THE 2003 DELTA RURAL POLL:
HISTORY, METHODS AND CHARACTERISTICS OF THE SAMPLE

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The Delta Rural Poll is administered by the faculty associates at the Center for Community and Economic Development (CCED) at Delta State University (DSU), with assistance from the DSU Division of Social Sciences. The 2003 survey was conducted by the Social Science Research Center at Mississippi State University under the supervision of Dr. Wolfgang Frese. The CCED faculty associates acknowledge and thank the Mid-South Delta Consortium for providing funding for the Delta Rural Poll.

Policy and research papers produced by the Center for Community and Economic Development have been peer reviewed by colleagues at Delta State University. Any questions, suggestions, or concerns should be sent directly to the author.

All research and policy papers produced by the Center for Community and Economic Development are posted on the World Wide Web at: http://www.deltastate.edu/cced/ruralpoll.htm.
Contents

Introduction .................................................................................................................. 1
History of the Delta Rural Poll ...................................................................................... 1
Methods ....................................................................................................................... 2
Characteristics of the 2003 Sample ........................................................................... 10
Conclusion ............................................................................................................... 22

List of Figures

Figure 1: Age of Respondents ................................................................................... 11
Figure 2: Gender of Respondents ............................................................................. 12
Figure 3: Race of Respondents ................................................................................ 13
Figure 4: Educational Attainment ............................................................................ 14
Figure 5: Marital Status ............................................................................................ 15
Figure 6: Employment Status .................................................................................. 16
Figure 7: Total 2002 Household Income Before Taxes ............................................ 18
Figure 8a: Percent of Respondents by County ....................................................... 19
Figure 8b: Percent of Total Population by County ................................................... 19
Figure 9: Size of Place of Residence ....................................................................... 20
Figure 10: Type of Place of Residence .................................................................... 21
Figure 11: Length of Time Living in the Same Community ...................................... 21

List of Tables

Table 1: Occupied Households with Telephone Service for 11 Mississippi Delta Counties.... 6
Table 2: Employment Status .................................................................................... 17
The Mississippi Delta
EXECUTIVE SUMMARY

The initial Delta Rural Poll was conducted in October and November of 2003. Researchers at Delta State University’s Center for Community and Economic Development developed the poll to chronicle attitudes and behaviors of the population of 11 northwestern Mississippi counties. These researchers developed a methodological approach for the poll, which combines an annual quantitative survey with follow-up qualitative interviews. DSU researchers prepared the initial questionnaire, which was administered to a randomly selected sample of Delta residents by the Survey Research Unit at Mississippi State University’s Social Science Research Center. The 2003 questionnaire collects demographic information, and asks respondents about their quality of life, their employment, their use of technology, their opinions on Delta schools, and their health care.

The 2003 survey generated responses from 809 Deltans. Comparing the sample to figures from the U.S. Census suggests that substantially more females responded to the poll than are found in the population. The majority of respondents were African-Americans, although the proportion in the sample was slightly less than in the population as a whole as determined by the 2000 Census. As a result, a weighting procedure was developed to account for these biases in the sample. The sample from the 2003 survey was also slightly older and slightly better educated than the general population.

The purpose of the Delta Rural Poll is to serve the people of the Delta and to provide policymakers with data on current issues to inform state and local policy decisions. The poll also provides Delta communities with data and opportunities to engage in the process of social science research, both important components of an overall strategy of community and economic development.
THE 2003 DELTA RURAL POLL:
History, Methods and Characteristics of the Sample

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Introduction

In 2003, the Center for Community and Economic Development (CCED) at Delta State University (DSU) initiated the Delta Rural Poll, with the goal of developing a better understanding of the population of the Mississippi Delta. This report details the development of this project, describes the methods used to collect data, and presents summary demographic results from the first survey conducted during October and November, 2003. The summary results are intended to describe the sample that was drawn and used in the survey. More detailed analysis and results can be found in the various policy and research reports issued by the CCED.¹

History of the Delta Rural Poll

The Delta Rural Poll project was initiated in the Spring of 2003. Other states have had similar projects for many years; for example, Iowa State University has conducted a rural poll for nearly three decades, and the University of Nebraska has conducted a similar poll since the early 1990s.² Dr. Brent Hales, Director of the Center for CCED, obtained funding from the Mid-South Delta Consortium, which he was able to dedicate to initiating a rural poll in the Delta. Dr. Alan Barton, a faculty associate in the CCED, assumed the role of principal investigator on the project.

