# NAIP 2013 SURVEY: SUMMARY REPORT

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**Farm Service Agency**
**Aerial Photography Field Office**
**Salt Lake City, UT 84119**

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USDA United States Department of Agriculture

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# NAIP 2013: Executive Summary

The 2013 National Agriculture Imagery Program (NAIP) Survey was initiated as a means to assess the NAIP imagery based on feedback from the Farm Service Agency's (FSA) primary customers, the FSA State and County Offices. Per Notice AP-20, the 2013 NAIP Survey was distributed through a web-based medium to each FSA County Service Center via the State Geographic Information System (GIS) Specialists/ Coordinators. Each State and County Office receiving 2013 NAIP imagery (AL, AZ, AR, CO, DE, FL, GA, ID, IA, LA, ME, MD, MN, MT, NJ, NY, NV, OH, OK, PA,SC, WA, WI) was directed to complete the survey.

The survey:

- establishes a standardized feedback mechanism for NAIP acquisition and delivery.
- allows for adjustment of program strategy as necessary based on survey analysis.
- allows for analysis of previous, current, and future year feedback to ensure continued program improvement and development.

Overall survey participation rate was about 90%. Of the 23 states that received NAIP in 2013, Iowa, Idaho, Minnesota, Pennsylvania, Arizona, and Delaware had 100% FSA County Office participation in the survey. All GIS Specialists from the 23 states participated.

**The following is a brief summary of survey responses**:

Note: The first three bullets below represent percentages that were calculated with the response of "N/A or Not Sure" removed so that only respondents that had an opinion on, or were familiar with certain farm programs were accurately accounted for.

- **84.5%** of county personnel and **95.7%** of state specialists were either "Very Satisfied" or "Satisfied" with the Overall NAIP Acquisition and Delivery.
- **74.6%** of county personnel and **76.5%** of state specialists were either "Very Satisfied" or "Satisfied" with the date the NAIP imagery was available in regards to various farm program activities.
- **78.7%** of county personnel and **86.1%** of state specialists were either "Very Satisfied" or "Satisfied" with the date the NAIP imagery was acquired in regards to various farm program activities.
- **81.3%** of county personnel and **87.9%** of state specialists were either "Very Satisfied" or "Satisfied" with the overall quality of the NAIP imagery in regards to various farm program activities.
- The late availability of NAIP due to difficulties in securing funding was reflected in lower satisfaction reported in questions dealing with availability. This was also seen in many of the comments.

(These percentages were calculated as averages for Acreage Reporting, CLU Maintenance, Compliance, CRP Admin, and Map Series activities. All responses, including "Not Sure" were included in the calculations).

The following general conclusions may be drawn:

- The overall satisfaction with the NAIP imagery remains high, although not quite as high as in 2011 or 2012. Late contract awards due to funding delays, resulting in late availability of imagery, seemed to be the biggest issue.
- The half meter imagery in Idaho was not as well received as may have been expected. The late flying in some areas was a problem, as was the late availability. However, the overall response was positive.
- Open ended responses continue to indicate a desire for higher resolution imagery, imagery that is acquired on an annual basis, and imagery which is available as soon as possible.
- Guidance is still needed in the availability and use of the seamline data layer and the four band imagery, as well as in other topics relating to imagery use.

## Section A: Overview

In 2013, FSA completed the 12th year of the NAIP program. The USDA-FSA Aerial Photography Field Office (APFO) is responsible for the acquisition, data ingestion, quality assessment, data delivery, and archiving of the NAIP imagery. FSA continues to adjust and modify NAIP processes to keep pace with technological advances in geospatial data acquisition and delivery as well as to meet the needs of FSA Service Centers and State Offices, their primary NAIP customers.

Feedback from NAIP users is vital for program improvement. To facilitate this, APFO prepared a survey for FSA State and County Office response. This is the ninth year of the NAIP survey; only slight changes were made from previous surveys. Some questions were modified, and new questions were created. A great deal of the 2013 survey focuses on NAIP imagery in relation to FSA farm program usage. The 2005 NAIP Survey was administered using email and spreadsheets, whereas the 2006 through 2013 NAIP surveys were completed utilizing a web survey engine. This helped alleviate human error in survey scoring and analysis for most responses.

Per AP-20, FSA State Offices were to take one survey per State Office, and County Service Centers were to take one survey per county administered. This instruction was not always adhered to and in some cases there were multiple responses for a single county. In some cases, the state and county FIPS Codes did not agree, resulting in several counties in Alabama, Arizona, and Arkansas having a second survey response - one which probably should have been from another state. In some cases, the respondent entered a name, and it was possible to look up the state and make a correction if applicable. The result was 52 duplicate entries, 12 of which had mismatched FIPS codes. Of the duplicate responses, one was discarded before analysis. In many cases, respondents began a survey but did not complete it; a second completed version is included in the results, so the incomplete entry was removed. In other cases, only part of the survey was completed for a given county; these responses were retained. Many respondents did not answer every question.

The format of the survey varies to include the following types of questions: multiple choice, open ended, and “select all that apply.” After the close of the survey, responses were downloaded from the survey website in a variety of formats, including a survey summary, raw answers, and filtered responses. Analysis of survey returns could be performed endlessly; it is understood that the results herein only scratch the surface of potential analysis. State GIS Specialists/Coordinators may obtain a copy of the raw results of the surveys for their state, or maps created from the survey data at any time by contacting the APFO Geospatial Services Branch Chief. Some of these maps may be posted to the FSA ArcGIS Online Organizational page in the near term.

Before the survey was completed, feature classes were created with responses from the 2010 and 2011 surveys for the states receiving new NAIP in 2013. These were used to create maps comparing the responses for the “current” (pre-2013) NAIP with the new acquisition.

In many states, consolidations have led to one service center for two or more counties. In some cases, there was resistance to the idea of having a service center employee fill out the survey multiple times. Adjusting for this may be something to consider in the future. In mapping the responses, the patterns may reflect the opinion of one person responding for a rather large geographic area; in this case, mapping the data might not be a completely accurate way of reporting responses to the imagery. (In one state, a rather large geographic area of “no response” may be due to responses which were inadvertently coded to counties in Alabama. Since this could not be proven, the responses were not edited.)

Some of the open ended responses refer to problems with the delivery mechanisms and the applications used for daily work with the imagery, rather than with the imagery itself.

APFO hopes to keep the current survey mechanism stable for future years, streamlining questions and tightening user inputs as necessary. This will allow for a quality comparison of past and future survey results, enhancing feedback for program improvement.

In the survey report, the order of the questions has been changed somewhat from what appears in the survey. This was done in order to group the categories as they relate to the imagery.

Those questions are:

A. Who used the NAIP; where and when?
B. How satisfied were the users with the imagery for FSA work?
C. How did users rate the image quality in terms of visual appeal and geometric accuracy?
D. When would be the optimal time to acquire NAIP for each area?
E. How was NAIP used?
F. How familiar are the users with some of the "newer" features of NAIP: the seamline data layer, four band imagery/CIR, and the Volunteered Geographic Information map for reporting problems with NAIP?
G. How did users in Idaho react to the half meter GSD imagery?
H. How did 2013 NAIP compare to earlier years' imagery?
I. What suggestions do users have for improving the program?

## Section A: Demographics

**1. What is your name (optional)?**

508 respondents gave their names; these are not included in this report.

**2. What is your position?**

Most respondents were at the county level; there were 23 state specialists who took the survey.

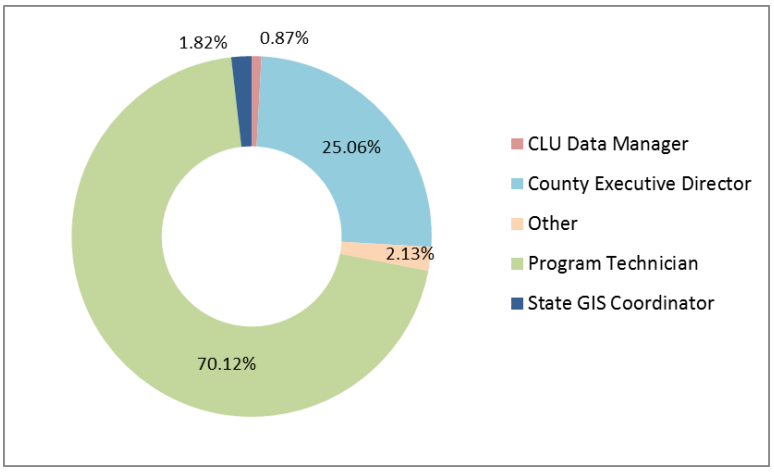



*Chart 1: Positions Held by Respondents*

**3. What is today's date?**

The largest number of responses was received on the first day of the survey. The second largest number was received on the penultimate day.

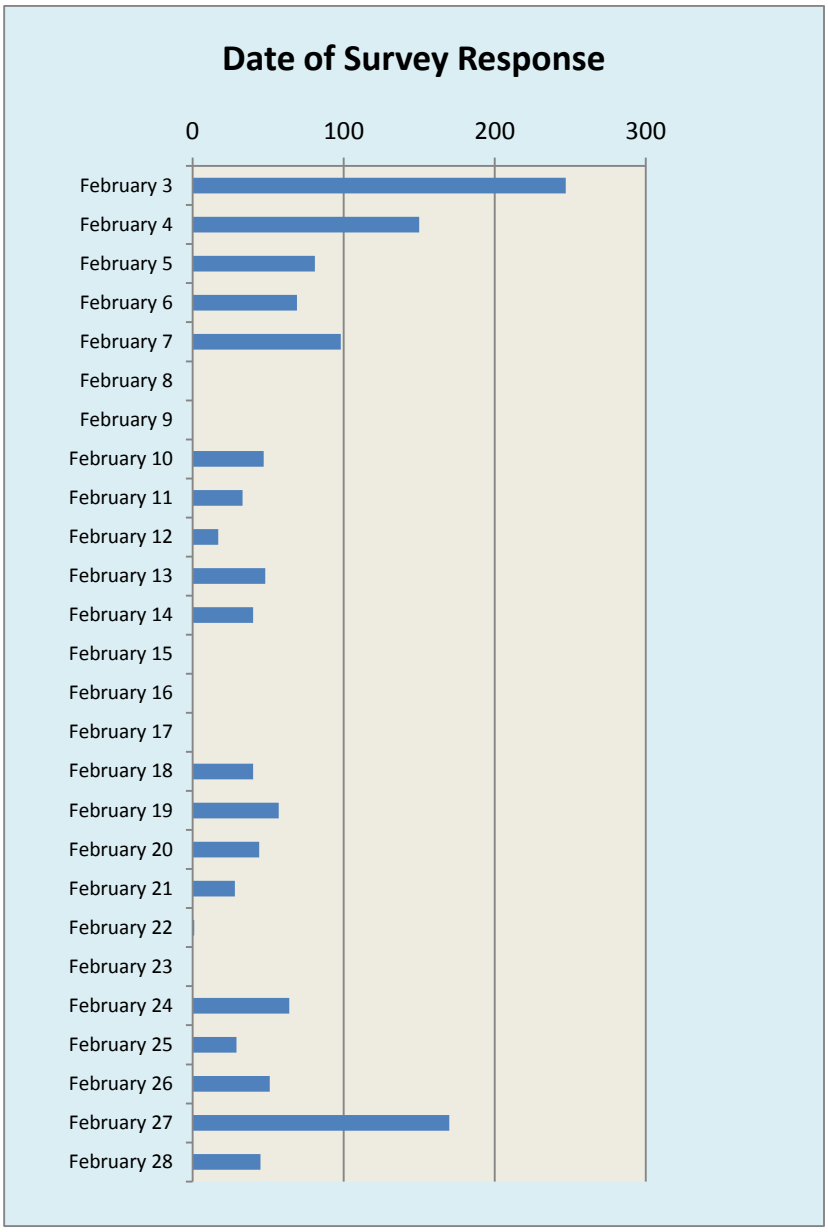



*Chart 2: Date of Survey Response*

**4. Where do you work?**

As demonstrated in question 2, all but 1.82 percent of respondents work in County Service Centers.

**5. What is your 5 digit State and County FIPS Code?**

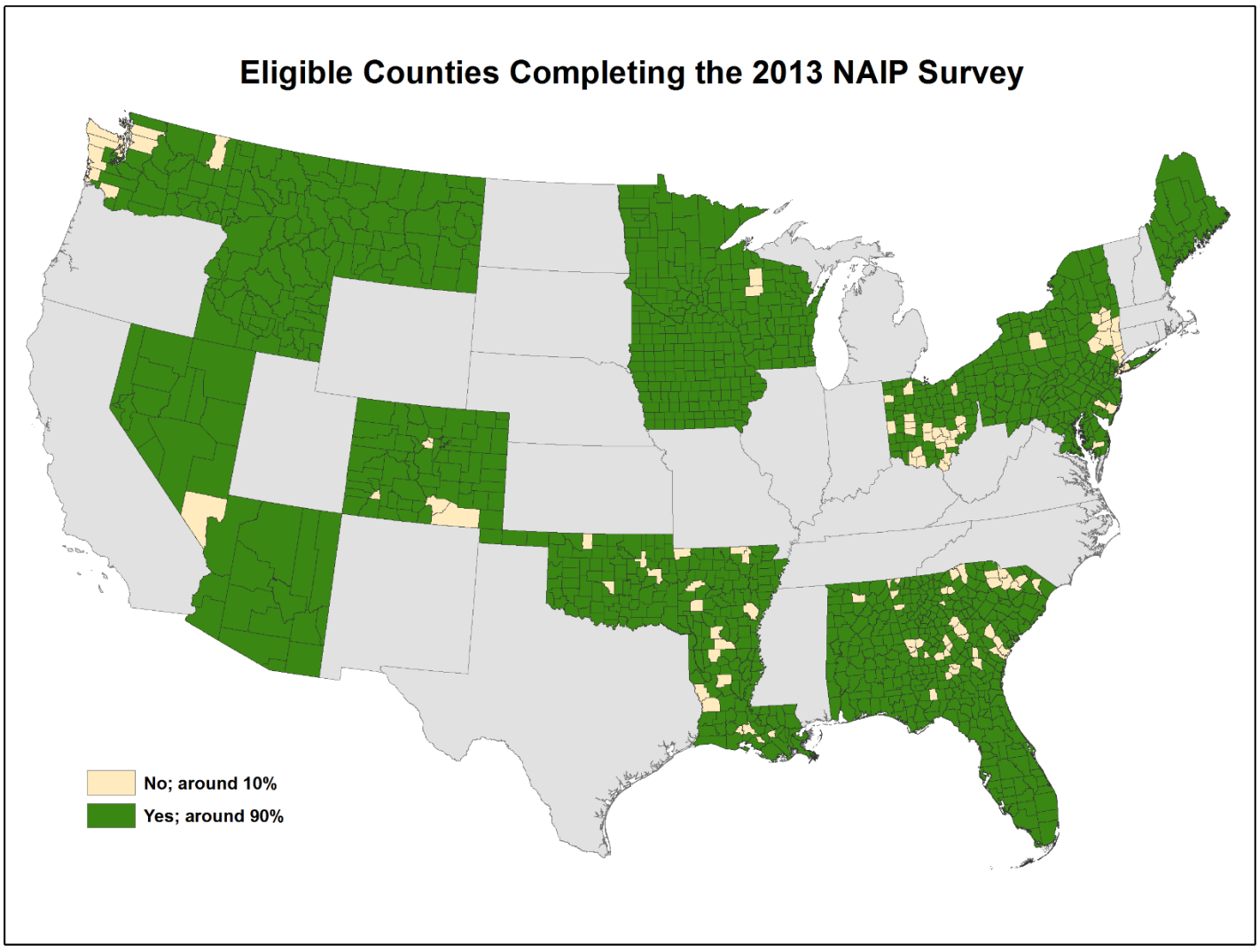
This question was somewhat problematic, because there were a number of cases where the same FIPS code had more than one response. There were a number of counties for which the state FIPS (first two digits) for the 5-digit county FIPS (question 5) and the state FIPS (question 6) did not agree. As a result, Alabama had a number of duplicate entries which may not have actually been by respondents from Alabama.

