



***Economic Impacts of Connecticut's
Agricultural Industry
Update 2015***

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by

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Objectives

1. Update estimates of the impact of Connecticut's agricultural industries on the state's economy to 2015.
2. Assess changes in these industries between 2007 and 2015.

Definition of the Agricultural Industry

- **Sectors Included:**

- Crop and livestock production
- Forest products
- Processing of the state's agricultural production

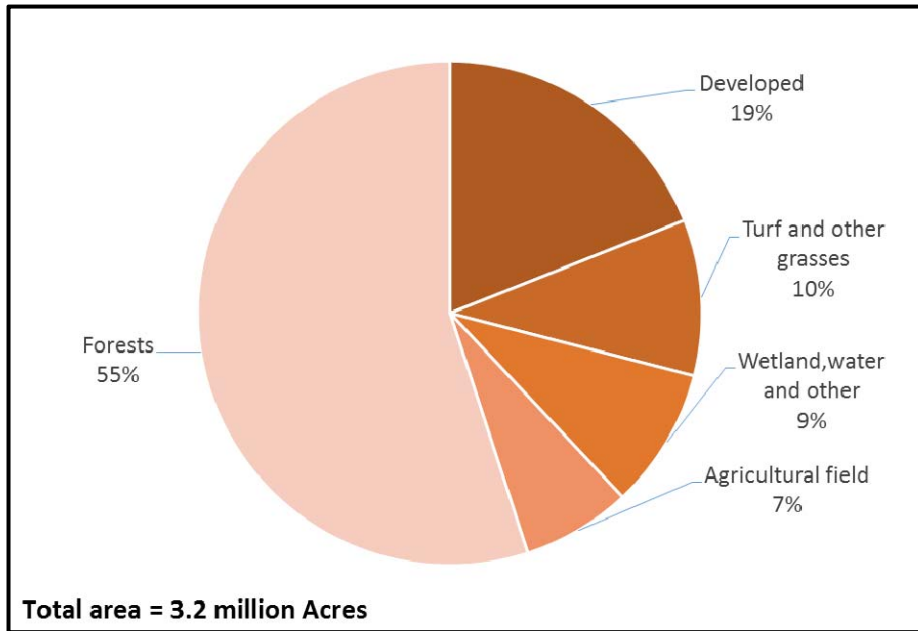
- **Sectors excluded:**

- Landscaping and ground keeping services
- Veterinary services
- Food and Beverage processing that does not use Connecticut agricultural products

