

# *Using Agricultural Statistics in the Classroom*

National Agriculture in the Classroom  
Annual Conference

July 18, 2015

Louisville, KY



# Outline

- Quiz
- Data Programs - Surveys v. Census
- Data Sources
- Grading the Quiz

# Objective

- Provide sources of agricultural statistics to enable educators to develop lesson plans.



# Surveys v. Census

Surveys	Census
Continuous	Every 5 years
Major agricultural production	All agricultural production
Limited county information	Data for all counties
No demographic information	Demographic data



# Surveys Data Sources

- [nass.usda.gov](http://nass.usda.gov)
- [nass.usda.gov/state abbreviation](http://nass.usda.gov/state%20abbreviation), for example  
[nass.usda.gov/ny](http://nass.usda.gov/ny)
- Ag Overview
- Annual Bulletins
- Activity Books
- State Office



# Surveys Data Sources – Ag Overview

- Ag Overview
  - Example - [Minnesota](#)

The screenshot shows a web interface for Minnesota Statistics. On the left is a navigation menu with categories like Demographics, Economics and Prices, Environmental, Livestock and Animals, Charts and Maps, Research, Science and Technology, and Education and Outreach. Below this is a 'Statistics by State' section with a dropdown menu set to 'Select a Location'. The main content area is titled 'Minnesota Statistics' and features a 'Quick Stats' section with a description and a 'More' link. Below this is a list of links: 'County Estimates', 'Minnesota Agricultural Overview' (highlighted with a red box), and 'Census of Agriculture for Minnesota'. At the bottom, there is a 'Minnesota Publications' section with a dropdown menu set to 'Publications and News Releases' and a 'Go' button.



# Surveys Data Sources

- Annual Statistical Bulletin Example - [West Virginia](#)

West Virginia Publications More ▾

Publications and News Releases	Go
<b>Annual Statistical Bulletin</b>	
Crop Progress & Condition	
Mountain State Reporter	
Orchard & Vineyard Survey	
WV Agriculture at a Glance	
WV Farmers Production Profile	

For more information, please email [nass@nass.usda.gov](mailto:nass@nass.usda.gov) (404) 357-5123.

[Statistics and Market Information System \(ESMIS\)](#) | [Site Map](#) | [Translate](#) | [USA.gov](#) | [Privacy Policy](#) | [Non-Discrimination Statement](#) | [Information Quality](#) | [Guidance Documents](#)

- United States, [www.nass.usda.gov/Publications/Ag\\_Statistics/index.asp](http://www.nass.usda.gov/Publications/Ag_Statistics/index.asp)
- Activity Books
- State Office



# Census Data Sources

- [agcensus.usda.gov](http://agcensus.usda.gov)
- Current and historic census publications
- Census of Agriculture data available back to 1840



**Popular Topics**

- > Ag Week 2015
- > 2017 Census - NACS
- > Respond Online
- > 2012 Census Results
- > Frequently Asked Questions
- > Infographics
- > State and County Data
- > Desktop Query Tool
- > Partner Tools

>>> More...



Email updates: National | State | News

**Census Data on Family Farms**

Explore the latest data and resources on farm typology.

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**Headlines**

- BLOG: South Dakota Growing to be an Ag Powerhouse
- BLOG: Farming Going Strong in Kansas, According to #AgCensus
- BLOG: Nebraska Farmers Have Plenty to Brag About
- BLOG: Mississippi leads U.S. in catfish production
- BLOG: Tennessee Farmers Play Strong Role in State Economy
- NEWS RELEASE: Family Farms are the Focus of New Agriculture Census Data
- BLOG: Montana Agriculture Keeps Growing
- BLOG: Counting Colorado's Cattle Country

>>> More...

**Latest Tweets**

**Data Search Tools**

- Quick Stats
- Quick Stats Tutorial
- Desktop Data Query Tool
- Ag Atlas Maps
- Ag Census Web Maps

**Find Data By**

- Congressional District
- Historical Census Year
- Race, Ethnicity & Gender
- State & County
- Topic



**Respond Online**



**Confidentiality and Security**



**Special Census Studies**



**Highlights**



**Quick Stats**



**Ag Atlas Maps**



**Ag Census Web Maps**





# Highlights

- Highlights are briefs on different topics
- Contain text, graphs, maps, and data tables

## 2012 Census Highlights

- Family Farms:** 97 percent of U.S. farms are family owned
- Wheat Farming:** A \$15.8 billion industry, up 48 percent since 2007
- Soybean Farming:** A \$38.7 billion industry; 10 percent of total U.S. agriculture sales
- Sorghum Farming:** Sales up 7 percent since 2007; production for grain and silage both down
- Corn Farming:** A \$67.3 billion industry, 17 percent of total U.S. agriculture sales
- Aquaculture:** Results from the 2013 Census of Aquaculture
- Cattle Industry:** A \$76.4 billion industry, 19 percent of total U.S. agriculture sales
- Sheep and Goat Farming:** 94 percent of farms are family or individually operated
- Poultry and Egg Production:** A \$42.8 billion industry, 11 percent of total agriculture sales
- Cotton and Cottonseed Farming:** Production down 13 percent, sales value up 25 percent, since 2007
- Irrigation:** Results from the 2013 Farm and Ranch Irrigation Survey
- Farm Land and Buildings:** Real estate values continue to increase; per farm value up 36 percent
- Dairy Cattle and Milk Production:** A \$35.5 billion industry, 9 percent of U.S. agriculture sales
- Farms and Farmland:** Numbers, acreage, ownership, and use
- Women Farmers:** Control 7 percent of U.S. farmland, account for 3 percent of sales