In some cases, because the respondent included a name, it was possible to look up the person and change the state code in the 5-digit FIPS to refer to the correct county and state. In other cases it was unclear; some responses may have been attributed to Alabama, Arizona, or Arkansas by mistake. In many cases, when there was a duplicate county response, the one with an un-matching FIPS was removed.

There also may have been situations where a person administering more than one county had completed the survey more than once, but had neglected to change the FIPS code to reflect the different county.

There also were a number of cases where someone began the survey and for some reason was unable to complete it. The answers which had been recorded in the incomplete survey appeared in the table, but if the survey was not complete the record was removed from the table.

After editing the table and removing duplicates, the results appeared as shown in the map below.




*Map1: Eligible Counties Completing the NAIP Survey*

6. **What is your 2-digit State FIPS Code?**

All states were represented at the state office level.

## Section B: Satisfaction with NAIP

*Question 21 has been moved to the beginning of this section in order to provide an overview of the program*

**Question 21. Overall, how satisfied are you with the 2013 NAIP acquisition and delivery to your County/State?**

Around 85% of the counties responding to the survey were either Satisfied of Very Satisfied with the 2013 NAIP imagery. (Around 10% of counties did not respond). The 23 GIS Specialists gave more positive responses; they did not give any "unsatisfied" responses.

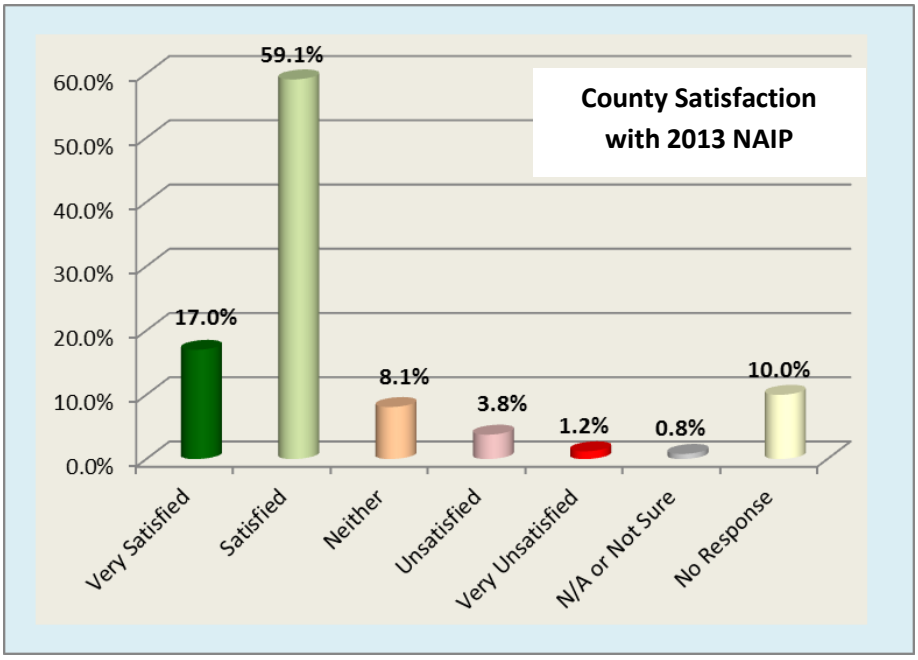



*Chart 3a: County Level Satisfaction with NAIP*

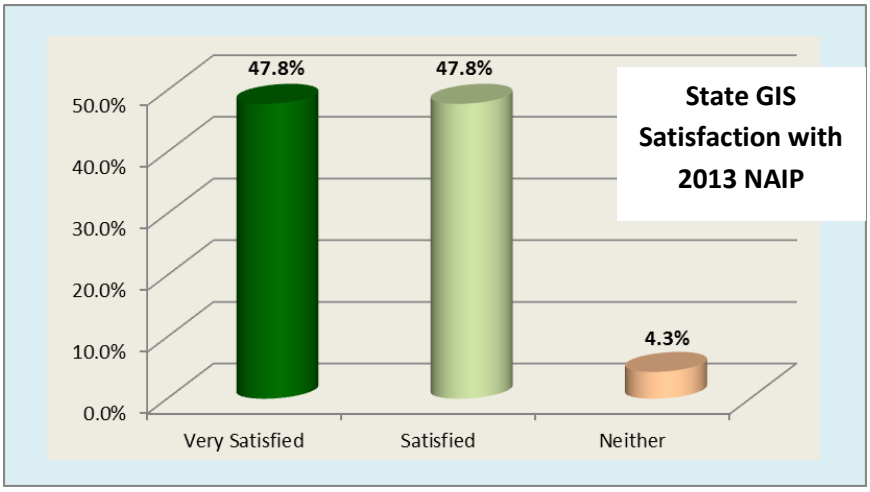
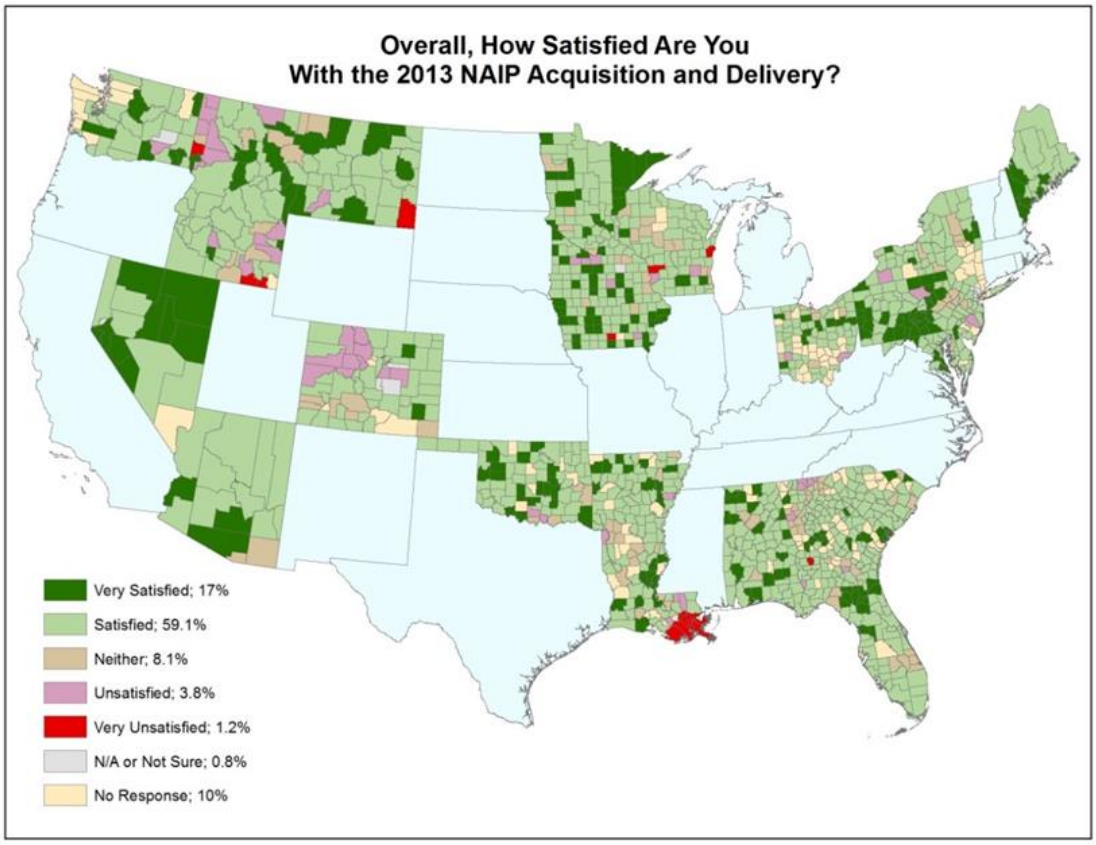
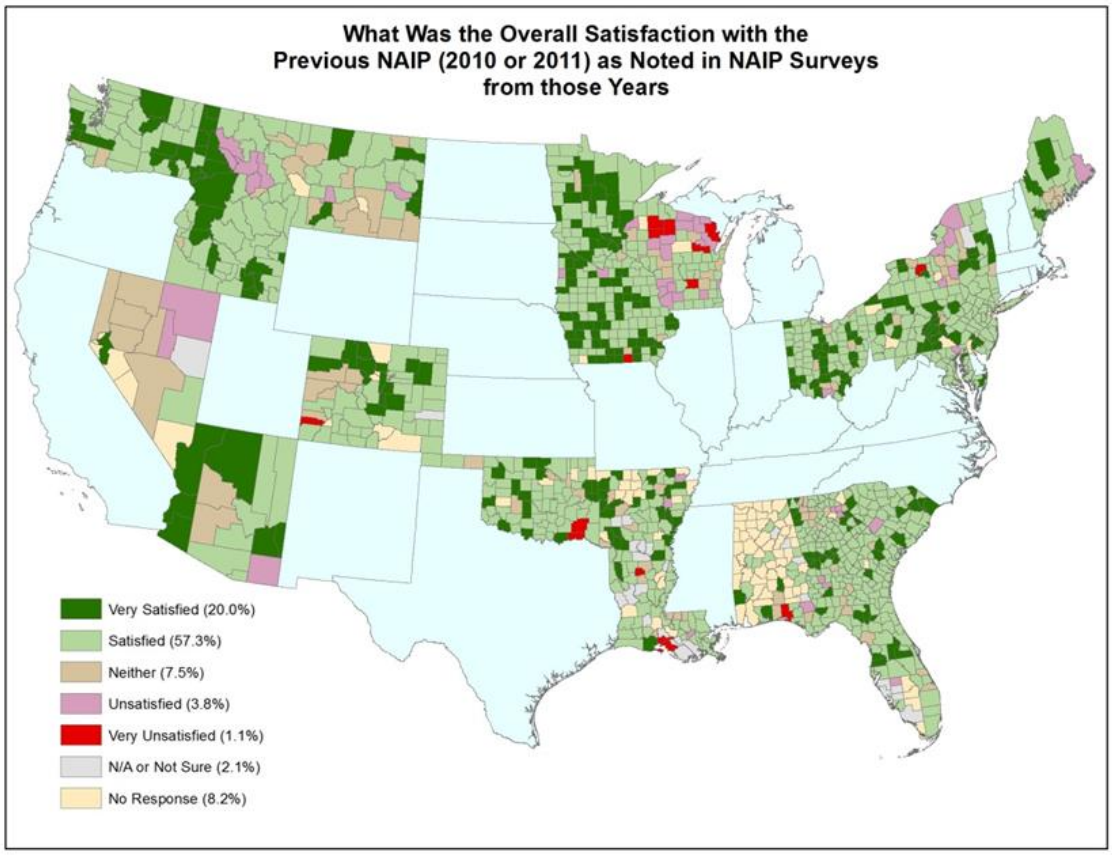



*Chart 3b: State Level Satisfaction with NAIP*

A comparison between the overall satisfaction in the 2013 NAIP and the satisfaction which was recorded in the surveys for the most current NAIP (from 2010 or 2013) shows little difference between the two sets of imagery. The number of counties providing negative responses is very low.




*Map 2a & 2b: Overall Satisfaction with NAIP Acquisition and Delivery, 2013 compared with 2010/2011*

A more in-depth analysis of satisfaction with NAIP will try to answer some of the questions posed by the map. Several of the states gave positive responses in all or most counties. Other states have areas of negative responses; especially noticeable are the delta area of Louisiana, western Colorado, and the panhandle of Idaho. In Louisiana, the large red area is served by only two county offices, and therefore represents the opinions of only two respondents, but it still indicates an area where there may be problems. The sections with negative responses in Idaho and Colorado also have combined service centers, and therefore the impression made by the map may be appear more negative than it really is.

**Satisfaction with NAIP as it is used in FSA Activities.**

Questions 7, 8 and 9 query satisfaction with the NAIP imagery as it is used in 9 different programs; programs with which county FSA personnel might be familiar. The questions deal with the date when 2013 NAIP was available, the dates when the imagery was acquired, and the quality of the imagery.

In all three questions, the responses were mostly positive for Acreage Reporting, CLU Maintenance, CRP Administration, Compliance and FSA Map Series Work. The responses were primarily "N/A or Not Sure" for BCAP, Farm Loans, and Grain Bin Work. Terra was somewhat in the middle. This pattern was seen for all three questions.

Not all questions were answered in any given response, and some duplicate responses may be included in the analysis.

The responses are shown as percentages as a way of normalizing the results for comparison. The negative responses (either Very Unsatisfied or Unsatisfied) were below 7% in all areas, with "Very Unsatisfied" having the lowest number of votes in nearly all activities.

These questions would be difficult to map because there are so many different questions being asked. However, it might be interesting to map some of the responses in order to pinpoint areas with difficulties. For the privacy of respondents, the comments, shown at the end of the survey, have not been included with their corresponding FIPS codes. However, when looking at the original data, one can perhaps see some of the reasons for the responses given.

Charts displaying the results as the actual number of responses, and with the responses in a spread sheet are available in Appendix 1 at the end of this report.

On the graphs on the next few pages, the greatest amount of dissatisfaction was shown with the dates on which 2013 NAIP was available. In general, the state GIS specialists gave more positive responses than did the counties.

There were many N/A or Not Sure responses for BCAP, Farm Loans, and Grain Bin Work. These activities probably do not require the use of NAIP, or they may be administered later in the year.

**Question 7: With regards to using NAIP imagery for the following activities, how satisfied are you with when the 2013 NAIP imagery was first made available to you? (Check all that apply.)**

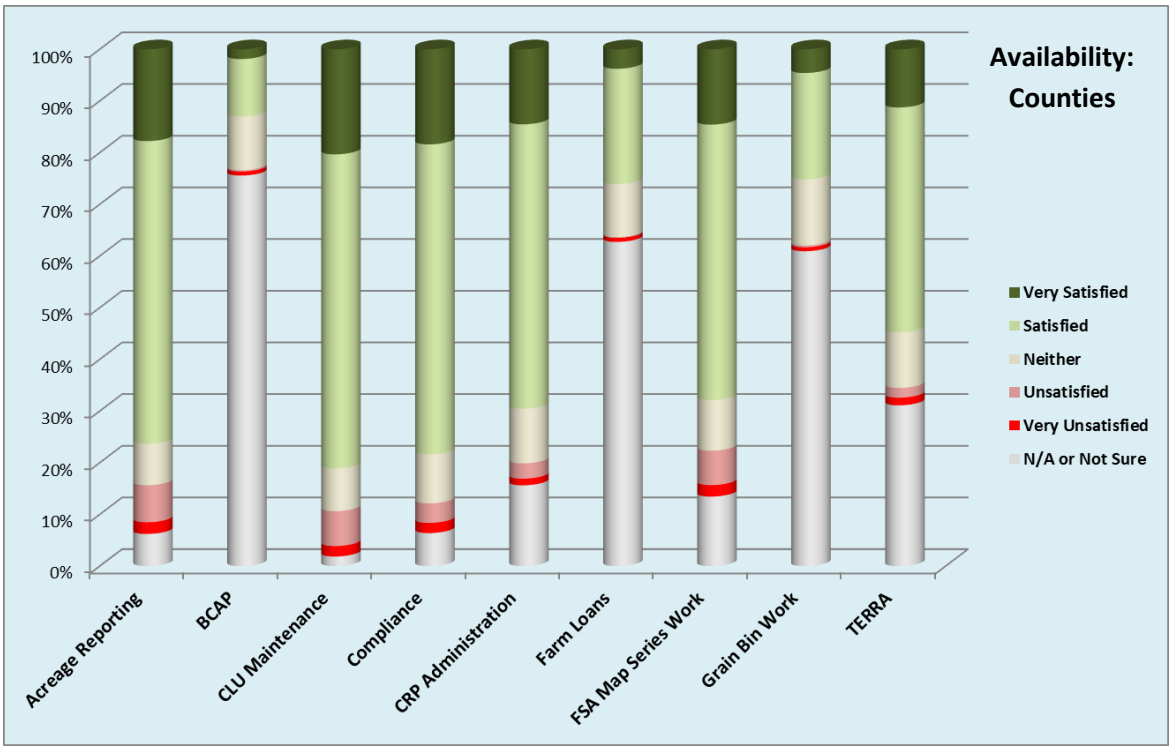



*Chart 4a: Satisfaction with Availability: Counties*

The same question, as answered by the 23 State level GIS Specialists, showed fewer positive responses for Acreage Reporting and CLU Maintenance, about the same for Compliance, and more positive responses for CRP Administration FSA Map Series Work, and TERRA. In general, responses from the state level were more positive than those from the counties.

