Comparing Insurance Units for Corn and Soybeans

November 7, 2006

"Insuring Iowa's Agriculture"
A Continuing Education Workshop
for Crop Insurance Providers
Iowa State University

By Chad Hart
Scientist,
Center for Agricultural and Rural Development (CARD),
and U.S. Policy and Insurance Analyst,
Food and Agricultural Policy Research Institute (FAPRI),
at Iowa State University

Shifts in Crop Insurance

The Agricultural Risk Protection Act (ARPA) of 2000 dramatically affected crop insurance incentives

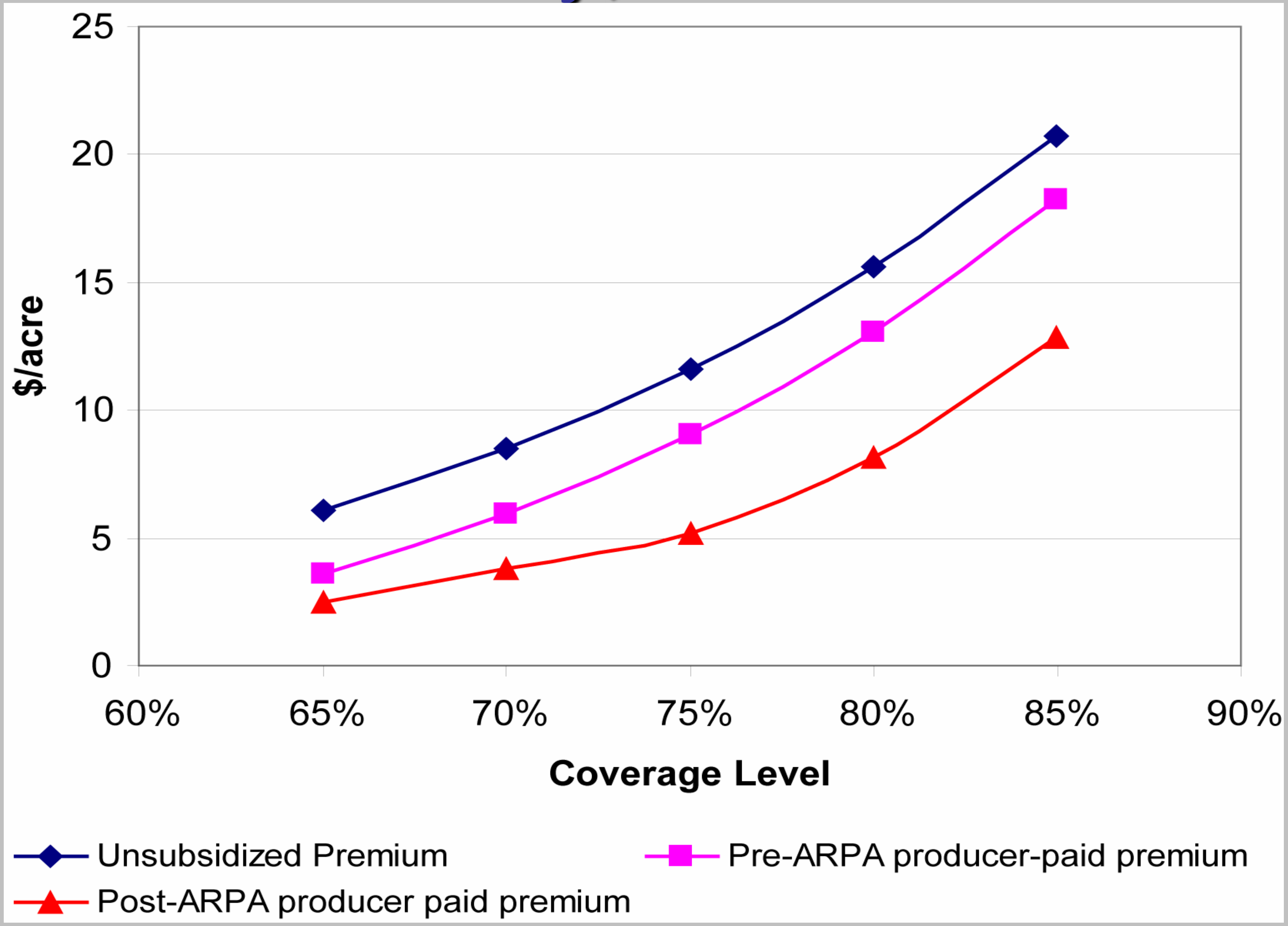
Premium subsidy percentages were raised

Pre-ARPA, crop insurance subsidies were held at a constant $/acre for coverage levels at and above 65%

