



# SOY TRANSPORTATION COALITION

## RURAL INFRASTRUCTURE: A More Productive Path Forward

### Iowa Agricultural Production and Rural Infrastructure

#### Iowa Trends in Agricultural Production and Infrastructure

##### Highlights

- The rural population in Iowa decreased by about 350,000 people between 1930 and 2000, while the urban population increased by over 800,000 in the same period.
- At 333 acres, the average farm size in Iowa is actually smaller than the average farm size in the U.S. but even so, this average size has almost doubled since 1950.
- While the value of agricultural production in Iowa increased by 912% from 1950 to 2007, the number of farms decreased by 55%.

##### Production Consumed on Farm

- Home consumption of a farm's production has changed dramatically. In 1950, the value of farm production consumed at home in Iowa was 3.12%.
- In contrast, in 2010 just 0.06% of the value of production in Iowa was consumed at home. This shift amounts to an even greater reliance by agricultural producers on rural infrastructure to transport farm products.

##### Rural Population Trends

- In 1930 there were 1,491,647 people living in Iowa, with 60.4% of that population in rural areas.
- By comparison, in 2010 there were 3,046,355 people living in Iowa, with 36.0% of that population in rural areas.

#### Agricultural Production

	Then			Now			Change
	Year	Quantity	Percentage of U.S.	Year	Quantity	Percentage of U.S.	Percentage Change in Quantity
Consolidation Trends: Number of Farms	1950	206,000	3.6%	2010	92,400	4.2%	-55.1%
Farmland Trends: Land in Farms (Acres)	1950	34,800,000	2.9%	2010	30,800,000	3.3%	-11.5%
Average Farm Size (Acres)	1950	169	79%	2010	333	80%	97%
Population Trends: Population Density (Pop. per Square Mile)	1930	44	127%	2010	55	62%	23.3%
Production Trends: Volume of Production (Million Bushels)	1940	687	14.5%	2011	2,826	15.8%	312%

#### Iowa Agriculture and Rural Infrastructure

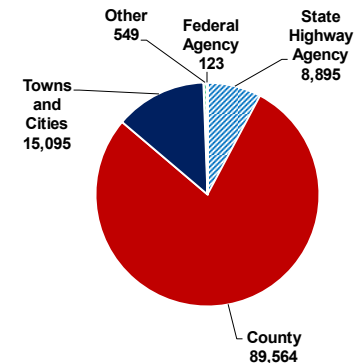
##### Highlights

<b>Roads</b>	With 114,226 miles of road as of 2008, Iowa accounts for 2.8% of U.S. road miles.
<b>Railroad</b>	Iowa had 9,808 miles of railroad in 1920 (around the time of the peak rail mileage), but this mileage had fallen to 8,369 miles in 1965 and decreased even further to 3,925 freight railroad miles in 2009.
<b>Waterways</b>	Iowa has approximately 490 miles of inland waterways.
<b>Bridges</b>	Iowa has 24,537 bridges, and approximately 27.0 percent of those are considered structurally deficient or functionally obsolete.

#### Did you know?

- In Iowa in 2007, there were an average of 207 soybean acres per soybean farm, while for the U.S. the average soybean area per soybean farm was 229 acres.
- Broilers are a major consumer of soybean meal. In 2007, there were 10.26 million broilers sold in Iowa and 8,915 million broilers sold in the U.S.
- Average farm size in the U.S. increased from 213 acres in 1950 to 418 acres in 2010, while average farm size in Iowa increased from 169 acres to 333 acres over the same period.
- In Iowa in 1945, there were 23,678 grain combines, while in 2007 there were 37,034 self-propelled grain and bean combines in the state.