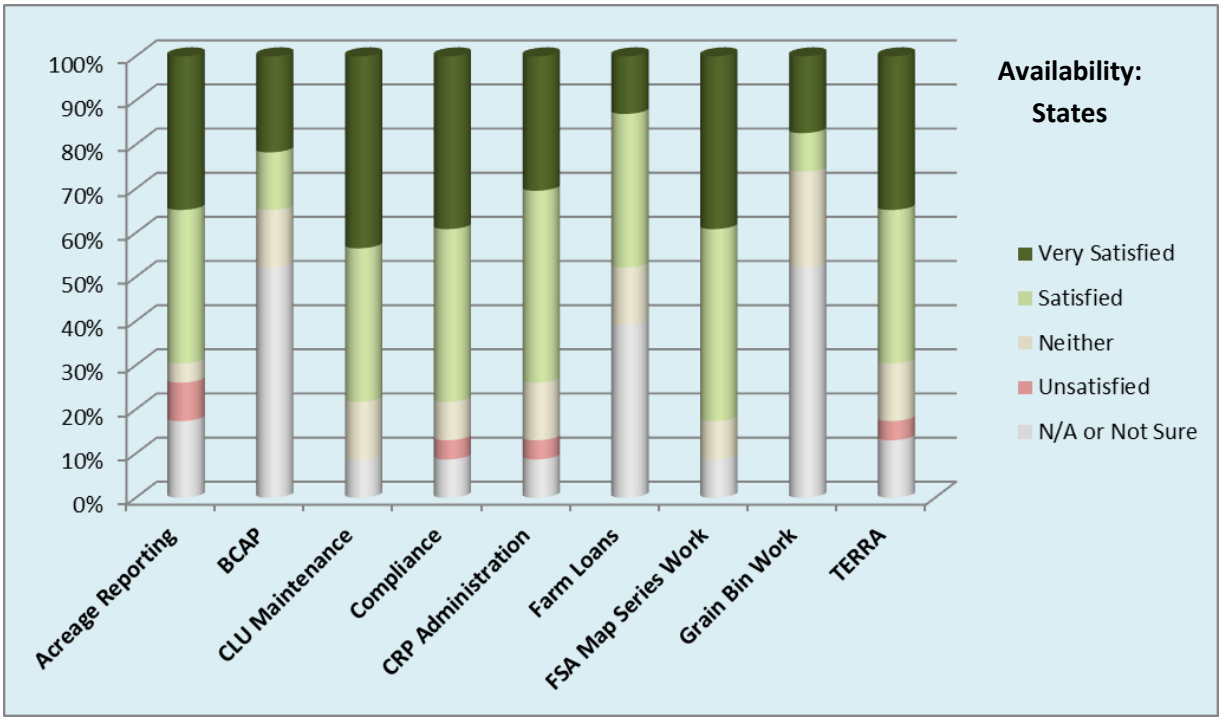



*Chart 4b: Satisfaction with Availability: States*

8. **With regards to using NAIP imagery for the following activities, how satisfied are you with the dates the imagery was flown? (Check all that apply.)**

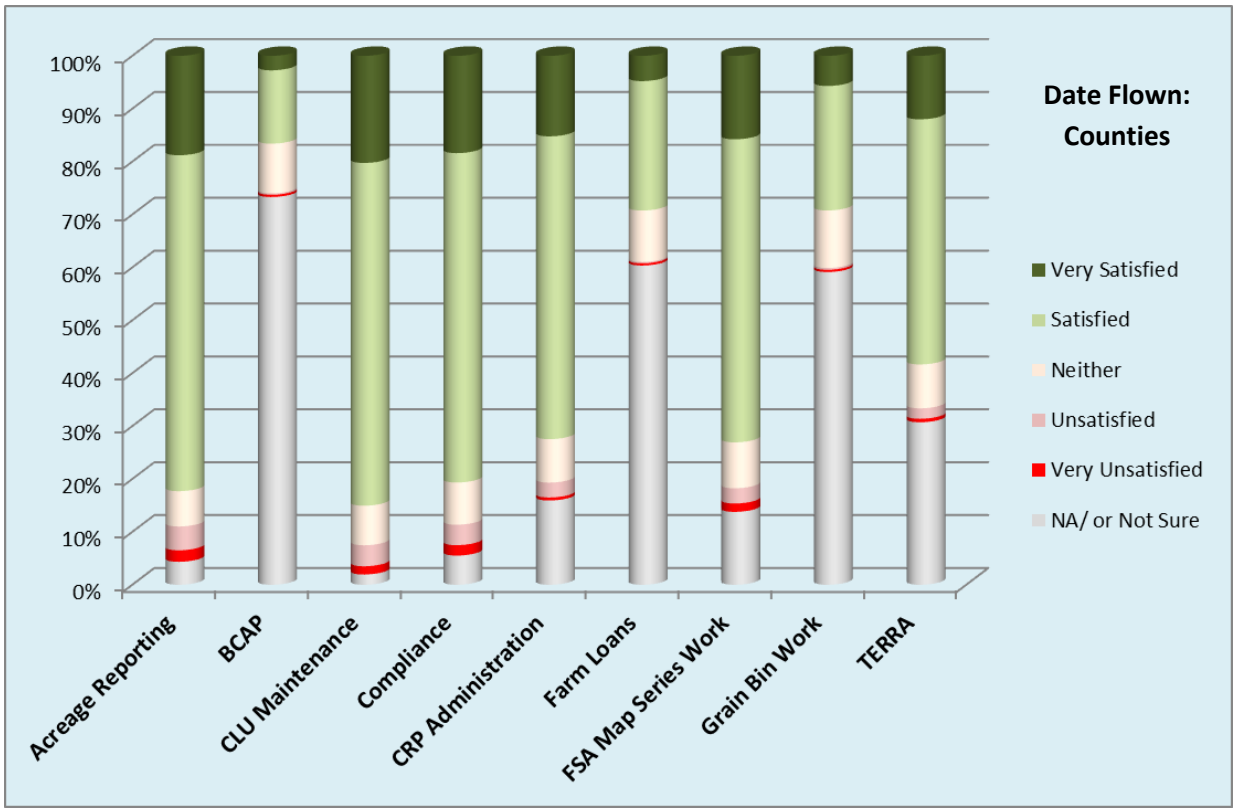



*Chart 5a: Satisfaction with Date Flown: Counties*

The same graph, with responses from the 23 state specialists, once again shows more positive responses than are seen in the counties' graph.

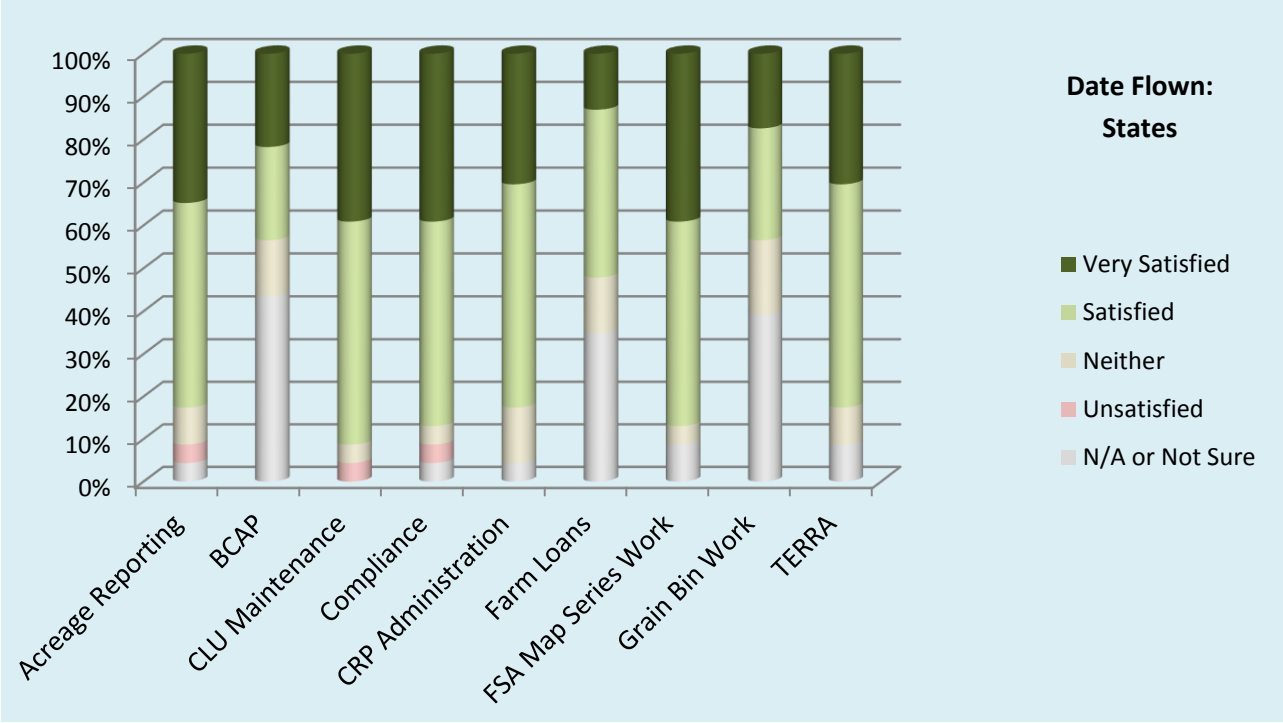



*Chart 5b: Satisfaction with Date Flown: States*

**9. With regards to using NAIP imagery for the following activities, how satisfied are you with the overall quality of the imagery? (Check all that apply.)**

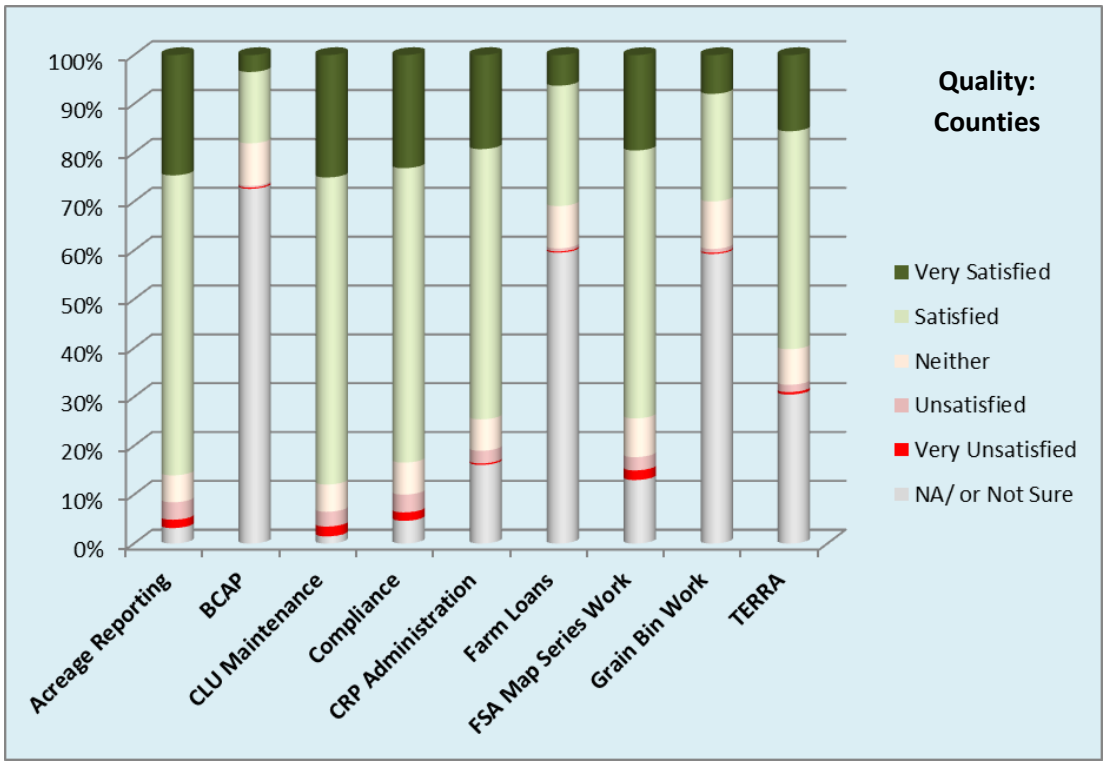



*Chart 6a: Satisfaction with Overall Quality: Counties*

The same graph, with responses from the 23 state specialists, once again shows more positive responses than are seen in the counties' graph.

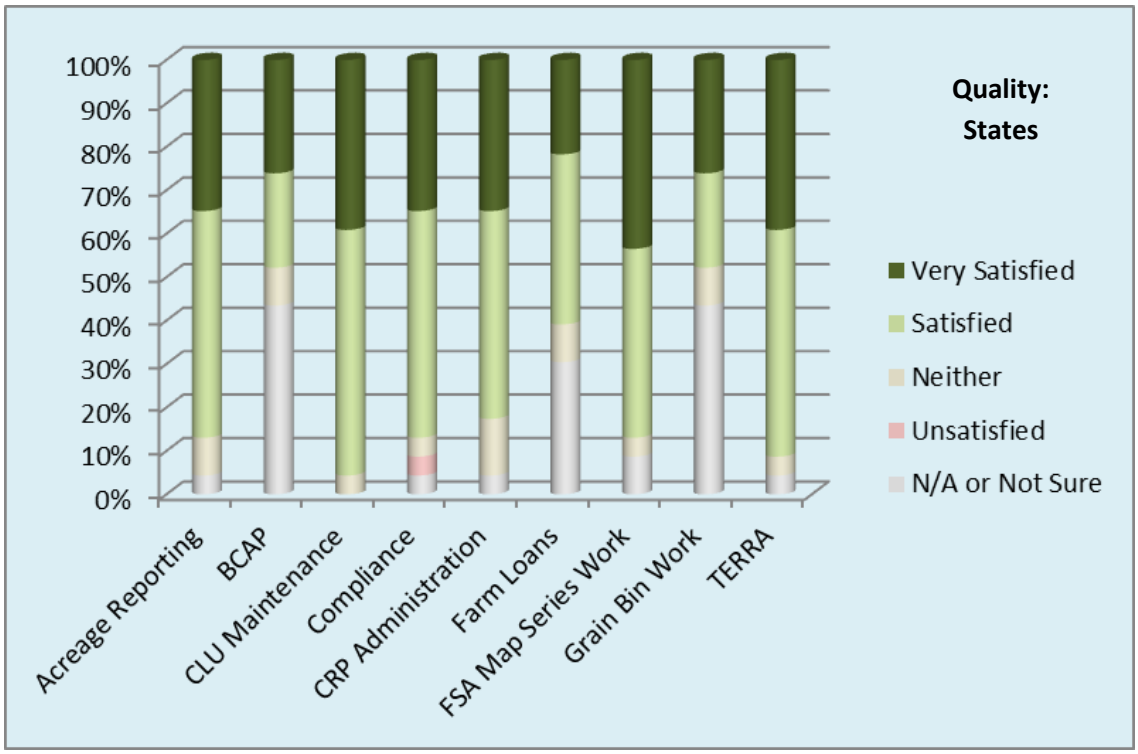



*Chart 6b: Satisfaction with Overall Quality: States*

## Comparisons of Responses from the County Personnel and State GIS Specialists

On the next two pages, the responses from the two groups, County and State personnel, are simplified and compared. "Very Satisfied" and "Satisfied" have been combined into one category called "Positive," while "Unsatisfied" and "Very Unsatisfied" have been combined into the category "Negative." The responses for the nine different FSA activities have been compared to the responses given to Question 21, which asked "Overall, how satisfied are you with NAIP Acquisition and Delivery." This question is different from Question 9, "With regards to using NAIP imagery for the following activities, how satisfied are you with the overall quality of the imagery?"