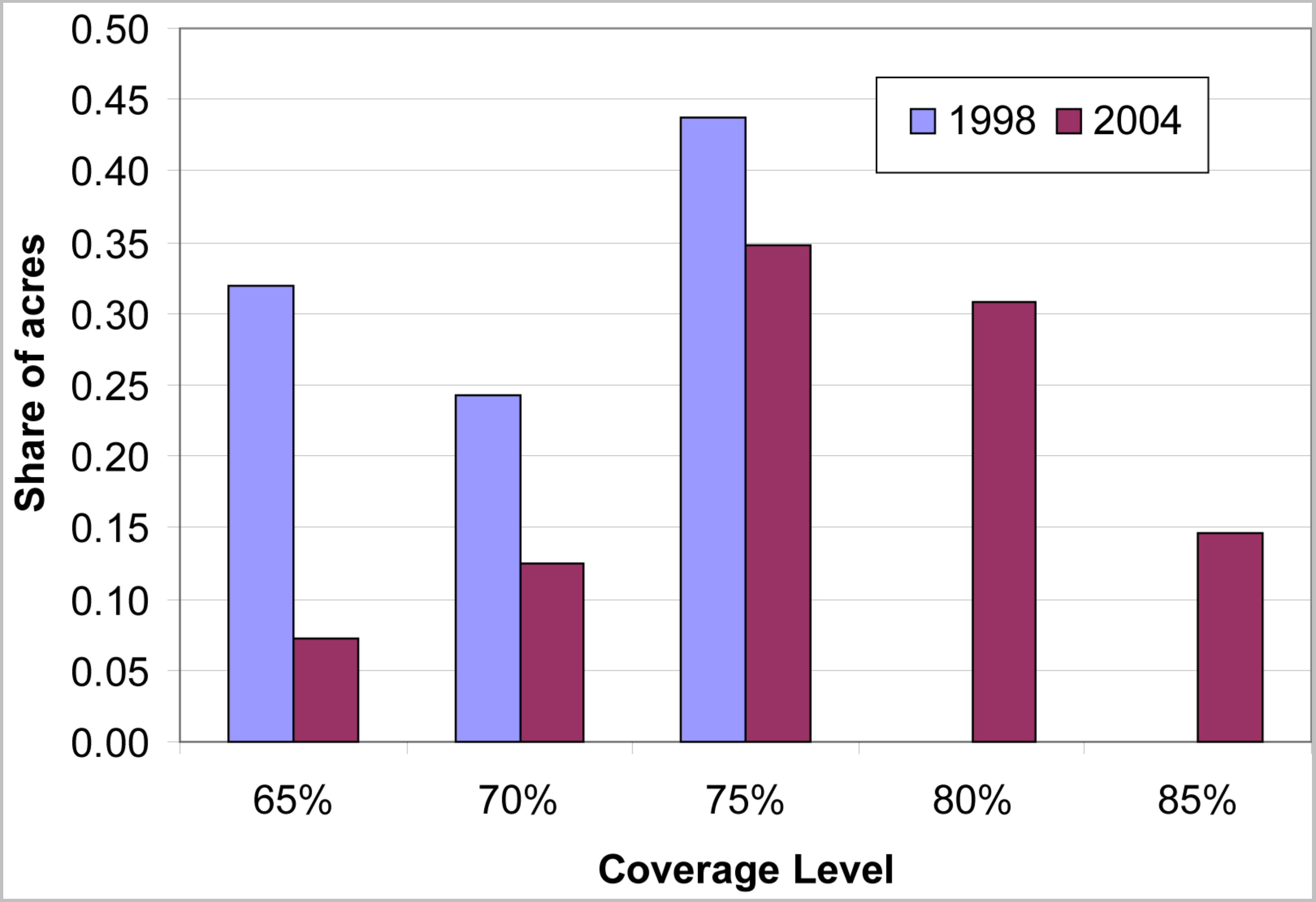
Post-ARPA, $/acre insurance subsidies float with the coverage level

The subsidy changes affect producer choices on coverage level, policy type, and insurance unit structure