Planning for the first Delta Rural Poll began with the formation of the Delta Rural Poll Faculty committee, consisting of four CCED faculty associates, including Drs. Hales and Barton, Dr. Albert Nylander, and Dr. John Green. This committee investigated various approaches to running the project, detailed below in the “Methods” section. Members of the committee coordinated with researchers from other institutions to develop the Delta Rural Poll. A visit by

¹ All policy and research reports produced in conjunction with the Delta Rural Poll are available on the CCED website: http://www.deltastate.edu/cced/ruralpoll.htm.
² Ohio, Utah and North Dakota also have similar polls. Texas, Arkansas, South Dakota and Oregon are working to initiate rural surveys.
Dr. John Allen, director of the Nebraska Rural Poll, to Delta State in the Spring of 2003 helped the committee understand many of the details involved in running a project of this nature, and also assisted in developing the first survey questionnaire. Three Delta Rural Poll Faculty also visited the Social Science Research Center (SSRC) at Mississippi State University (MSU) in the Spring of 2003, and discussed ideas for the poll with researchers there.

**Methods**

Rural polls in other states have been run as semi-annual, annual, bi-annual, or sporadic events. They typically are conducted as mail surveys, and focus on rural counties in the state. As we started the Delta Rural Poll, we needed to decide on a time frame, a research site, and a strategy for undertaking the survey. Next, we needed to develop and administer the questionnaire. This section reviews how these decisions were made, then details the actual methods applied in the 2003 Delta Rural Poll.

**Selecting a Time Frame**

The first issue to determine was how often to administer the Delta Rural Poll. The initial funding would cover two cycles, and we opted to administer the poll on an annual basis. Twice per year would be too frequent; there would not be sufficient time to compile and analyze results before the next results would come in. On the other hand, if we ran the poll every other year, it would take a long time to build a time series. Following the lead of most other rural polls, which are run as annual events, we decided to initiate the Delta Rural Poll as an annual event, although we will reconsider this decision once the results from at least two poll cycles are in to see if every other year is sufficient.

Next, we had to decide when to conduct the survey. Our initial intent was to conduct the first survey during the summer of 2003. Once the decision was made to use a telephone survey (see below), we needed to postpone the first survey due to the schedule and institutional requirements of the group contracted to conduct the survey. As a result, the first Delta Rural Poll was administered in October and November, 2003. In subsequent discussions with directors of other rural polls, we decided to change the poll to February, as that is the time when other polls are conducted. Because there are seasonal effects in responses, and because we may do comparative
studies with other states in the future, we decided it would be advantageous to conduct our poll at
the same time of year as others. In addition, February fits better with the schedules of DSU
researchers. If the poll is conducted in February, the data are ready for analysis by the summer,
which is when most DSU researchers do the majority of their research work. The second Delta
Rural Poll survey will be conducted in February, 2005. Future poll surveys will also be
scheduled in February.

Selecting the Research Site

One of the first questions researchers must consider is the boundaries of the location to be
studied. Our interest is in the residents of the Mississippi Delta; however, the “Delta” can be
defined in a variety of ways. Some definitions extend well beyond the borders of Mississippi,
but even if the area is limited to the state of Mississippi, the actual floodplain that defines the
Delta region does not match up with any administrative boundaries. For example, several
counties lie partially within and partially outside the true Yazoo-Mississippi Delta floodplain.
Furthermore, DeSoto County, at the northern end of the Delta, has undergone numerous changes
and has practically been converted into a suburb of Memphis, TN. As such, it no longer
represents the characteristics typical of other Delta counties.

The Delta Rural Poll Faculty decided to limit our survey to the “core” Delta counties. These are
the eleven counties that lie completely within the Yazoo-Mississippi floodplain. These counties
display characteristics that are unique and different from the rest of Mississippi, such as
significantly lower levels of economic development and higher rates of poverty, as well as a high
percentage of black residents. The eleven “core” Delta counties that the Delta Rural Poll focuses
on are: Bolivar, Coahoma, Humphreys, Issaquena, Leflore, Quitman, Sharkey, Sunflower,
Tallahatchie, Tunica and Washington.

Selecting a Research Approach

The Delta Rural Poll Faculty considered three options for conducting the annual survey. The
first, a mail survey, emulates the model used by most other rural polls. Mail surveys involve
sending out self-administered questionnaires to a sample of respondents selected from a list of all
home addresses in the survey area. The advantage of mail surveys is that they are inexpensive
per completed questionnaire, but the disadvantage is a low response rate, which affects the validity of the results. The second approach considered was face-to-face interviews. These generally have a high response rate; while it is easy for a respondent to ignore an impersonal questionnaire sent through the mail, it is more difficult to say no to a live interviewer on their doorstep. Face-to-face interviews are very expensive, however, as they require a substantial amount of time by personnel in travel and interviewing. Face-to-face interviews would also limit the coverage area; for the sake of practicality we would have to target the poll to respondents in a small number of communities. It is also costly to generate a sampling frame from which to draw respondents using face-to-face interviews. The third option was a telephone survey. Telephone surveys are more personal than mail surveys, but less so than face-to-face interviews. They also fall between the two other methods in terms of cost. Telephone interviews are facilitated by investments in technology, which we did not have available at DSU at the time of the first survey.