For almost all of these questions, the number of the positive responses is highest for the Overall Quality (Question 9), and lowest for Availability (Question 7). This was true for both groups of respondents. In addition, the responses to Question 21 were more positive than the responses to Questions 7 – 9 in almost all cases.

The comparison between responses from the counties and those from the state GIS Specialists show that, in general, the state personnel rated the imagery more highly than did the counties. The state personnel also responded with larger gaps between the responses for Overall Quality, Date Flown, and Availability. In some cases, they ranked the Availability of the imagery less positively than did the counties. From comments made in the last questions of the survey, we can see that the ability to obtain 2013 NAIP in time for this year's compliance work was one of the bigger obstacles to satisfaction with the imagery.

The spreadsheets on the next page show the simplified responses to Questions 7 – 9 as they compare with the responses to Question 21. There are two versions of the spreadsheet – from the counties and from the states.

On the page after that, the positive responses only for each of the nine activities are displayed on a graph. The numbers of positive responses dips for BCAP, Farm Loans and Grain Bin Work because these questions received more responses of "N/A or Not Sure." The response to question 21 is shown as a straight line across the top of the graph, demonstrating that the Overall Satisfaction seemed to be greater than the satisfaction for imagery use in different FSA activities. This may be an example of the whole being greater than the sum of its parts.

On page 14, the positive responses from Counties are shown in the top graph, and the graph with positive responses from the State GIS Specialists is displayed below it.

**Responses from County personnel to questions 7 -9**

| Overall Acquisition and Delivery (Question 21) | |
|---|---|
| Positive | 84.5% |
| Neutral | 9.0% |
| Negative | 5.5% |
| Not Sure | 0.9% |

| Date Available (Q. 7) Activities | Acreage Reporting | BCAP | CLU Maintenance | Compliance | CRP Administration | Farm Loans | FSA Map Series Work | Grain Bin Work | TERRA |
|---|---|---|---|---|---|---|---|---|---|
| Positive | 76.3% | 13.0% | 81.1% | 78.4% | 69.5% | 26.1% | 67.9% | 25.2% | 54.8% |
| Neutral | 8.0% | 10.4% | 8.3% | 9.5% | 10.6% | 10.3% | 9.8% | 12.8% | 10.8% |
| Negative | 9.4% | 1.0% | 8.8% | 5.8% | 4.3% | 0.9% | 8.9% | 1.1% | 3.4% |
| N/A or Not Sure | 6.2% | 75.6% | 1.9% | 6.4% | 15.6% | 62.7% | 13.5% | 60.9% | 31.1% |

| Dates Flown (Q. 8) Activities | Acreage Reporting | BCAP | CLU Maintenance | Compliance | CRP Administration | Farm Loans | FSA Map Series Work | Grain Bin Work | TERRA |
|---|---|---|---|---|---|---|---|---|---|
| Positive | 82.3% | 16.6% | 85.0% | 80.7% | 72.5% | 29.2% | 73.1% | 29.2% | 58.3% |
| Neutral | 6.7% | 9.4% | 7.5% | 8.0% | 8.2% | 9.7% | 8.7% | 10.9% | 8.3% |
| Negative | 6.7% | 0.7% | 5.5% | 5.8% | 3.4% | 0.7% | 4.5% | 0.8% | 2.6% |
| Not Sure | 4.3% | 73.3% | 1.9% | 5.5% | 15.9% | 60.4% | 13.8% | 59.1% | 30.7% |

| Overall Quality (Q. 9) Activities | Acreage Reporting | BCAP | CLU Maintenance | Compliance | CRP Administration | Farm Loans | FSA Map Series Work | Grain Bin Work | TERRA |
|---|---|---|---|---|---|---|---|---|---|
| Positive | 86.0% | 18.0% | 87.9% | 83.4% | 74.6% | 30.9% | 74.4% | 29.9% | 60.2% |
| Neutral | 5.5% | 8.7% | 5.6% | 6.6% | 6.4% | 8.7% | 7.9% | 9.7% | 7.3% |
| Negative | 5.3% | 0.6% | 5.0% | 5.4% | 2.9% | 0.9% | 4.7% | 1.0% | 2.0% |
| Not Sure | 3.2% | 72.6% | 1.5% | 4.7% | 16.1% | 59.6% | 13.0% | 59.3% | 30.5% |

**Responses from State GIS Specialists to questions 7 -9**

| Overall Acquisition and Delivery (Question 21) | |
|---|---|
| Positive | 95.7% |
| Neutral | 4.3% |
| Negative | 0.0% |
| N/A or Not Sure | 0.0% |

| Date Available (Q.7) Activities | Acreage Reporting | BCAP | CLU Maintenance | Compliance | CRP Administration | Farm Loans | FSA Map Series Work | Grain Bin Work | TERRA |
|---|---|---|---|---|---|---|---|---|---|
| Positive | 69.6% | 34.8% | 78.3% | 78.3% | 73.9% | 47.8% | 82.6% | 26.1% | 69.6% |
| Neutral | 4.3% | 13.0% | 13.0% | 8.7% | 13.0% | 13.0% | 8.7% | 21.7% | 13.0% |
| Negative | 8.7% | 0.0% | 0.0% | 4.3% | 4.3% | 0.0% | 0.0% | 0.0% | 4.3% |
| N/A or Not Sure | 17.4% | 52.2% | 8.7% | 8.7% | 8.7% | 39.1% | 8.7% | 52.2% | 13.0% |

| Date Flown (Q. 8) Activities | Acreage Reporting | BCAP | CLU Maintenance | Compliance | CRP Administration | Farm Loans | FSA Map Series Work | Grain Bin Work | TERRA |
|---|---|---|---|---|---|---|---|---|---|
| Positive | 82.6% | 43.5% | 91.3% | 87.0% | 82.6% | 52.2% | 87.0% | 43.5% | 82.6% |
| Neutral | 8.7% | 13.0% | 4.3% | 4.3% | 13.0% | 13.0% | 4.3% | 17.4% | 8.7% |
| Negative | 4.3% | 0.0% | 4.3% | 4.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| N/A or Not Sure | 4.3% | 43.5% | 0.0% | 4.3% | 4.3% | 34.8% | 8.7% | 39.1% | 8.7% |

| Overall Quality (Q. 9) Activities | Acreage Reporting | BCAP | CLU Maintenance | Compliance | CRP Administration | Farm Loans | FSA Map Series Work | Grain Bin Work | |
|---|---|---|---|---|---|---|---|---|---|
| Positive | 87.0% | 47.8% | 95.7% | 87.0% | 82.6% | 60.9% | 87.0% | 47.8% | 91.3% |
| Neutral | 8.7% | 8.7% | 4.3% | 4.3% | 13.0% | 8.7% | 4.3% | 8.7% | 4.3% |
| Negative | 0.0% | 0.0% | 0.0% | 4.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| N/A or Not Sure | 4.3% | 43.5% | 0.0% | 4.3% | 4.3% | 30.4% | 8.7% | 43.5% | 4.3% |

*Chart 7: Spreadsheets of Responses to Questions 7 -9*

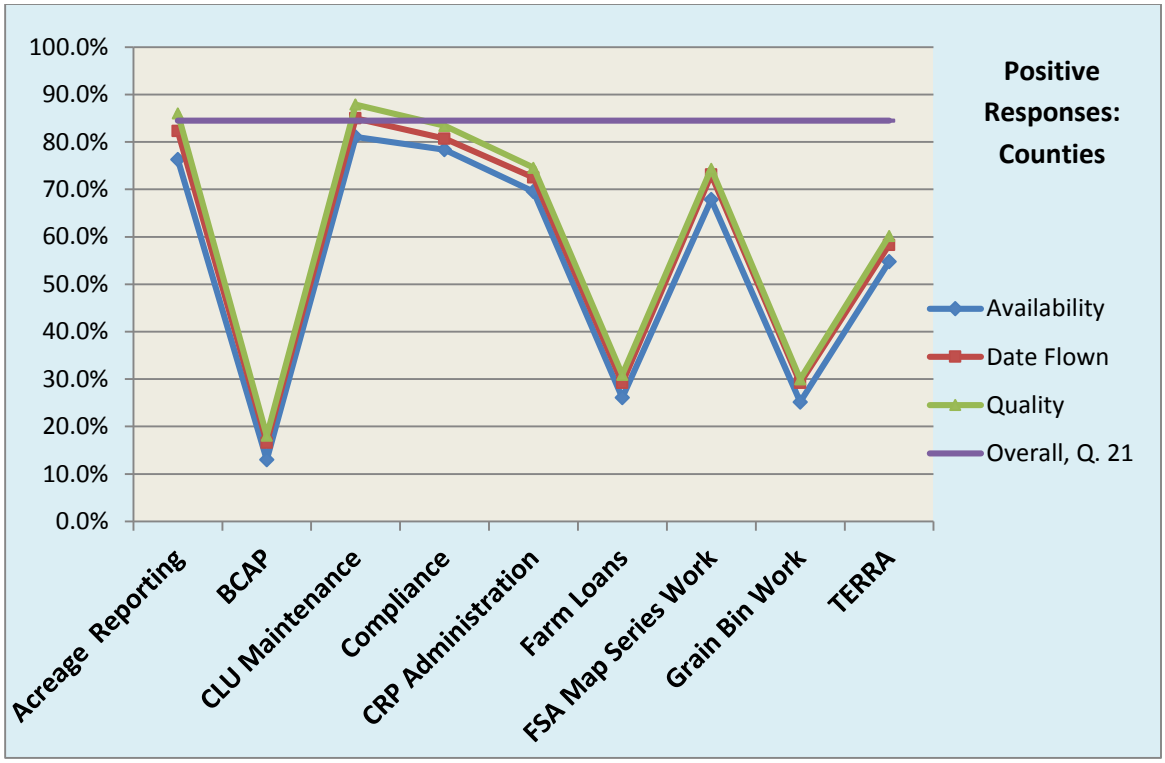



*Chart 8a: Graph of Positive Responses: Counties*

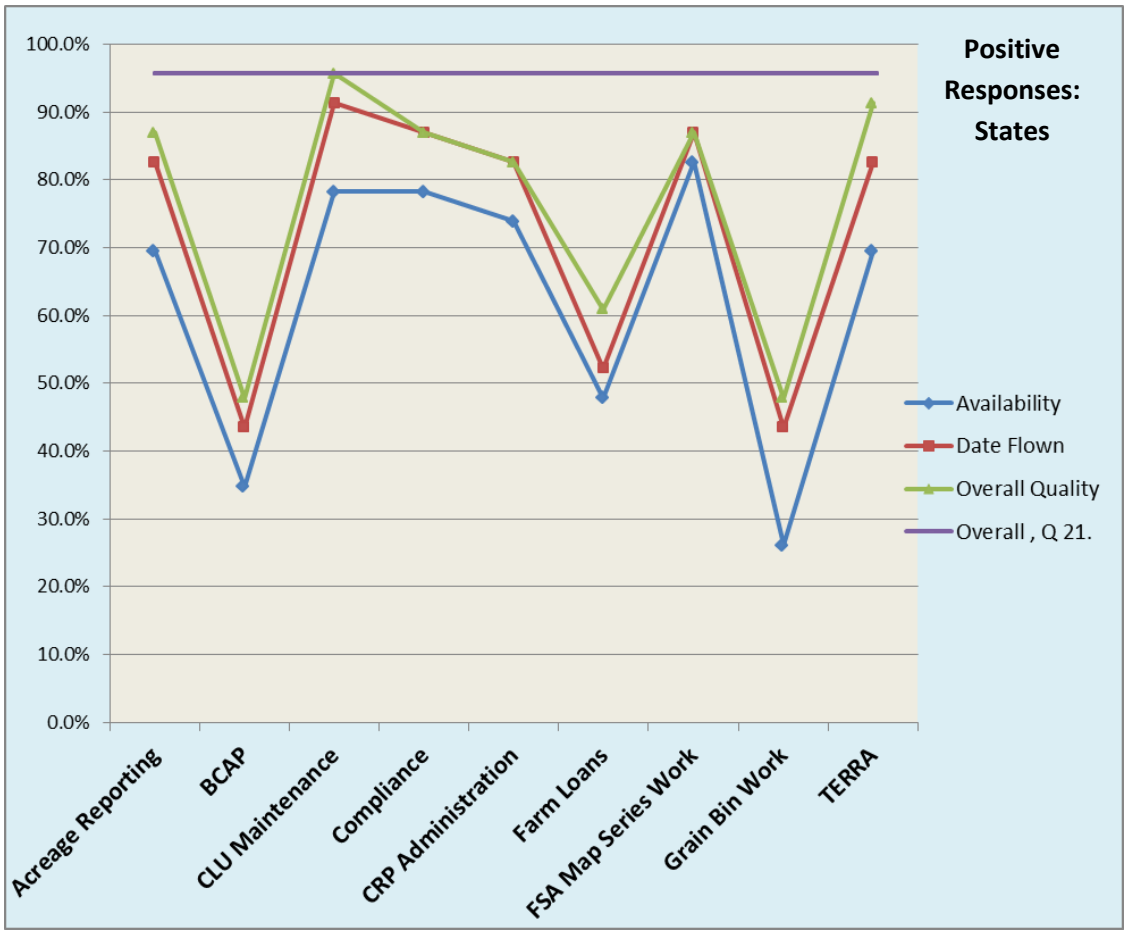



*Chart 8b: Graph of Positive Responses: States*

## Section C: Questions Regarding NAIP Image Quality
## Visual Quality

Questions 18 – 20 deal with the quality of the NAIP imagery by asking the respondents to rate the Darkness or Lightness, the Contrast, and the Color. Question 21, which was presented at the beginning of Section B, dealt with "Overall Satisfaction with NAIP Acquisition and Delivery." This seems to ask the user to rate the 2013 NAIP in all aspects.

As the quality of NAIP becomes progressively better and more accurate, we expect the survey responses to reflect this. When the responses from 2013 are compared to those for the previous imagery cycles (2010 and 2011) they are slightly better, but not appreciably so.