APH Premiums for McLean County, IL Corn



Shift in Insured Acres



Insurance Unit Choices

Farmers can choose between four insurance unit structures

- Whole-farm
  - (insurance across crops, fields, and land arrangements)
- Enterprise
  - (insurance across fields and land arrangements)
- Basic
  - (insurance across fields)
- Optional

Coverage vs. Cost

Insurance under all four unit structures can provide the same insurance guarantee

So, in terms of maintaining a target level of revenue, all four unit structures can provide the same benefit

However, the unit structure affects the indemnity stream from crop insurance and this, in turn, affects the premium charged

If all premiums were actuarially fair and there were no subsidies, then whole-farm coverage would provide the same amount of protection as the other structures at the lowest cost

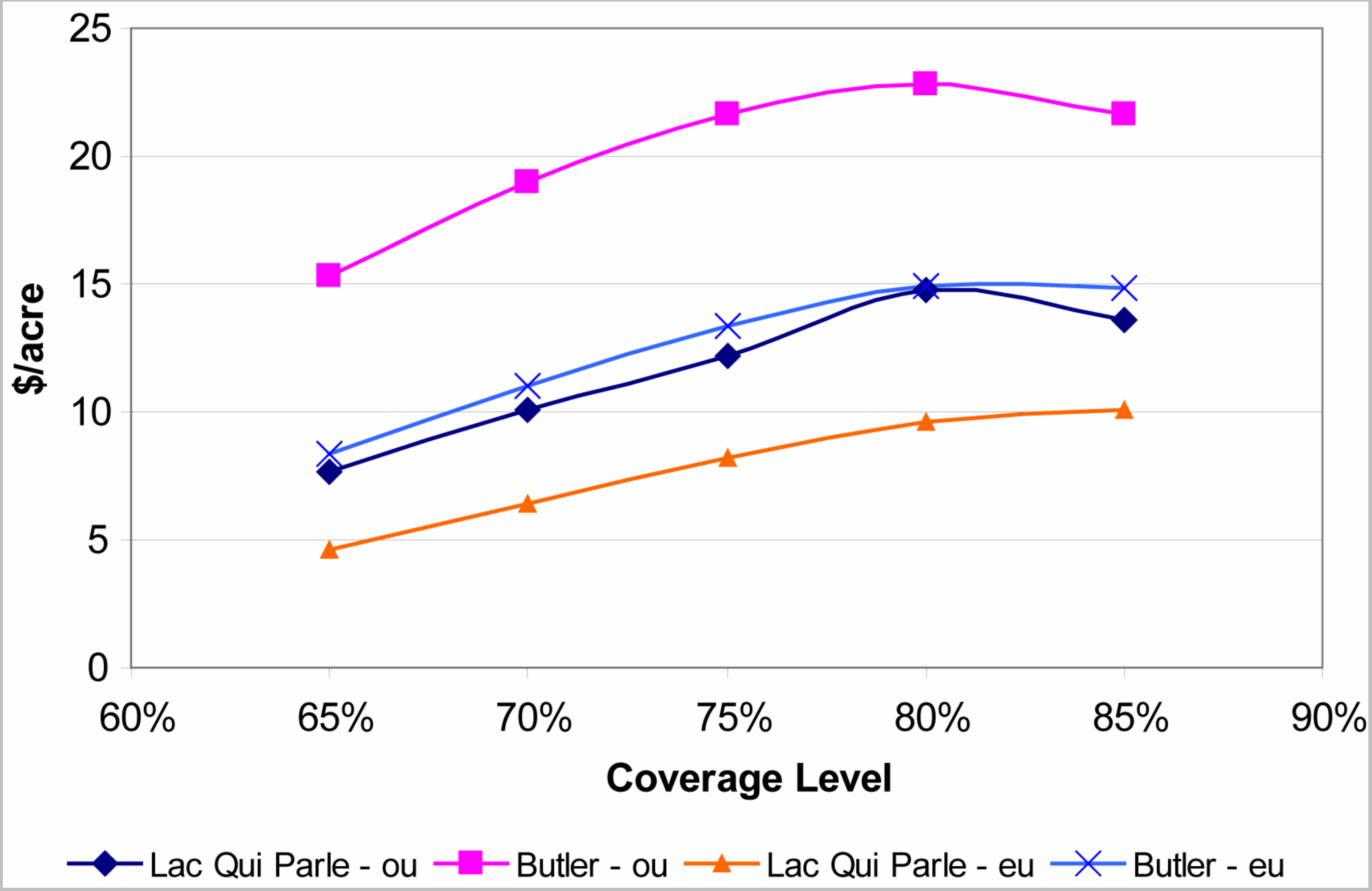
Subsidies and Unit Choice

Examined per-acre premiums, subsidies, and expected crop insurance indemnities for four counties

