Larry Combest Agricultural Competitiveness Chair

Annual Report

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Handout Discussion

Program Payments and Agricultural Land Values

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Background

* Long-standing assumption that agricultural program payments heavily influence land values
  * Payments part of income stream—land value the discounted value of cash flows; therefore, ag program payments must be a part of land value… but how much
  * Implications on land values if program payments are reduced in the future
* Potential for other mitigating factors to affect land values
* Not likely that program payment impacts are constant across the country

Objectives

* Examine the impacts of farm program payments and other key variables on agricultural land values in the United States on a county-by-county basis
* Examine any spatial spillover of program payments on agricultural land values

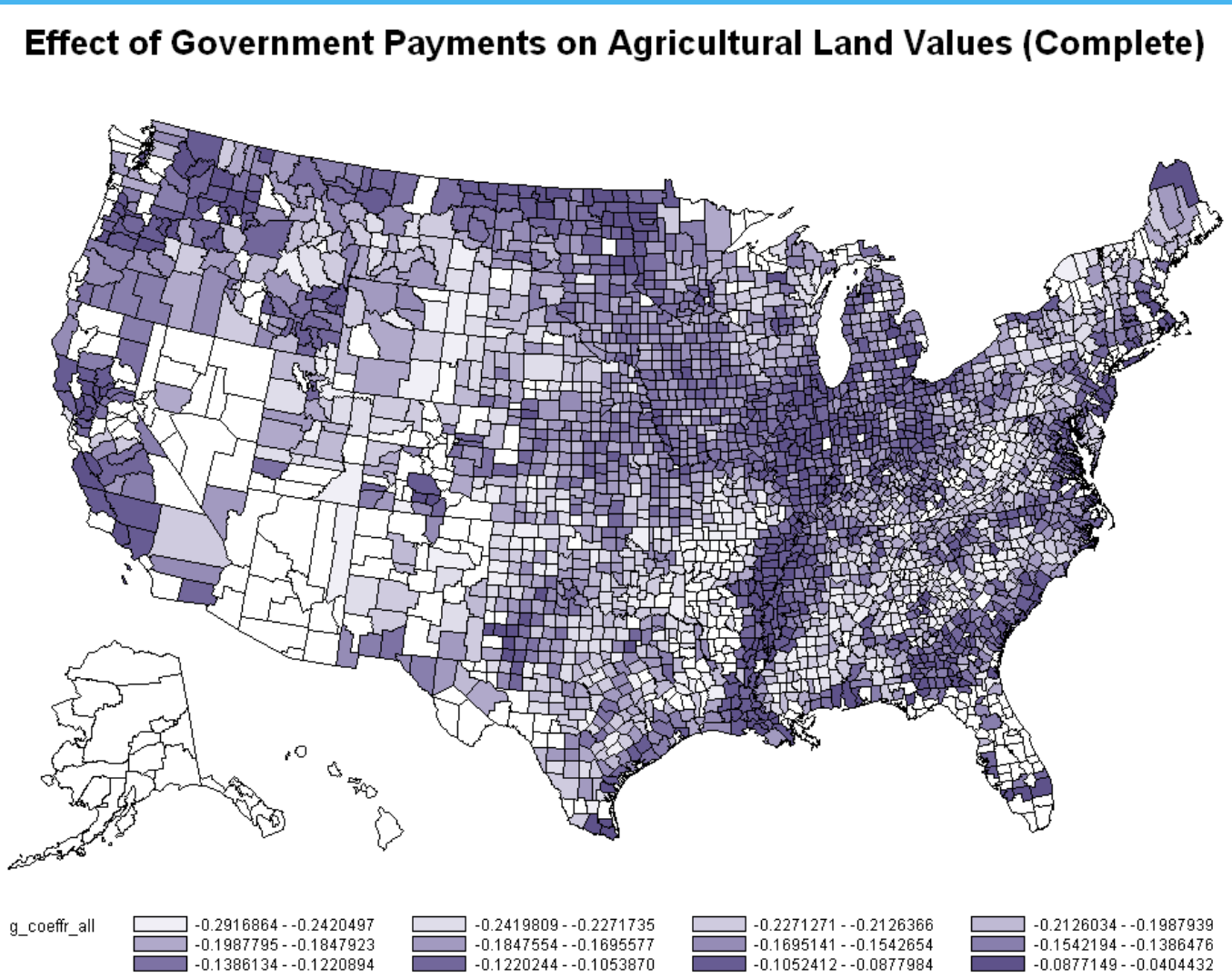
Data

* County average agricultural land values from the *Census of Agriculture*, 1997, 2002, 2007
* Gross farm receipts broken out by crops and livestock
* County yield index
* Population interaction index (USDA)
* Population density
* Farm program payments (excluding conservation)

Overall Results—All Counties

Variable	Estimate	P-value
Constant	726.15	0.00
Gross Earnings	-0.03	0.29
Yield Index*Earnings	0.05	0.14
Govt. Pmt. Per Acre	-0.25	0.00
% Crop in total Rev.	0.19	0.01
Pop. Interaction Index (PII)	2.95	0.00
PII*Value of Building Permits	0.00	0.03
PII*Pop. Density	-0.00	0.00

