



Characterizing Changes in Bovine Veterinary Medicine in Missouri

Veterinary Research
Scholars Program
University of Missouri

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Background

- The number of food animal veterinarians is slowly declining
- Food animal veterinarians are beginning to offer new specialized services
 - Herd health
 - Reproductive management
 - Nutritional consulting and management
 - Herd production records management

Hypothesis

Incorporating specialized services into food animal practice allows veterinarians to improve profitability of their practice and clients' operations

Materials and Methods

Food animal veterinarians were surveyed regarding:

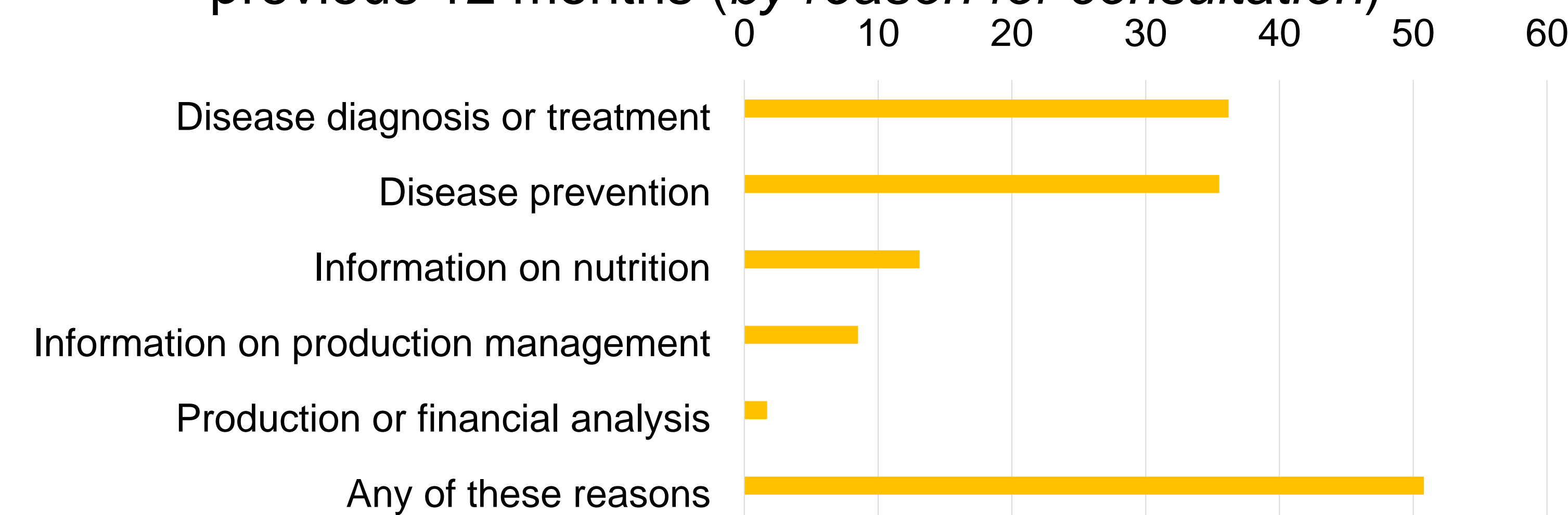
- Graduation date and practice type
- Income, client base, and workload
- Services they provide:
 - * Where they received training for services
 - * How long they have been providing services
- Client requests for services

Services Include:

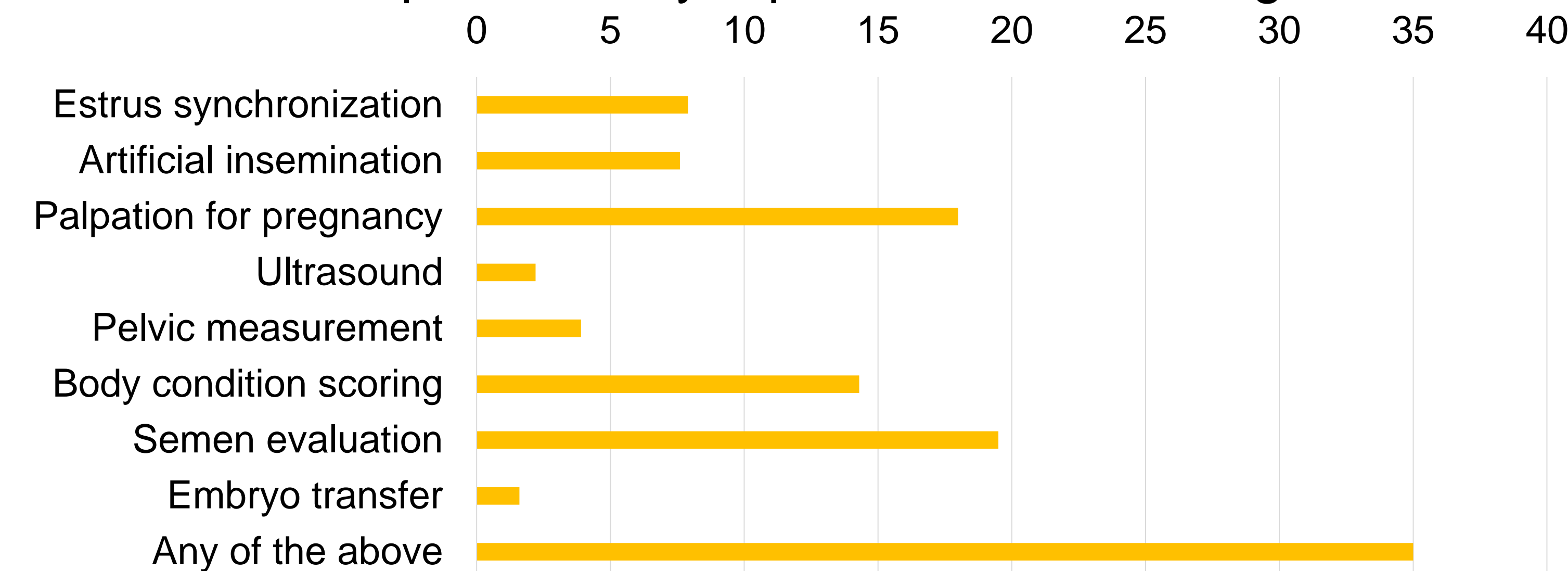
- Herd Health Services**
 - Individual Animal Care
 - Annual Herd Vaccinations
 - Disease Outbreak Investigation
- Reproductive Services**
 - Bulls – Breeding Soundness Exam
 - Heifers – Reproductive Tract Scoring and Pelvic Measurement
 - Mating and Sire Selection Consultation
 - Estrus Synchronization
 - Artificial Insemination
 - Pregnancy Diagnosis – Palpation, Ultrasound, Fetal Sexing, Fetal Aging
 - Embryo Transfer
 - In vitro Fertilization
- Nutritional Consulting and Management**
 - Pasture Management
 - Ration Formulation/Evaluation
 - Mineral Supplement Formulation
 - Forage Sampling
- Herd Production Records Management**
 - Treatment Records
 - Body Condition Scoring
 - Input regarding Breeding Objectives
 - Calving Records
 - Dairy Production Records
 - Calf Weight or Yearling Weights, Rate of Gain
 - Heifer Development
- Other**
 - Facility Design
 - Marketing
 - Genotyping

National Animal Health Monitoring System Beef 2007-2008

Percentage of operations that consulted a veterinarian during the previous 12 months (by reason for consultation)



Percent of operations by reproduction technologies used



Research Questions

Services Provided:

- What impact have state-wide or national programs had on the adoption of new veterinary technologies?

Salary:

- Does the salary of food animal veterinarians reflect the adoption of specialized services, or is it simply an effect of supply and demand?

The Shortage of Food Animal Veterinarians:

- Has an increase in use of specialized services affected the availability of food animal veterinarians to make farm calls when emergencies arise?

Veterinary Education:

- Are veterinary schools adequately preparing students to enter food animal veterinary practice?

Acknowledgements/Funding

USDA National Institute of Food and Agriculture, Animal Health project 1008625



Show-Me-Select™ Beef Heifer Replacement Program

(First state-wide on-farm beef heifer development and marketing program in the nation.)

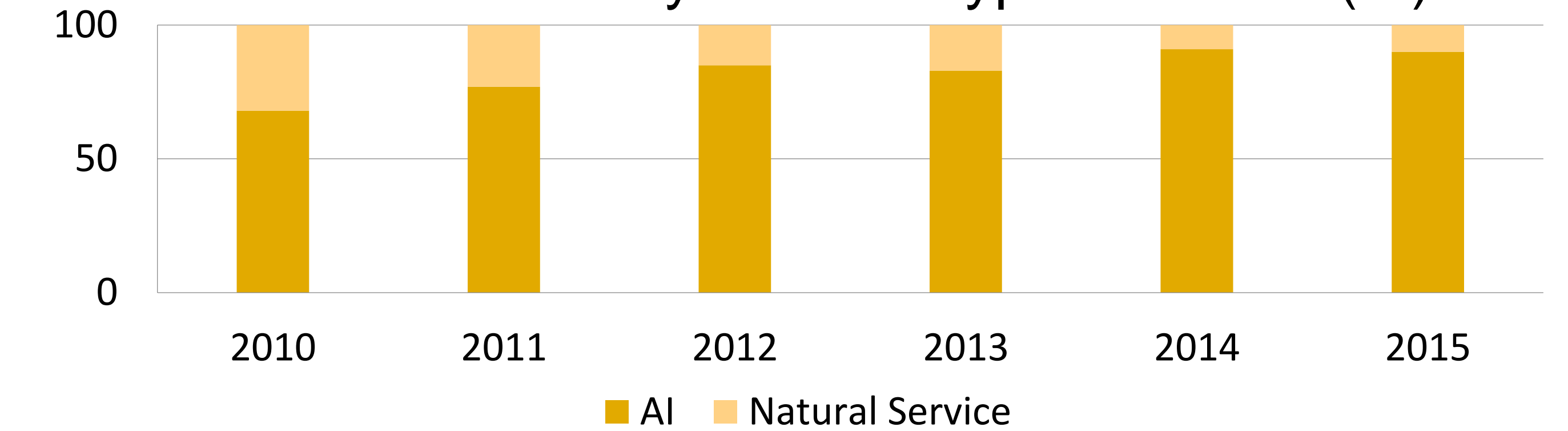
Program Requirements:

- Ownership
- Vaccination Requirements
- Pre-breeding Evaluation
- Pregnancy Diagnosis (fetal aging and sexing)

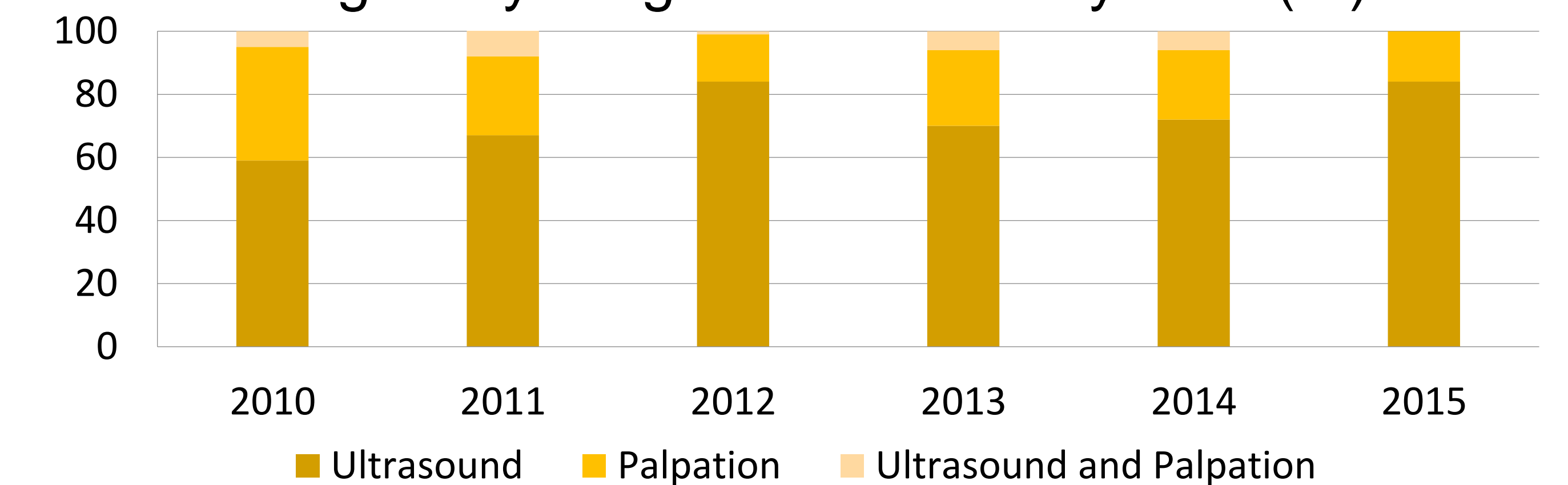
Program Benefits Since 1996:

- 826 farms participating
- 271 veterinarians involved
- 125,091 heifers enrolled
- 31,265 heifers sold into 19 states
- >\$120,000,000 contributed to Missouri's economy

Heifers Enrolled by Service Type and Year (%)



Pregnancy Diagnosis Method by Year (%)



Direct benefits for producers:

- From 2010-2016, AI-sired heifers carrying AI-sired pregnancies sold on average for \$292 more than non-AI sired heifers bred to natural service sires

Resources

National Animal Health Monitoring System. Part II. Reference of Beef Cow-calf Management Practices in the United States, 2007-2008. USDA Animal and Plant Health Inspection Service, Veterinary Services; 2009.

Locke JWC, Thomas JM, Bishop BE, Abel JM, Pooch SE, Brown DS, Decker JE, Patterson DJ. The show-me-select replacement heifer program: Adding value to beef herds in Missouri. J. Anim Sci 2016; 94 (Suppl s5):271.