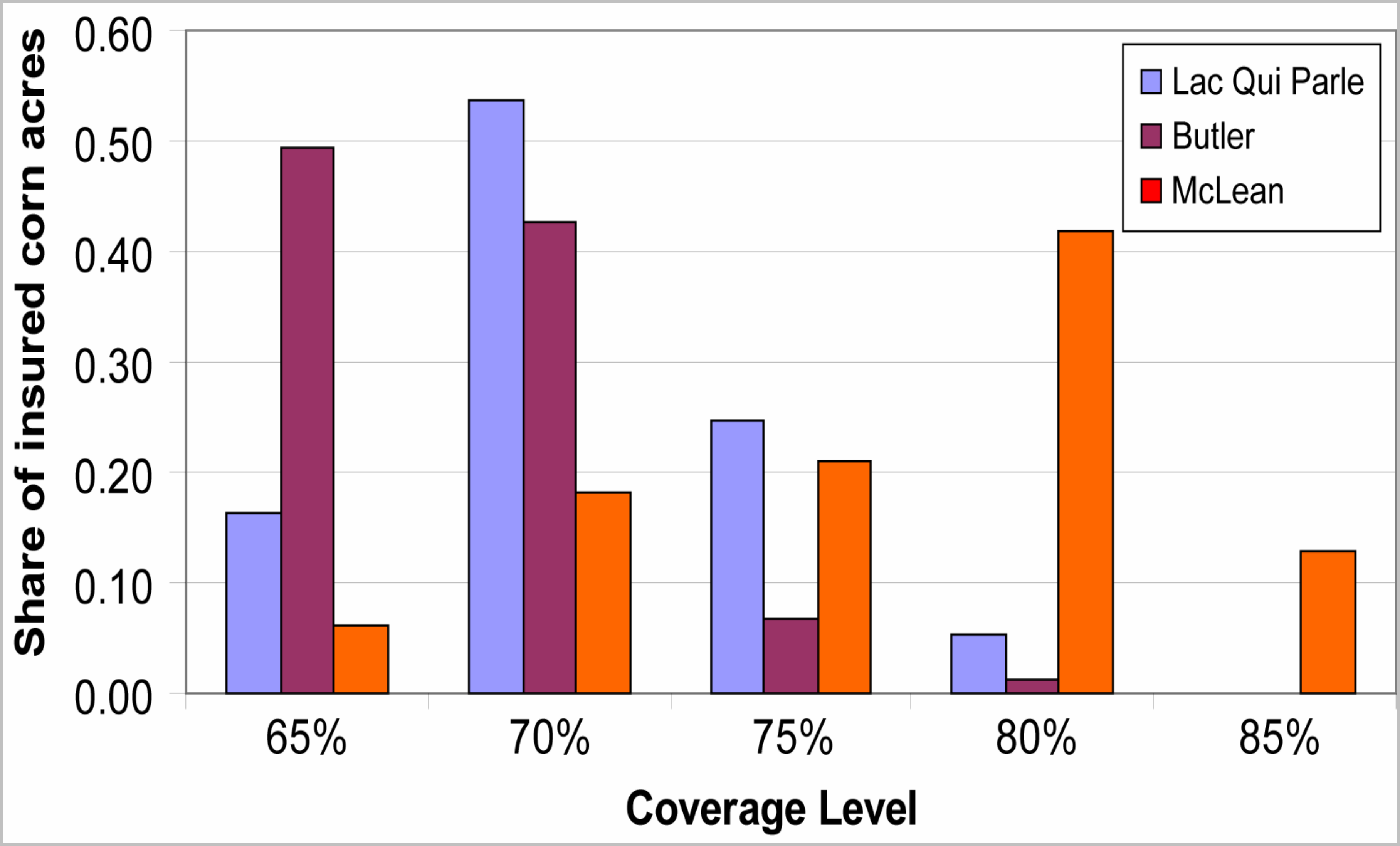
- Lac Qui Parle County, Minnesota (corn, soybeans, wheat)
- McLean County, Illinois (corn and soybeans)
- Lamb County, Texas (corn and cotton)
- Butler County, Kansas (corn and sorghum)

