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## **A PROTOTYPE SYSTEM FOR DISPLAYING AND DISSEMINATING DATA FROM THE 1997 CENSUS OF AGRICULTURE**

### **ABSTRACT**

In 1997, responsibility for the Census of Agriculture was transferred from the Bureau of the Census to the National Agricultural Statistics Service (NASS). In large part, this responsibility involves collecting and publishing data regarding all places defined as farms. Historically, the Census of Agriculture represents the leading source of local area statistics about U.S. agriculture.

This prototype system uses data from the 1997 Census of Agriculture to demonstrate methods of graphical display that could give NASS data customers a better understanding of inherent patterns and structure in the data. These methods could also give data customers an enhanced ability to view, analyze, and interact with summary data. Historically, such customers have had access to this data in tabular form only.

Using concepts and methods developed and inspired by Tukey, Cleveland, Tufte, Carr and others, the system demonstrates how NASS data can be more effectively displayed and disseminated. Many of the displays included in this system were produced using "rowplot" functions originally developed in S by Dr. Dan Carr. The presenter has modified the script files made available by Dr. Carr to create plots using dots, bars, and arrows. In addition to these "rowplots", the proposed system makes use of box plots and "micromaps". In a few cases, maps were created in ArcView GIS using satellite data, and incorporated in the acreage displays to illustrate how a "drill-down" feature could be incorporated. While this system focuses on data from the 1997 Census of Agriculture, the applicability to other sources of survey and census data will hopefully be apparent.

The prototype system presented uses a Web browser such as Netscape or Internet Explorer for displaying and disseminating data, and will feature the ability to interact with the data by identifying data values of interest and dynamically generating various graphical displays.

Whether the customer's intent is to print a given display (higher resolution), or view it on a screen (lower resolution), the system as a whole is structured so that information of interest to the largest number of customers is the easiest to reach.