In this chart, the "No Response" numbers were removed; 2013 saw fewer ratings of "Excellent," "Poor," or "Unusable," and more ratings of "Good" and "Fair."

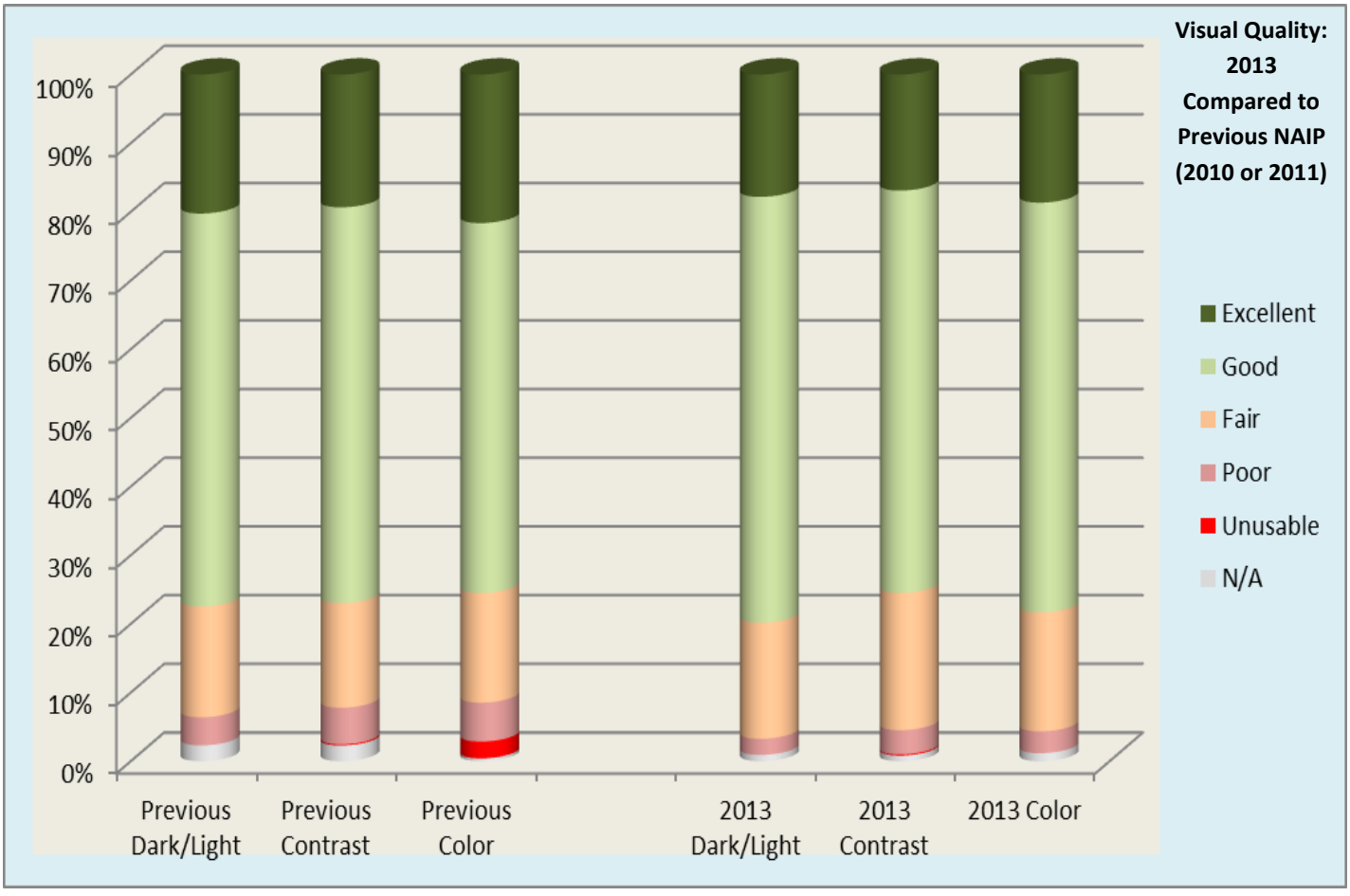
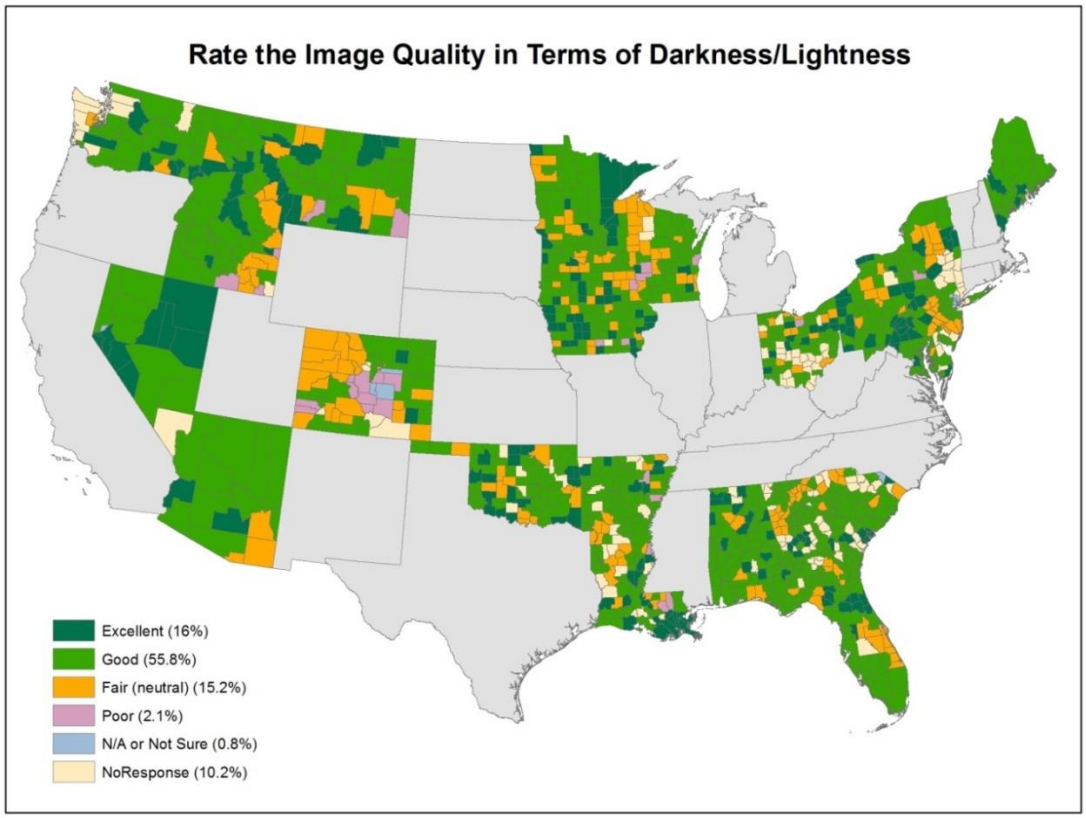
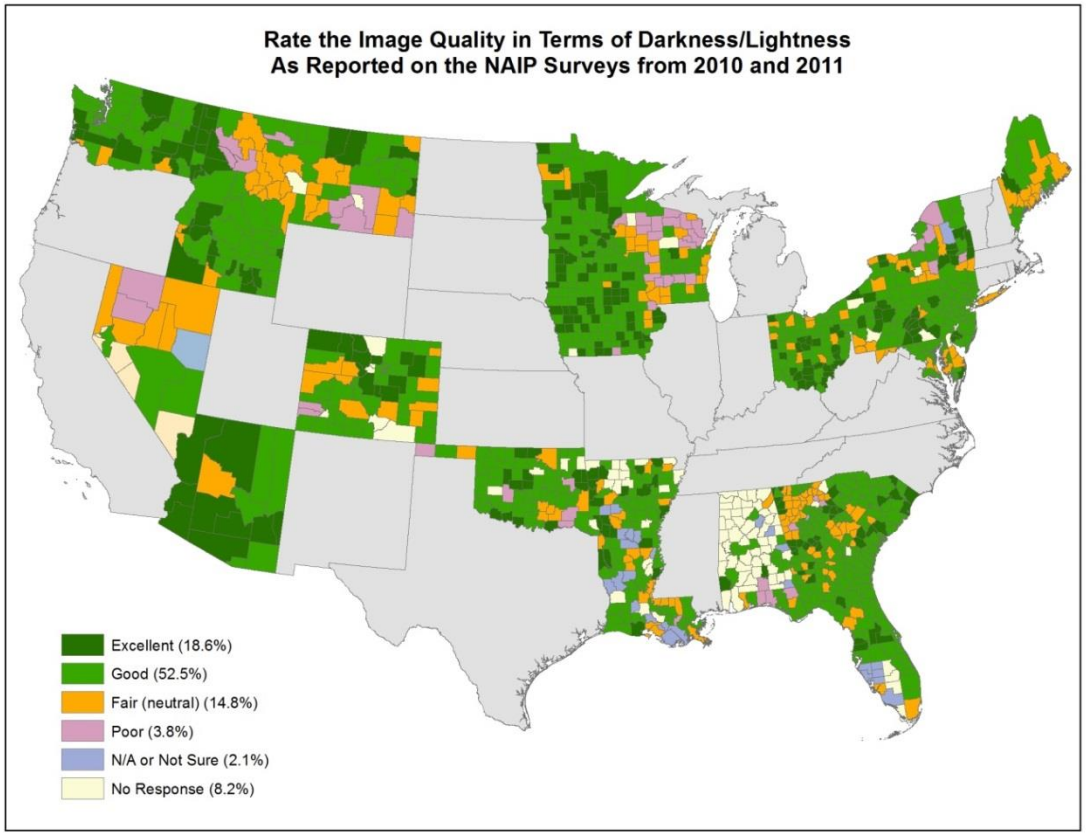



*Chart 7: Responses to Image Quality Questions (18 – 20); 2013 Compared with 2010 or 2011*

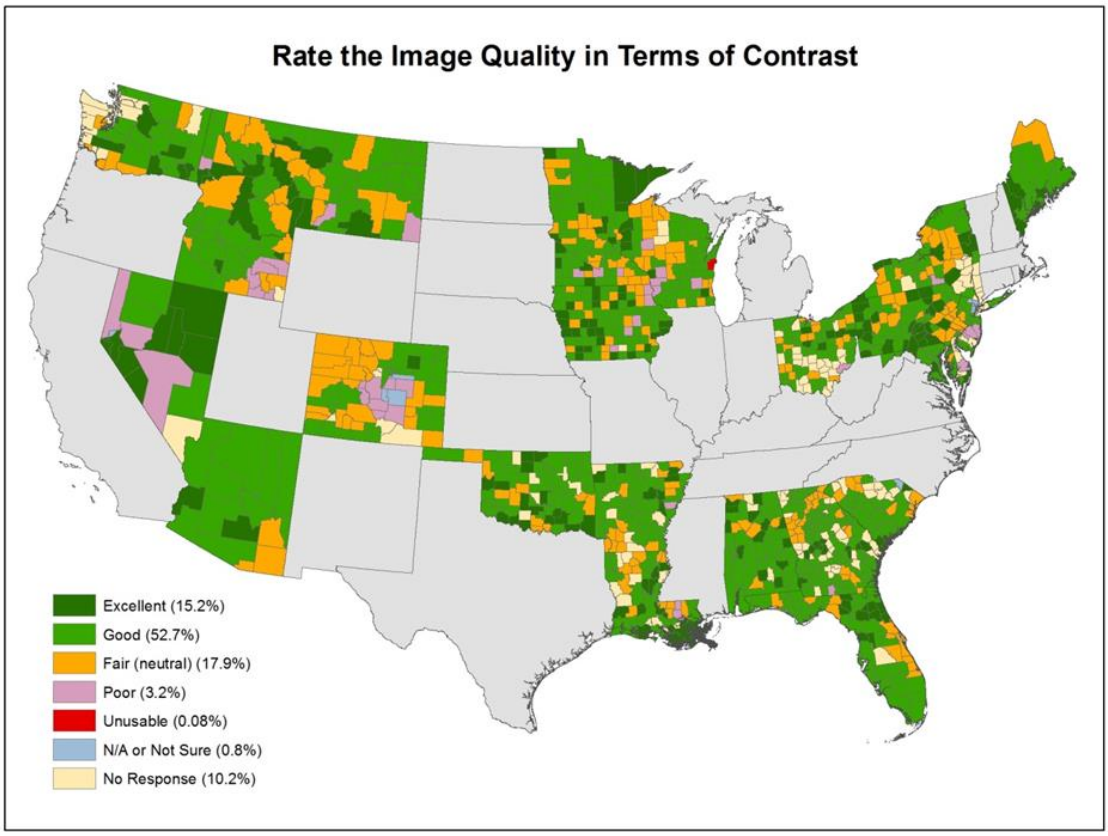
**18. Rate the image quality in terms of darkness/lightness:**

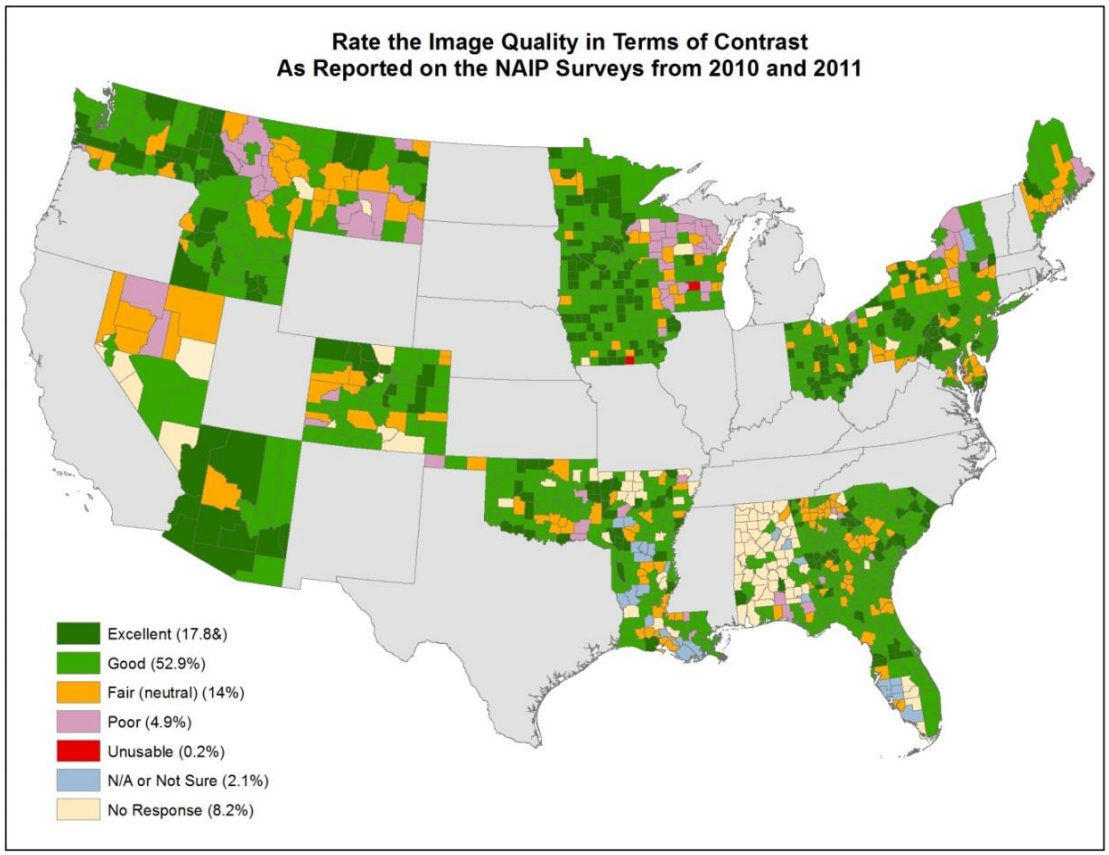



*Map 3a & 3b: Rate the Image Quality in Terms of Darkness/Lightness, 2013 compared to 2010/2011*