After carefully considering each option, we decided against a mail questionnaire because in the past, this approach has shown limited success in the Delta, due to extremely low response rates. Even when researchers apply sophisticated mail survey techniques, response rates tend to be very low. We believe this is in part due to a burn-out effect, as many Deltans perceive that the area is overstudied, and in part due to local cultural norms, which emphasize personal relationships and reject the impersonality of a mail questionnaire. We also carefully considered face-to-face interviews. This approach was appealing, given the mission of the Center for Community and Economic Development, as it would allow us to build and extend capacity in Delta communities, particularly research skills. We decided, however, that this approach was unsatisfactory for the quantitative survey. The primary reason was the difficulty in generating an accurate sampling frame in a rural region like the Delta. We also thought that the time and expense necessary to train and equip interviewers would exceed our budget.

In the end, we adopted a synthetic approach that uses telephone interviews for the quantitative survey, but also uses face-to-face interviews for qualitative follow-up interviews. This approach is unique among rural polls to date, and has several advantages. First, it allows us to use well-developed facilities that already exist in-state to collect quantitative data. Second, we can apply our expertise in collecting qualitative data, an interest of several faculty members at Delta State
University. Third, we can combine community development work with action research as an integral part of the Delta Rural Poll, thereby benefiting the communities of the Mississippi Delta. Finally, it provides us with more complete information, as we draw on responses from a random sample to survey questions, information collected through in-depth interviews, and the observations and experiences of researchers in the process of data collection.

**Quantitative Survey** The quantitative survey involves developing a questionnaire, selecting a random sample, administering the questionnaire, compiling the data, and analyzing the results. A significant advantage of telephone interviews is that some of these steps can be facilitated using modern technologies, such as Computer-Assisted Telephone Interviewing (CATI) devices. Computers can assist in selecting a random sample, in administering the questionnaire, and in compiling the results. These technologies require a substantial investment, however, as they are expensive and personnel must be specially trained to operate them.

Following our visit to MSU in the Spring of 2003, and careful consideration of the options and the facilities available at DSU to conduct a telephone survey, we decided the best approach would be to contract out data collection. The Survey Research Unit (SRU) at the SSRC was a logical choice to conduct the 2003 Delta Rural Poll annual survey. The SRU is located in-state, they administer a CATI lab which is operated by professional and trained personnel, and they are experienced in conducting surveys of this nature. Of particular importance, the SRU has experience with telephone interviews in the Delta region, and so its personnel are familiar with some of the unique issues this area presents. We contracted the SRU to collect the data for the 2003 annual survey.

We recognize that telephone surveys have drawbacks, including problems specific to the Delta. For example, in rural areas, a lower-than-average percentage of households have telephones, and according to the USDA, the Mississippi Delta has the lowest proportion of households with telephones in the nation (ERS, 2003). Nationwide, about 95% of all households have telephone service, while for the 11 core Mississippi Delta counties, the rate is 90.3% (see Table 1) (ERS, 2003; US Census Bureau, 2004c). Houses without a telephone are automatically eliminated from the sample. This is a particular problem since it is likely to be poorer homes that lack telephone service, introducing a systematic bias into the sample. However, using a mixed
Table 1: Occupied Households with Telephone Service for 11 Mississippi Delta Counties

<table>
<thead>
<tr>
<th>County</th>
<th>Total Population</th>
<th>Number of Occupied Housing Units</th>
<th>Percent of Households with Telephone Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivar</td>
<td>40,633</td>
<td>13,776</td>
<td>88.7</td>
</tr>
<tr>
<td>Coahoma</td>
<td>30,622</td>
<td>10,553</td>
<td>91.2</td>
</tr>
<tr>
<td>Humphreys</td>
<td>11,206</td>
<td>3,765</td>
<td>87.8</td>
</tr>
<tr>
<td>Issaquena</td>
<td>2,274</td>
<td>726</td>
<td>85.4</td>
</tr>
<tr>
<td>Leflore</td>
<td>37,947</td>
<td>12,956</td>
<td>91.2</td>
</tr>
<tr>
<td>Quitman</td>
<td>10,117</td>
<td>3,565</td>
<td>87.7</td>
</tr>
<tr>
<td>Sharkey</td>
<td>6,580</td>
<td>2,163</td>
<td>85.9</td>
</tr>
<tr>
<td>Sunflower</td>
<td>34,369</td>
<td>9,637</td>
<td>90.6</td>
</tr>
<tr>
<td>Tallahatchie</td>
<td>14,903</td>
<td>5,263</td>
<td>86.0</td>
</tr>
<tr>
<td>Tunica</td>
<td>9,227</td>
<td>3,258</td>
<td>89.3</td>
</tr>
<tr>
<td>Washington</td>
<td>62,977</td>
<td>22,158</td>
<td>93.0</td>
</tr>
<tr>
<td>Total</td>
<td>260,855</td>
<td>87,820</td>
<td>90.3</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 2004c.