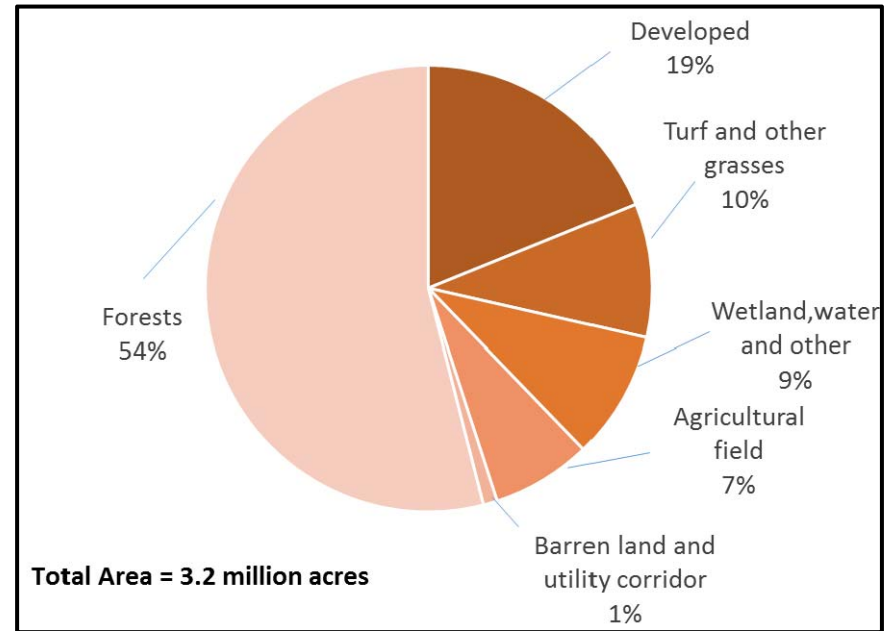
Connecticut Agriculture at a Glance

TOTAL LAND COVER IN CONNECTICUT

2006



