Characteristics and Demographics of USA Dairy Herds - Management and Genetics

Jay Mattison
CEO, National DHIA
Administrator, Quality Certification Services Inc.
Duane Norman
Collaborating Researcher
USDA-Animal Improvement Programs Lab

or Information for Managing Dairy Herds

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CEO, National DHIA
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Collaborating Researcher
USDA-Animal Improvement Programs Lab

or
Show Me the Data
Then Show Me the Money

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The DEMAND For DAIRY INFORMATION –

The DATA DRIVEN FUTURE

Dairy Farming (milk production)

- Is a mix of genetics and management
- Production of calf and milk

To obtain a live calf….

Value of Genetics to Farmers

- Annual Genetic Progress

$$\text{Genetic Gain per Year} = \frac{\text{Genetic Variation} \times \text{Selection Intensity} \times \text{Accuracy}}{\text{Generation Interval (Years)}}$$

  - Genetic variation **based on population**
  - Selection intensity **should** be improved
  - Accuracy of selection **could be** improved
  - Generation interval **should** be reduced

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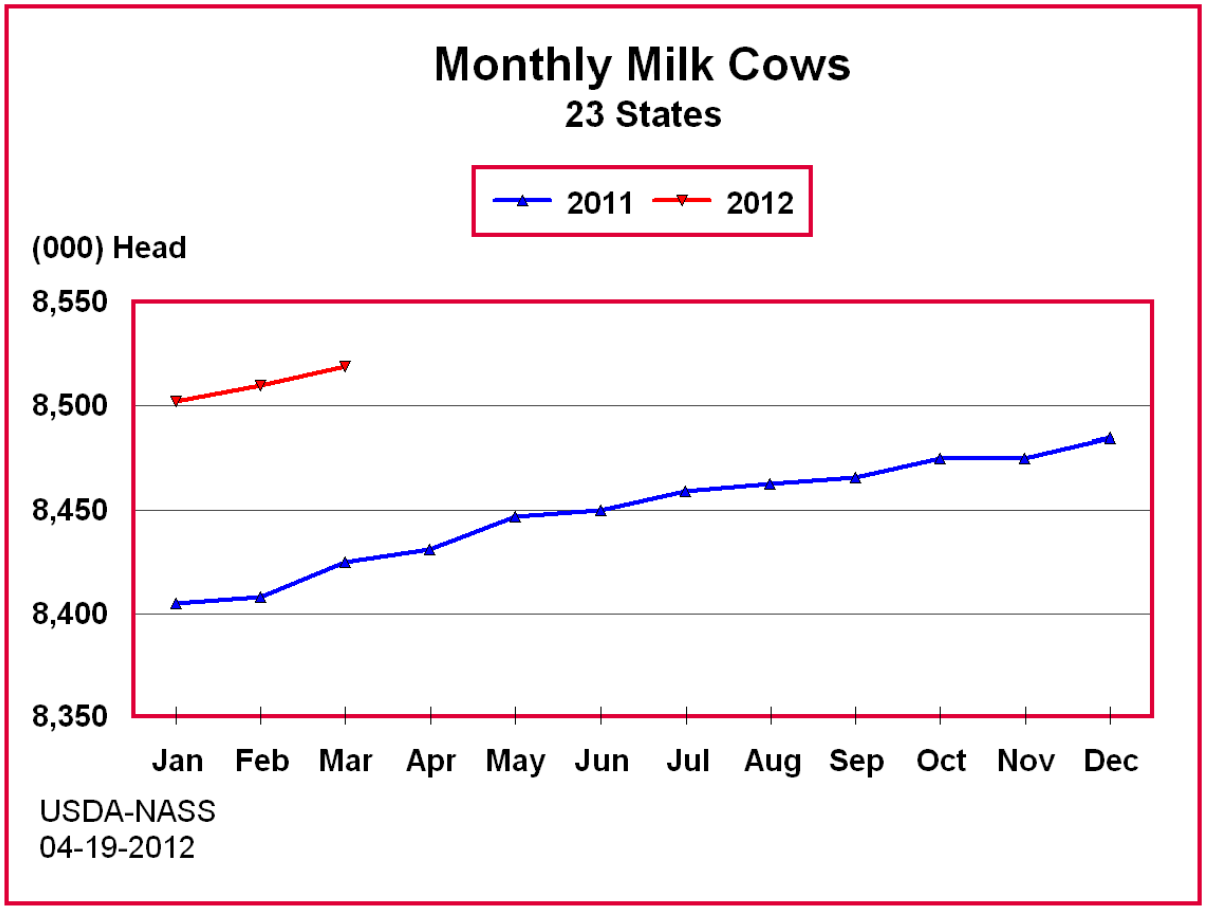
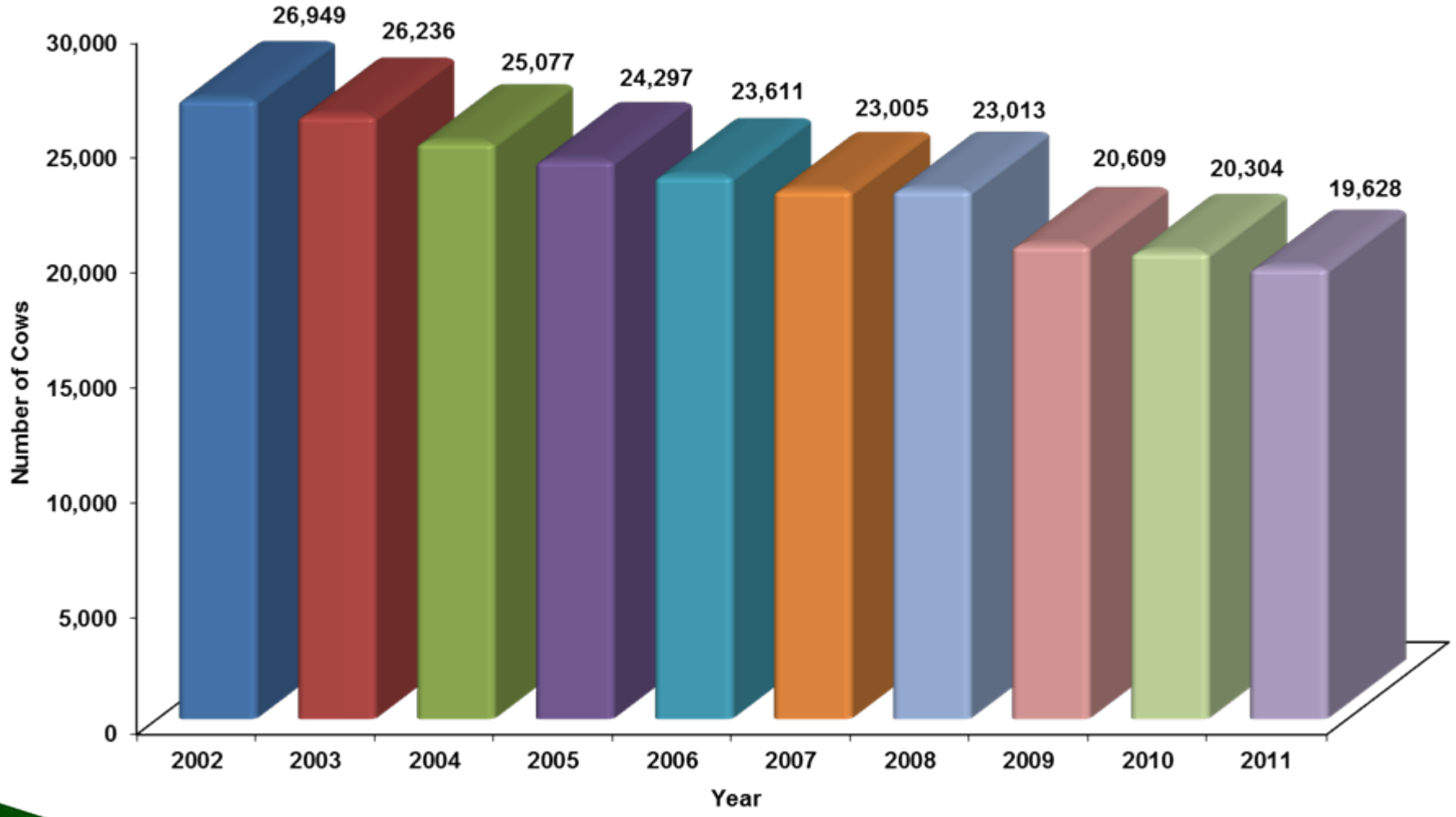
Top 23 Dairy States – U.S.

8.57 million cows – 23 states
9.23 million cows – USA Total



Herds on DHI Programs



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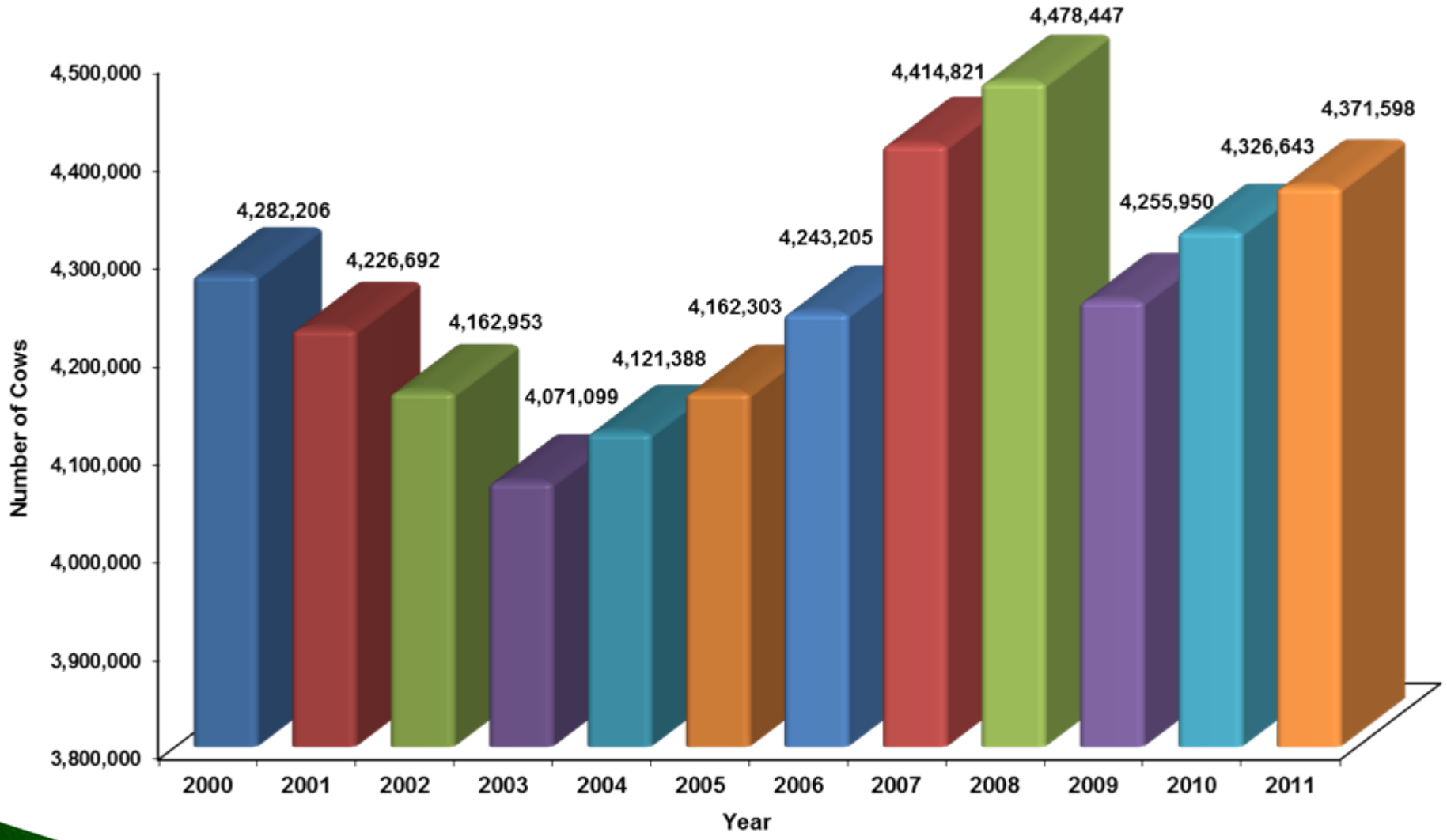
Cows on DHI Programs



