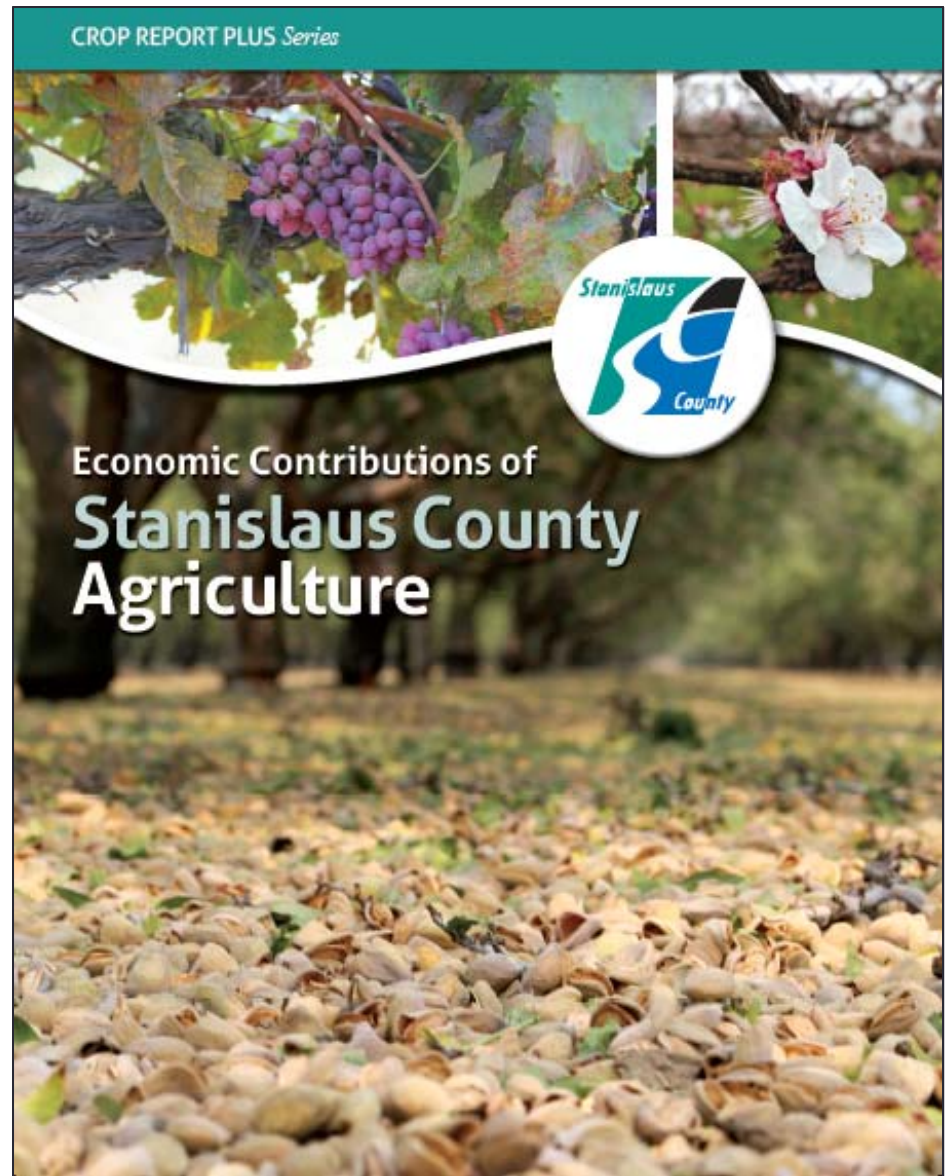


Economic Contributions of Stanislaus County Agriculture

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Dr. Jeff Langholz

*Modesto, CA.,
August 13, 2019*



Agenda

#1. Rationale


#2. Methods

#3. Findings



Why do this study?

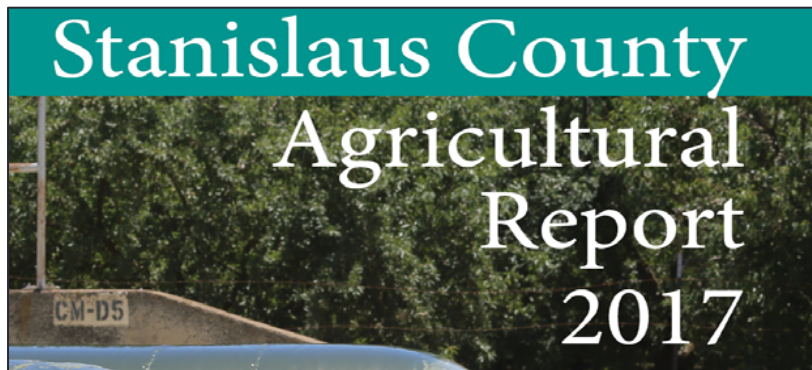
OLD QUESTION: *“What is the dollar value of agricultural production?”*



NEW QUESTION:
“What is agriculture’s
role sustaining a healthy
local economy?”