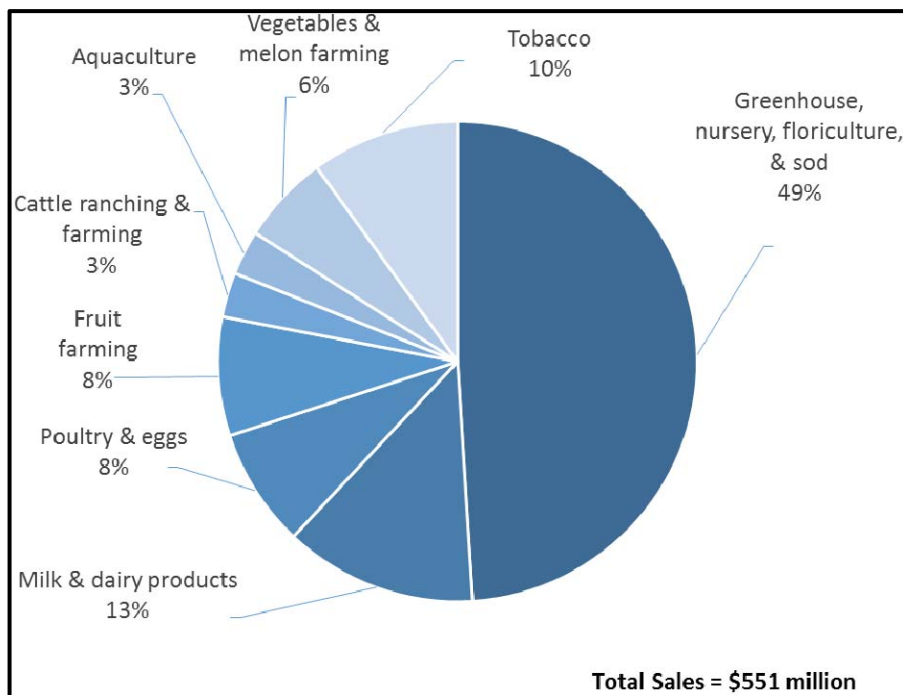
2015



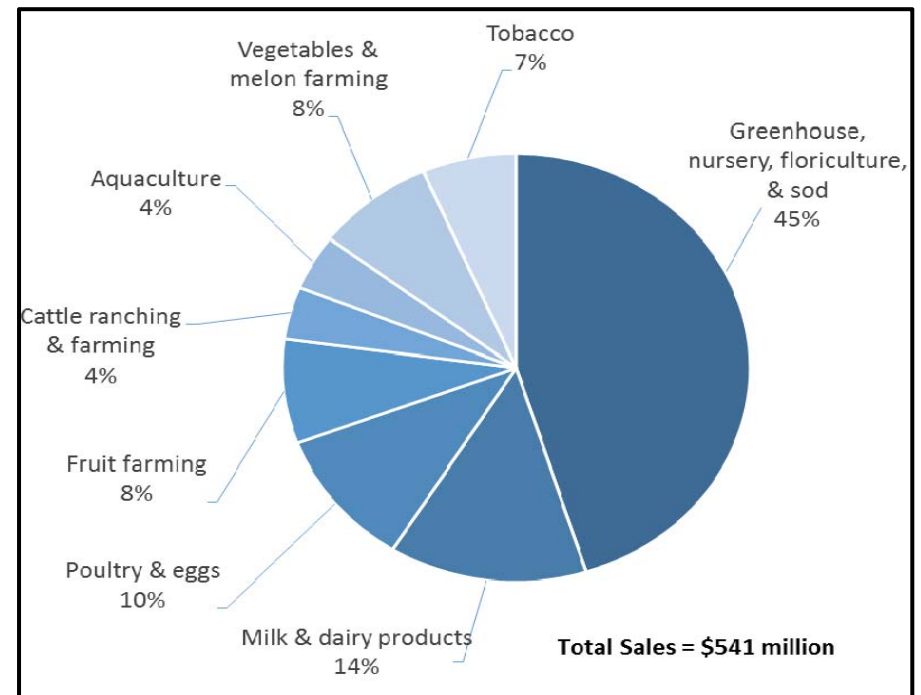
Connecticut Agriculture at a Glance

SALES OF FARM PRODUCTS