#### Miles of Road by Owner for Iowa





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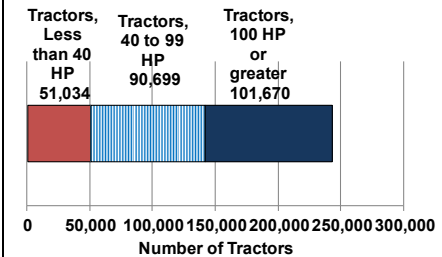
### Iowa Agricultural Production and Rural Infrastructure

#### Consolidation Trends: Fewer Farms and Larger Average Farm Size

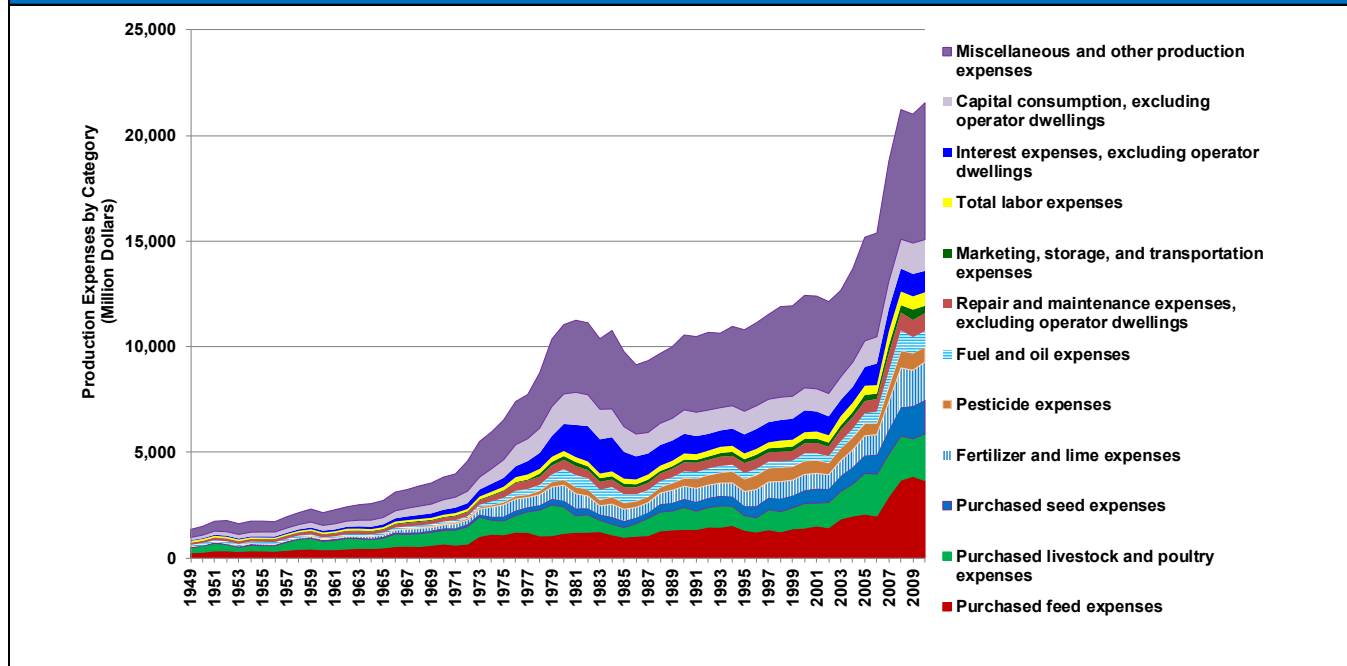
	Then (1954)		Now (2007)		Change	
	Number of Farms	Average acreage or number of head per farm for farms with production	Number of Farms	Average acreage or number of head per farm for farms with production	Percentage Change in No. of Farms	Percentage Change in Avg. Farm Size
Corn for Grain	173,780	56 acres	50,095	276 acres	-71%	391%
Soybeans	71,372	30 acres	41,524	207 acres	-42%	592%
Wheat	5,090	21 acres	577	51 acres	-89%	141%
Cattle and Calves Inventory	172,869	35 head	29,690	134 head	-83%	279%
Hogs Sold	153,619	93 head	8,758	5,398 head	-94%	5,681%
Broilers Sold	282	3,368 head	598	17,153 head	112%	409%
All Farms	192,933	176 acres	92,856	331 acres	-52%	88%

