Final Report on Project "Modeling Technological Innovations and Diffusions Using the New RICE Model"

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This project is sponsored by the Office of Science, DOE, under two different grant numbers (DE-FG02-01ER63212 and DE-FG02-03ER63550). The duration of the project is from September 1, 2001 to August 31, 2002 (DE-FG02-01ER63212) and from February 15, 2003 to February 14, 2004 (DE-FG02-03ER63550). The time gap is because of changing recipient institution. Project DE-FG02-03ER63550 is on no cost extension to August 31, 2004. From December 1, 2004 to November 30, 2005, the project extended again with additional funding from DOE.

In the duration of this project, we achieved the most tasks set up in the initial proposal. These tasks include: revising and updating the DICE/RICE model; shifting the model to GAMS language platform; setting up a DICE/RICE model website; studying technological diffusions in the up-dated RICE model; participating the workshop on the research theme sponsored by DOE.

DICE/RICE model updates and revisions are continuous processes. This project provide a solid base for further modeling undertakings funded by DOE now. With the support from DOE, we also worked on the RICE model development and applications beyond the initial proposal. In addition, Yang's research has been benefited from RICE model development directly. Through supporting the research assistant of the project, the project positively affects Ph.D. education program in both Penn State and SUNY Binghamton.

Among the deliverable products of the project, include three journal articles. In addition, with the support of this project, Yang's has a monograph that uses RICE model extensively being under publishers' reviews. As a part of this project, we set up a model website. At this stage, outside modelers can run DICE model remotely under their own assumptions then download the model outputs. Through no cost extension of the project, we continue working on the website. We hope that external users can run RICE model remotely soon.

In summary, this project is very fruitful. We thank again for the support from the Office of Science of DOE.