Original report: "ARPA Subsidies, Unit Choice, and Reform of the U.S. Crop Insurance Program," CARD Briefing Paper 05-BP 45, available at http://www.card.iastate.edu/publications/DBS/PDFFiles/05bp45.pdf

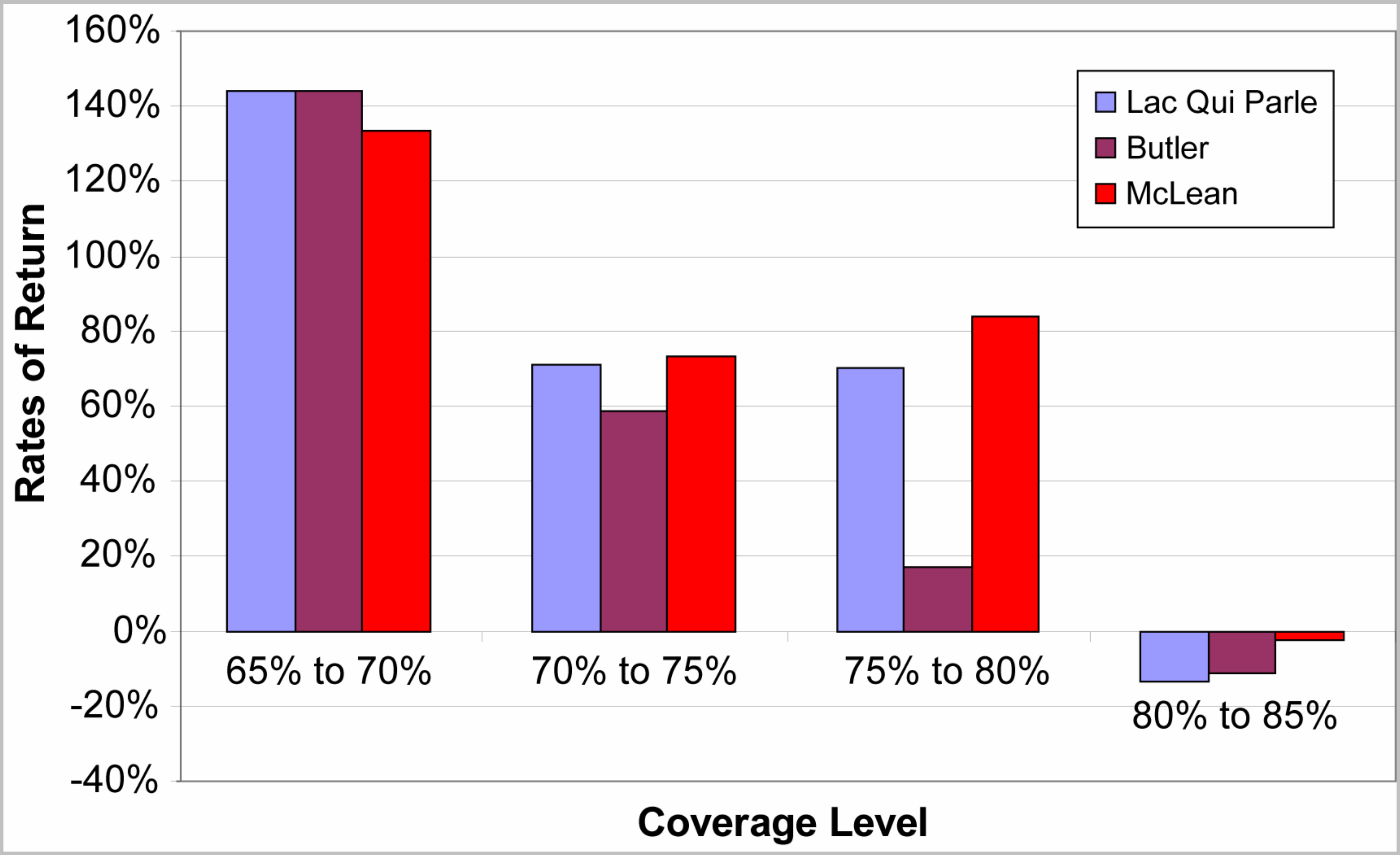
Optional vs. Enterprise Subsidies



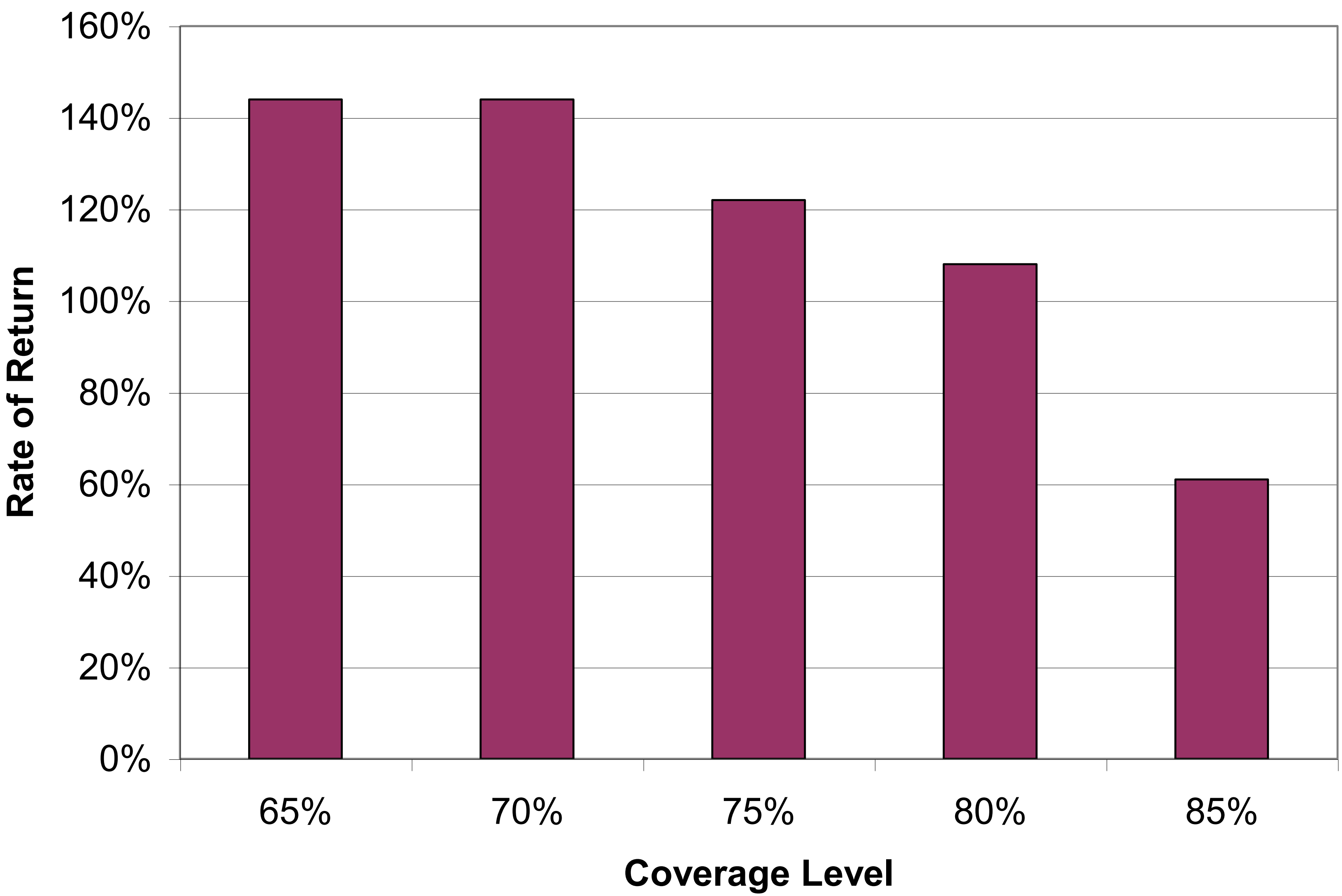
Corn Insurance by Coverage Level



Rates of Returns from Coverage Switch



Rates of Returns from Unit Switch



Returns from Unit Switch

The graph above holds for moving from:

- Whole-farm to enterprise
- Whole-farm to basic
- Whole-farm to optional
- Enterprise to basic
- Enterprise to optional
- Basic to optional

Assuming actuarially fair premiums across the board

The subsidies themselves provide economic incentive for producers to choose optional units

Distribution of Per-Acre Net Returns