Method approach increases our ability to detect discrepancies of this nature and collect information that might be missed in the quantitative polls by supplementing them with qualitative interviews.

Qualitative Interviews During each cycle, qualitative interviews will follow the survey. These will allow us to better understand results from the quantitative survey, and will provide us with in-depth information that is impossible to get using survey questions. We can focus our attention on specific issues raised in the survey, and ask a broader array of questions and thereby expand our understanding of these specific topics. Qualitative interviews will be conducted with key informants and focus groups in selected sites and on selected topics.
For the 2003 Delta Rural Poll, we are conducting follow-up qualitative interviews pertaining to the topic of education in the Delta, one of the issues in the 2003 annual quantitative survey. The survey uncovered some interesting results that merit further investigation, so we are interviewing school personnel and community members to better understand conditions in Delta schools. These results will be incorporated into policy and research reports developed by CCED faculty and students.

**Developing the Questionnaire**

Each cycle, the questionnaire used in the quantitative survey will incorporate two types of questions. First are questions that will be repeated each time the survey is done. These include general demographic characteristics (age, sex, race, income, place of residence), as well as measures of quality of life, employment, and migration patterns. These questions allow us to track trends and changes over time. Second are topical questions that vary from one survey to the next. These include questions that assess respondents’ perceptions of current policy issues, and their behaviors relevant to the topical issues. These allow us to tailor each survey to timely, policy-relevant issues, and to the particular research interests of DSU faculty that participate in each cycle. Some of these issues may be repeated every few cycles to track changes and trends as well.

For the 2003 survey, we sought a questionnaire that could be administered in approximately fifteen minutes. Our contacts with other rural polls were helpful in developing the questionnaire. We used several demographic questions that we borrowed directly from the Nebraska Rural Poll for the questions that will be repeated each year. We asked the questions using the same wording so that we can compare results directly and track trends at a multi-state level in the future.

We selected three topical issues for the 2003 Delta Rural Poll: health care, education and technology use. These align with the research interests of current Delta Rural Poll Faculty and are currently important policy issues in Mississippi. Each faculty member submitted potential questions on these topics, and the committee reviewed and edited them, then selected the final questions for each topic. In the end we developed a questionnaire with 36 questions, some of
which had multiple parts. The questions would provide in-depth information on the selected topics, yet were designed to be easily understood and simple to administer.

Once the questionnaire was completed, it was pilot tested on a randomly selected group of Deltans. The questionnaire was also submitted and approved by DSU’s Institutional Review Board. Following that, it was sent to MSU, where it was reviewed and edited by the head of the SRU, then approved by the MSU Institutional Review Board. Finally, it was administered by the staff at the SRU. The results were compiled and returned to DSU researchers in December, 2003.

**Delta Rural Poll 2003 Methods**

The Survey Research Unit of the Social Science Research Center at Mississippi State University conducted the 2003 Delta Rural Poll survey in October and November, 2003. They used random digit dialing techniques to contact a simple random sample of telephone numbers (SSRC, 2003). Numbers were drawn based on telephone prefixes for the 11 counties of interest. Within each household contacted, the respondent was selected by asking to speak to the person in the household 18 years of age or older with either the next or the most recent birthday (whether to ask for the next or the most recent birthday was randomly selected for each call). The selected respondent was then asked the 36 questions on the questionnaire.

The Survey Research Unit dialed a total of 3,842 randomly selected numbers (SSRC, 2003). Of these, 1,761 had no response; either the number was busy, there was no answer or an answering machine, or the person responding refused to participate before a respondent could be selected. An additional 1,251 numbers were ineligible, due to a communication problem such as a disconnected number or fax machine, or because the respondent was away or unable to participate due to a health problem. There were 830 eligible respondents that were reached, and of these, 809 interviews were completed, for a response rate 97.5%. Incomplete interviews were due to respondent refusal after screening, or because the respondent required a call back but

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3 Potential pilot respondents were selected randomly from telephone books, and contacted by a DSU graduate student. She administered the questionnaire to them and noted any difficulties with any of the questions. She also timed the interviews to assess how long the entire process would take.

4 Some of the questions involved multiple parts with screening questions.

5 This response rate is very high, particularly for surveys in the Delta region, and attests to the experienced and professional staff at the SSRC.
was unavailable after screening. The sampling error for the data set was less than ±3.4% with a 95% confidence interval.

