Please consider the following for a Poster presentation at the 2010 INFORMS Conference on O.R. Practice.

— Contact information:

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— Select one:    Academic

— “Elevator pitch”:

We analyze the College of Arts & Sciences using multiple inputs and multiple outputs to provide a rating for each of 16 quite disparate departments. The problem addressed is to provide a relative measure to use to assist decision making for resource allocation. The current technique uses only a single stratified metric: student credit hours produced per full-time faculty equivalent. The project team is the graduate Introduction to Operations Research class.

— Answer the following questions (no more than three sentences for each question)

— How could your problem/methodology be applicable in industry, government and/or nonprofit organizations?

Our methodology can be adapted to any organization that seeks to aid decision making by indexing departments in a unit. The techniques are well-known, but not widely applied to collections of nonhomogeneous units.

— How is the project innovative?

We collected publicly available data with a variety of very different units and combined these to produce a relative index of department productivity in relation to utilization of resources. We used the computer algebra system Maple to perform all computations. The team consists of graduate students; these students are O.R. neophytes.

— What type of O.R. did you use (if applicable)

Our main tool is Data Envelopment Analysis (DEA) originated by Charnes, Cooper, and Rhodes in 1978. The linearized form of DEA relies heavily on a large number of applications of the simplex algorithm and is computationally intensive.

— Availability to present

We are available any time Monday, April 19, or Tuesday, April 20, to present the poster.