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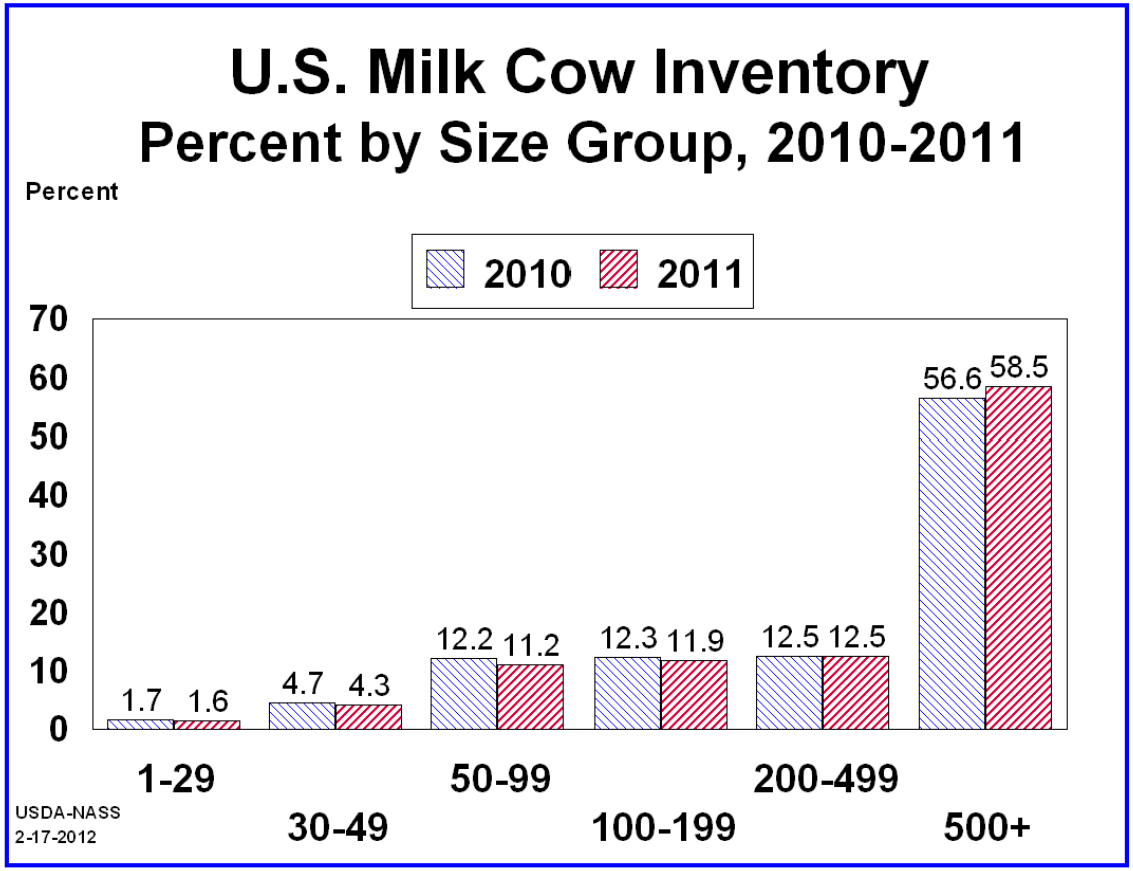
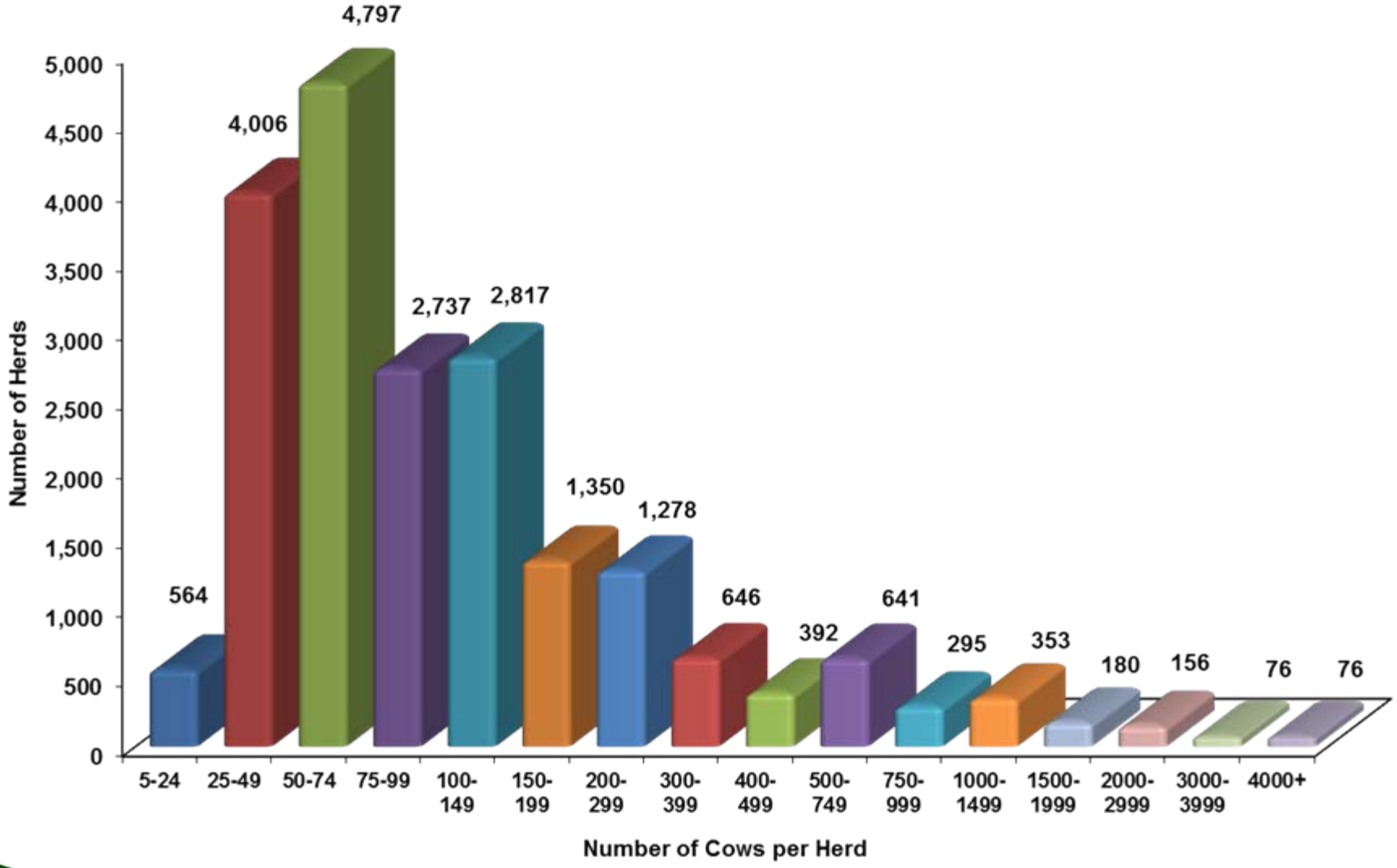
U.S. Milk Cow Inventory



DHI Herds by Size During 2011



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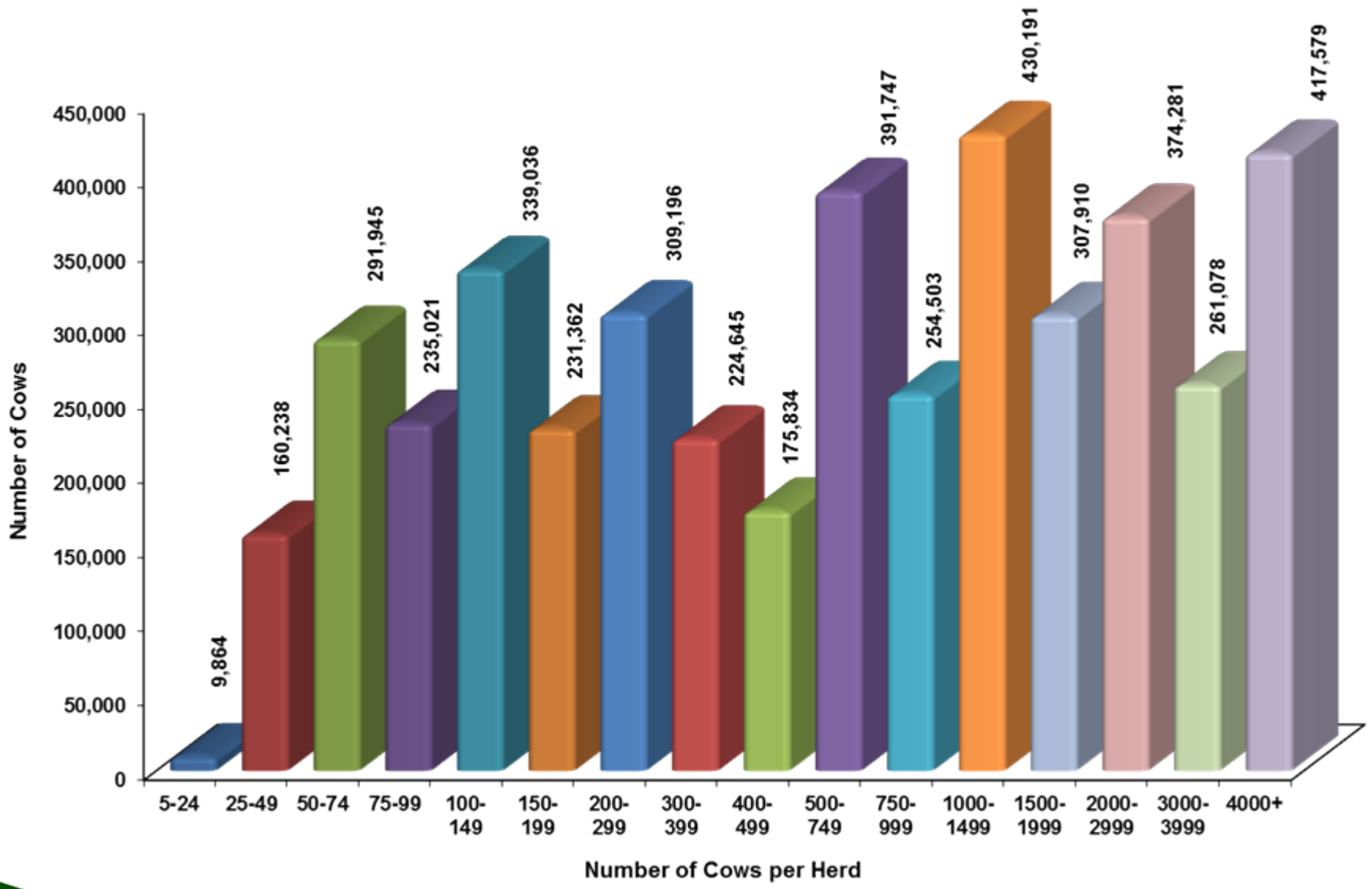
DHI Cows by Herd Size During 2011