**Weighting Procedure**

Delta Rural Poll results showed some groups to be systematically underrepresented and others to be systematically overrepresented in the sample. To account for these systematic biases, a weighting procedure was applied which accounts for gender and race at the county level. Such procedures are commonly used to correct for systematic biases, and biases for gender and race are common in surveys conducted in the Mississippi Delta. The weighting procedure assessed the proportion of respondents by race and gender for each county, comparing the actual results from the 2003 Delta Rural Poll to data from the 2000 United States Census. Once a weighting variable was created, it was used on most analyses, to provide a more accurate assessment of conditions in the Delta.

The following procedure was used to assess whether a weight was necessary. First, Census data on residents of the eleven counties aged 18 and older were used to calculate the proportion of white male, white female, black male, black female, other male and other female residents. “Other” indicates all other races as well as people reporting more than one race. Next, the same proportions were calculated using Delta Rural Poll data. Comparing these data, it was determined that, relative to Census results, in the Delta Rural Poll males were systematically underrepresented while females were systematically overrepresented. Furthermore, these tendencies were stronger for black respondents than for white respondents. Based on these results, it was determined that developing a weighting procedure would be useful.

Once it was determined that a weighting variable was necessary, the following procedure was used to calculate the weight values. Using data from the 2000 Census, the proportion of the population aged 18 and over for 66 classifications was calculated. The classifications included the six race/gender groups (white male, white female, black male, black female, other male, other female) for each of the eleven counties. The population in each classification was divided by the total population aged 18 and over (180,913) for all counties to get the proportion.

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6 The Census designation “one race only” was used.
The number of cases that should be in each classification in the Delta Rural Poll sample was then calculated, using the proportions from the Census data. This was done by multiplying the proportion for each classification by 806. The actual number of respondents in each classification was calculated by crosstabulating the variable for the respondent’s race, recoded to combine all races except white and black into an “other” response category, and the variable for respondent’s gender, then sorting these by the variable for the respondent’s county of residence. For each category, the expected number calculated from Census data was divided by the actual number from the Delta Rural Poll. This gave the weight for each category. Weights were entered with nine decimal places for accuracy.

The weight variable is used in most analyses for research and policy reports. We have run the same analysis both with and without the weight in many cases, and found that the weights generally alter the results of analyses only slightly. Nevertheless, we still use the weights to provide more accurate results.

**Collaboration with Other Rural Polls**

During the Spring of 2004, Delta Rural Poll researchers maintained contact with personnel from other existing and potential rural polls to coordinate our efforts on a national level. We agreed to share questionnaires and results, to improve our understanding of conditions and trends in rural regions around the country. We intend to continue to collaborate with researchers from other states to improve the Delta Rural Poll, and to contribute to a multi-state data base. Our primary purpose, however, is to serve the Delta, and our main focus will remain collecting data that is useful to Deltans and Mississippians.

**Characteristics of the 2003 Sample**

Who responded to the 2003 Delta Rural Poll?

This section summarizes basic characteristics of poll respondents, including demographic characteristics such as age, gender and race, and residential characteristics such as size of place.

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7 806 represents the total number of respondents in the sample (809) minus three cases that were eliminated because the respondent either refused to give his/her race or because the interviewer was unable to identify the respondent’s gender. These variables were coded with a value of “1” (no weight) in the weighting variable.

8 For “Other” categories with no respondents, the value was recorded as “1” (no weight).
and county of residence. The purpose is to describe the sample that was used in the 2003 survey. Some of the results are compared to data from the 2000 Census to assess the accuracy of the sample.

The results presented here use \emph{unweighted} data; that is, the weighting procedure described above has not been applied to the data shown here. These figures represent the characteristics of the actual respondents to the Delta Rural Poll. The weighting procedure described above corrects for some of the sample characteristics that systematically differ from Census data. They are used in analyses using these data, so that the inferences drawn from these analyses will be more accurate.

\textbf{Respondent Characteristics}

\textit{Age} All respondents were age 18 years or over, in accordance with the screening criteria. Figure 1 shows the age of respondents to the 2003 Delta Rural Poll. Over half the respondents were between 30 and 60 years old, more than one-fourth were over age 60, and 16.5 percent were under 30.

A comparison of the Delta Rural Poll age data with figures from the 2000 Census (U.S. Census Bureau, 2004a) shows that the Delta Rural Poll sample was slightly older than the general

\begin{figure}
\centering
\includegraphics[width=0.7\textwidth]{figure1.png}
\caption{Age of Respondents}
\end{figure}
population. For example, only 16.5% of the 2003 Delta Rural Poll sample were in the 18-29 age range, while the Census showed 26.5% of the population within this range, and 26.4% of the Delta Rural Poll sample were 30-44 years old, compared to 28.9% in the general population. In the older age groups, however, the trend was reversed. Among those in the Delta Rural Poll sample, 29.4% fell into the 45-59 age range, slightly higher than the 23.1% rate for the general population, 17.1% of the Delta Rural Poll sample were in the 60-74 age category, compared to 13.3% of the population. For those age 75 and over, 10.7% were included in the Delta Rural Poll sample, compared to 8.1% in the general population.