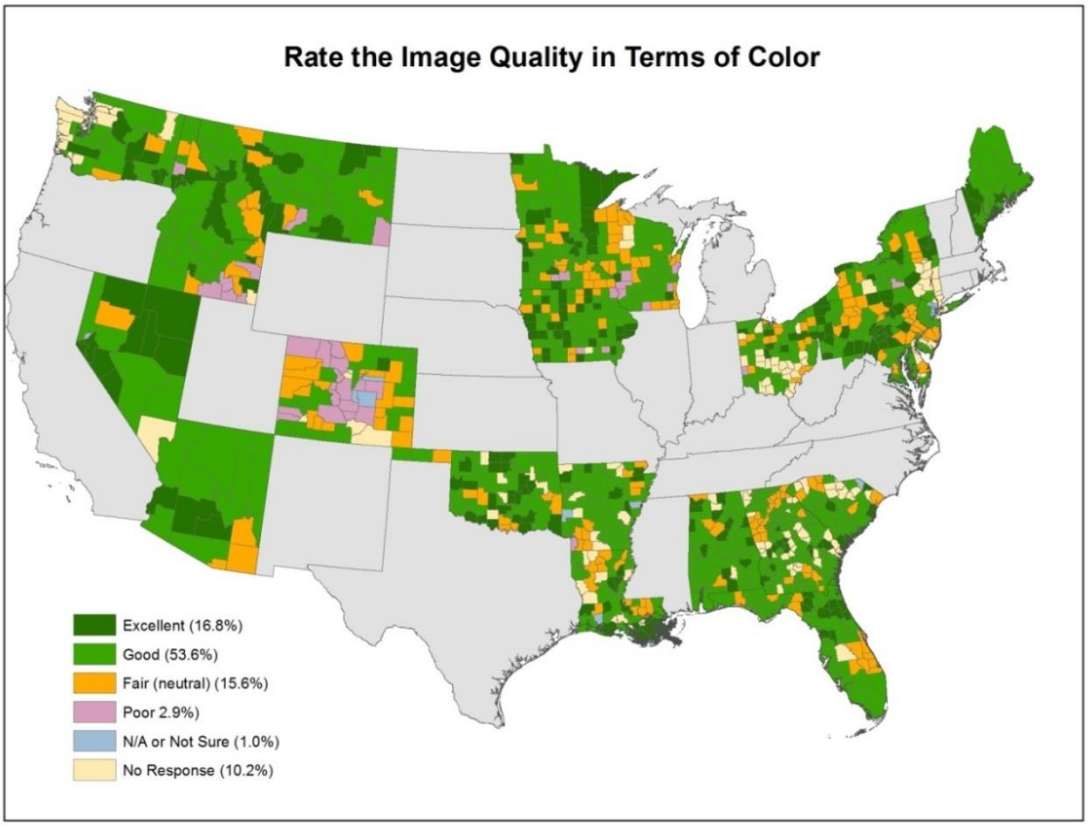
**19. Rate the image quality in terms of contrast:**

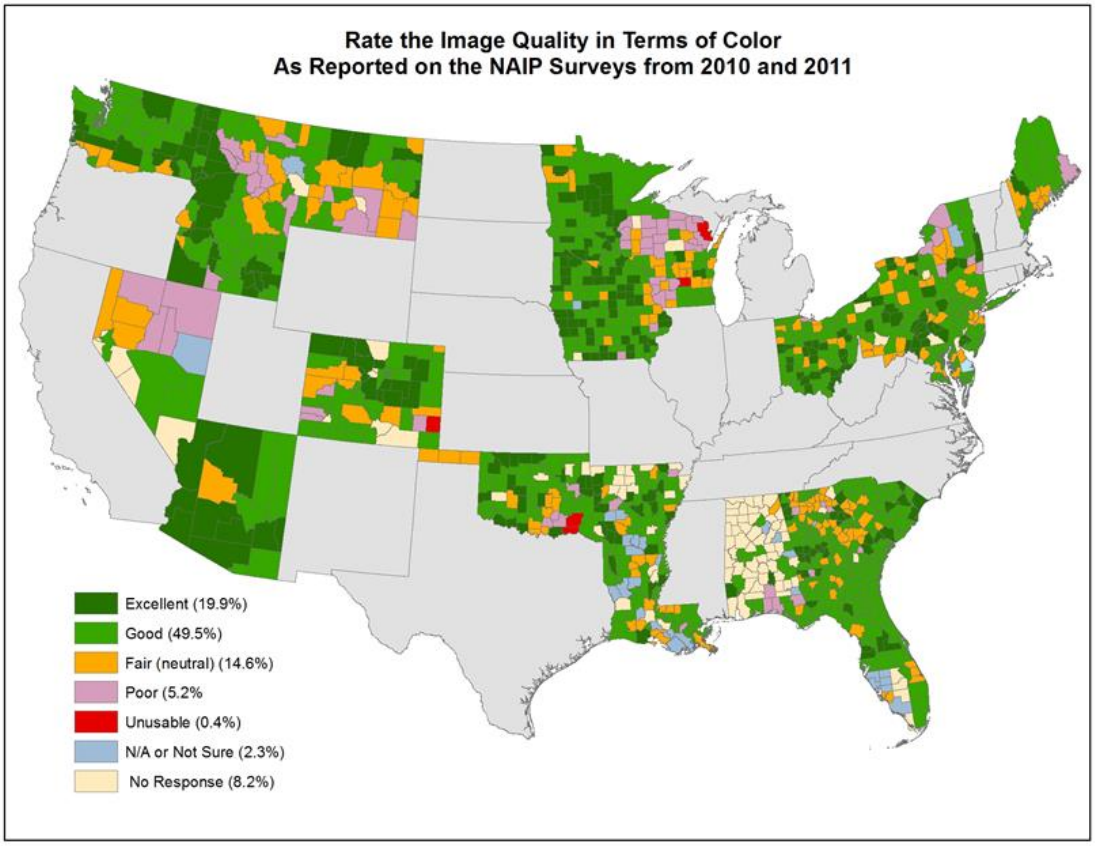



*Map 4a & 4b: Rate the Image Quality in Terms of Contrast, 2013 compared to 2010/2011*

**20. Rate the image quality in terms of color:**




*Maps 5a & 5b: Rate the Image Quality in Terms of Color, 2013 compared to 2010/2011*

As with the questions regarding satisfaction with NAIP for different FSA activities, the state GIS specialists as a group gave the imagery higher ratings than did the county personnel. In general, the opinion of the 2013 NAIP image quality was positive. The Negative responses from the counties on Overall Satisfaction often were due to the late availability (according to comments and responses for question 7).

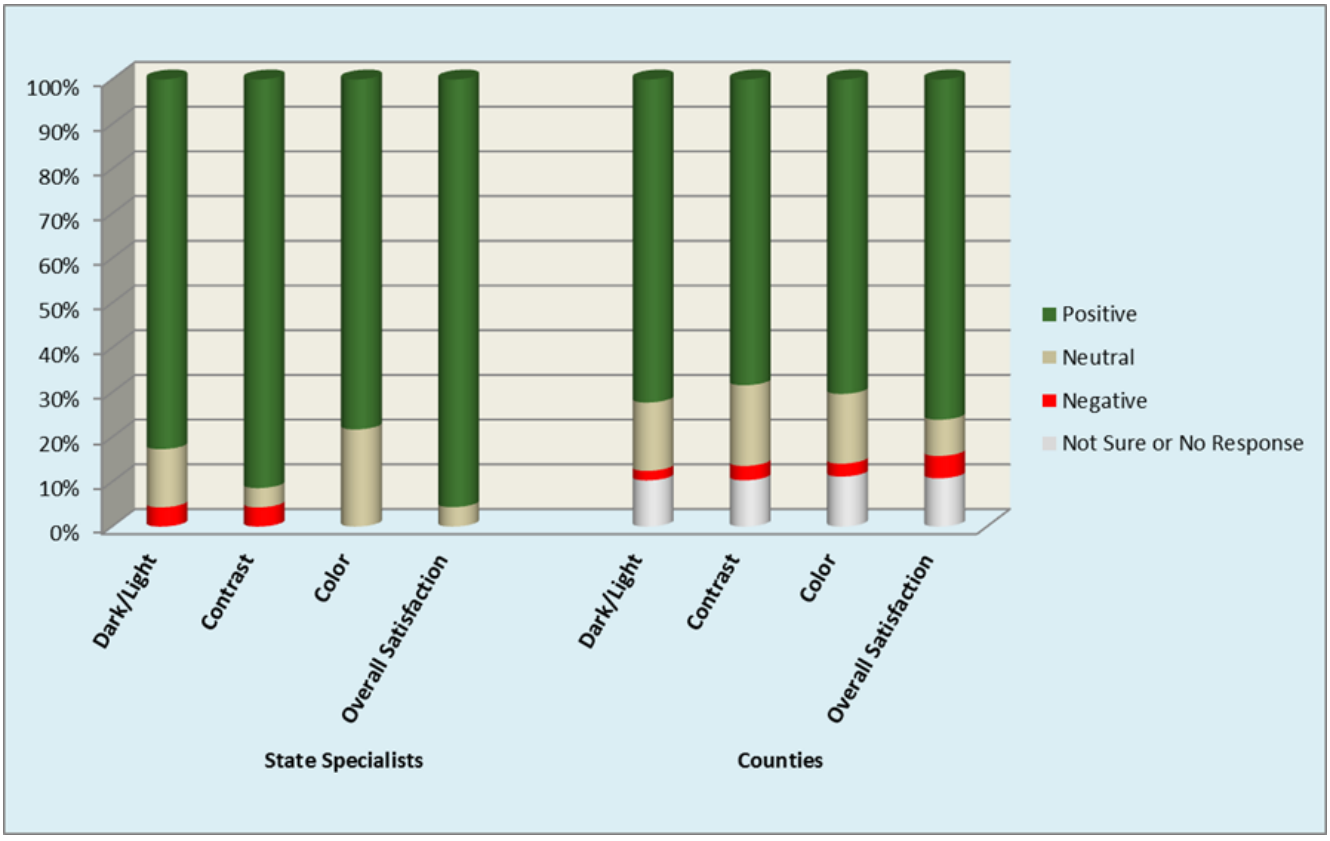



*Chart 10: Positive/Negative Responses to Questions 18 – 21); County Compared with State Personnel*

## Section C: Questions Regarding NAIP Image Quality

## Geometric Accuracy

Questions 22 and 23 ask the respondents to indirectly rate the geometric accuracy of the imagery by asking if they needed to edit the CLU boundaries, and why. If they did need to edit the CLU, they were then asked how many had needed to be moved. These responses are compared to those from the previous NAIP, dating from 2010 or 2011.

The charts on the following page compare the responses to this question from the 2013 NAIP Survey with those from the surveys in 2010 or 2011. There were more responses to the options saying that lines had been moved due to land use change, and fewer to the option that they were moved due to shifts in the imagery. This may indicate that NAIP is becoming more consistent, or perhaps that CLU have been well edited. The larger number of "Not Sure" responses may reflect the later availability of NAIP, and a lack of time (or available office personnel) to deal with updating CLU.