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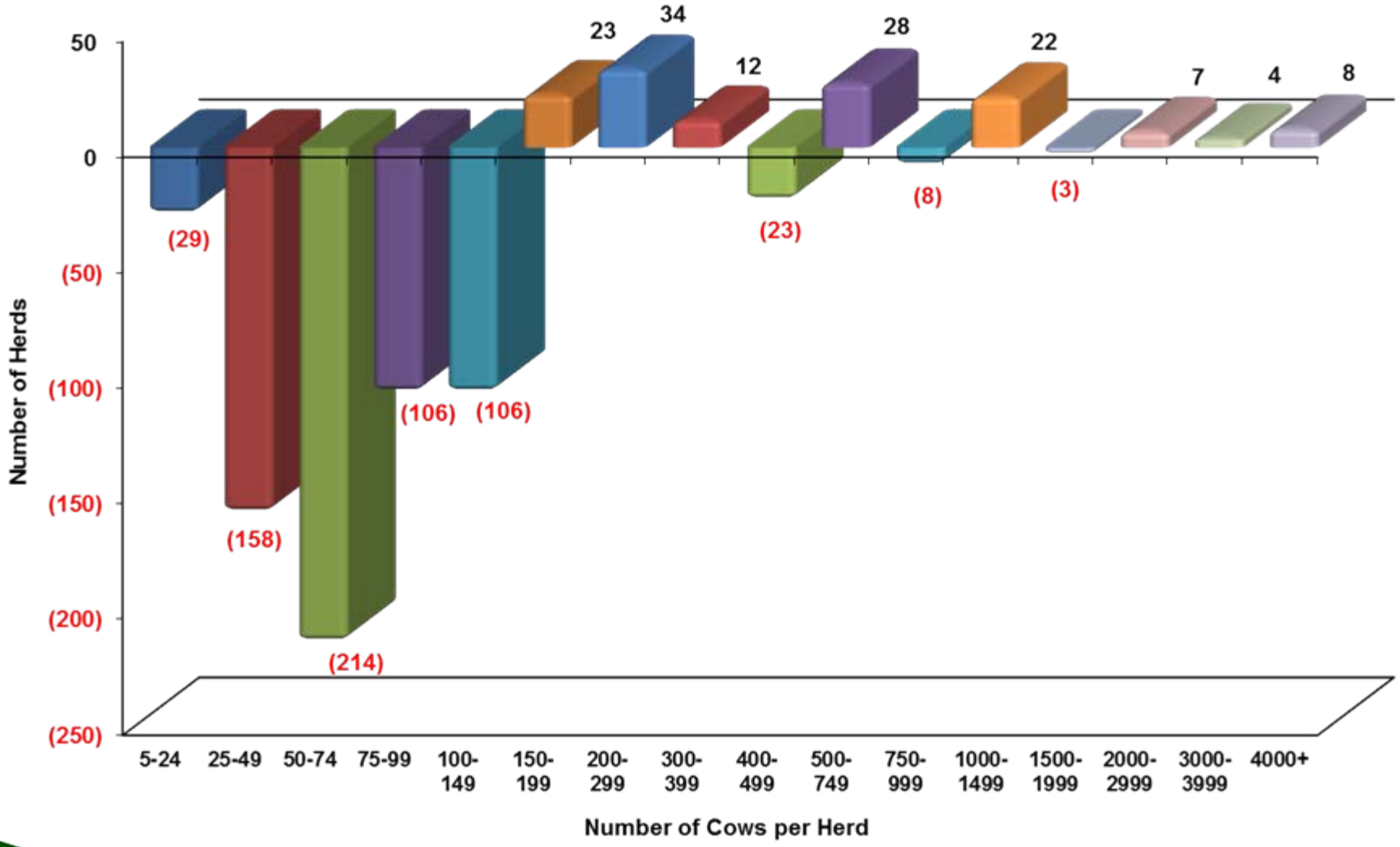
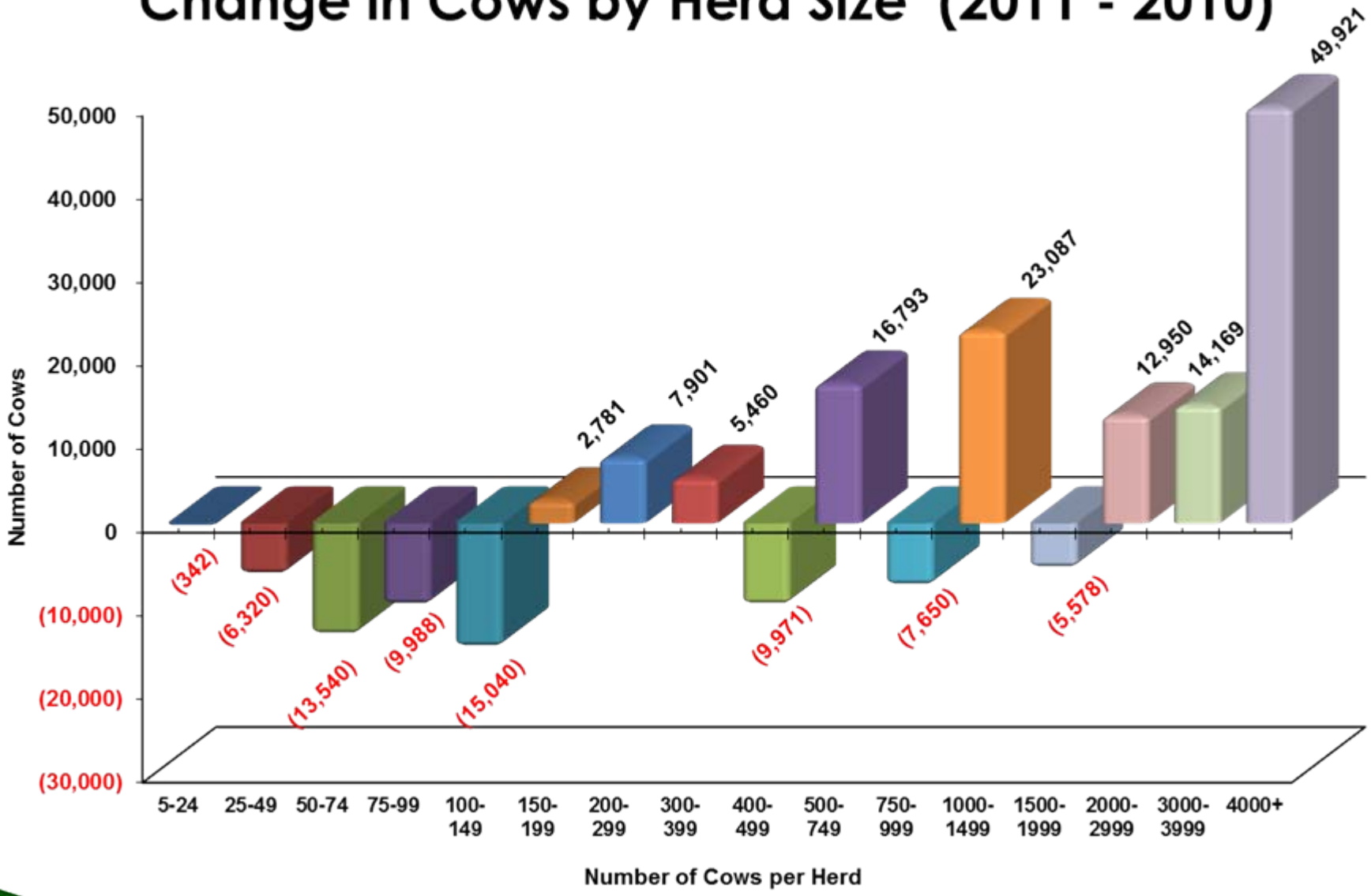
Change in DHI Herds by Size (2011 - 2010)

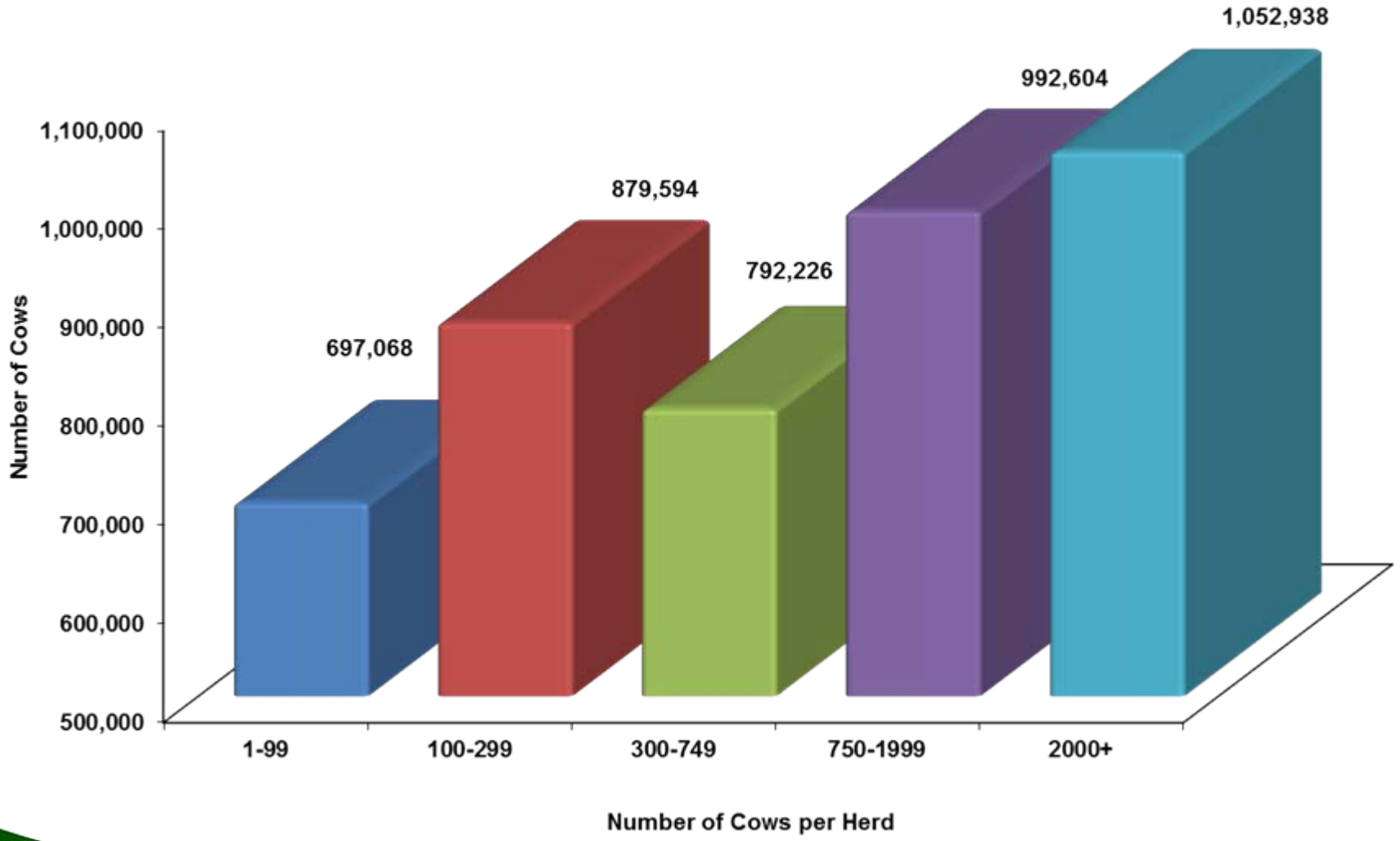


Change in Cows by Herd Size (2011 - 2010)