RATIONALE: new tools for an important mandate

Section 2279 of the *California Food and Agriculture Code* requires every county to report the “**value**” of agriculture



✓ Production (\$)



✓ Production (\$)
✓ Processing (\$)
✓ Multiplier Effects (\$)
✓ Employment

Agenda

#1. Rationale

#2. Methods

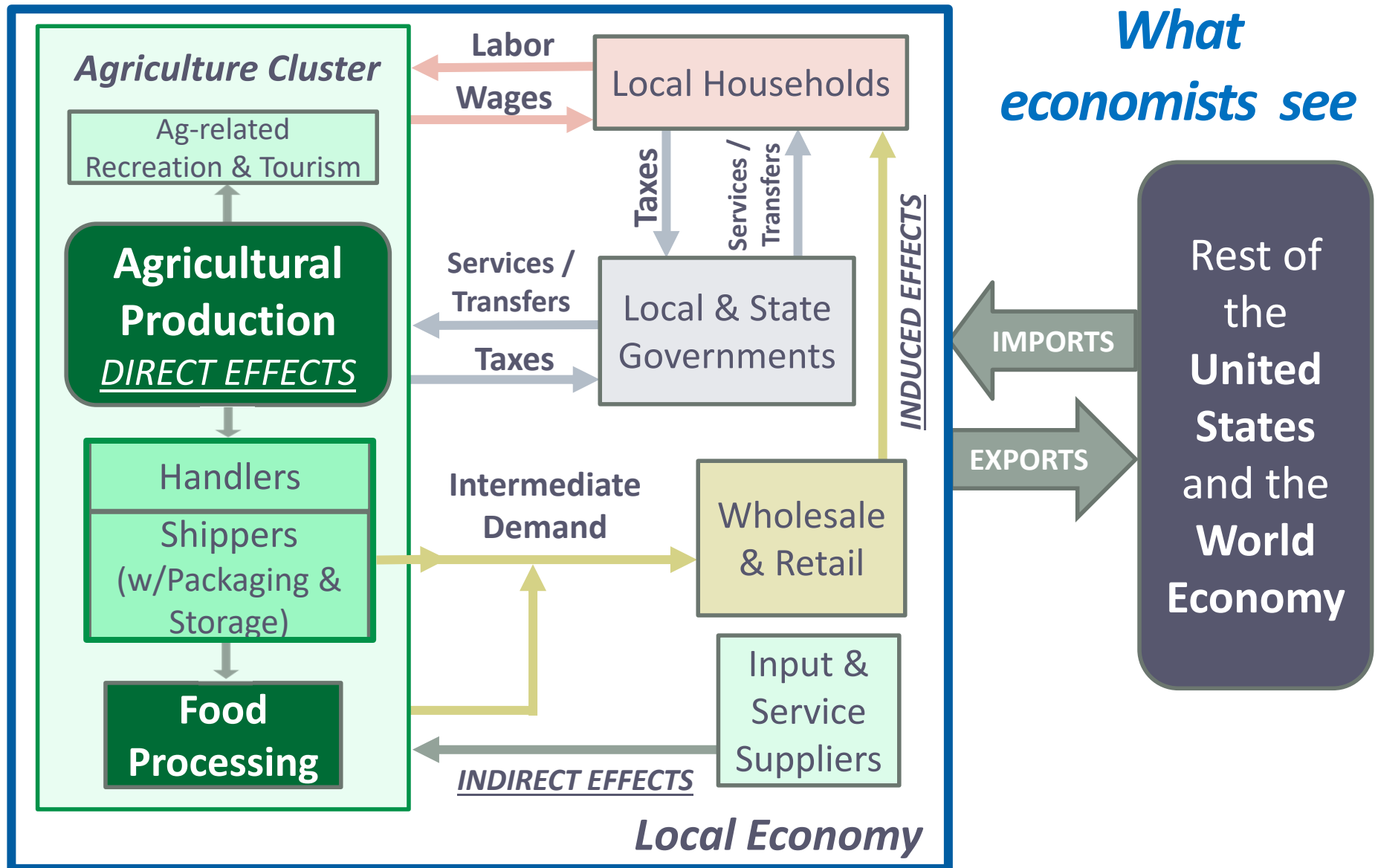
#3. Findings



Our Approach



The 'local economy' is a complex machine . . .



What the public sees . . .



two kinds of Multiplier Effects

INDIRECT:

Local “**business to business**” spending by Ag companies

vehicles, fuel, seeds, insurance, veterinary services, banking, fertilizer, chemicals, contract work, etc.



INDUCED:

Local “**consumer spending**” by Ag-related employees

groceries, health care, housing, utilities, clothing, transportation, education, entertainment, etc.