2007



2015



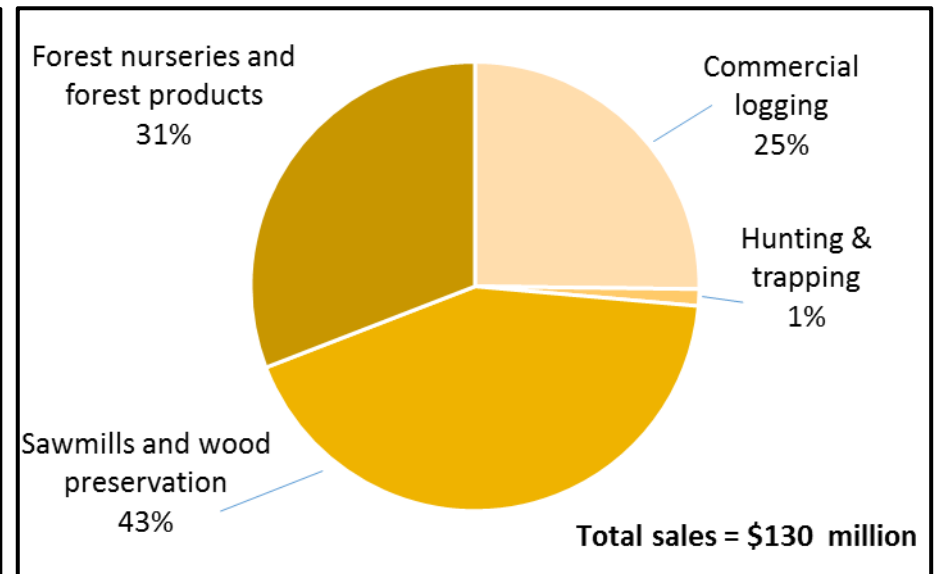
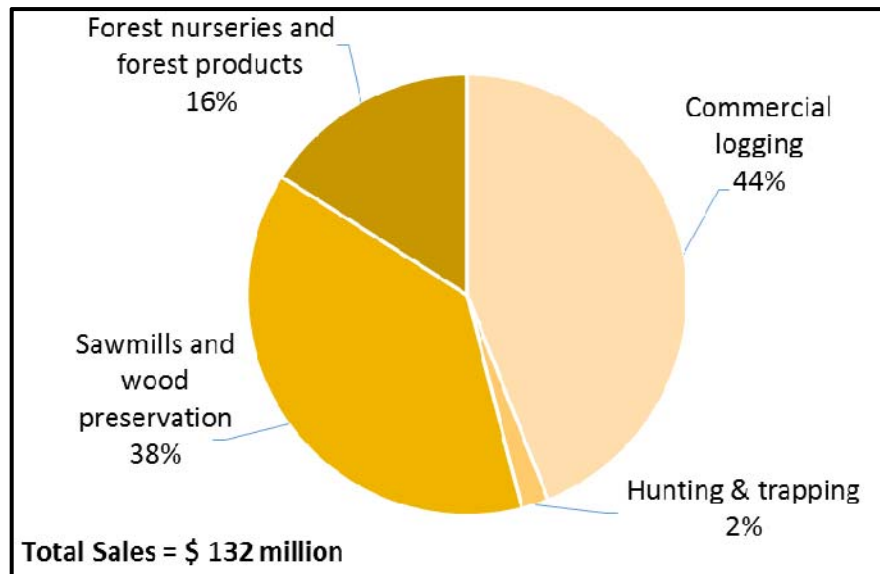
Source: USDA (2007), IMPLAN (2015).