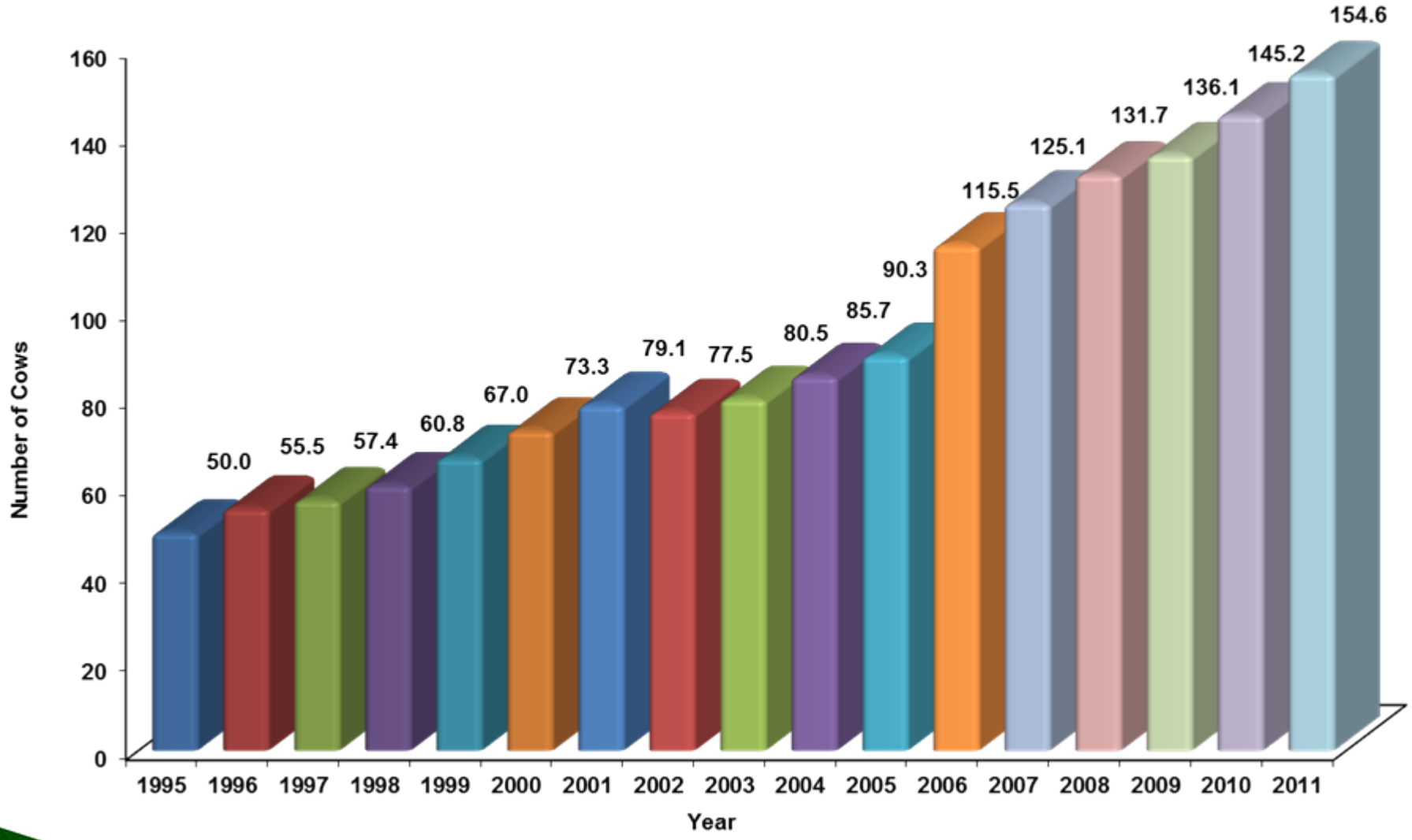
NATIONAL DHIA

DHI Cows by Herd Size During 2011



NATIONAL DHIA

Average Size of DHI Herds



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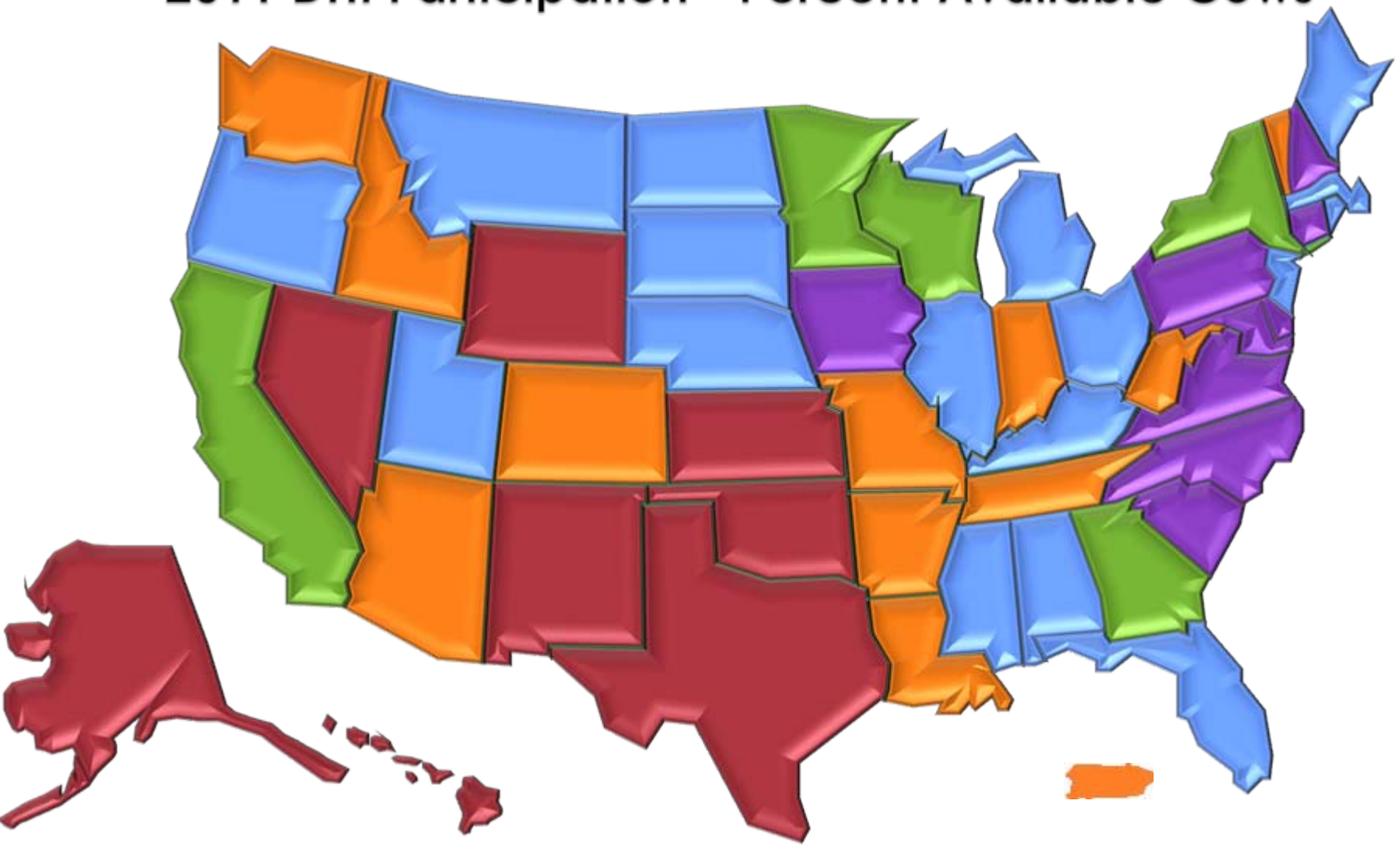
2011 DHI Participation - Percent Available Cows



>60% Cows on DHI
50-59% Cows on DHI
40-49% Cows on DHI
30-39% Cows on DHI
<30% Cows on DHI

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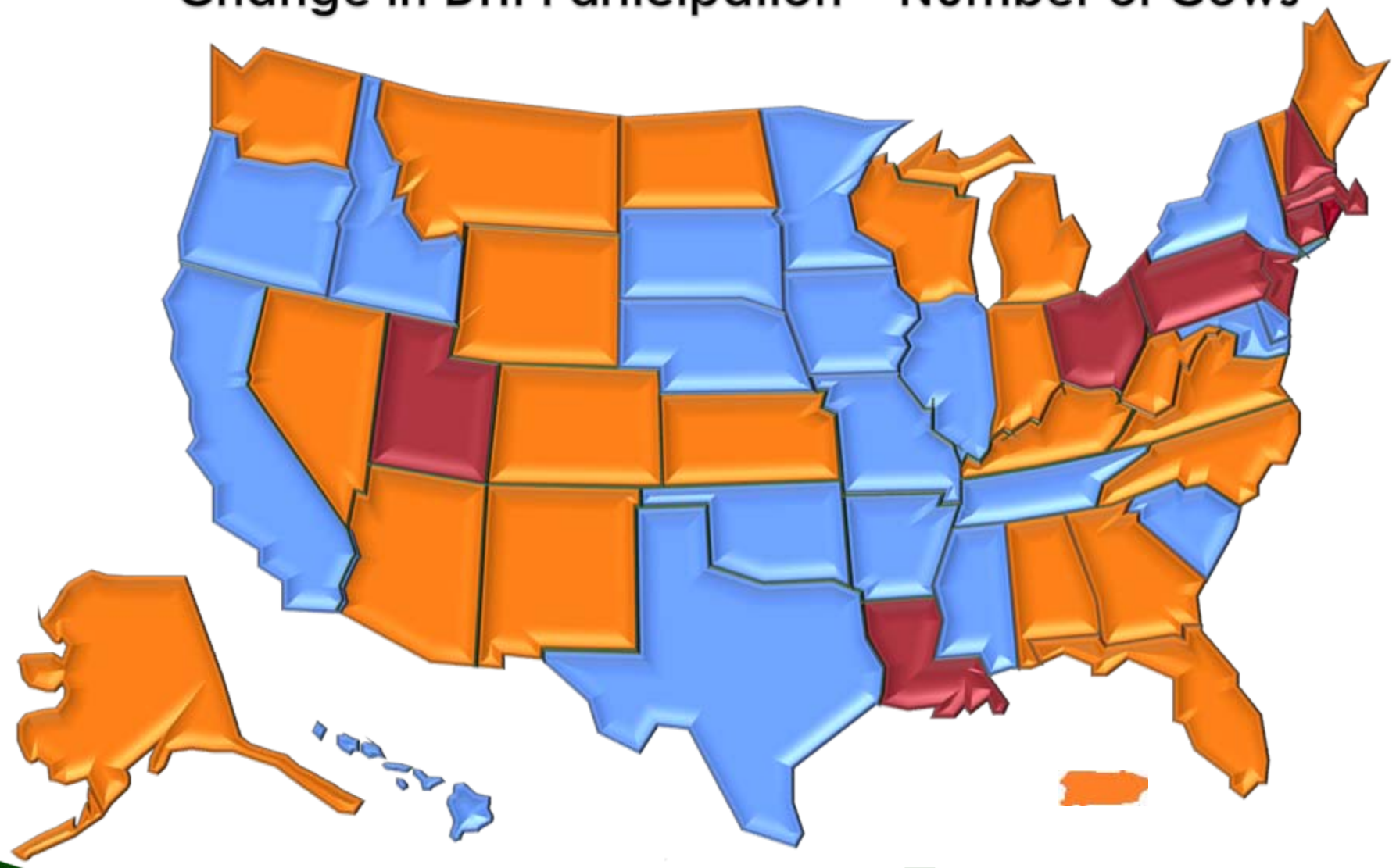
Change in DHI Participation – Number of Cows



Increase in Cows on DHI (2011 vs. 2010)
No Change in Cows on DHI (2011 vs. 2010)
Decrease in Cows on DHI (2011 vs. 2010)

