General Versus Specialized Curricula

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GENERAL VERSUS SPECIALIZED CURRICULA

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When Carl O'Connor called this spring and asked if I would occupy this position, I felt fairly comfortable. Unfortunately, I subsequently found that most of my ideas had been expressed by various authors during one of the earlier teaching symposia sponsored by AAEA. As a result, some of that which I'll say today may sound familiar to you.

When I began to prepare this paper, the first problem I faced was defining a general versus a specific curricula. This was not easy! Fortunately my experience provided a couple of good examples. My first job after receiving my Ph.D. was at the University of Idaho in Moscow. I had the opportunity of having a mixed blessing appointment - one-half time in Ag Econ and one-half time in Forestry. This position allowed me the opportunity to advise majors in both Ag Econ and Forest Management. The Forest Management curricula was designed such that students took a relatively large number of specialized classes. These classes were designed to teach students most of the skills they would need as forest rangers. Unfortunately, few asked why they learned how to "cruise timber" or to "throw a loop" or what the procedures assumed. This curricula left most majors with essentially no time for electives, but did teach the skills used by foresters with little opportunity for any latitude--a very specialized curricula. In contrast, majors in Economics at Utah State University take what I would call a very general curricula - a year of calculus, two quarters of statistics, economic theory with nearly
two years of "free" electives. This curricula provides a skeleton upon which the student builds a degree of specialization.

One might ask at this point what this has to do with Ag Econ curricula and the topics addressed by other speakers in this session. As most of you are probably very well aware - Ag Econ graduates are employed in a wide variety of areas. This breadth makes a curriculum like Forest Management most difficult to implement. Ag Econ departments have however, historically offered a large number of specialized classes (e.g. grain marketing, livestock economics, land economics, coops). These types of classes have often been eliminated by some departments with mixed results\textsuperscript{1} which have been expressed by former students. These former students have various reactions when asked about the strengths and weaknesses of a curricula but one general problem is nearly always expressed--communication skills are felt to be weak! Graduates generally identify the same classes they felt have been most useful (e.g., farm management, appraisal) as well as those where they felt more training was needed (applied marketing). The most useful classes identified tended to be very applied while the least useful ones were either of a general (e.g., concepts in business management) nature or very specific classes (coops, livestock marketing, etc.) that got bogged down in details and "lost sight of the forest for the trees." These surveys lead me to what I believe are some useful conclusions:

1. These are some general principles that students need to master. These include micro and macro principles. However, being able to show

\textsuperscript{1}Most Ag Econ departments periodically survey their graduates. The author has helped with these surveys at Idaho and Utah. These surveys provide the basis for some of the remarks in this paper.
the necessary and sufficient conditions for profit maximization does not 
an economist make!!

Teachers as well as students must begin to apply these principles 
to "real life problems". As Mosher said in 1972 (AAEA teaching symposia),
"What stimulates students is not the beauty of ready-made 
answers but the enthusiasm of good teachers in the presence 
of the unknown"--

This represents a major problem for many new Ph.D.'s on prelims as well 
as on their first job. In fact, some economists never learn to apply 
economic principles to solve "every day" problems.

2. There are some specific skills that can and need to be mastered 
that will help graduates in nearly all employment avenues. Some of 
these include:

a. The construction and analysis of financial statements with 
   emphasis on economic versus accounting costs.

b. The derivation and analysis of partial budgets and their 
   relationship to marginal analysis.

c. The rudiments (not econometrics) of estimating a demand curve 
   and the ability to interpret the results deriveable therefrom.

d. An understanding of the principles of capital budgeting --how 
   and why things are done as well as what is assumed.

e. A knowledge of how to write and interpret a simple computer 
   program.

f. How and when to use the futures market.

Unfortunately, much of the teaching that occurs in Ag Econ classes 
is not applied but is either purely theoretical or descriptive. There 
are at least three reasons why this occurs. First, I would contend 
that teaching using applied examples is much harder than standing up
and graphing average cost curves, describing a marketing channel, or taking partial derivatives. Secondly, the rewards for "good" teaching are too commonly low relative to the rewards for research. Third, new graduates often follow their "masters" bad example and don't strike out on their own in trying to apply principles in their current situation.

In conclusion, the general principles in Economics apply in nearly all types of problems but learning the principles is not enough, students also need to learn that they or someone can apply them. It is this act of putting teeth into the principles where the challenge exists. This process is like the geneticist that tried to cross an abalone with a crocodile in hopes of getting the highly desirable "abodile." Unfortunately, his success is much like some Ag Econ classes (including internships?) that form the core of a curricula - they become a "croc a bolone."