Connecticut Agriculture at a Glance

SALES OF FOREST PRODUCTS

2007

2015

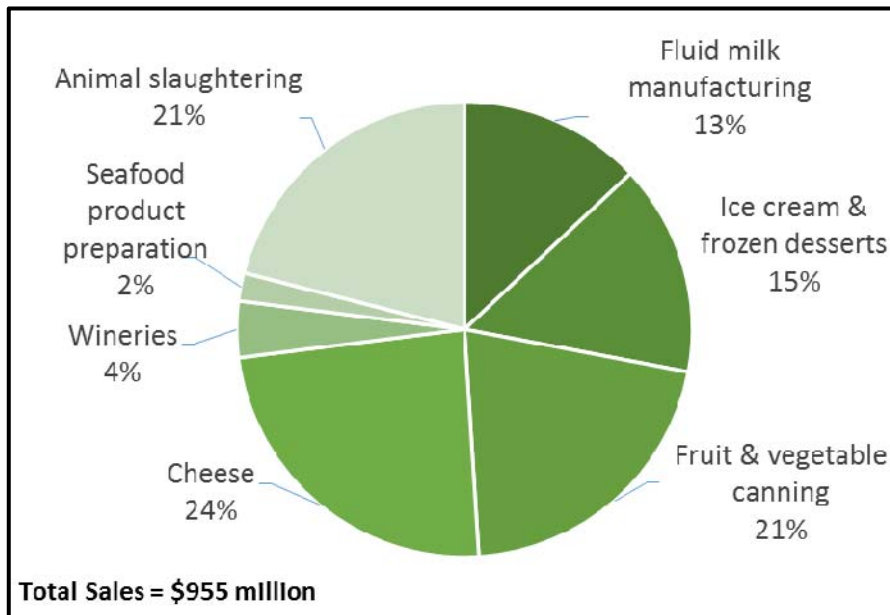


Source: Federal government data as reported in IMPLAN (2007, 2015).

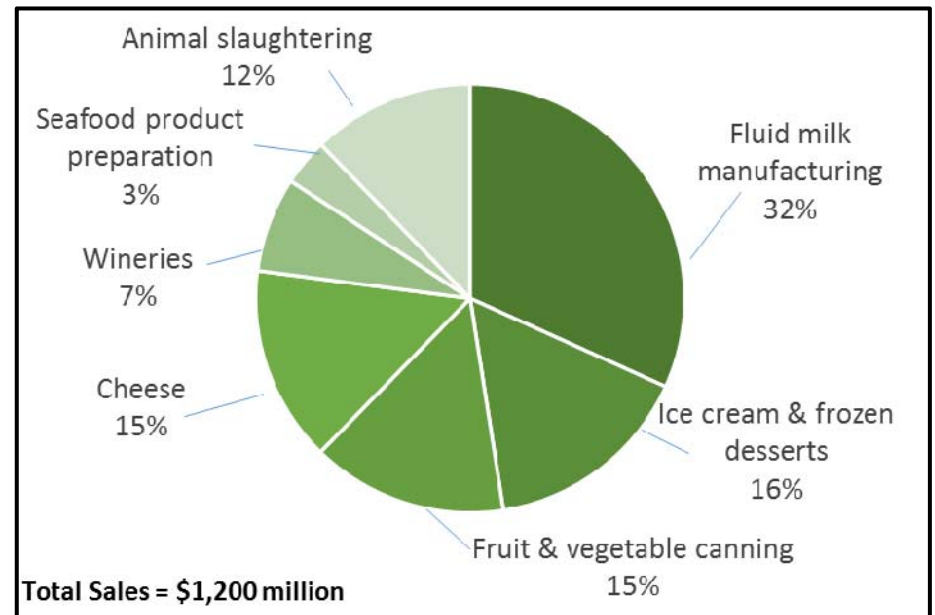
Connecticut Agriculture at a Glance

SALES BY AG PROCESSING SECTORS

2007



2015



Source: Federal government data as reported in IMPLAN (2007, 2015).