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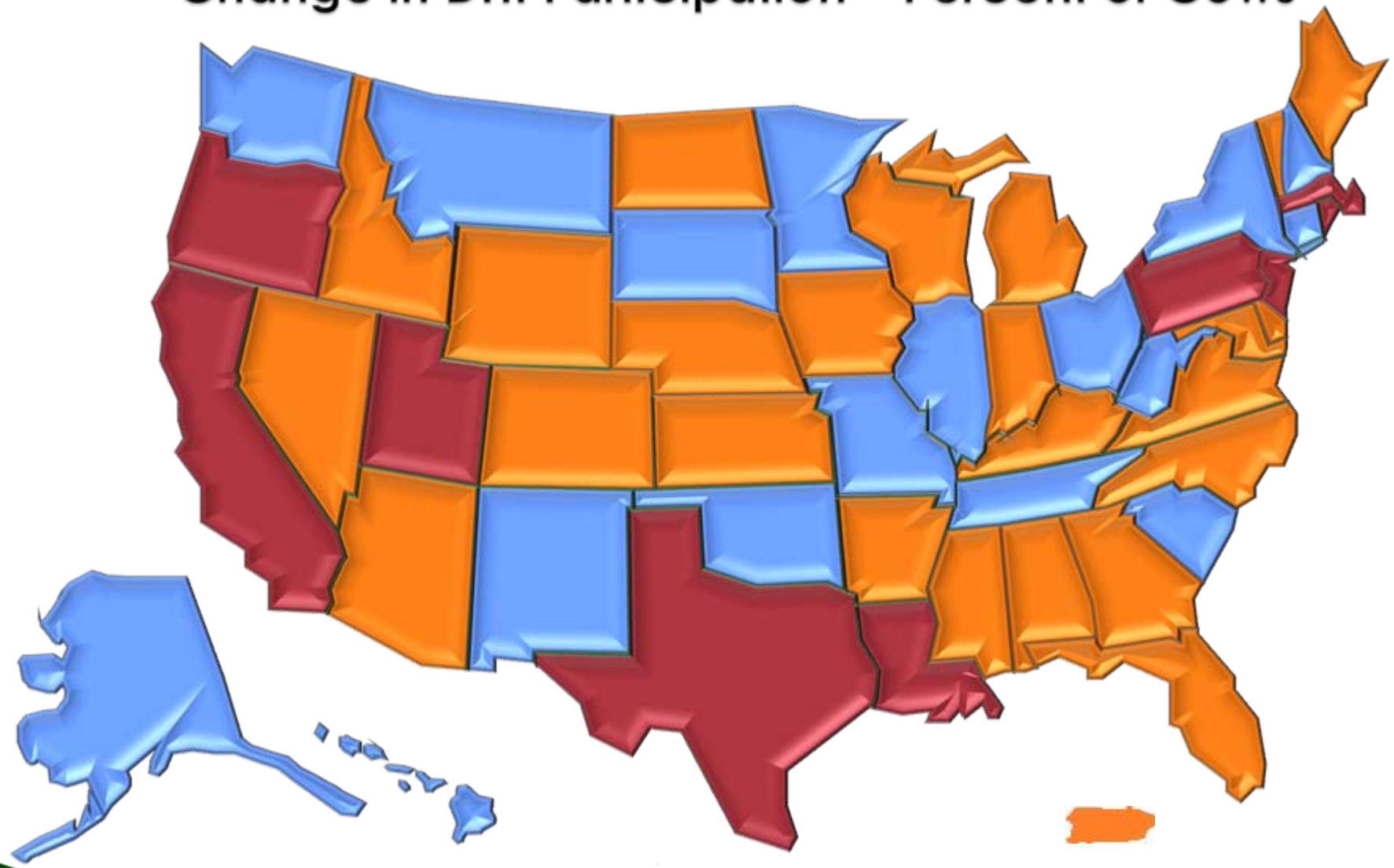
Change in DHI Participation – Percent of Cows



Increase in % Cows on DHI (2011 vs. 2010)
No Change in % Cows on DHI (2011 vs. 2010)
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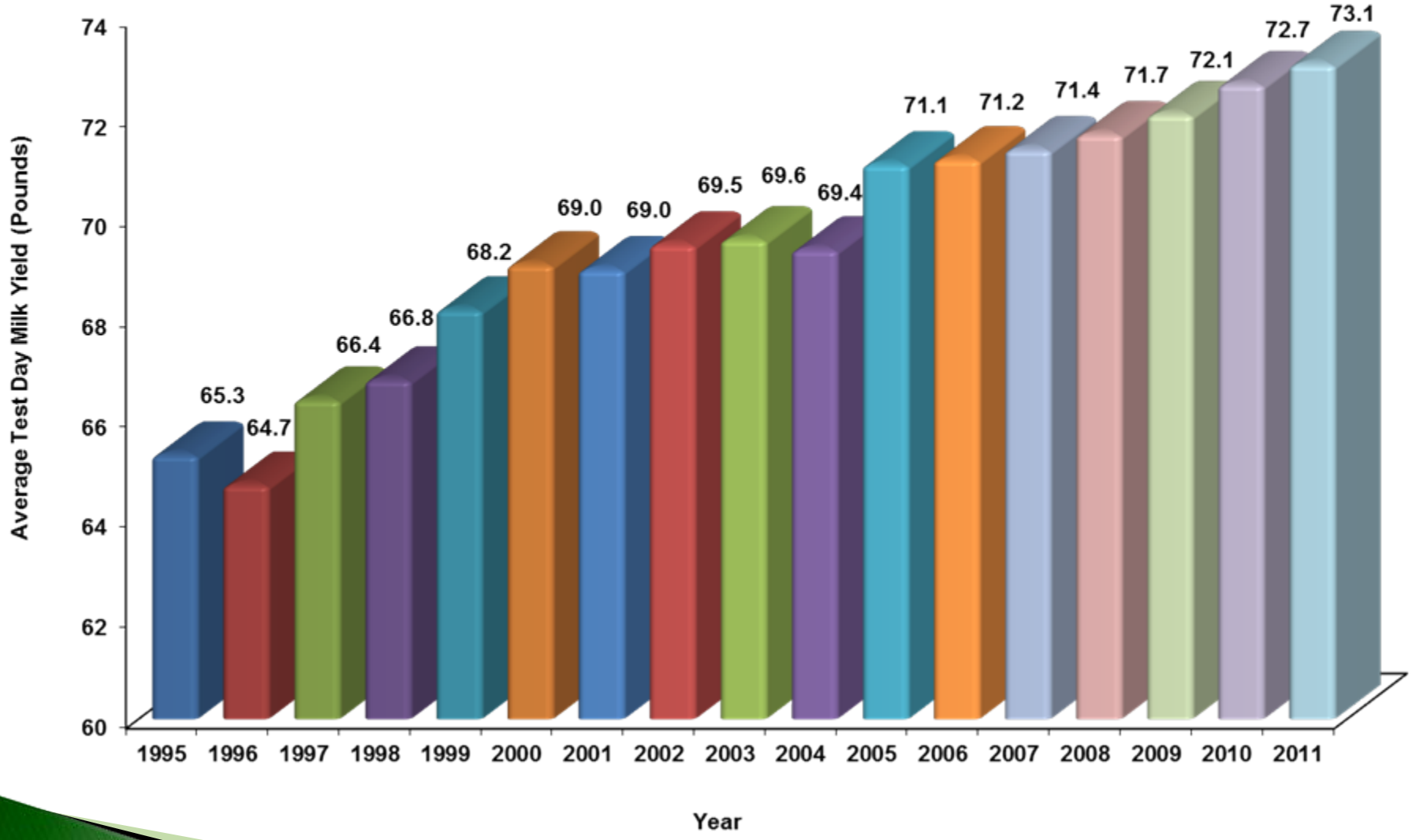
Average Test Day Milk Yield of DHI Herds



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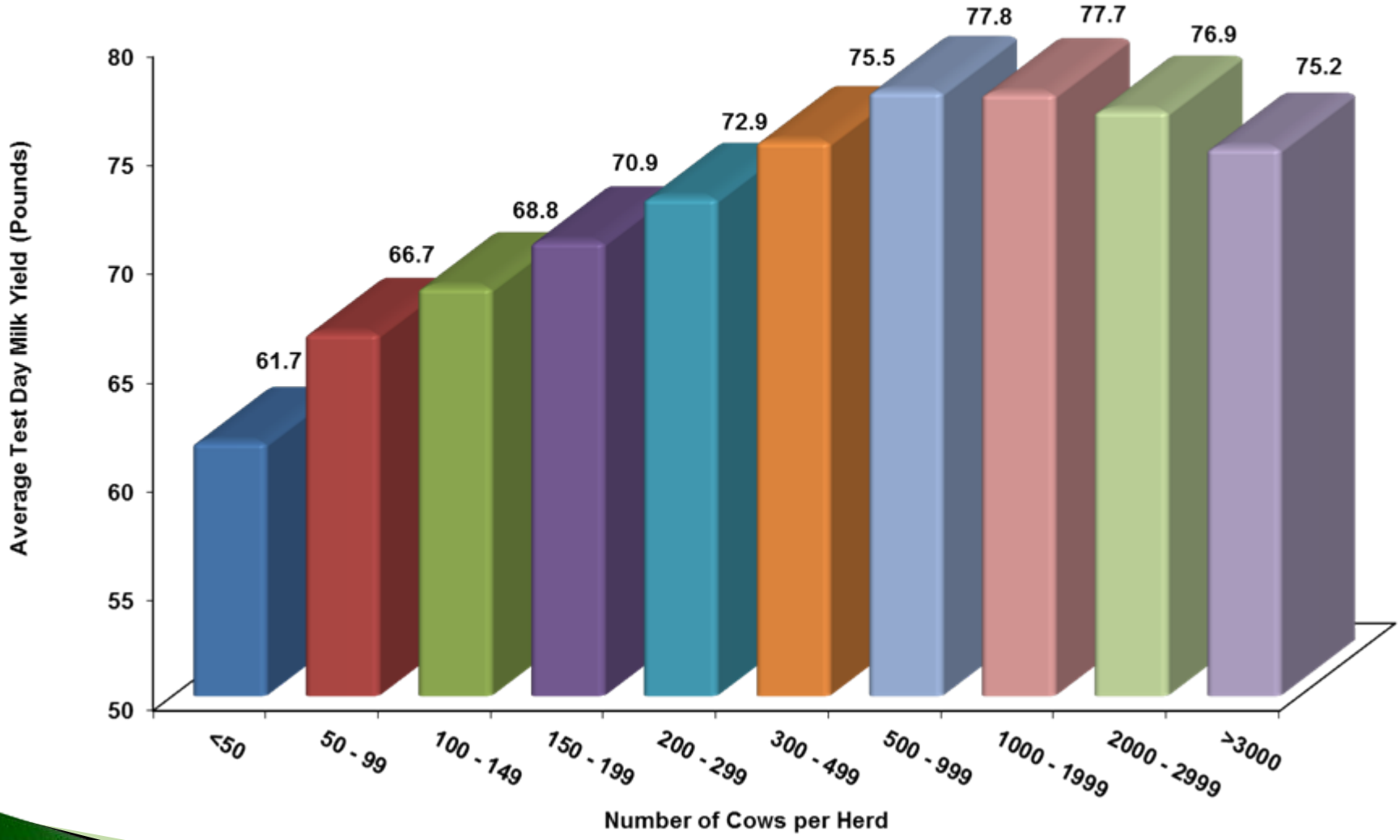
Average Test Day Milk Yield Relative to Herd Size During 2011



