

***HOW TO INTERPRET NEW
DEMOGRAPHIC INFORMATION IN
THE PRELIMINARY 2002 CENSUS OF
AGRICULTURE RELEASE***



Agricultural Outlook Forum 2004

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Statistics Service**

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Goals for Today



- Clarify underlying census of agriculture definitions
- Provide working understanding of new summary procedures
- Present some historic relationships in light of the new 2002 results

Why have a Census of Agriculture?



- Only uniform collection of U.S. agriculture information
- Only measurement of farm operator demographic information
- Only National measure of changes in farms and farming practices

Farm Definition

(Since 1978)



Any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year.



How has Census of Agriculture data collection changed?



- 1840-1945: Personal interviews, tied to the Census of Population
- 1950-1964: Mail Out/Collect Later, still using enumerators
- 1969-2002: Mail Out/Mail Back, very little face to face interviewing

What were the new NASS approaches for 2002?



- Create a scanned image of each returned form
- Capture reported data by Optical Character Recognition equipment
- Rewrite the comprehensive edit routines used for every farm operation
- Create coverage adjusted results down to the county level.

Adjustment Depended on the Area Frame



- A list frame is always incomplete and may contain duplication
- NASS has a complete area frame (for the 48 contiguous States)
- Area frame used for interpreting Ag Census coverage since 1978
- New statistical methodology needed to create the National/State/County adjustments

Important Clarification



- NASS did not create “new” farms to account for the mail list incompleteness
- The statistical methodology assigns additional weight to farms which did report
- The methodology selects farms for additional weights to best fit the missing characteristics