Indicators of impacts

- We use direct sales from Connecticut's agricultural industries in 2015 as input data
- ECONOMIC MODELS
 1. **IMPLAN** (Impact analysis for PLANing) from a Minnesota company
 2. **RIMS II** (Regional Input - Output Modeling System) from the Bureau of Economic Analysis
 3. **REMI** (Regional Economic Modeling, Inc.) fuller economic model
- Here we only present IMPLAN results
- Detailed IMPLAN and RIMS results provided in the handouts

Indicators of impacts

- **Five indicators of impact on the state's economy**

- Sales

- Jobs

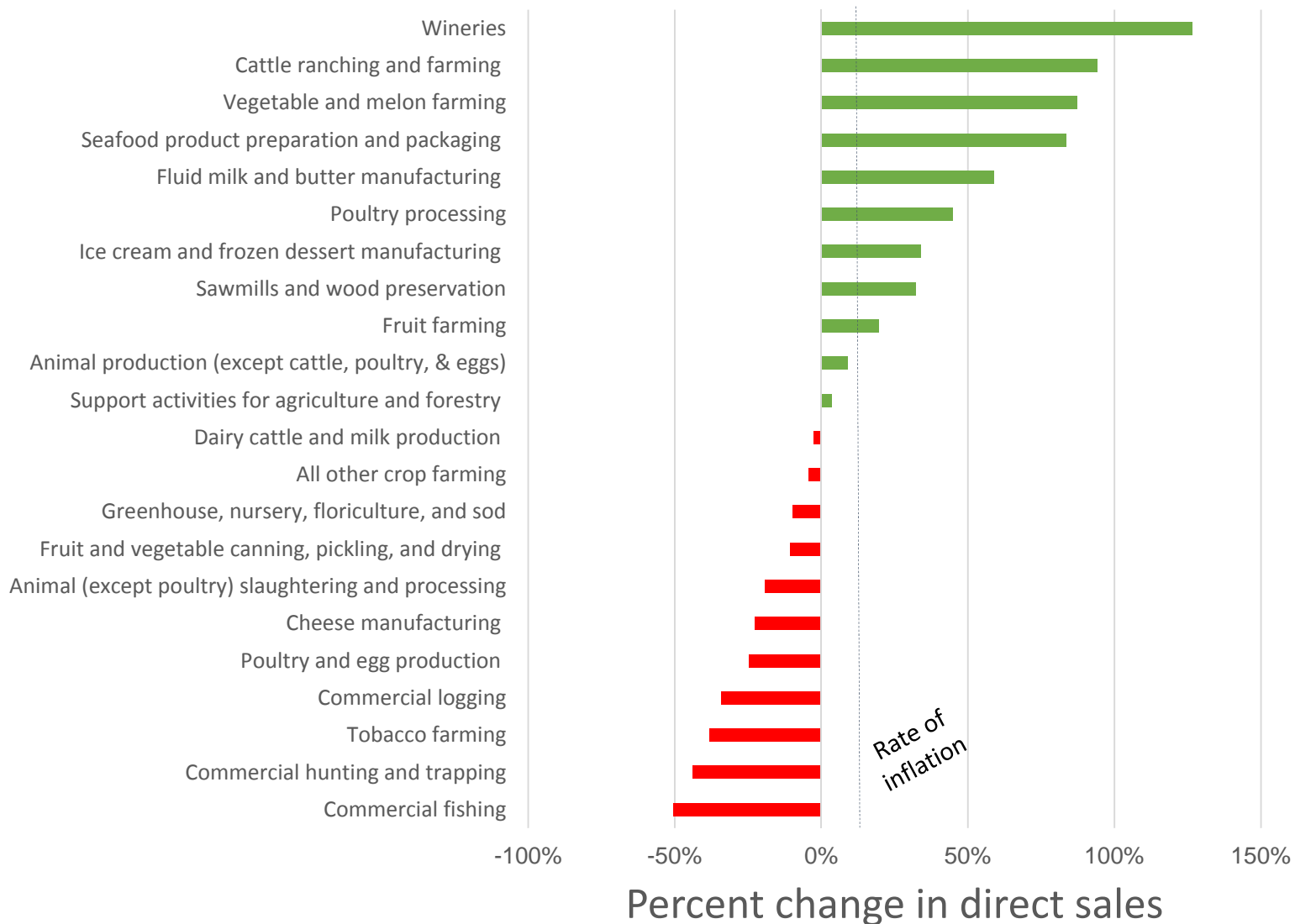
- Wages

- Value added

- Taxes

Direct sales changes 2007 to 2015 Nominal dollars

Percent change in direct sales from 2007 to 2015 by sector



Results – Impacts on sales

| Sector | Billion dollars | | 2015-2007 Change |
|------------------------------------|-----------------|------|---------------------|
| | 2007 | 2015 | |
| Agricultural and forest production | 1.15 | 1.32 | 15% |
| Primary agricultural processing | 1.57 | 1.91 | 22% |
| Total for agricultural industry | 2.72 | 3.23 | 19% |