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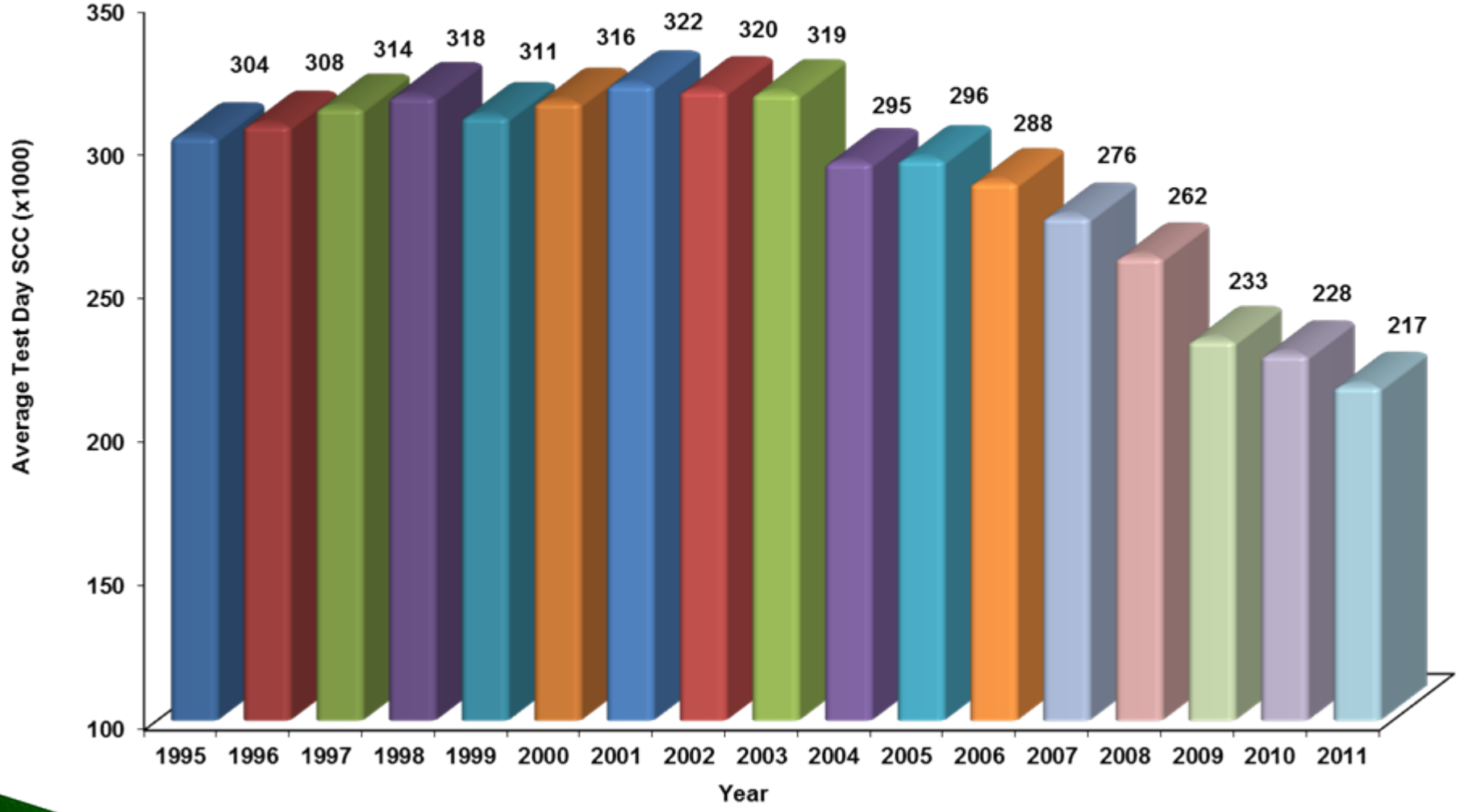
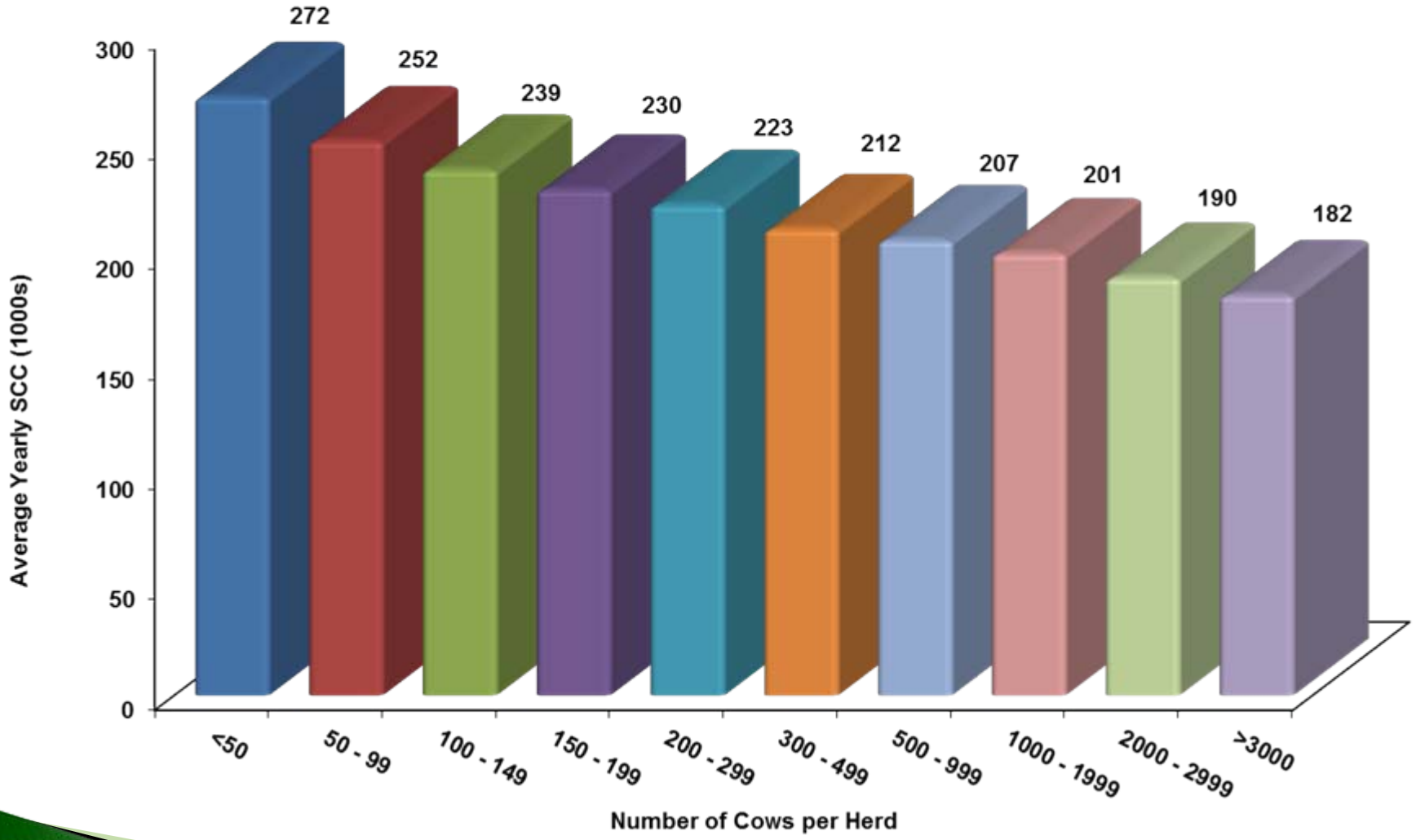
Average SCC of DHI Herds



NATIONAL DHIA

Average SCC of DHI Herds During 2011



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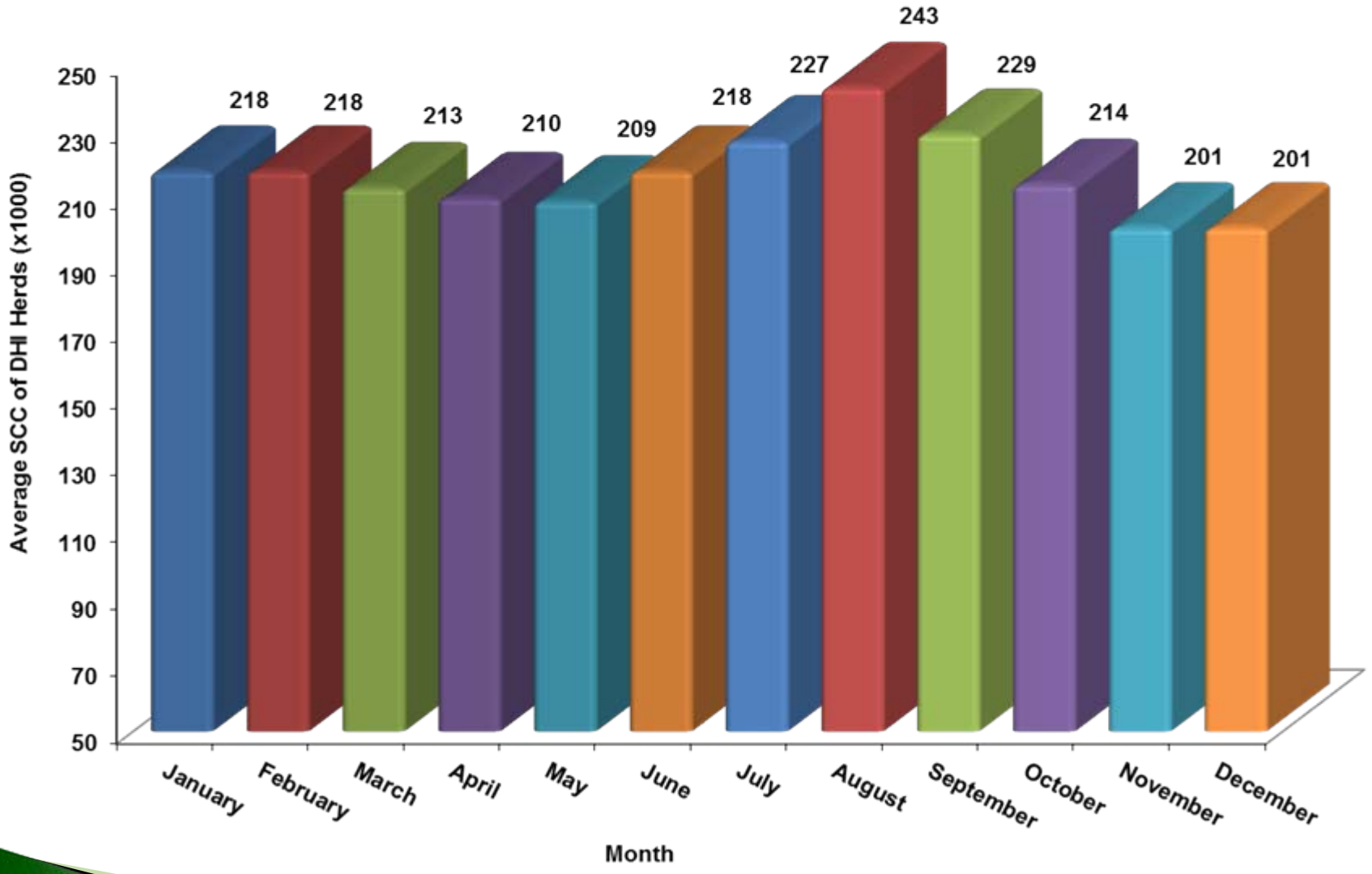
Average Monthly SCC of DHI Herds in 2011



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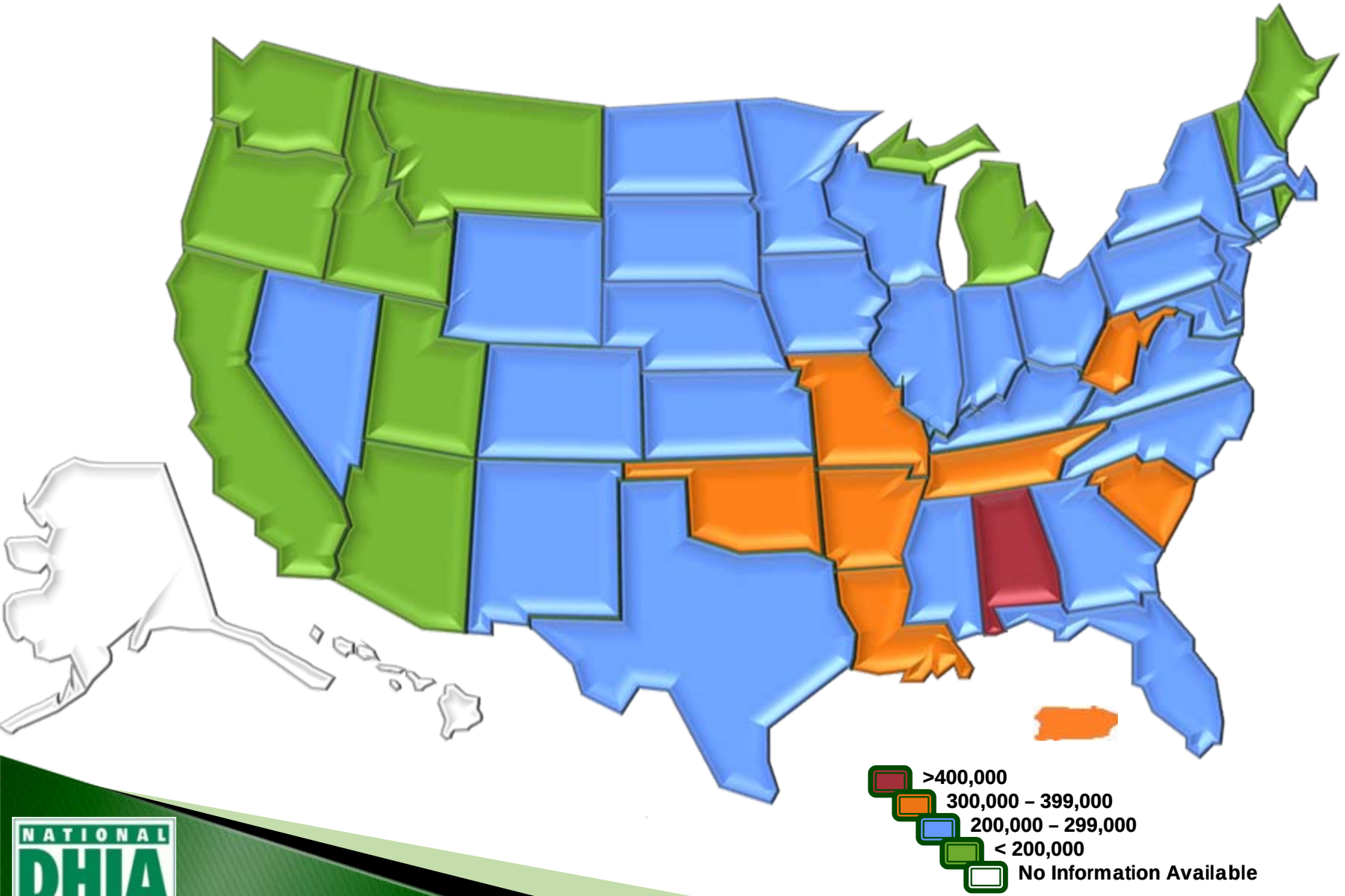
Yearly Average SCC of DHI Herds During 2011