Gender Figure 2 shows the distribution of respondents by gender. Over 70 percent of the respondents to the 2003 Delta Rural Poll were female. This is significantly higher than the actual proportion of females in the survey area. While females outnumber males in nine of the eleven core Delta counties surveyed, the highest proportion is 54.1% female, in Coahoma County (U.S. Census Bureau, 2004a). It is unclear why such a large percentage of respondents were female; however, a gender bias of this nature is not unusual in a survey of this type.

![Pie chart showing gender distribution](image)

**Figure 2: Gender of Respondents**

9 The proportion of females to males for the 11 counties is: Bolivar, 53.2%; Coahoma, 54.1%; Humphreys, 53.3%; Issaquena, 46.8%; Leflore, 52.0%; Quitman, 53.6%; Sharkey, 53.0%; Sunflower, 46.3%; Tallahatchie, 53.3%; Tunica, 52.3%; Washington, 53.3% (U.S. Census Bureau, 2004a).
Race  The distribution of respondents by race is shown in Figure 3. About 60% of respondents were black, while 40 percent were white. This proportion underestimates the black population slightly, and inflates the white population. According to the 2000 Census, percentages of black residents in the 11 counties surveyed range from 59.4% in Tallahatchie County to 71.5% in Humphreys County (U.S. Census Bureau, 2004a). The proportion of whites ranges from 27.2% in Humphreys County to 39.6% in Tallahatchie County. 10 Although the difference between the sample and the actual population characteristics is relatively small, because the sample systematically under-represents black respondents across most of the counties, the weighting procedure included adjustments for race.

Education  According to the Delta Rural Poll, 68.9% of respondents had a high school diploma or higher, and 24.1% had a bachelors degree or higher. These figures show that the sample had a higher-than-average level of education, compared to the population as reported in the 2000 Census. According to U.S. Census Bureau (2004a) data, the rate of high school graduation

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10 The proportion of black and white residents in the 11 counties is: Bolivar, 65.1%/33.2%; Coahoma, 69.2%/29.3%; Humphreys, 71.5%/27.2%; Issaquena, 62.8%/36.3%; Leflore, 67.7%/30.0%; Quitman, 68.6%/30.5%; Sharkey, 69.3%/29.4%; Sunflower, 69.9%/28.9%; Tallahatchie, 59.4%/39.6%; Tunica, 70.2%/27.5%; Washington, 64.6%/34.0% (U.S. Census Bureau, 2004a).
ranged from 53.7% in Humphreys County to 66.5% in Washington County.\textsuperscript{11} College graduation rates ranged from 7.1% in Issaquena County to 18.8% in Bolivar County.\textsuperscript{12}

Figure 4 summarizes Delta Rural Poll results for educational achievement by highest degree attained. Half of the respondents (50.1%) had a high school diploma or less, one-quarter (25.8%) had an associates degree or some college, 16.5% had completed a bachelors degree, and 7.6% had completed a graduate or professional degree. Applying these same categories using 2000 U.S. Census data shows that 63.8% of the population of the 11 core Delta counties had a high school diploma or less, 23.1% had some college or an associates degree, 9.1% had a bachelors degree, and 4.0% had a graduate or professional degree (U.S. Census Bureau, 2004a). Again, the Delta Rural Poll sample has a higher level of education than the general public.

\textit{Marital Status} Figure 5 shows marital status of respondents. Over half of the respondents were unmarried. One-fourth of all respondents (26%) had never married, and 28.7% were currently

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure4}
\caption{Educational Attainment}
\label{fig:education}
\end{figure}

\textsuperscript{11} The proportion of residents in the 11 counties completing high school is: Bolivar, 65.3%; Coahoma, 62.2%; Humphreys, 53.7%; Leflore, 61.9%; Issaquena, 58.8%; Quitman, 55.1%; Sharkey, 60.6%; Sunflower, 59.3%; Tallahatchie, 54.4%; Tunica, 60.5%; Washington, 66.5%. The statewide rate of high school graduation is 72.9%, and the national rate is 80.4%.