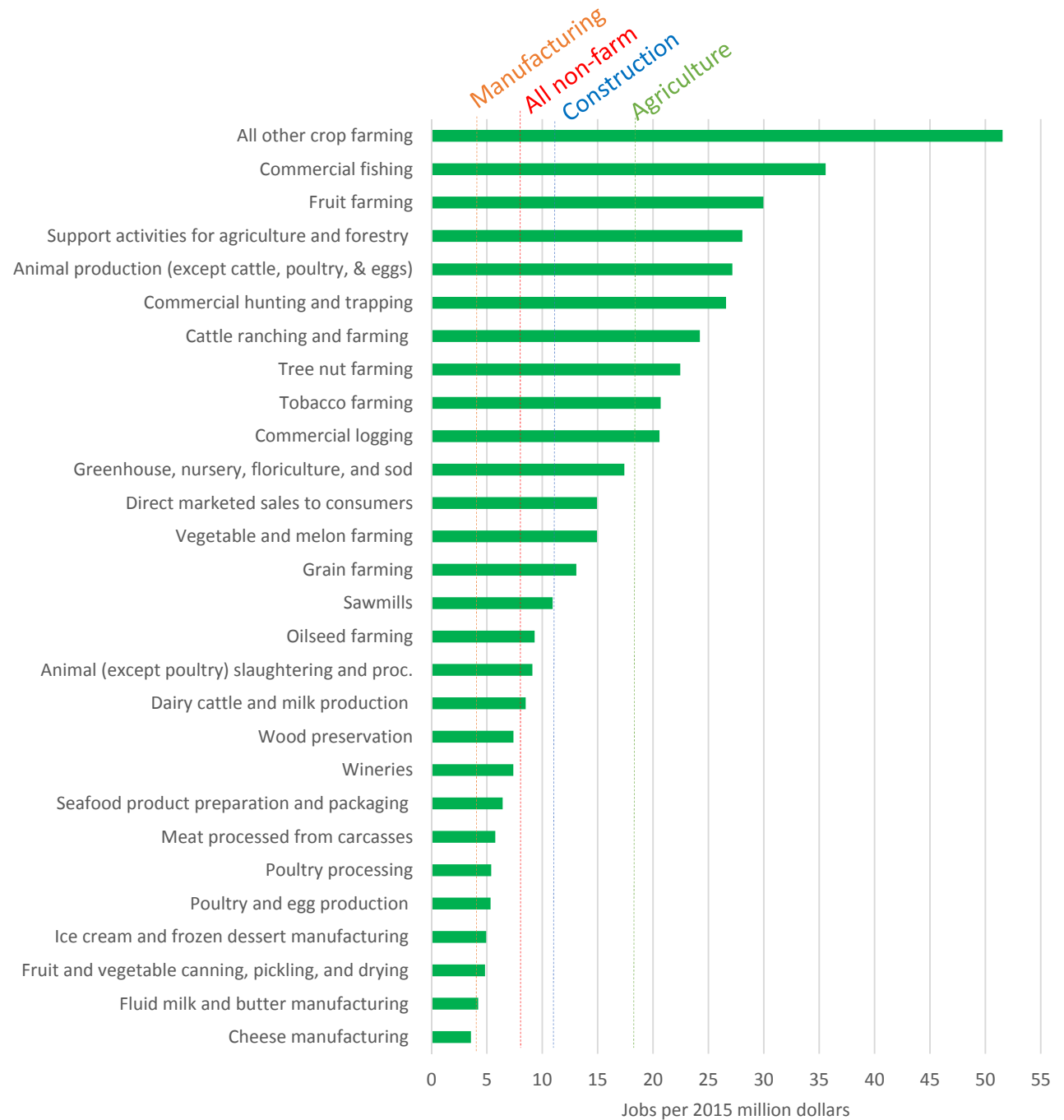
Results – Impacts on jobs

| Sector | Jobs | | 2015-2007 Change |
|------------------------------------|--------|--------|---------------------|
| | 2007 | 2015 | |
| Agricultural and forest production | 13,686 | 15,485 | 13% |
| Primary agricultural processing | 5,636 | 6,023 | 7% |
| Total for agricultural industry | 19,322 | 21,508 | 11% |

Connecticut's non-farm employment change (2015-2007): -0.62%

Labor intensity by sector

Jobs per 2015
million dollar
sales



Results – Impacts on wages (labor income)

| Sector | Million dollars | | 2015-2007 Change |
|------------------------------------|-----------------|------|---------------------|
| | 2007 | 2015 | |
| Agricultural and forest production | 295 | 428 | 45% |
| Primary agricultural processing | 261 | 348 | 33% |
| Total for agricultural industry | 556 | 775 | 39% |

Results – Impacts on value added

| Sector | Million dollars | | 2015-2007 |
|------------------------------------|-----------------|-------|-----------|
| | 2007 | 2015 | Change |
| Agricultural and forest production | 615 | 611 | -1% |
| Primary agricultural processing | 423 | 576 | 36% |
| Total for agricultural industry | 1,038 | 1,188 | 14% |

Results – Impacts on taxes

| Sector | Million dollars | |
|------------------------------------|-----------------------|-------------|
| | State & Federal taxes | State taxes |
| Agricultural and forest production | 37.17 | 33 |
| Primary agricultural processing | 43 | 38 |
| Total for agricultural industry | 80.26 | 71.18 |

Non-traditional impacts (new!)

- Agritourism
- Direct marketed sales to consumers
- Open space in agricultural land
- Carbon sequestration