**22. Did CLU need to be edited to match the 2013 imagery?**

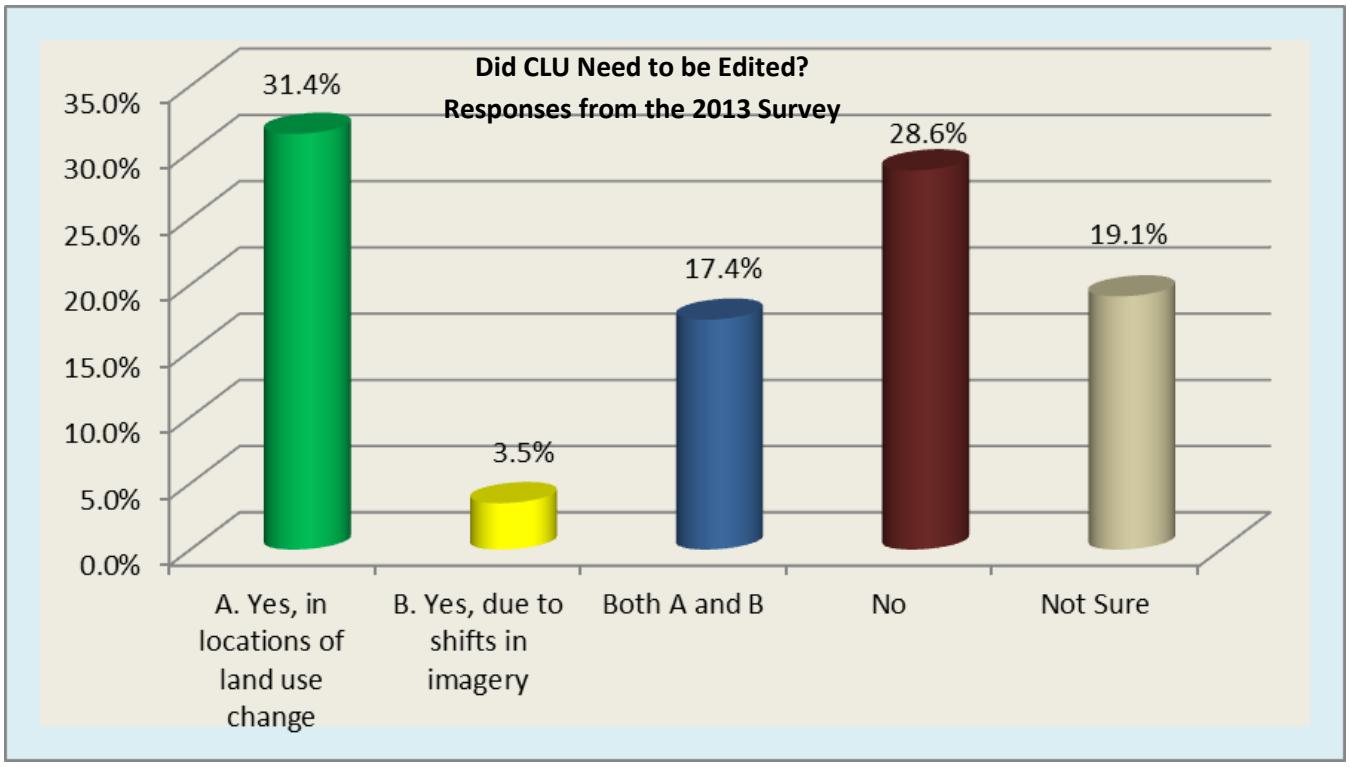



*Chart 11a: Did CLU Need to be Edited? 2013 Responses*

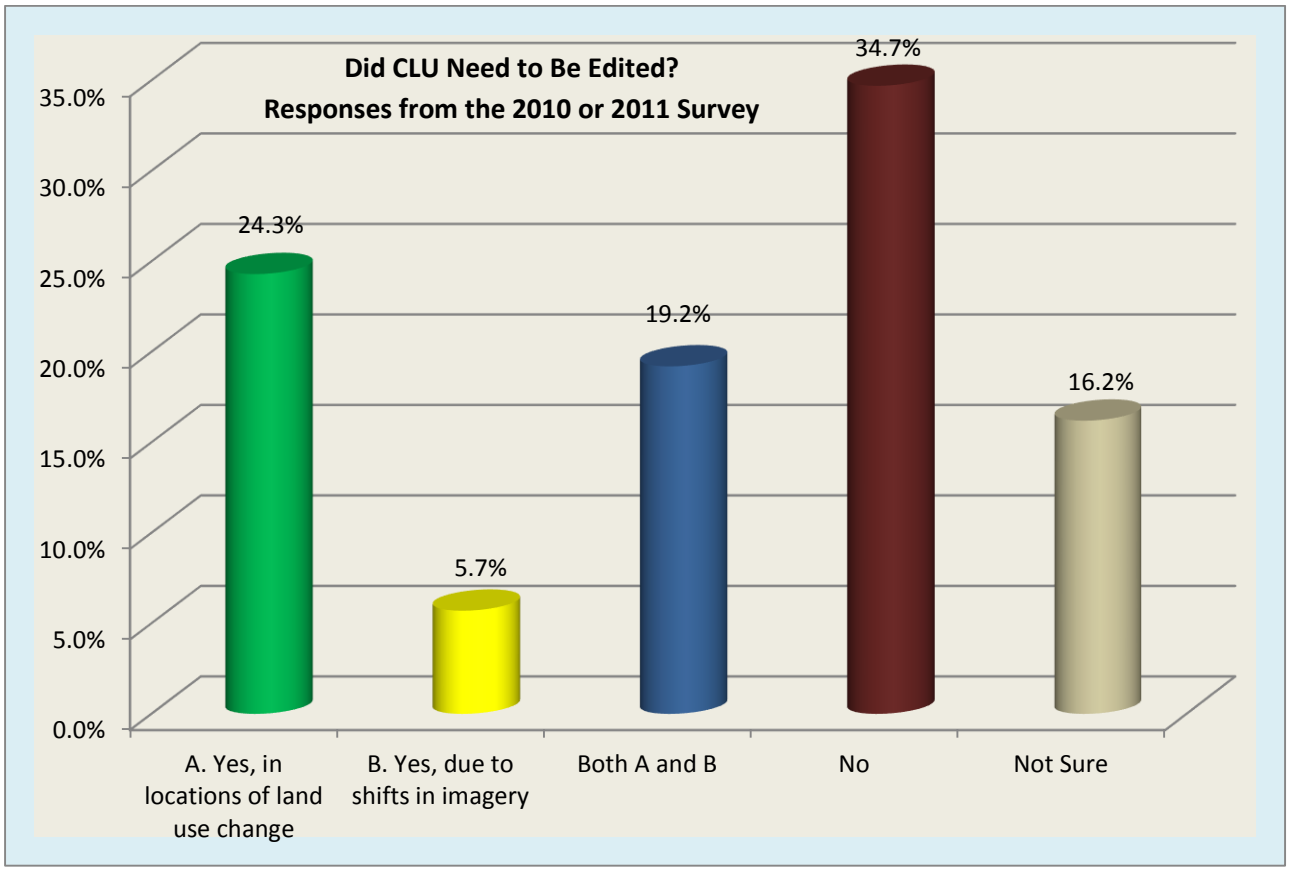
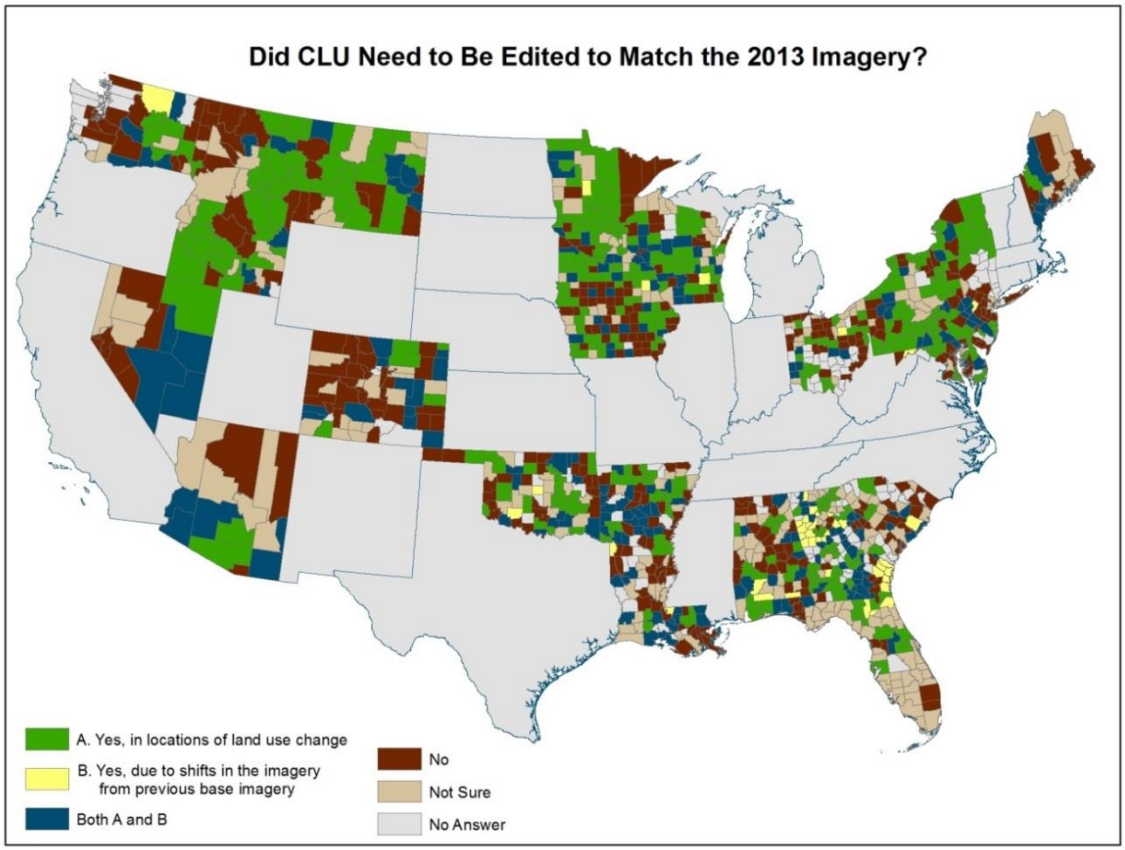
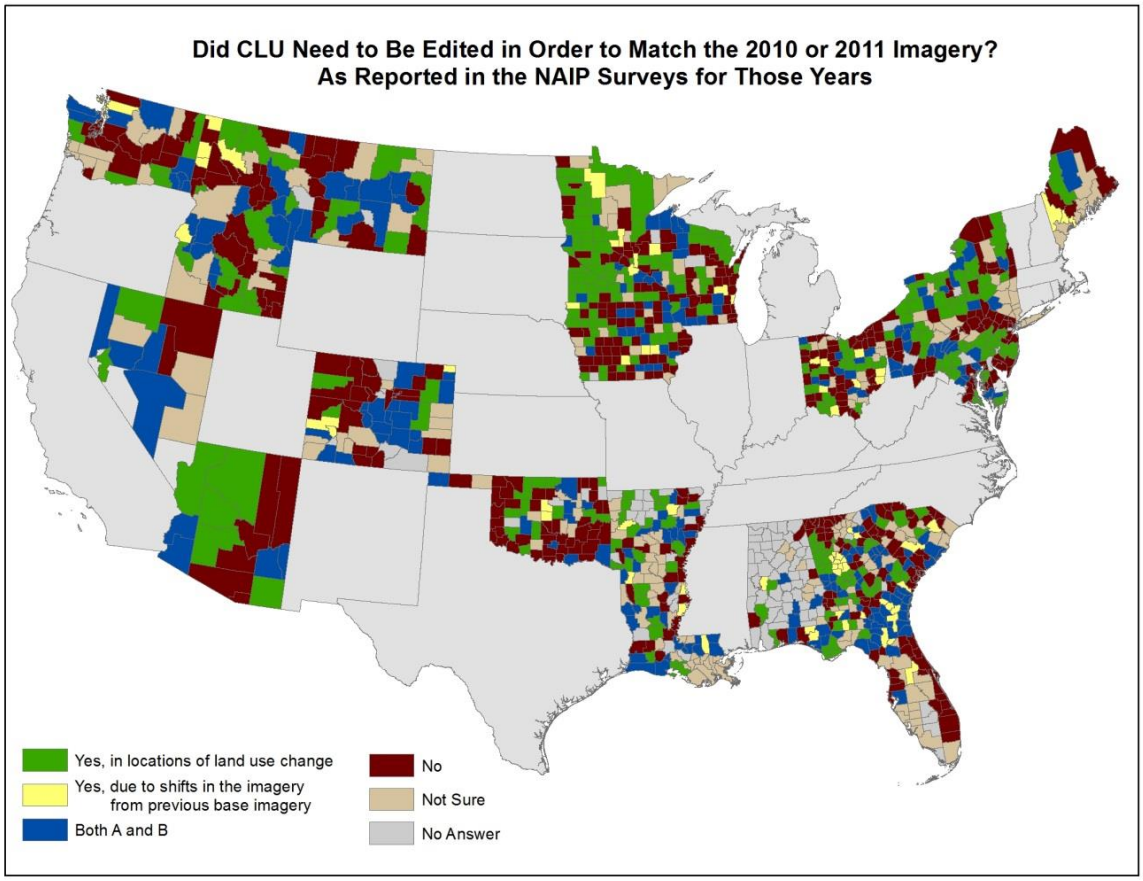


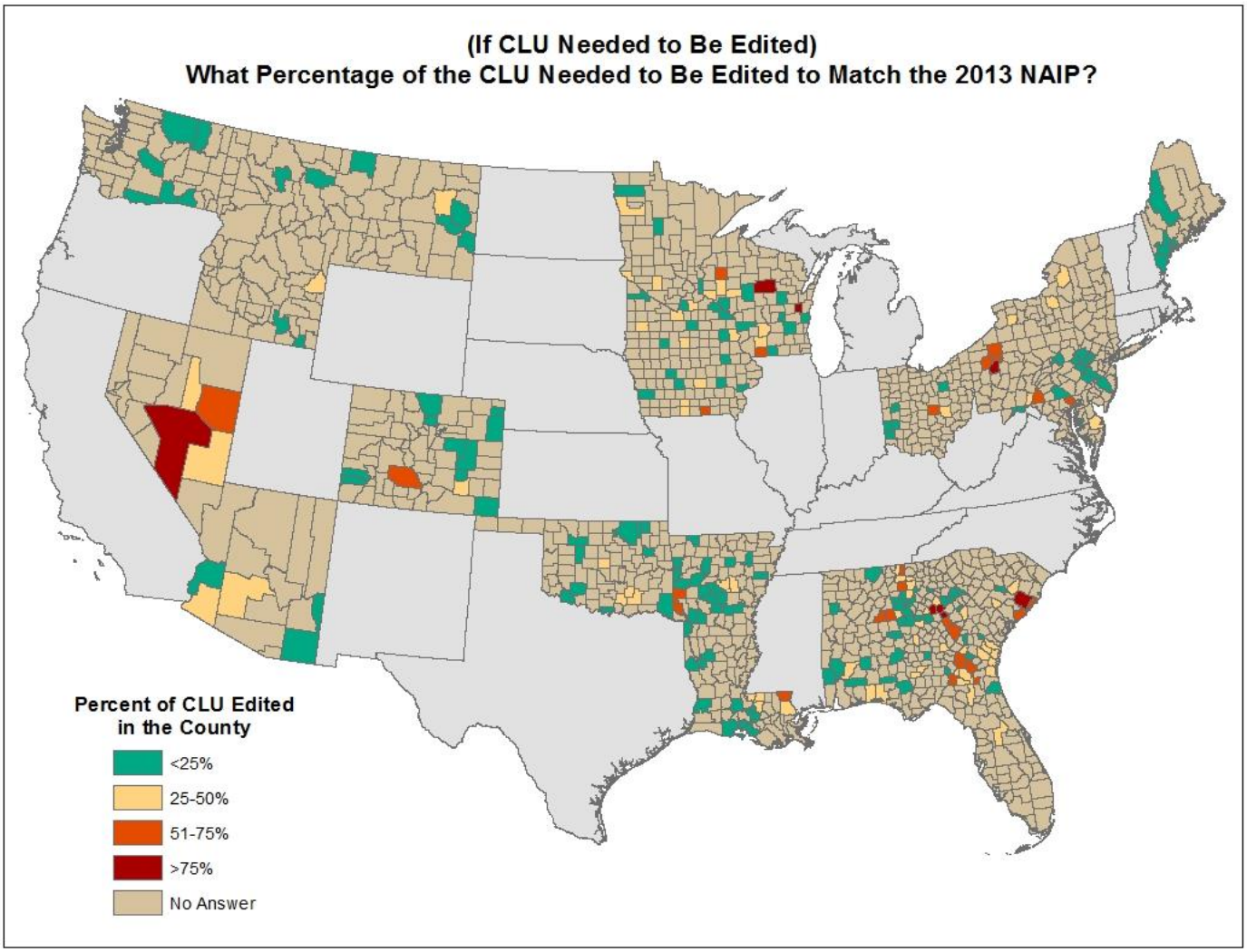

*Chart 11b: Did CLU Need to be Edited? 2010 or 2011 Responses*




*Maps 6a & 6b: Did the CLU Need to Be Edited? 2013 compared to 2010/2011*

**23. (If yes to question 22.) What percentage of your CLU needed to be edited to match the 2013 NAIP imagery?**




*Map 7: What Percentage of CLU Needed to be Edited?*

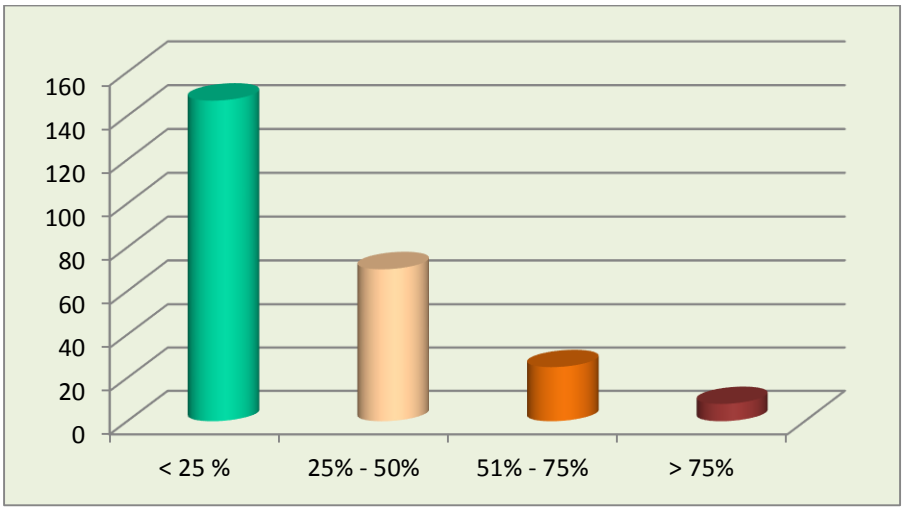



*Chart 12: What Percent of CLU Needed to be Edited?*

## Section D: Optimal Acquisition Dates

Questions 14 – 16 deal with the issue of when the imagery was made available to the county personnel, and when they would prefer to have imagery acquired. Question 17 asks about this year's growing season for the state, to help see how the actual growing season aligned with the requested acquisition period.

**14. On what date were you notified that the NAIP imagery for your state was available in the image service (via ArcGIS Desktop, Thin Client, or MIDAS)?**

The largest percentage of respondents indicated that they had been notified of NAIP availability in November or December. About 40% of the respondents indicated that they were not sure when they had been notified, and those counties with a response do not create clear pattern. All response dates are charted in Appendix 2.