Total Number of Farms

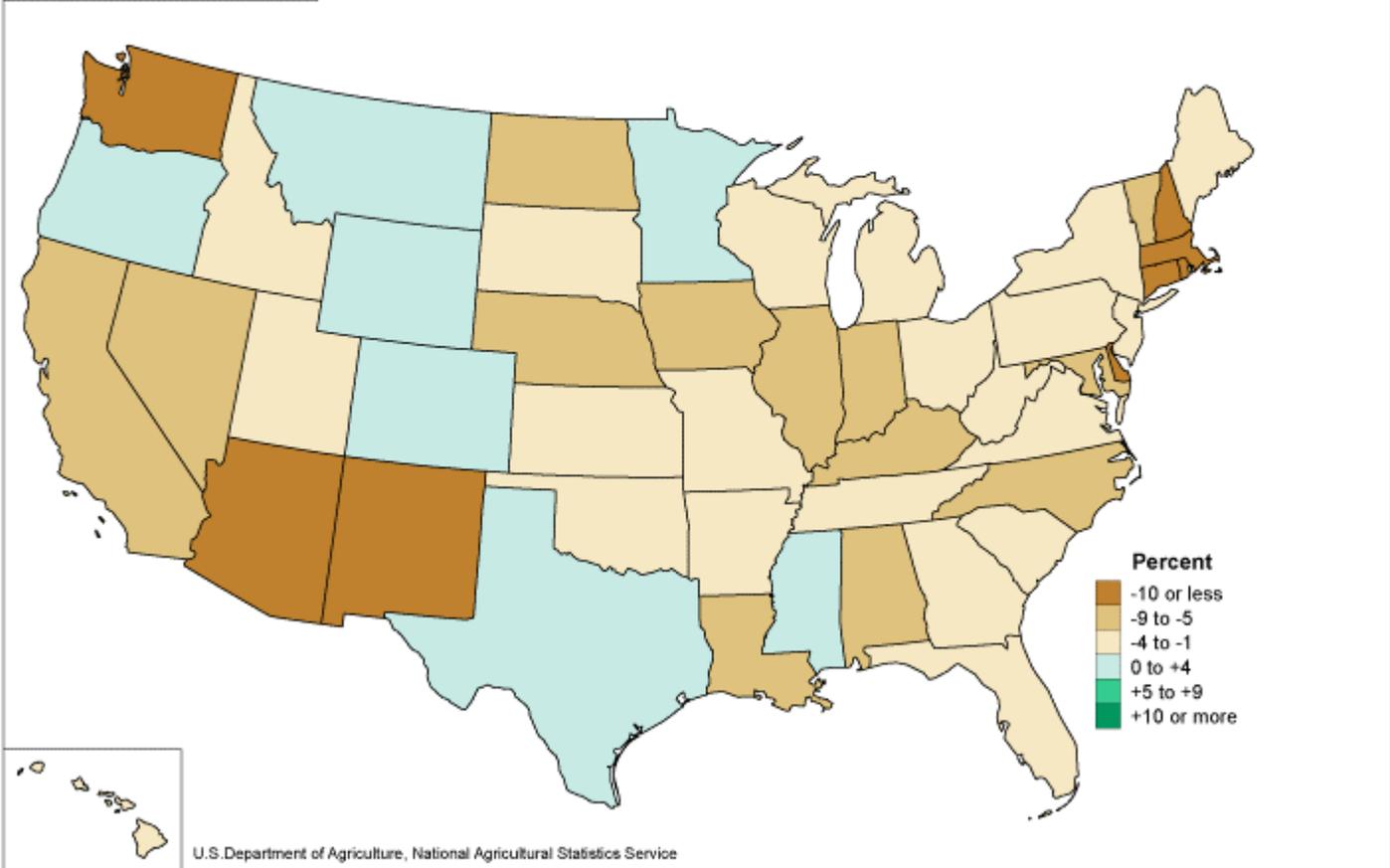


	<u>2002*</u>	<u>1997*</u>	<u>1997</u>
Farms	2,129,226	2,215,876	1,911,859
Land in Farms (million acres)	939.5	954.8	931.8

(*Adjusted for coverage)



Percent Change in Number of Farms: 1997 to 2002



What do the new data show about farm numbers over time?



- The 1978 Ag Census published coverage adjustments at the State level
- Most Ag Censuses between 1978 and 2002 published adjustments percentages for a few items
- This presentation has created coverage adjustments using the available data

Table 1: Comparisons of Adjusted U.S. Farm Numbers, 1978 to 2002



Census Year	Census Adjusted	Change in Adjusted
1978	2,478,642	
1982	2,484,452	5,810
1987	2,337,393	-147,059
1992	2,180,655	-156,738
1997	2,215,876	35,221
2002	2,129,226	-86,650