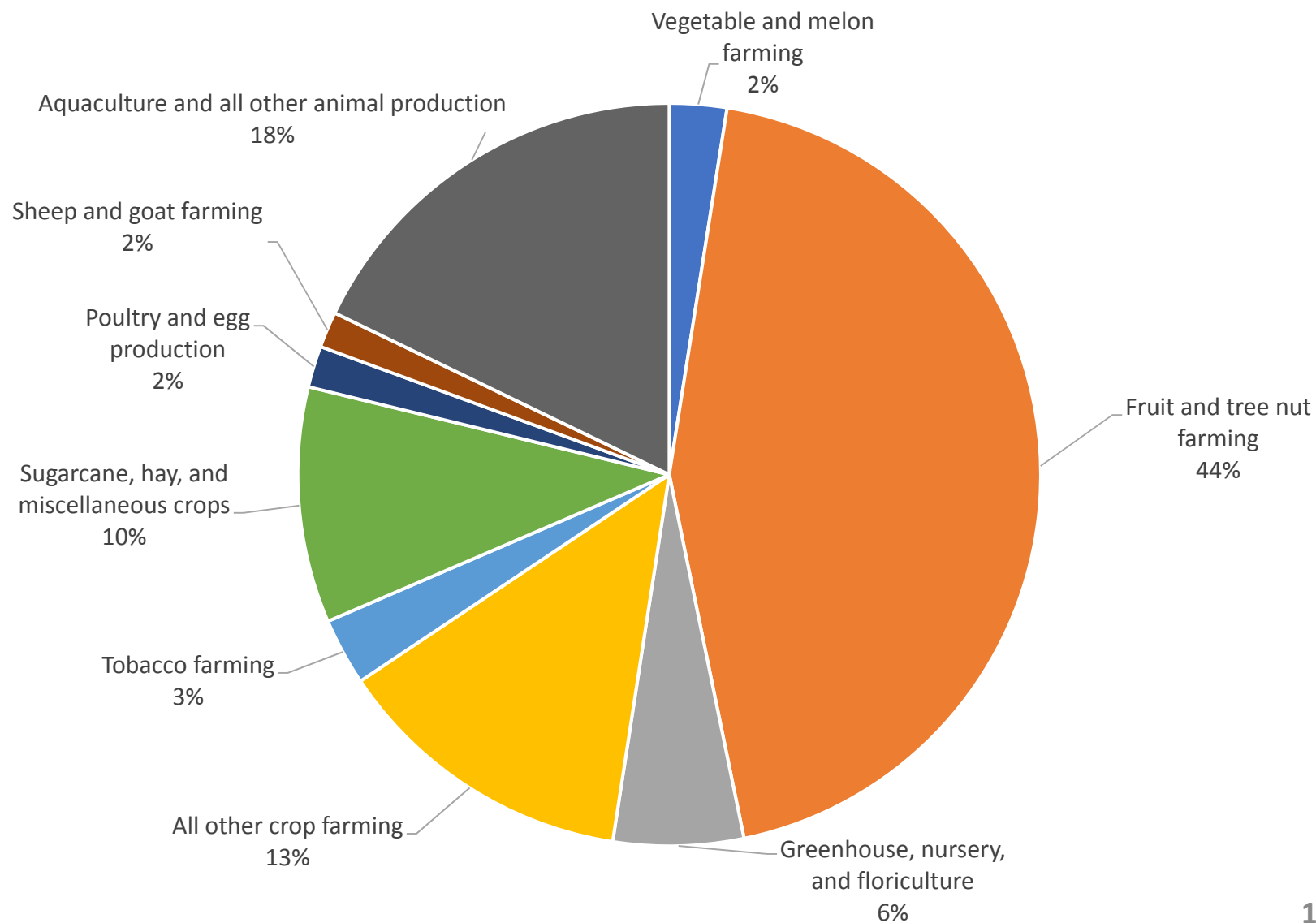


Photo credit: Activerain.com; Happy Acres Farm, Sherman CT.

Results – Impacts of direct farm sales to consumers and agritourism

| Sector | million dollars | | | | | Jobs |
|------------------------------------|-----------------|-------|-------------|-------------|-------------------------|------|
| | Sales | Wages | Value Added | State taxes | State and federal taxes | |
| Direct marketed sales to consumers | 74 | 21 | 35 | 1 | 1 | 653 |
| Agritourism | 16 | 6 | 10 | 1 | 1 | 165 |

Agritourism value by crop type, 2015



Results – Open space and CO₂ sequestration

- **Open space in agricultural land**

- 440,000 acres total
- Average WTP per CT household per (nearby) acre per year - **\$0.31** (2015)
- Estimated social benefits – requires future study but impacts are significant

- **Carbon sequestered on CT agricultural land**

- **14,900 metric tons CO₂** sequestered per year
- Social cost of carbon - \$13 - \$120/per metric ton CO₂e
- Value of externalities averted - **\$187,000 - \$1.8 million/year** (2015 dollars)

Conclusions

2015 IMPACTS ARE ESTIMATED AT:

- **\$3.20 billion to statewide dollar sales**
 - 17.64% increase since 2007
 - Approximately \$880 per resident
- **20,037 statewide jobs**
 - 9% increase since 2007
- **\$765 million to statewide wages (labor income)**
 - 38% increase since 2007
- **Non-Traditional Impacts**
 - Agritourism and direct sales to consumers generate \$90 million in state sales and 818 jobs
 - Open space dollar benefits are significant but unknown
 - Ag land CO₂ sequestration removes pollution from 3,170 cars

THANK YOU!

QUESTIONS?