## Family Farms

ACH12-26/March 2015

**97 percent of U.S. farms are family owned.**

**88 percent . . .**

. . . of U.S. farms are small family farms.

Of the 2.1 million farms in the United States in 2012, 97 percent were family-owned operations. Eighty-eight percent of all farms were small family farms, with less than \$350,000 in gross cash farm income, and nearly 9 percent were midsize or large family farms. Only 3 percent of U.S. farms were not family owned, but they accounted for 16 percent of the value of all U.S. agricultural products sold. (Table 1)

**Table 1**  
**Profile of U.S. Farms, by Type, 2012**

	U.S. Total	Family Farms			Nonfamily Farms
		Small	Midsize	Large*	
		percent of U.S. total			
No. of farms	2.1 million	88	6	3	3
Farmland	915 mil. acres	48	20	20	11
Value of land and buildings	\$2.3 trillion	47	20	25	8
Agriculture sales	\$394.6 billion	20	19	45	16

\*Includes very large farms.  
Source: USOA NASS, 2012 Census of Agriculture.



# Census Publications

- Census books, available online as pdf files
- Quickstats (same tool used to access survey data)
- Maps (static and interactive)
- Special studies and follow on surveys covering different topics
- Profiles of agriculture for different geographies



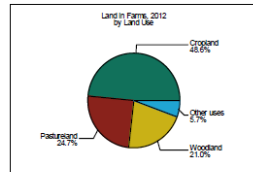
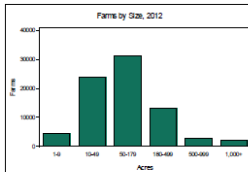
# Profiles

## 2012 CENSUS OF AGRICULTURE STATE PROFILE



### Kentucky

	2012	2007	% change
<b>Number of Farms</b>	77,064	85,260	- 10
<b>Land in Farms</b>	13,049,347 acres	13,993,121 acres	- 7
<b>Average Size of Farm</b>	169 acres	164 acres	+ 3
<b>Market Value of Products Sold</b>	\$5,067,334,000	\$4,824,561,000	+ 5
Crop Sales \$2,280,568,000 (45 percent)			
Livestock Sales \$2,786,765,000 (55 percent)			
<b>Average Per Farm</b>	\$65,755	\$56,586	+ 16
<b>Government Payments</b>	\$169,821,000	\$103,104,000	+ 65
<b>Average Per Farm Receiving Payments</b>	\$5,087	\$3,494	+ 46



USDA US Department of Agriculture National Agricultural Statistics Service

www.agcensus.usda.gov

## 2012 CENSUS OF AGRICULTURE STATE PROFILE

### Kentucky

#### Ranked Items within U.S., 2012

Item	Quantity	U.S. Rank	Universe <sup>1</sup>
<b>MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD (\$1,000)</b>			
Total value of agricultural products sold	5,067,334	27	80
Value of crops including nursery and greenhouse	2,280,568	26	80
Value of livestock, poultry, and their products	2,786,765	24	80
<b>VALUE OF SALES BY COMMODITY GROUP (\$1,000)</b>			
Grains, oilseeds, dry beans, and dry peas	1,658,983	20	80
Tobacco	359,493	2	19
Cotton and cottonseed	-	-	17
Vegetables, melons, potatoes, and sweet potatoes	26,787	36	80
Fruits, tree nuts, and berries	7,839	39	80
Nursery, greenhouse, floriculture, and sod	78,283	32	80
Cut Christmas trees and short rotation woody crops	150,288	41	49
Other crop and hay	1,107,452	16	80
Poultry and eggs	1,033,722	16	80
Cattle and calves	207,402	27	80
Milk from cows	121,750	18	80
Hogs and pigs	8,454	28	80
Sheep, goats, wool, mohair and milk	178,288	1	80
Horses, ponies, mules, burros, and donkeys	2,884	44	80
Manufacture	128,674	2	80
Other animals and other animal products	-	-	2
<b>TOP CROP ITEMS (acres)</b>			
Forage used for all hay and hayslage, grass stlage, and greenchops	2,042,186	10	80
Corn for grain	1,531,189	14	48
Soybeans for beans	1,468,281	16	48
Winter for grain	1,468,281	18	48
Winter wheat for grain	488,242	17	48
<b>TOP LIVESTOCK INVENTORY ITEMS (number)</b>			
Broilers and other meat-type chickens	\$1,189,742	8	80
Layers	4,295,549	21	80
Cattle and calves	2,270,871	14	80
Pigs for hatching replacement	1,632,101	17	80
Hogs and pigs	313,380	18	80