#### Farm Equipment

#### Farm Equipment Used: Number of Tractors of Various Sizes, 2007



#### Farm Input Trends: Iowa Farm Inputs by Type, 1949-2010



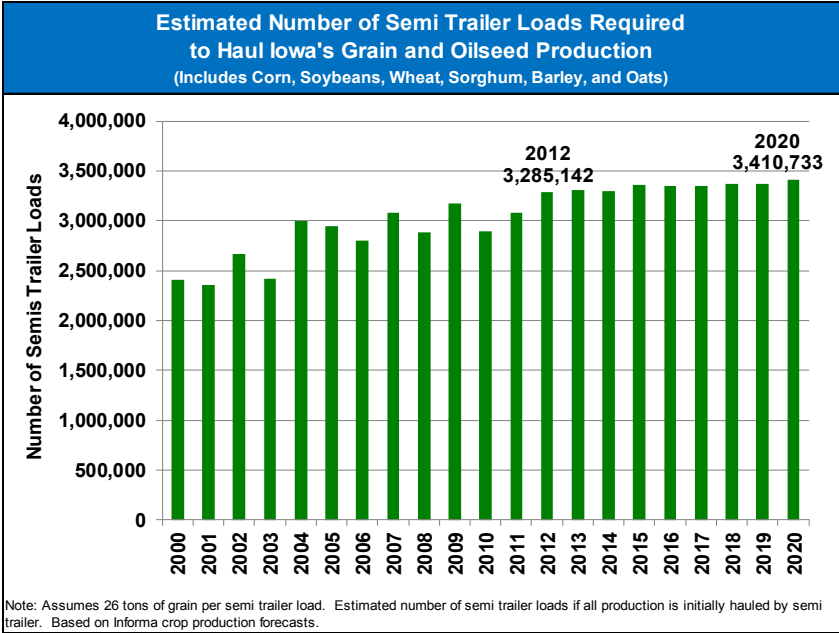


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Rural Infrastructure Trends							
	Then			Now			Change
	Year	Quantity	Percentage of U.S.	Year	Quantity	Percentage of U.S.	Percentage Change in Quantity
Off Farm Storage (million bushels)	1986	1,085	11.9%	2011	1,380	13.6%	27%
On Farm Storage (million bushels)	1986	2,020	14.6%	2011	2,050	16.0%	1%
Estimated Average Tractor Weight (lbs.)	1950	5,904	109.5%	2011	11,816	118.6%	100%
Railroad Miles	1920	9,808	3.9%	2009 freight	3,925	2.8%	-60%
Road Miles	1940	9,612	1.7%	2008	114,226	2.8%	1,088%