\textsuperscript{12} The proportion of residents in the 11 counties completing a bachelors degree is: Bolivar, 18.8%; Coahoma, 16.2%; Humphreys, 11.6%; Leflore, 15.9%; Issaquena, 7.1%; Quitman, 10.6%; Sharkey, 12.6%; Sunflower, 12.0%; Tallahatchie, 10.9%; Tunica, 9.1%; Washington, 16.4%. Statewide, 16.9% of the population holds a bachelor’s degree or higher, and the national rate is 24.4%."
single but previously married (divorced, separated, widowed). Among all respondents, 45.3% were married or a member of an unmarried couple.\textsuperscript{13}

The 2000 U.S. Census shows 37.7% of the population of the 11 core Delta counties had never married, while 40.0 were currently married and 22.3 percent were divorced, separated or widowed (U.S. Census Bureau, 2004d).\textsuperscript{14}

\textit{Employment} Figure 6 shows the general employment status as reported by Delta Rural Poll respondents. When asked if they had been employed on a full-time, part-time or seasonal basis at any time during 2002, 59.5% of respondents answered yes, while 40.5% answered no. Respondents to the Delta Rural Poll were employed at a higher rate than the general population

\textsuperscript{13} Only 1.1% of all respondents answered “member of an unmarried couple,” while 44.1 percent were married.\textsuperscript{14} The Census figures are for the population 15 years of age and older, while the Delta Rural Poll data are for the population 18 years of age and older. Census figures cited for “currently married” include the Census categories “Now Married, Spouse Present” and “Now Married, Spouse Absent, Other,” while Census figures for “separated” were drawn from the category “Now Married, Spouse Absent, Separated.” Figures for “never married” ranged from 29.8% in Issaquena County to 41.9% in Sunflower County. Figures for “currently married” ranged from 36.4% in Humphreys County to 53.2% in Issaquena County. Figures for “divorced, separated or widowed” ranged from 17.0% in Issaquena County to 25.2% in Quitman County (U.S. Census Bureau, 2004d).
as represented by the 2000 Census; according to Census results, 46.5% of the population of the 11 core Delta counties was employed (U.S. Census, 2004d).  

Table 2 summarizes data on employment.  Among the 481 employed respondents, 11.9% own a farm or a business in the Delta; 4.0% own a farm located in the Delta, 6.7% own a business in the Delta, and 1.2% own both a farm and a business.

Among the 328 respondents who said they were not employed at any time during 2002, 44.2% were retired, 22.3% were disabled, 16.2% were unemployed, 10.1% were full time homemakers, and 6.1% were students.  A total of 53 respondents reported that they were unemployed during 2002; of these, three-fourths (75.5%) said they were unemployed and not looking for work, while one-quarter (24.5%) said they were unemployed and looking for work.

Results from the 2000 Census show that 6.7% of the population was unemployed (U.S. Census Bureau, 2004d). The comparable figure for the Delta Rural Poll sample would be 2.6%.

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15 The Census Bureau calculates employment figures based on the population 16 years old and over, while the Delta Rural Poll sample were age 18 and over.

16 This is calculated by dividing the number unemployed and looking for work (13) by those in the labor forces, i.e., the sum of those employed and those unemployed and looking for work (494).
Table 2: Employment Status

<table>
<thead>
<tr>
<th></th>
<th>Percent of Total</th>
<th>Percent of Employed</th>
<th>Percent of Owns a Farm or Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed (n = 481)</td>
<td>59.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed, Does Not Own a Farm or Business</td>
<td>52.4</td>
<td>88.1</td>
<td></td>
</tr>
<tr>
<td>Owns a Farm or Business in the Delta</td>
<td>7.1</td>
<td>11.9</td>
<td></td>
</tr>
<tr>
<td>Owns a Farm</td>
<td>2.3</td>
<td>4.0</td>
<td>33.3</td>
</tr>
<tr>
<td>Owns a Business</td>
<td>4.0</td>
<td>6.7</td>
<td>56.1</td>
</tr>
<tr>
<td>Owns Both a Farm and a Business</td>
<td>0.7</td>
<td>1.2</td>
<td>10.6</td>
</tr>
<tr>
<td>Not Employed (n = 328)</td>
<td>40.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retired</td>
<td>17.9</td>
<td>44.2</td>
<td></td>
</tr>
<tr>
<td>Disabled</td>
<td>9.0</td>
<td>22.3</td>
<td></td>
</tr>
<tr>
<td>Full-time Homemaker</td>
<td>4.1</td>
<td>10.1</td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>2.5</td>
<td>6.1</td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>6.6</td>
<td>16.2</td>
<td></td>
</tr>
<tr>
<td>Unemployed, Looking for Work</td>
<td>1.6</td>
<td>4.0</td>
<td>24.5</td>
</tr>
<tr>
<td>Unemployed, Not Looking for Work</td>
<td>4.9</td>
<td>12.2</td>
<td>75.5</td>
</tr>
</tbody>
</table>

Source: 2003 Delta Rural Poll, N = 809

Again, this suggests those in the sample are employed at a higher rate than the general population.

Income  Total before-tax household income for 2002 is shown in Figure 7. Nearly two-thirds of respondents (63.8%) earned less than $30,000 in 2002, slightly more than one-fifth (21.5%) earned between $30,000 and $60,000, while 14.7% of the respondents had a total household income over $60,000.

