



United States Department of Agriculture
National Agricultural Statistics Service



Examining the Underreporting of Operators on the 2015 Census Content Test

David Biagas, PhD

National Agricultural Statistics
Service



Women in Agriculture

- Traditional division of labor: farmwives and farmers
- Changing role of women in agriculture (Trauger 2007; Beach 2013)
- 2012 Census of Agriculture
 - 30% operators; 14% principal operators
 - Concern that NASS surveys not capturing contributions of women





Data: 2015 Census Content Test

- Pretested using cognitive interviewing
(Willis 2005)
 - 68 total interviews were conducted
 - Issues with survey questions were thoroughly documented (Pick, Ott, Ridolfo, McCarthy, Sloan, Beach, and Samson 2016)
 - Explore how often and why operators are underreported
 - 47 operations with multiple operators and complete data were included in the analyses



Research Questions

- To what extent are operators underreported on the COA Content Test?
- How do respondents frame the underreporting of agricultural operators?
- Do these patterns differ by gender?
 - Are women underreported more than men?
 - Are women underreported for different reasons?



Underreport Identification

SECTION 5 TYPE OF ORGANIZATION

4. Who makes the decisions for this operation? Mark one answer only:

1087	<input type="checkbox"/> An individual
2	<input type="checkbox"/> Spouses jointly
3	<input type="checkbox"/> Other family members jointly (siblings, parents, children, etc.)
4	<input type="checkbox"/> Some other combination of operators

SECTION 6 PERSONAL CHARACTERISTICS

1. In 2015, how many individuals were involved in the decisions for this operation (include family members and hired managers)? Exclude hired workers unless they were a hired manager or family member... 1575

Total

2. Of the total number of individuals making decisions for this operation, how many are men and how many are women? 1571 1574

Men	Women

3. Answer the following questions for up to four individuals who were involved in the decisions for this operation as of December 31, 2015.

Person 1	Person 2	Person 3	Person 4
1836	1852	1872	1873
a. Full name			
1610	1611	1612	1613
<input type="checkbox"/> Yes <input type="checkbox"/> No			
1926	1586	1597	1614
<input type="checkbox"/> Male <input type="checkbox"/> Female			

b. Is this person completing this form?

1 <input type="checkbox"/> Yes <input type="checkbox"/> No			
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c. Sex

1 <input type="checkbox"/> Male <input type="checkbox"/> Female			
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- Who were you considering when answering?
- What types of decisions does this person/do these individuals make?
- Is there anyone else who makes decisions for this operation that you did not include in your response?



Underreport Example 1

Section 5 Response



Section 6 Response





Underreport Example 2

Section 5 Response



Section 6 Response





Who is Underreported?

Table 1. Underreported Operator Frequencies and the Gender Composition of All Operators

	<u>Male</u>	<u>Female</u>	<u>Total</u>
All Male	7	-	7
All Female	-	-	-
Mixed	15	15	30
Total	22	15	37



Frames of Underreporting

If responses to Sections 5 and 6 are different, probe to see why.

- Example probe: You indicate that there are two people making decisions for this operation, but in the previous section you report this operation is run by an individual.
Can you explain why you answer these two questions differently?



- Absolute Authority
 - Acknowledged that decisions for the operation were made by multiple individuals. Reported individual because he “makes most of the decisions with little or no input from the L.L.C.”
- Minimization of Influence
 - wife is “*definitely involved* in land purchase decisions”, she “doesn’t really make day-to-day decisions.”
- Arbitrary Ostracization
 - During probing, the respondent reported that he “simply forgot to include his wife” in Section 6. When asked why, he stated “I guess I should have included her here too”



Frame Usage by Gender

Table 2. Frames of Underreporting Usage by Operator
Gender

	<u>Female</u>	<u>Male</u>
Absolute Authority	27%	50%
Minimization of Influence	53%	27%
Arbitrary Ostracization	20%	23%
Total	100%	100%



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Conclusion and Discussion

- Norm of underreporting
 - Does not vary by gender
 - Panel recommendations were helpful
- Framing varies by gender
 - Absolute Authority vs. Minimization of Influence
- Revising Survey Instrument
 - Insight into thought process of respondents



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Questions?

David Biagas

david.biagas@nass.usda.gov