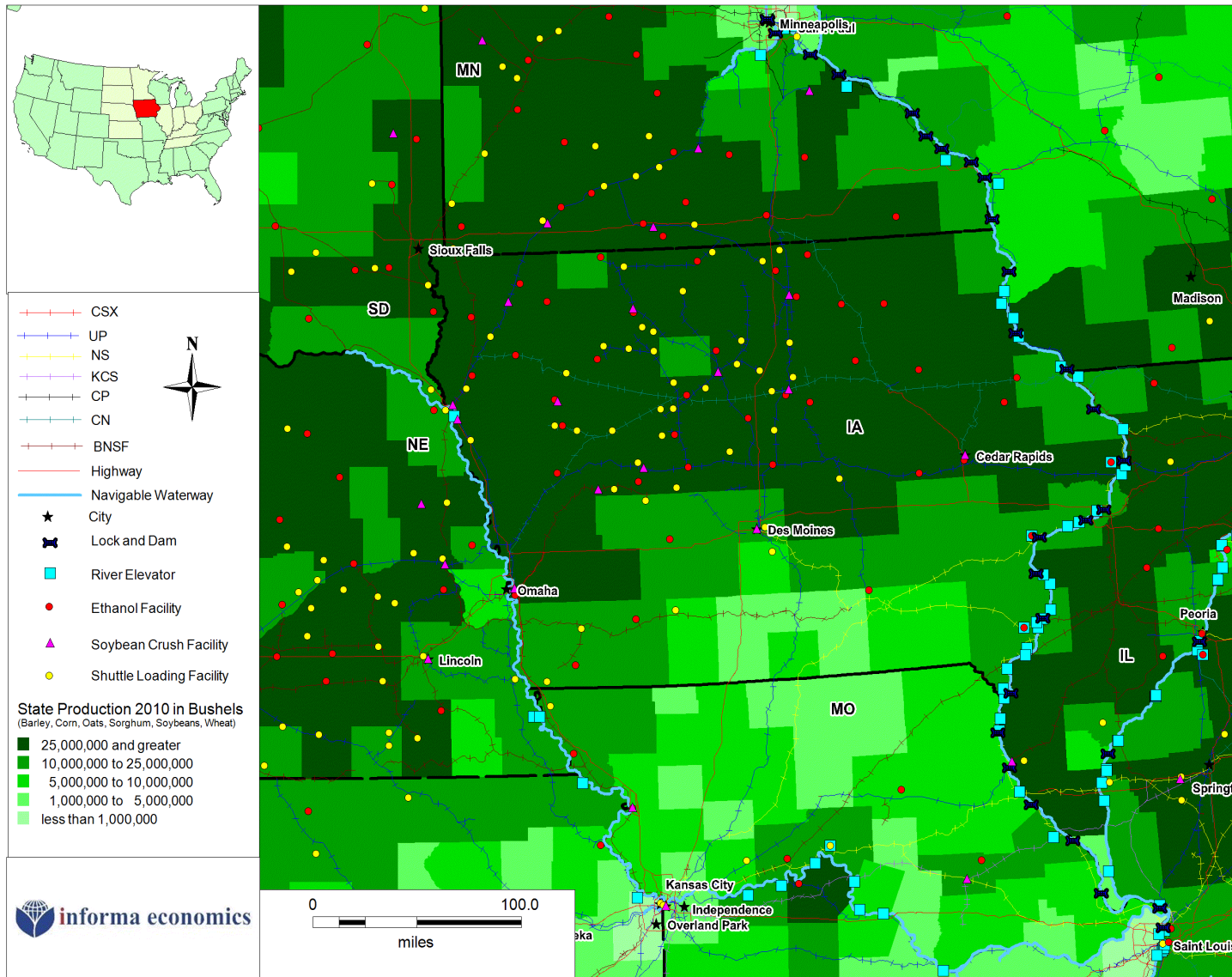




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### Iowa: Agricultural Production and Infrastructure