Figure 1: Changes in U.S. Farm Numbers, by Sales Class, 1978 to 2002

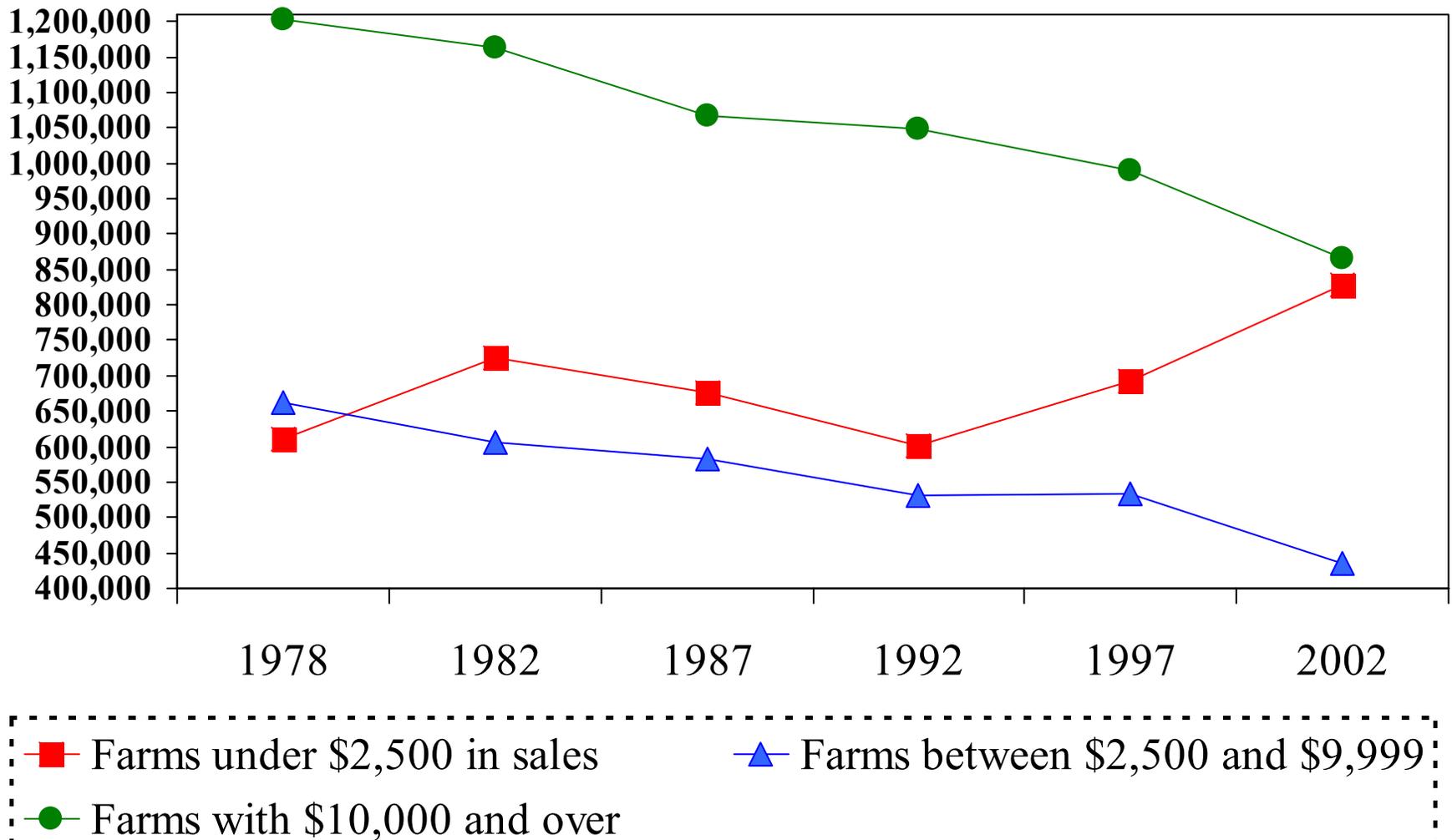


Table 11: Changes in U.S. Spanish, Hispanic or Latino Origin principal operators, 1978-2002



Census Year	Census Adjusted	Change in Adjusted
1978	24,204	
1982	21,928	-2,276
1987	23,301	1,373
1992	27,498	4,197
1997	33,450	5,952
2002	50,443	16,993

Table 7: Changes in U.S. Black or African American principal operators, 1978-2002



Census Year	Census Adjusted	Change in Adjusted
1978	51,448	
1982	45,054	-6,394
1987	30,605	-14,449
1992	24,690	-5,915
1997	26,785	2,095
2002	29,145	2,360

Table 8: Changes in U.S. American Indian or Alaska Native principal operators, 1978-2002



Census Year	Census Adjusted	Change in Adjusted
1978	9,489	
1982	9,771	282
1987	9,512	-259
1992	10,951	1,439
1997	12,911	1,960
2002	15,417	2,506

Table 9: Changes in U.S. Asian, Native Hawaiian or Pacific Islander principal operators, 1978-2002



Census Year	Census Adjusted	Change in Adjusted
1978	9,427	
1982	9,496	69
1987	9,400	-96
1992	9,658	258
1997	9,620	-38
2002 /2	9,360	-260

1/ No adjustment for Hawaii

2/Two separate questions were asked in 2002

Table 12: Changes in U.S. Women principal operators, 1978-2002



Census Year	Census Adjusted	Change in Adjusted
1978	128,170	
1982	141,345	13,175
1987	156,585	15,240
1992	176,739	20,154
1997	209,784	33,045
2002	239,269	29,485

Farms by Number of Households Sharing in Net Income of Farm*



2002

1 household.....	1,646,543
2 households.....	314,043
3 households.....	63,182
4 households.....	28,704
5 households or more.....	21,360

* New in 2002

Number of Persons Living in Household of* -



2002

Principal operator.....	5,717,496
Second operator.....	712,245
Third operator.....	188,020
TOTAL.....	6,617,761

* New in 2002

Are the published data perfect?



- A consistent statistical methodology has been applied
- State level adjustments to types and sizes of farms will be very good
- County level farms numbers and farm sizes should be improved
- Some variables over- or under-stated due to limitations of the available data

How preliminary are the preliminary data?



- NASS is still reviewing the county level results for all variables
- A few records might not have been included in the Preliminary Release
- Some additional review was prompted by the Preliminary Release

What happens next?



- Full Ag Census release will be in June with many size of farm and income class cross tabulations
- More data for Minority and Spanish, Hispanic, or Latino Farm Operations
- “New” topics such as production contracts, organic operations, etc. will be included
- Some special analyses (such as multiple race operators) will be issued later