and visits to three 45 minute demonstrations and displays. Last year there were 51 different programs. Students are preassigned to groups. Topics included such diverse titles as Electronic Controls for Scientific Farming, Peanut Butter, Cancer and DMSO, and Environmental Physiology-Hibernation Studies.

Agricultural Careers Congress is the other large program for Maryland high school students. Designed for mainly sophomores and juniors, the Careers Congress has been an educational program designed to show students the potential job opportunities in agriculture.

The purpose of selecting younger students to participate is to ensure that, if they choose to pursue an agricultural career, they will still have opportunity to prepare themselves for university study. Contact is made with high school students through each counselor in the state. Counselors are contacted with the cooperation of the State Department of Education and the supervisors of counseling in each county. Vocational agriculture instructors as well as cooperative extension personnel are also contacted to promote the program. Over 1600 students have attended Agricultural Careers Congress during the past 4 years.

Programs in the Careers Congress have been developed around broad based presentations in animal science and plant science. Students have been asked to choose either plant or animal science as their main interest and they are also asked to choose which department or program they have the most interest in. The students then attend a series of presentations in various fields of agriculture including the one they chose first.

A less formal approach involving recruitment has been the participation of several professors in the University speakers bureau and by acting as resource individuals to high school classes. The Agricultural Engineering Department has a portable promotional display that has been in many schools and fairs in the state. Students getting to know professors seems to have a very positive effect on student enrollment in university programs also. In agricultural education it is noted that students who decide to go on in this field from agricultural programs in the state very often come from schools where student teachers in agriculture are placed and high school students have opportunity to meet and to get to know university personnel.

An example of knowledge of university personnel and participation in college programs can be drawn from High Point High School which is near the University of Maryland. Although an academically oriented. 2300-student school, High Point has a very successful horticulture program. Annually more students than can be accommodated choose the horticulture elective.

The horticulture teacher, Robert Heritage. was trained as a vocational agriculture teacher and just completed a masters' program at the University of Maryland. One of his major goals in instruction has been to make students aware of the opportunities in agriculture even though all students come from suburban backgrounds. In addition, during 1971 and 1972 student teachers from the Horticulture Education curriculum have been placed in this school.

The following table gives a breakdown on the High Point High School Horticulture graduates of the past 3 years:

Table 1 – Horticulture Graduates 1970, 1971, 1972

	70 Grads.	71 Grads.	72 Grads.
2 year agriculture programs	2	8	5
4 year agriculture programs	4	4	9
Attend college in other majors	14	14	14
Military service	3	2	1
Work in horticulture	0	1	0
Other employment	15	8	13

It is evident, at least in the case of High Point High School, that some of the recruiting and contact methods have been successful. The College of Agriculture is still planning to continue the programs. Student and adult evaluations of the Science in Actions and Careers Congresses have been uniformly positive. Expanded public relations and involvement of the state with the College have been results of these activities and contacts with potential students in agriculture have been greatly increased.