The poverty line for a single individual in the U.S. is $9,183/year (U.S. Census Bureau, 2004b), and for a family of four the poverty threshold is $18,244.¹⁷ According to the 2003 Delta Rural Poll, 19.4% of respondents had a total household income (before taxes) under $10,000 for 2002, while 38.3% had a household income below $20,000 (data not shown).¹⁸ According to the 2000 U.S. Census, the percentage of the population below the poverty line in the 11 surveyed counties

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¹⁷ These figures are for the year 2002. Respondents to the 2003 Delta Rural Poll were asked for 2002 income data.
¹⁸ These figures approximate the poverty level, but do not take household size into account.
ranges from 29.2% in Washington County to 38.3% in Sharkey County (U.S. Census Bureau, 2004a).

**Place of Residence**

The distribution of respondents by county is shown in Figure 8a. To contextualize this distribution, the actual distribution of the population is shown in Figure 8b, according to the 2000 U.S. Census. The total population for the 11 core Delta counties was 260,855, and the total number of respondents sampled in the Delta Rural Poll was 809. The distribution of respondents by county represents the actual population distribution fairly well, with some variation in the smaller counties such as Issaquena, Quitman and Humphreys. Over two-thirds of the population (67.4%) lives in the mid-Delta counties (Washington, Bolivar, Leflore, Sunflower). One-quarter of the population (24.9) lives in the north Delta (Tunica, Coahoma, Tallahatchie, and Quitman counties), and only 7.7 percent of the population lives in the south Delta (Issaquena, Sharkey, and Humphreys counties). Amongst respondents to the 2003 Delta Rural Poll, 25.9 percent lived in the north Delta counties, 65.7 percent lived in the mid-Delta counties, and 8.3 percent lived in the south Delta counties.

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19 The proportion of the population below the poverty line in the 11 counties is: Bolivar, 33.3%; Coahoma, 35.9%; Humphreys, 38.2%; Leflore, 34.8%; Issaquena, 33.2%; Quitman, 33.1%; Sharkey, 38.4%; Sunflower, 30.0%; Tallahatchie, 32.2%; Tunica, 33.1%; Washington, 29.2%. 
Figure 8a: Percent of Respondents by County

Figure 8b: Percent of Total Population by County
The distribution of respondents by size of place of residence is shown in Figure 9.\textsuperscript{20} One-third of respondents live in or near a town of 1,000 to 10,000 people. Slightly more than one-third of respondents (38.0\%) live in larger places – greater than 10,000, and slightly less than one-third of respondents (28.2\%) live in a place with fewer than 1,000 residents. As shown in Figure 10, about two-thirds of these respondents live within the city limits of their place of residence. Just over one in ten (11.1\%) live on a farm, and the remaining 21.5\% live outside of city limits, but not on a farm.

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{size_of_place_of_residence.png}
\caption{Figure 9: Size of Place of Residence\textsuperscript{14}}
\end{figure}

Figure 11 shows the length of time respondents have lived in their current community of residence. These data show substantial stability in Delta communities; 16.6\% of respondents had lived in their community for more than 50 years, while only 12.6\% had lived in their community for less than 5 years. One-quarter (25.8\%) of all respondents had lived in the same community for their entire life (data not shown).

\textbf{Assessing the Sample}

Using the 2000 Census as a baseline, the sample drawn for the 2003 Delta Rural Poll is reasonably representative in some respects, and varies substantially from Census results in

\textsuperscript{20} Figure 9 shows the valid percent (i.e., the “Don’t Knows” are counted as missing data); over one-quarter of respondents did not know the size of the nearest place.
others. The most important of these, gender and race, have been adjusted for using the weighting procedure described above. Much of the analysis derived from these data will use the weights to provide a more accurate assessment. On other factors, the sample more closely aligns with the Census. The sample is slightly older and slightly better educated than the population as a whole; both these results represent the portion of the population that is most willing to respond to surveys of this nature.
Conclusion

The purpose of the Delta Rural Poll is to provide a service to the people of the Mississippi Delta, by collecting data on perceptions and attitudes, and by engaging residents in research that will help them, as well as policymakers, better understand the changing conditions in the Delta region. This is accomplished through an on-going process of research that combines an annual quantitative survey with in-depth qualitative interviews. The survey provides a numerical data base that describes changing demographic conditions in the Delta, and assesses opinions, perceptions and behaviors on topical issues. The interviews engage community members and leaders in discussions on these issues, and extract a more nuanced understanding of the topics.

The 2003 Delta Rural Poll, conducted in October and November of 2003, provides a series of baseline demographic data and assesses local opinions on education, technology use, and health care. During the summer of 2004, follow-up qualitative interviews provided teachers, school administrators, and parents the opportunity to discuss their opinions about educational policy and conditions in local schools.
References


SSRC. 2003. *2003 Mississippi Delta Rural Poll*. Survey Research Unit, Social Science Research Center, Mississippi State University, Starkville, MS.


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