#### Infrastructure

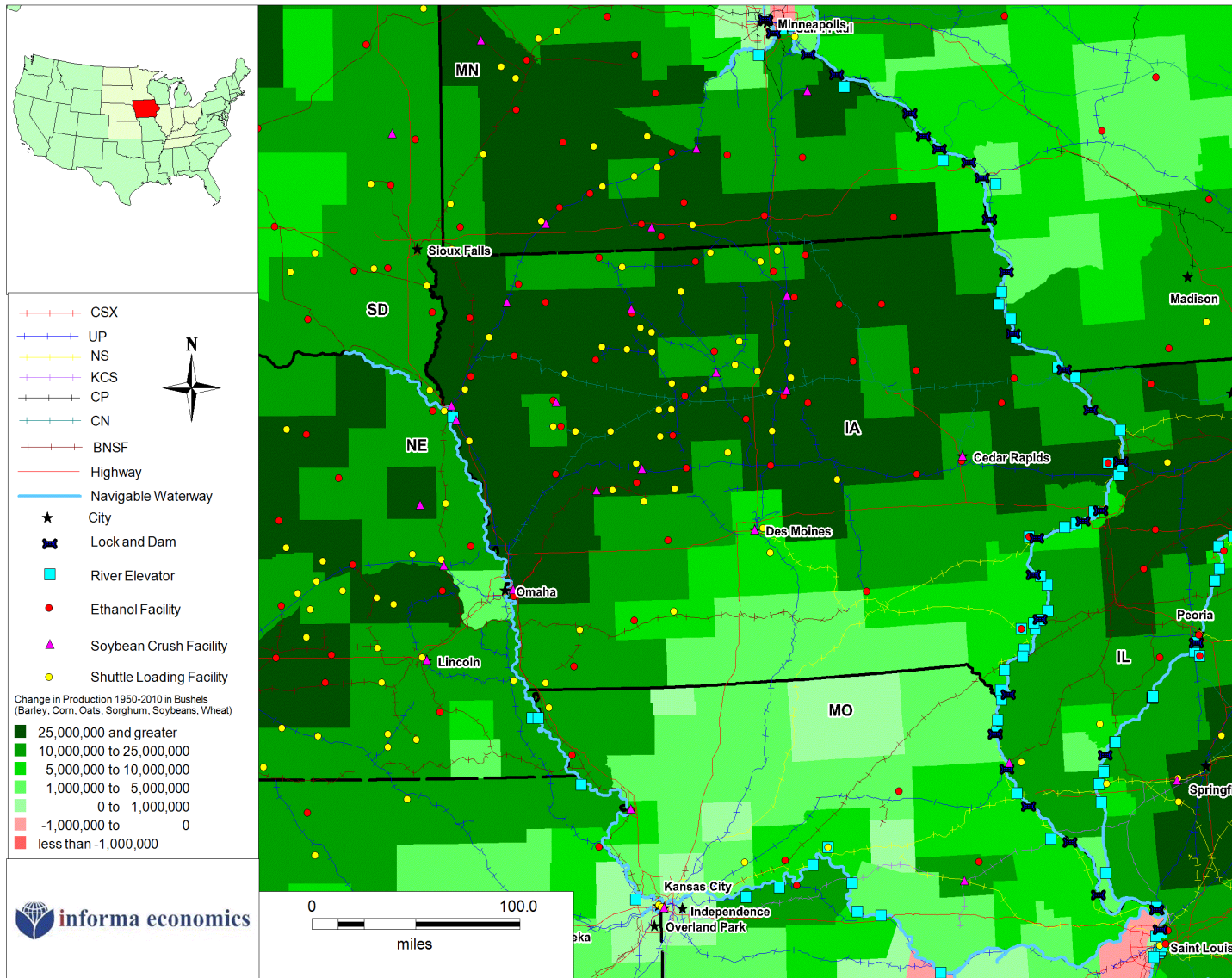
- Iowa crop production consists primarily of corn, soybeans and oats.
- Crops are moved from production regions by truck, rail or barge to elevators and processing facilities.
- Iowa has 808 miles of interstate; 3,925 miles of rail lines; 490 miles of waterways; 24,537 bridges and 114,226 miles of roadways.
- Iowa has 14 soybean crush facilities; 52 shuttle facilities; 42 ethanol plants; 750 grain elevators; and 16 river elevators.



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### Iowa: Change in Production from 1950 to 2010



#### Production

- Crop production in the state of Iowa has been increasing over the past six decades.
- Production of grains and soybeans has increased by nearly 2.2 billion bushels from 1950 to 2010.
- Historically, Iowa produced primarily corn and soybeans.
- While corn is still the predominant crop in Iowa with soybean production following, Iowa also produced over 3 million bushels of oats in 2010.

Funded by the soybean checkoff