#### Other State Highlights, 2012

Economic Characteristics	Quantity	Operator Characteristics	Quantity
<b>Farms by value of sales:</b>			
Less than \$1,000	2,886	Principal operators by primary occupation:	32,137
\$1,000 to \$2,499	8,269	Other	44,827
\$2,500 to \$4,999	10,313	Principal operators by sex:	
\$5,000 to \$9,999	6,886	Male	68,884
\$10,000 to \$19,999	6,764	Female	6,200
\$20,000 to \$24,999	2,707	Average age of principal operator (years):	57.6
\$25,000 to \$39,999	4,312	All operators by race <sup>2</sup> :	
\$40,000 to \$49,999	1,546	American Indian or Alaska Native	262
\$50,000 to \$99,999	3,862	Asian	186
\$100,000 to \$249,999	2,929	Black or African American	554
\$250,000 to \$499,999	1,434	Native Hawaiian or Other Pacific Islander	21
\$500,000 or more	1,977	White	111,641
Total farm production expenses (\$1,000)	4,778,108	More than one race	393
Average per farm (\$)	62,062	All operators of Spanish, Hispanic, or Latino Origin <sup>3</sup>	708
Net cash farm income of operation (\$1,000)	862,585		
Average per farm (\$)	11,483		

See "Census of Agriculture, Volume 1, Geographic Area Series" for complete footnotes, explanations, definitions, and methodology.  
<sup>1</sup> Nonzero items only.  
<sup>2</sup> Universe is number of states in U.S. with item. <sup>3</sup> Data were collected for a maximum of three operators per farm.



# Surveys and Census

- Quick Stats — [quickstats.nass.usda.gov](http://quickstats.nass.usda.gov)
  - Online database of published data; best used for data across time or geographic area
  - Commodity = Equine; Category = Inventory; Data Item = Equine, Horses & Ponies – Inventory; Geographic Level = County; State = Kentucky; Year = 2012
  - Search
- CropScape - [nassgeodata.gmu.edu/CropScape/](http://nassgeodata.gmu.edu/CropScape/)

## Other Information

- Food Preference Survey -  
[www.nass.usda.gov/Education\\_and\\_Outreach/](http://www.nass.usda.gov/Education_and_Outreach/)



## U.S. Agricultural Quiz

Name: \_\_\_\_\_

1. The majority of U.S. farms are owned and operated by families. **True** or False

[http://www.agcensus.usda.gov/Publications/2012/Online\\_Resources/Highlights/](http://www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/)

2. In 2014, which state had the most farmland?

a. California

**b. Texas** [www.nass.usda.gov](http://www.nass.usda.gov), search NASS Reports "farms"

c. Iowa

d. Illinois

3. According to the 2012 Census of Agriculture, 45 percent of all U.S. land is in farms. True or **False**

[http://www.agcensus.usda.gov/Publications/2012/Full\\_Report/Volume\\_1,\\_Chapter\\_2\\_US\\_State\\_Level/st99\\_2\\_008\\_008.pdf](http://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_2_US_State_Level/st99_2_008_008.pdf)

4. Which state led the nation in honey production in 2014?

a. Florida

b. Mississippi

c. Hawaii

**d. North Dakota** [quickstats.nass.usda.gov/](http://quickstats.nass.usda.gov/)

5. In 2014, which state led the nation in egg production? **Iowa**

[www.nass.usda.gov/ia](http://www.nass.usda.gov/ia), Annual Statistical Bulletin



6. Which state produced the most rice in 2012?  
a. **Arkansas** [www.nass.usda.gov/Publications/Ag\\_Statistics/index.asp](http://www.nass.usda.gov/Publications/Ag_Statistics/index.asp)  
b. California  
c. Iowa  
d. Missouri
7. The average age of a principal farm operator is 58, according to the 2012 Census of Agriculture. **True** or False  
[http://www.agcensus.usda.gov/Publications/2012/Online\\_Resources/Highlights/Farm\\_Demographics/](http://www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Farm_Demographics/)
8. Indiana ranked \_\_\_\_\_ in the U.S. for value of agricultural products sold based on the 2012 Census of Agriculture?  
a. 11th  
b. 3rd  
c. **10th**  
d. 12th
9. One out of every two jars of peanut butter is produced from peanuts grown in Georgia, based on 2014 production. **True** or False [www.nass.usda.gov](http://www.nass.usda.gov), search NASS Reports "crop production"
10. The 2012 Census of Agriculture counted \_\_\_\_\_ female principal operators, 14 percent of all farm operators?  
a. **288,264**  
b. 845,661  
c. 520,945  
d. 199,686  
[http://www.agcensus.usda.gov/Publications/2012/Online\\_Resources/Highlights/Farm\\_Demographics/](http://www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Farm_Demographics/)