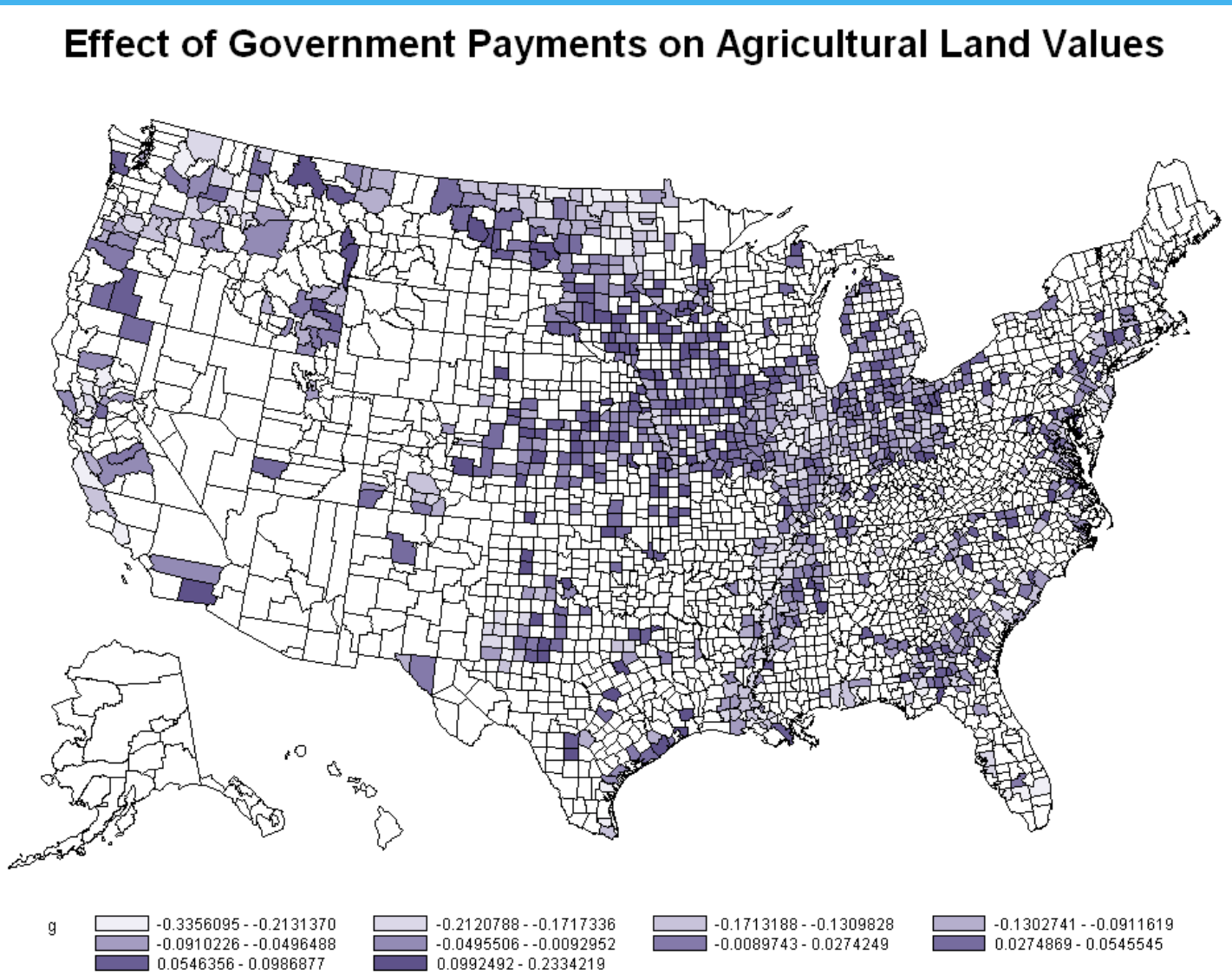
Ag Payment Effects



Results—Predominantly Crop Counties

Variable	Estimate	P-Value
Constant	807.53	0.00
Gross Earnings	-0.04	0.75
Yield Index*Earnings	0.07	0.58
Govt. Pmt. Per Acre	0.52	0.29
% Crop in total Rev.	-0.77	0.18
Pop. Interaction Index (PII)	2.63	0.00
PII*Value of Building Permits	0.00	0.00
PII*Pop. Density	-0.00	0.00

Ag Payment Effects



Conclusions

* Effects of agricultural program payments on land values is marginal, but not constant.
* Effects highest in Midwest and Delta regions (and extreme North Dakota).