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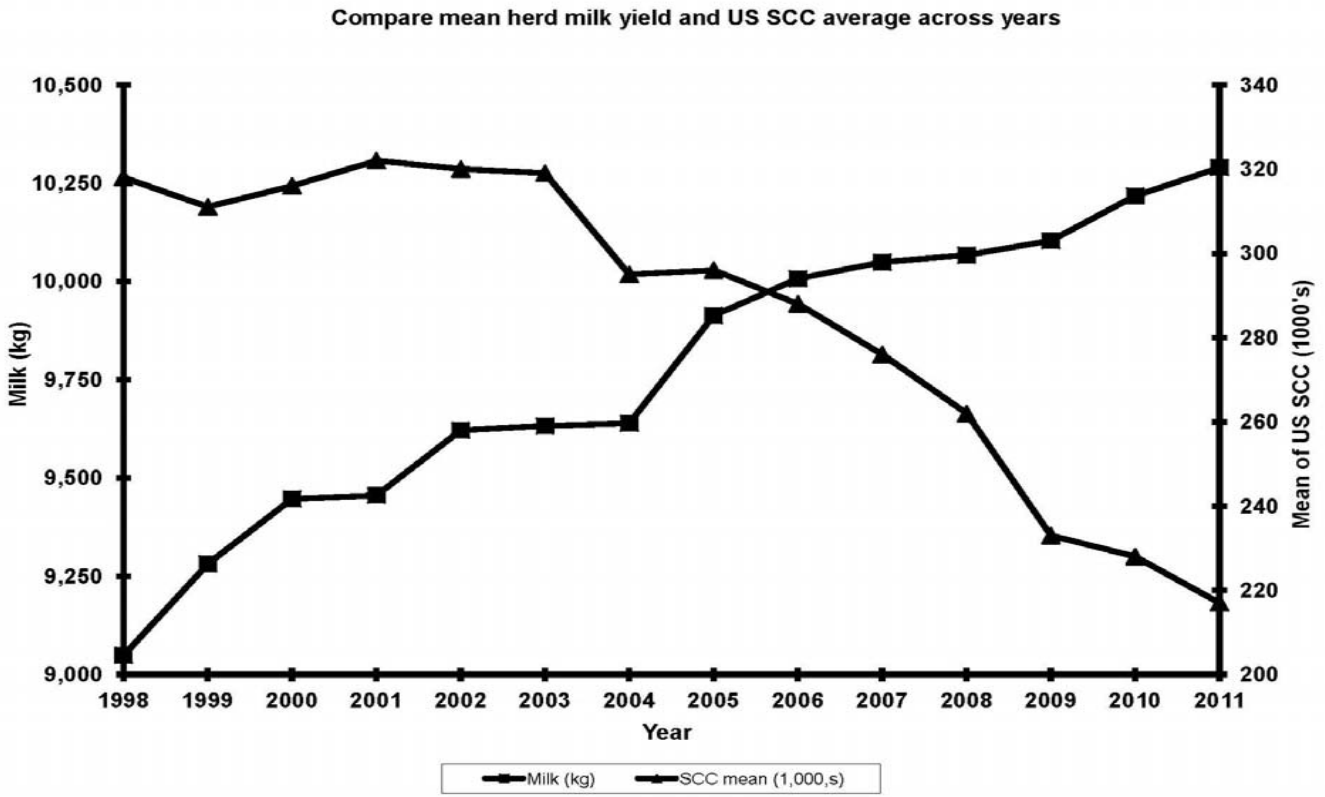
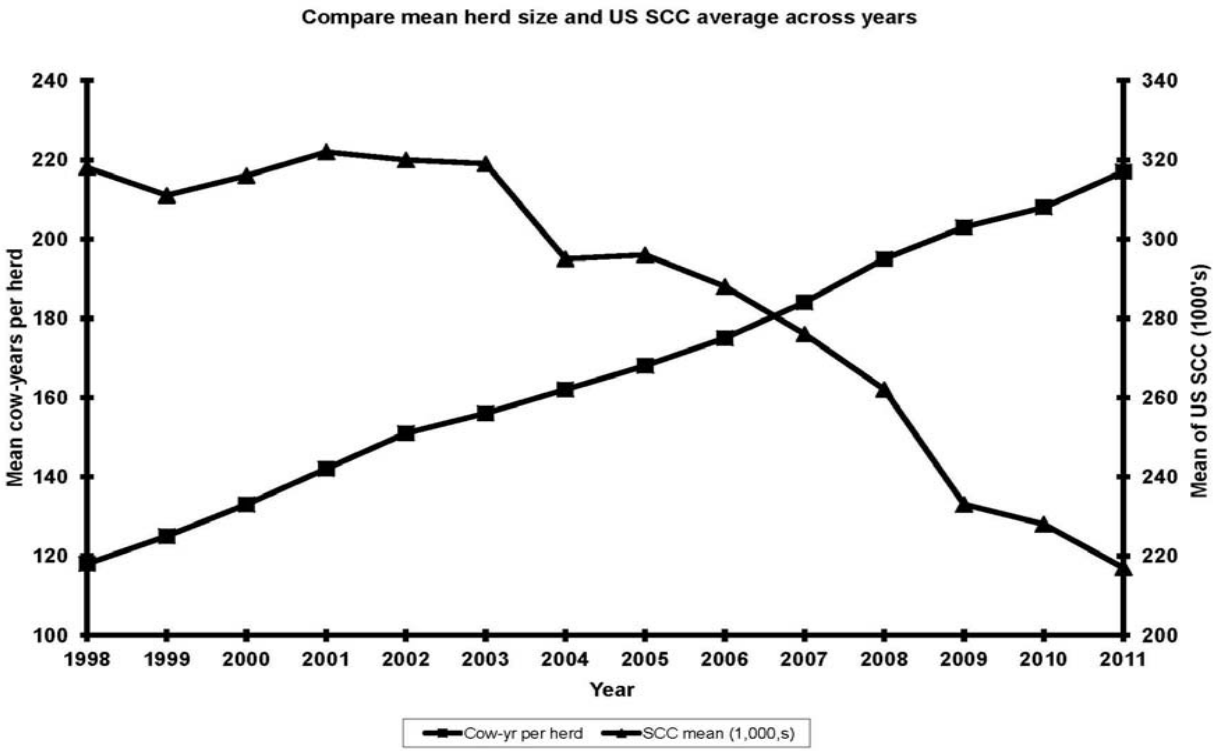
Mean Herd Yield and US SCC