Agenda

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Total Output

Employment

Diversification



TOTAL Economic Output

\$7.148 billion

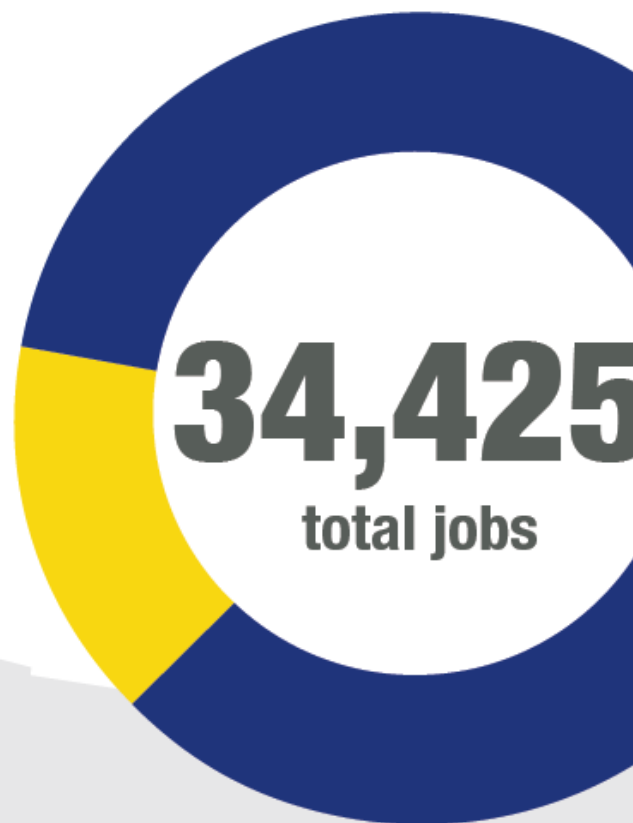
Stanislaus County Agriculture's total contribution to the local economy



Employment

5,233

additional jobs
attributable to
multiplier effects:
expenditures by
agricultural
companies and
their employees



29,192
direct employees



ONE in eight

The Value of Economic Diversification

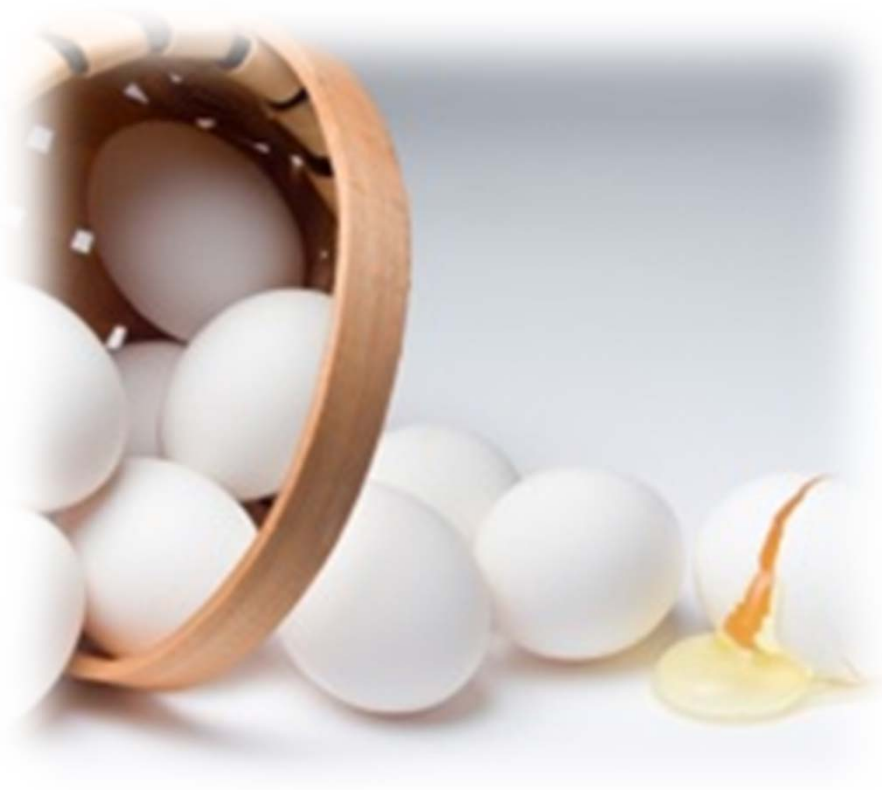
Why is diversification important?

How do we measure it?

What did we find?



Diversification: like an **insurance policy** against economic shocks:



- ✓ Price drops
- ✓ Disease outbreaks
- ✓ New regulations
- ✓ New competitors
- ✓ Price spikes for key inputs

Shannon-Weaver Index:

$$SW_t^k = - \sum_{n=1}^k p_n * \ln(p_n)$$

- ✓ The **most widely used tool** among economists, ecologists, and others
- ✓ Captures the **# of different types** as well as **evenness** of their distribution

POP QUIZ!

Imagine 2 counties with the same **annual production value & number of commodities**.
Which is more “diverse”?

County “A”

10 Crops, \$100 million



County “B”

10 Crops, \$100 million



Stanislaus County Agriculture

Diversification Index: **0.57**

= solid **diversification** that
provides critical **economic stability**
within agriculture *and to the*
wider county economy.



economic diversification
is holding steady over time

.57



2017

Summary

#1. Rationale

#2. Methods

#3. Findings

Total Output

Employment

Diversification

\$7.148 billion

1 of every 8 jobs

a stabilizing force



Thank You

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