Brazil

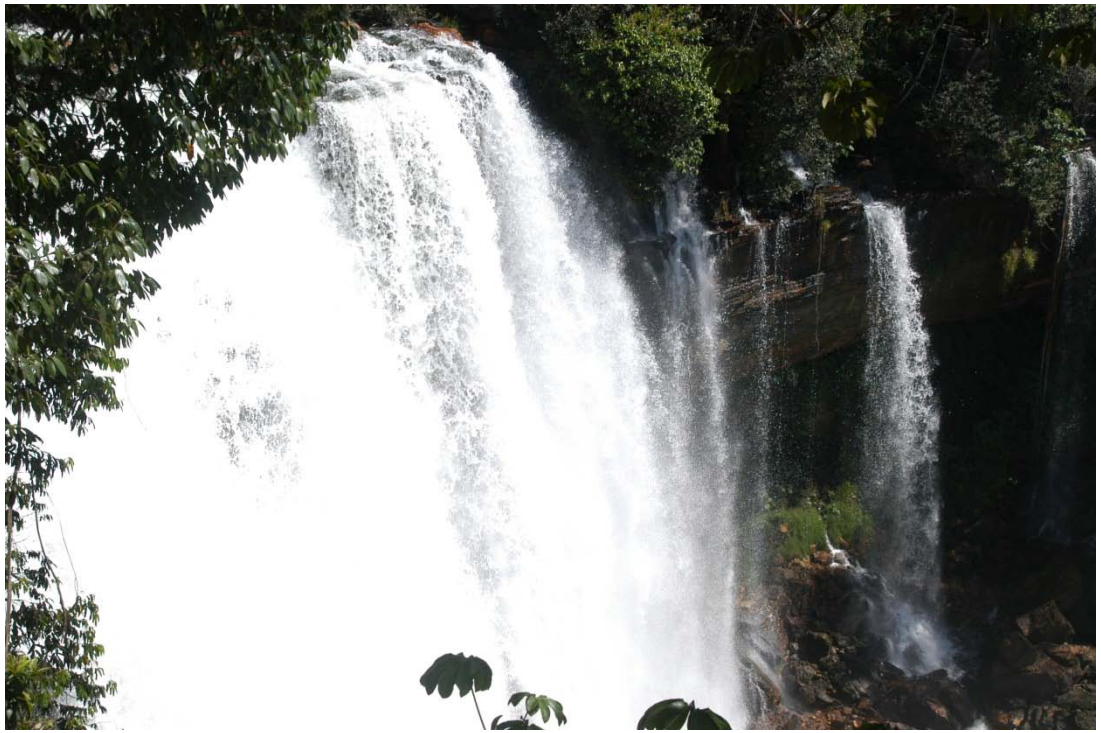
Location

Santa Marta
Maracaibo
Caracas
Barcelona
Port-of-Spain
Barquisimeto
Valencia
Maturin
Cucuta
San Cristobal
Ciudad Bolivar
Bucaramango
VENEZUELA
Georgetown
New Amsterdam
GUYANA
Paramaribo
Puerto Carreno
Cayenne
Santa Elena de Uairen
SURINAME
FRENCH GUIANA (FR.)
Oiapoque
Bogota
COLUMBIA
Rio Orinoco
Boa Vista
North Atlantic Ocean
Macapa
Equator
Rio Negro
Belem
Sao Luis
Parnaiba
Amazon
Manaus
Santarem
Altamira
Fortaleza
Iquitos
Leticia
Careiro
Itaituba
Teresina
Benjamin Constant
Rio Madeira
Maraba
Carajas
Natal
Araguaina
Joao Pessoa
Rio Purus
Picos
Cruzeiro do Sul
Humaita
BRAZIL
Salgueiro
Recife
Porto Velho
Cachimbo
Boca do Acre
Juazeiro
Maceio
Palmas
Rio Branco
Rio Araguaia
Guajara-Mirim
Assis Brasil
Guayaramerin
Aracaju
Inapari
Rio Juruena
Rio Teles Pires
Barreiras
PERU
Rio Sao Francisco
Rio Beni
Rio Mamore
Rio Xingu
Salvador
Quillabamba
Cusco
BOLIVIA
Vitoria da Conquista
Cuiaba
Ilheus
Brasilia
Arequipa
La Paz
Caceres
Rondonopolis
Goiania
Matarani
Cochabamba
Santa Cruz
Ilo
Tacna
Oruro
Puerto Suarez
Corumba
Uberlandia
Arica
Sucre
Potosi
Santa Fe do Sul
Belo Horizonte
Campo Grande
Iquique
Vitoria
Panorama
Pedro Juan Caballero
Ponta Pora
PARAGUAY
Sao Paulo
Rio de Janeiro
South Atlantic Ocean
Antofagasta
Santos
CHILE
Salta
Asuncion
Curitiba
Ciudad del Este
Foz do Iguacu
Sao Francisco do Sul
South Pacific Ocean
San Miguel de Tucuman
Resistencia
Florianopolis
ARGENTINA
Rio Parana
Santa Maria
Porto Alegre