New_Mattison2



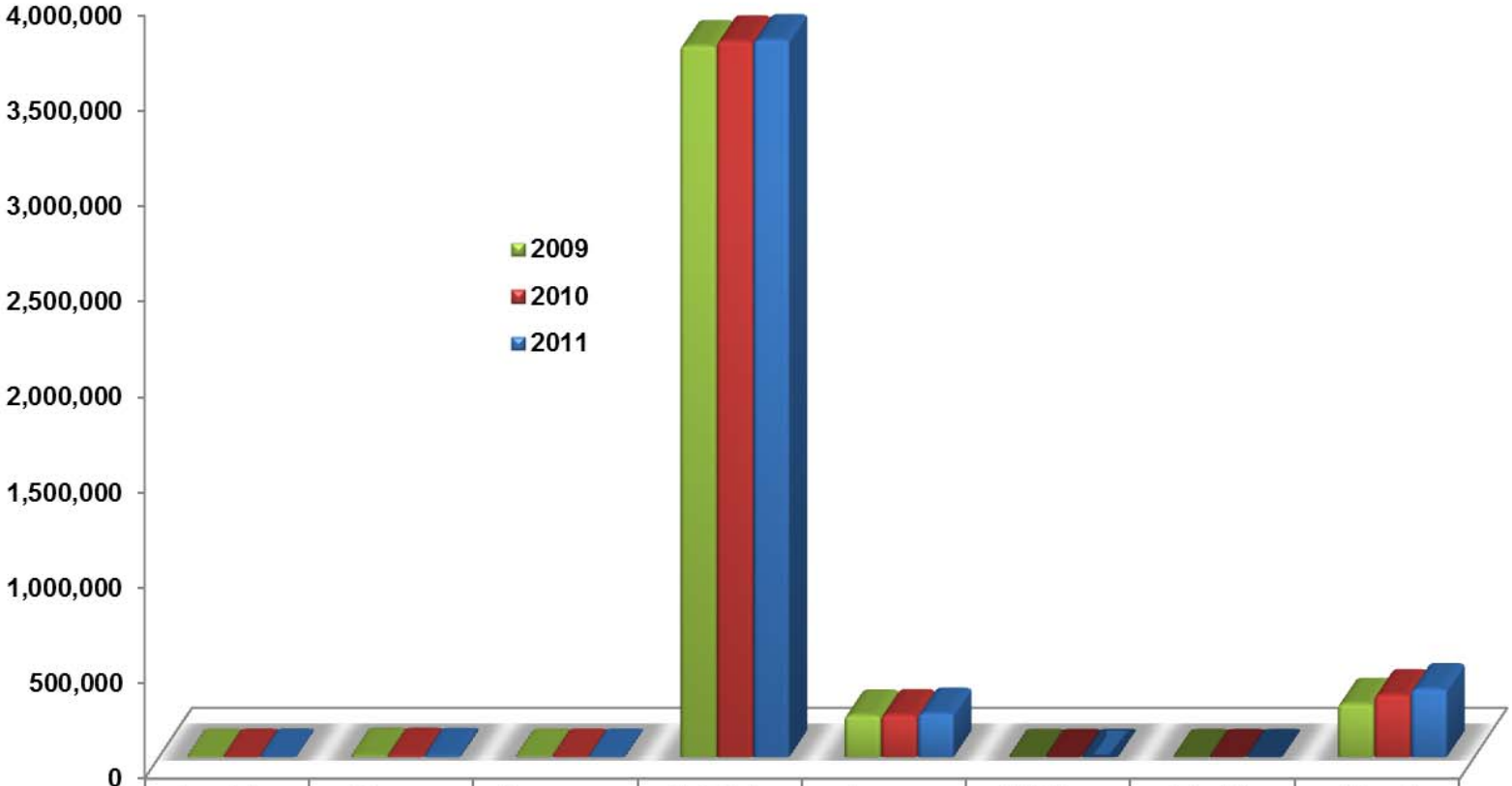
Mean Herd Size and U.S. SCC

New_Mattison1



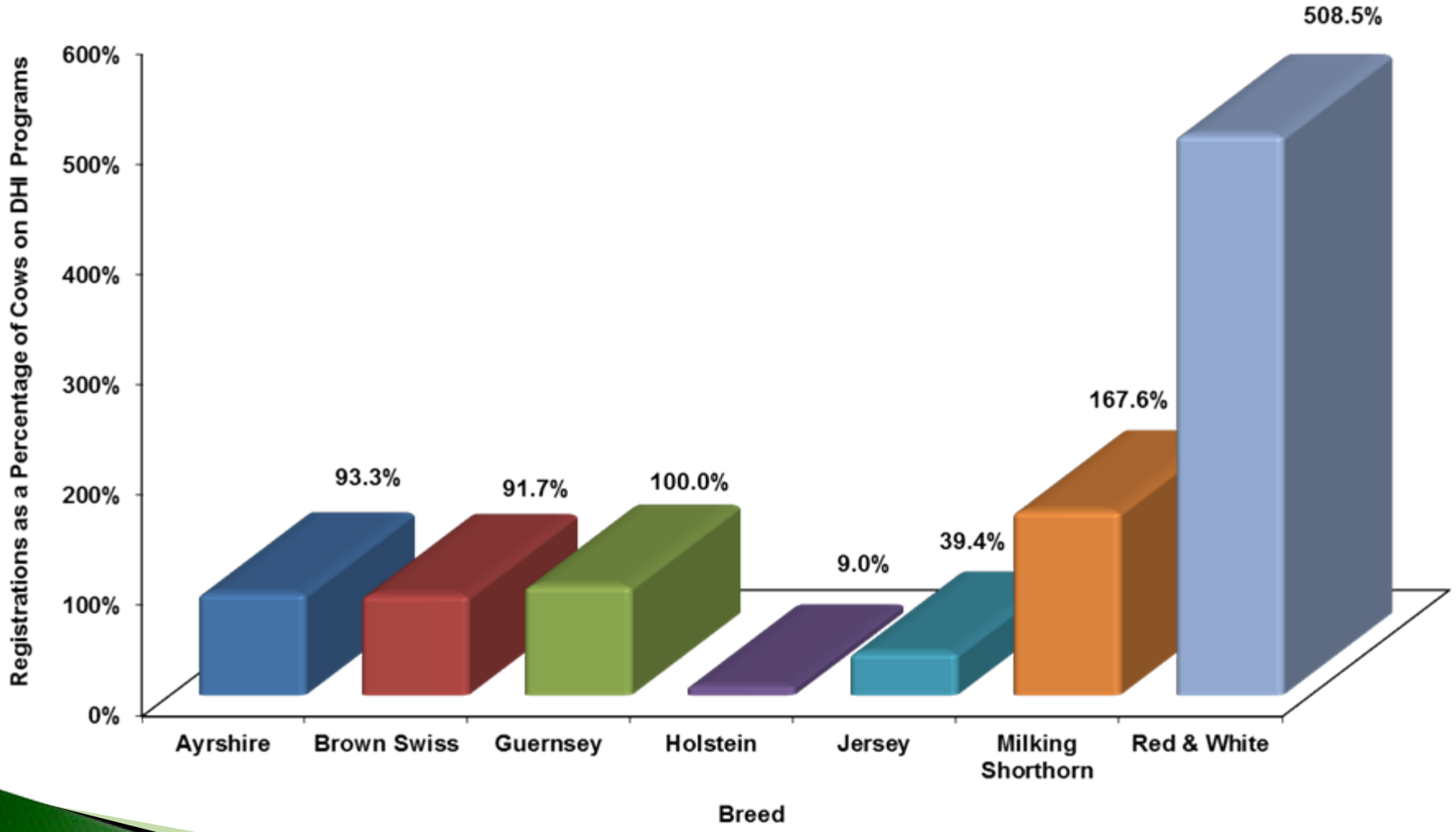
Page 1

DHI Participation by Breed During 2011



	Ayrshire	Brown Swiss	Guernsey	Holstein	Jersey	Milking Shorthorn	Red & White	Mixed
2009	4,865	12,086	5,904	3,729,507	220,419	1,461	999	280,709
2010	4,397	12,002	5,242	3,754,087	221,986	1,544	932	326,453
2011	4,430	11,617	4,842	3,760,741	229,326	1,780	797	358,065

Breed Registrations Relative to DHI Participation



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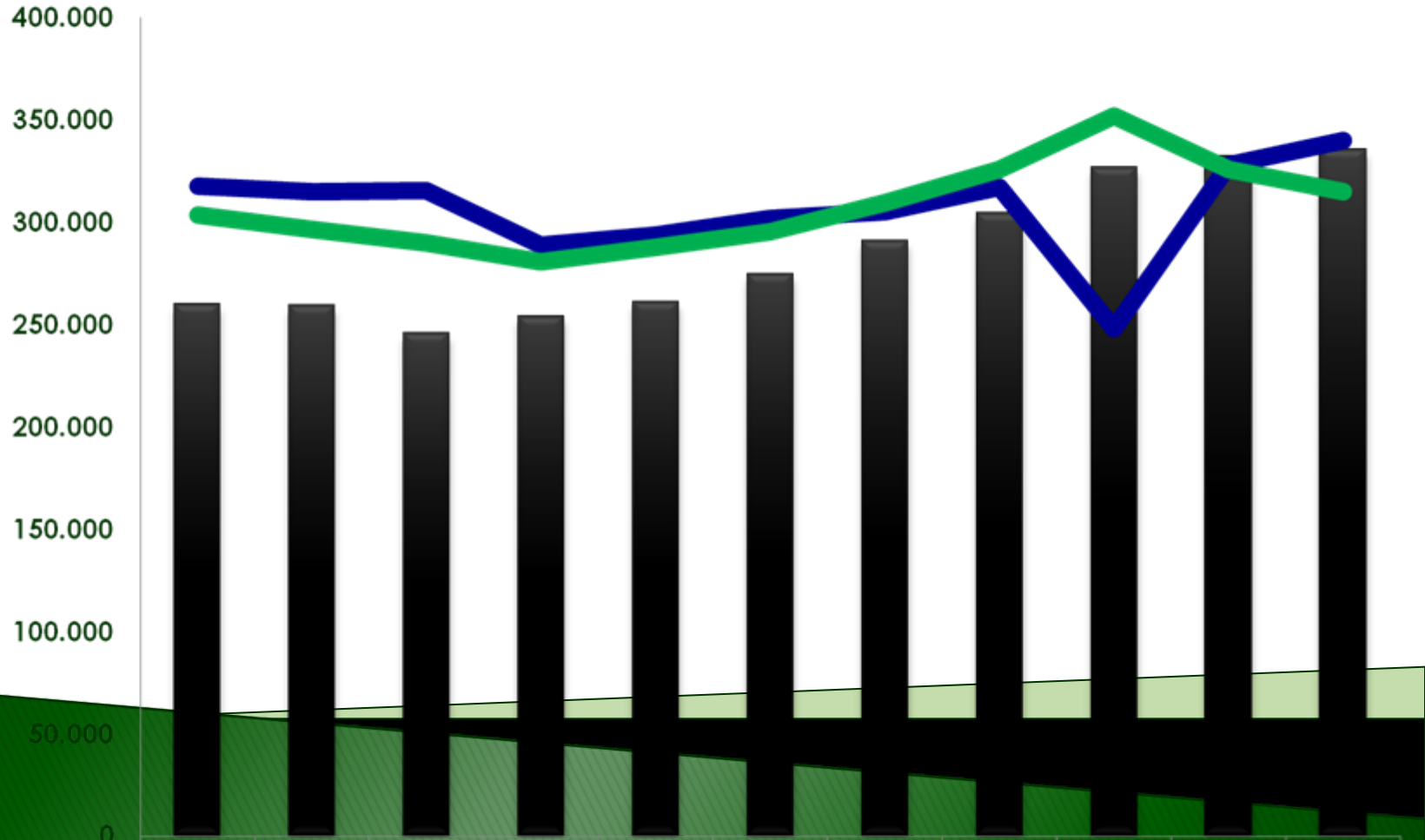
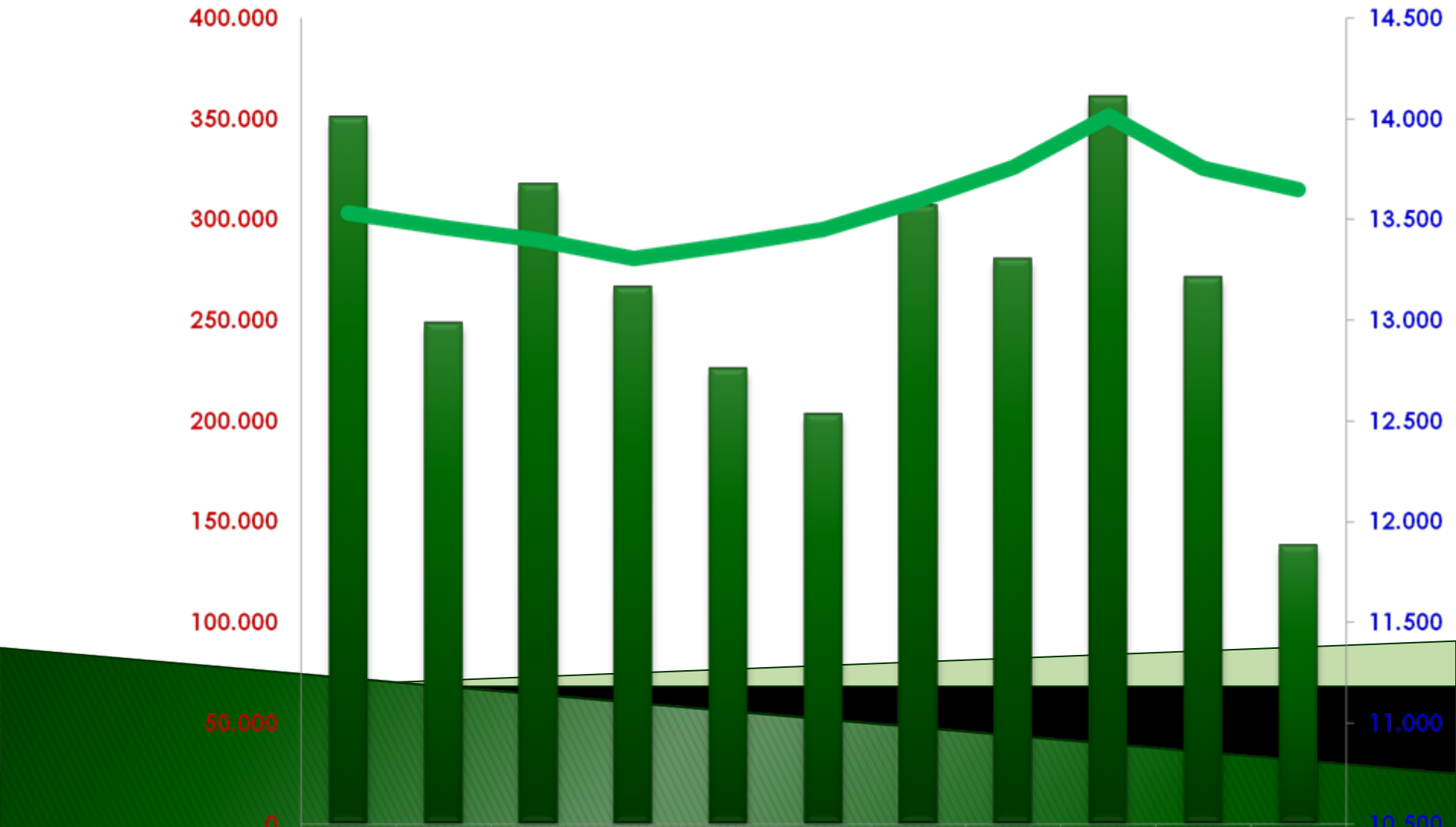
Holstein USA Registration, Classification & Testing Activity 2000-2010



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Reg. Holsteins on DHI	260.126	259.627	245.779	253.770	260.969	274.620	290.965	304.339	326.714	332.378	335.665
Total Registrations	317.567	314.864	315.488	288.841	293.527	301.852	305.143	317.128	248.033	327.662	339.908
Animals Classified	303.538	296.213	289.952	280.549	287.517	295.347	309.623	325.915	351.699	325.715	315.105

Holstein USA Classification Activity
2000-2010



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Herds classified	14.008	12.989	13.680	13.166	12.762	12.534	13.574	13.305	14.112	13.216	11.886
Animals Classified	303.538	296.213	289.952	280.549	287.517	295.347	309.623	325.915	351.699	325.715	315.105

A unit of semen is really –

Data

In a plastic straw

Dairy Farming (milk production)

- Is a mix of genetics and management
- Production of calf and milk

Here are the words….

Its another great day to be alive…

Here are the words….

To FEED, BREED and CARE for animals to provide protein and fiber production…..

Here are the words….

Now take the data shown:
(Show me the data…)

Manage the animals both through management and genetics…

Here are the words….

Now take the socio-economics:
(Show me the money…)

To realize the value and economic return that can be achieved.

The DEMAND For DAIRY INFORMATION –

The DATA DRIVEN FUTURE

Dairy Farming (milk production)

- Is a mix of genetics and management
- Production of calf and milk

Thank you