Cordoba
Santa Fe
URUGUAY
Rio Grande
Rosario
Mendoza
Valparaiso
Colonia
Santiago
Buenos Aires
Montevideo
La Plata
Concepcion
Mar del Plata
Bahia Bianca
Brazil
International Boundary
State Boundary
Road
River
National Capital
State Capital
City or Town
0 200 400 KM
0 200 400 Miles
© 2007 Geology.com

Production Regions-Bahia

* 283,000 Ha (699K acres)
* Average yield 1,147 pounds per acre
* “Dryland”—60 inches per year rainfall
* Average variable cash costs of $0.46/lb compared with $0.49/lb in the U.S. (USDA average data)

“Dry Season”



Ginning--Bahia

* Travel distance—80-160km (48-96 miles)
* Transport provided
* Custom ginning charges $43-$53/bale
* 32-43% turnout
* 80% have no drying capacity
* Trash decomposed and used as papaya fertilizer

Ginning—cont.

Ginning—cont.

Ginning—cont.

* Sampling and classification by private labs
* Warehousing and shipping much less efficient or sophisticated

Cotton Production--Northeast

* Primarily subsistence
  * Currently has 18k Ha (45k acres); was as high as 1.1m acres in 1990
  * 200 lbs/ac lint yield
* Govt really stressing "organic" production in this area
  * Average price of $1.62/lb (early 2010) for organic lint

Organic Production

Transportation Infrastructure

Bahia

Northeast

Conclusions

* Very divergent production systems
* Some highly productive farms
* Significant problems
  * Labor
  * Transportation/infrastructure
* Lots of growth potential, but soybeans highly competitive for land