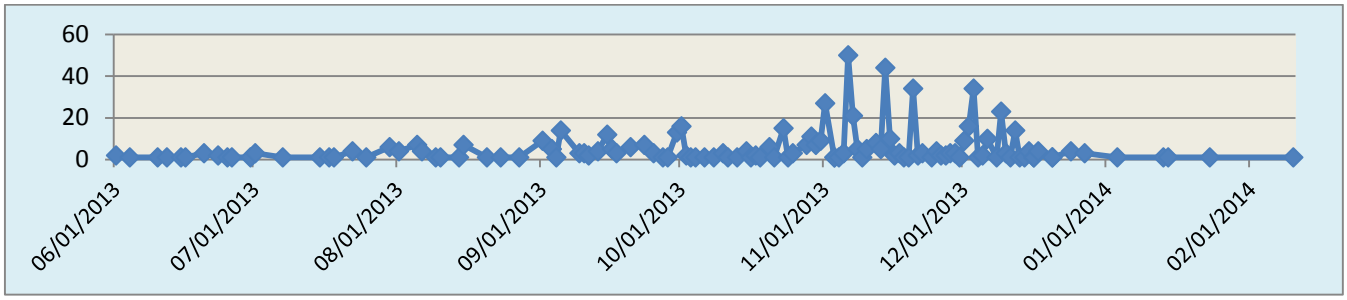
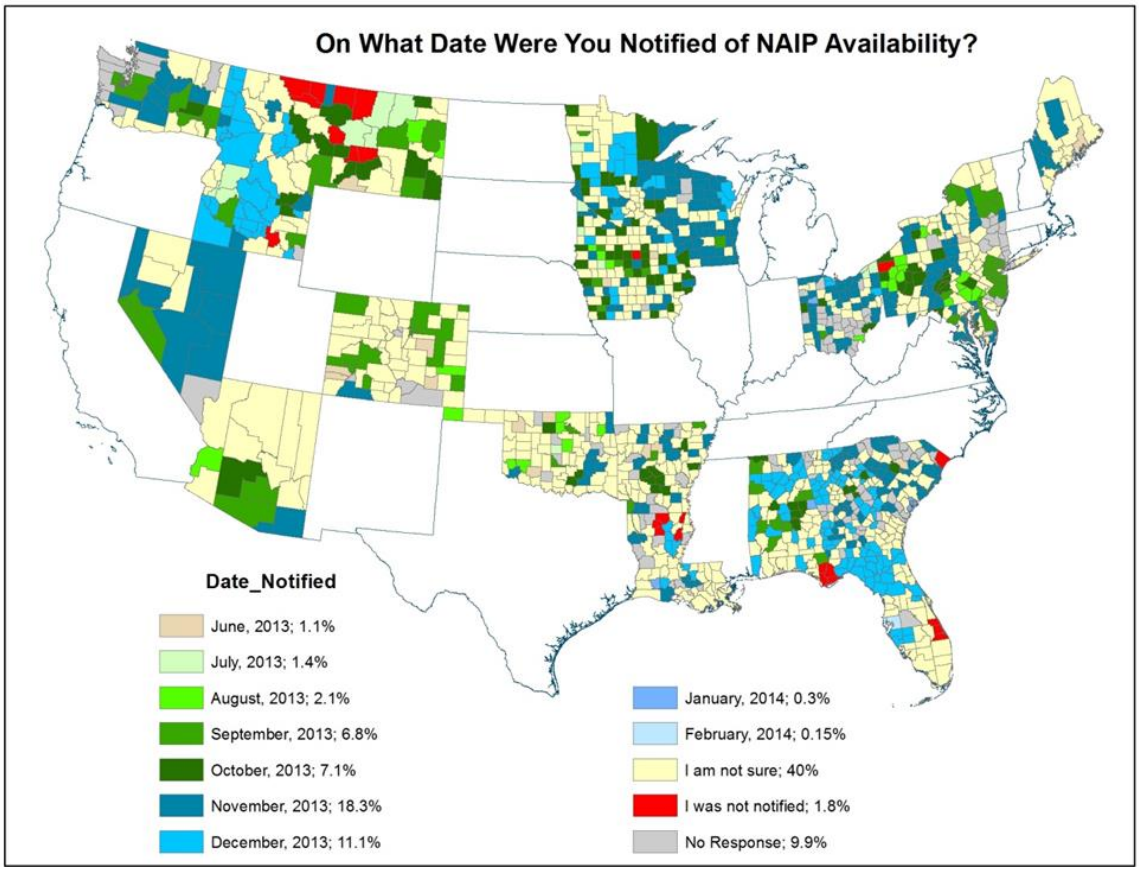


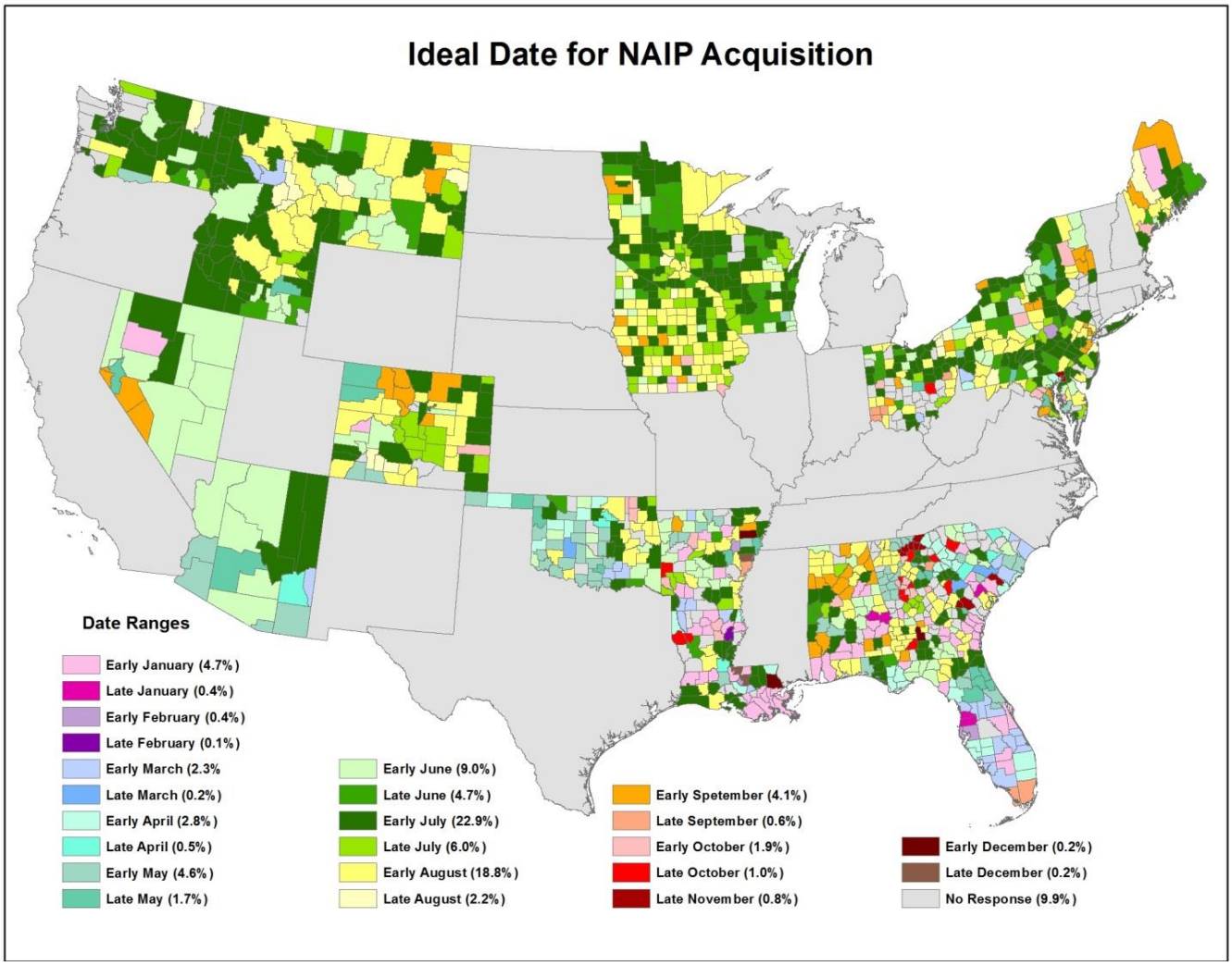

*Chart 13: On What Date Were You Notified that NAIP was Available in the Image Service?*




*Map 8: On What Date Were You Notified of NAIP Availability?*

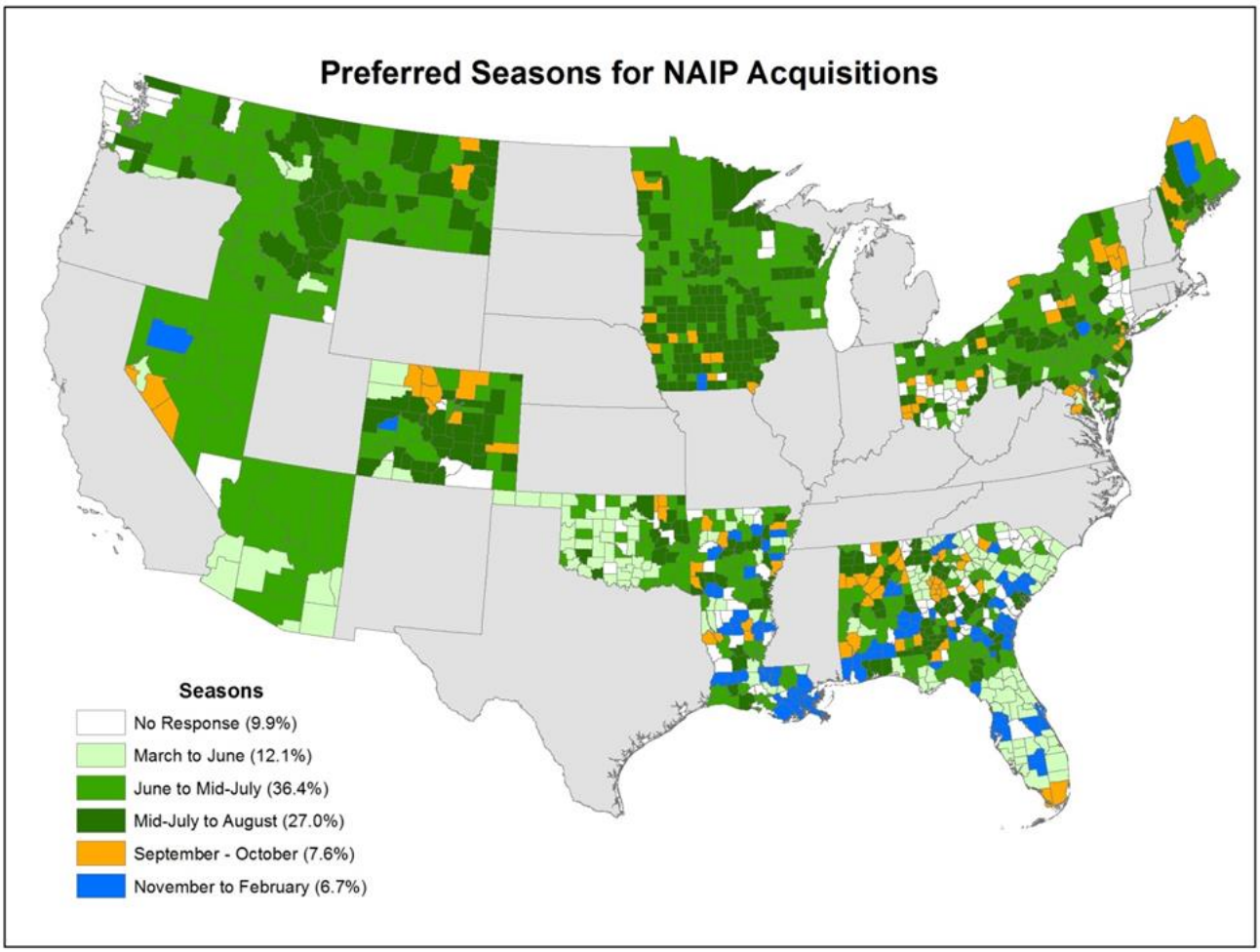
**15. If NAIP imagery could have been collected on a single day, what day would have been ideal?**

The responses to this question spanned the entire year of 2013. The patchwork appearance of this map was a bit surprising. In general, the summer months were preferred by the northern states, while the spring or fall months were preferred by those in the south. However, this was not always the case, and checkerboard patterns were more prevalent in the south.




*Map 9: Ideal Date for NAIP Acquisition.*

A more generalized map was created in an attempt to create a clearer picture. That worked somewhat for the northern states, but the southern states still showed great differences in opinions. It might be useful to explore the reasons behind this difference in responses.




*Map 10: Preferred Season for NAIP Acquisition.*

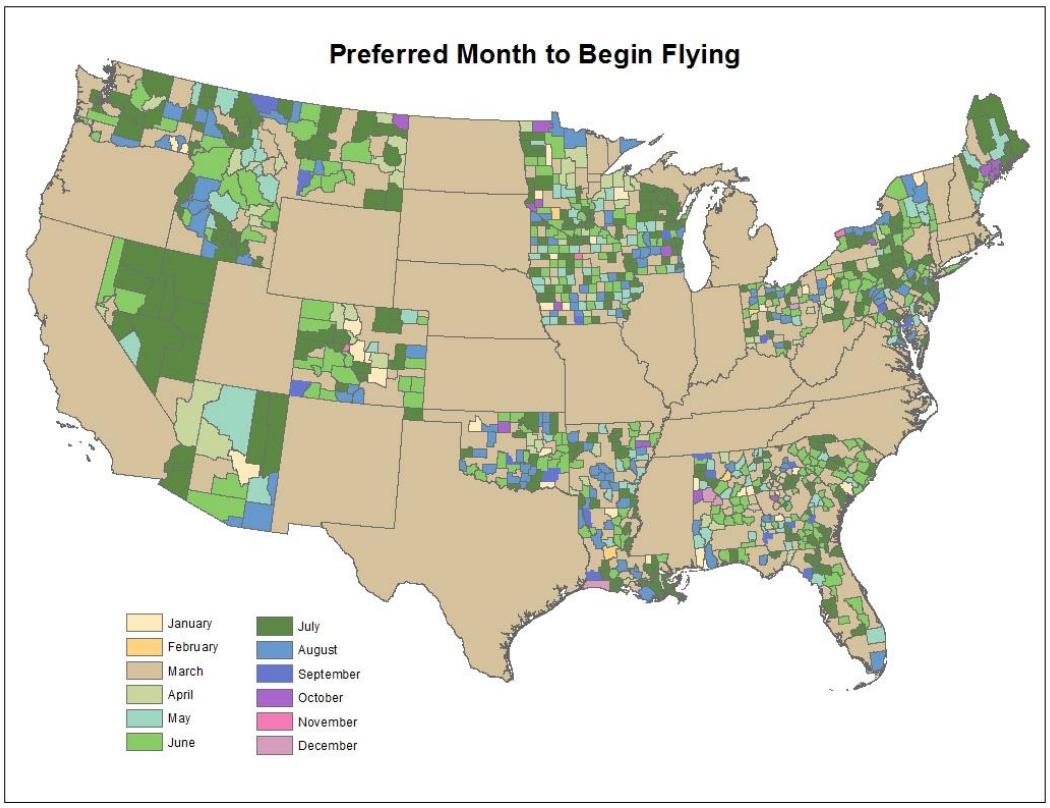
**16. Given that a single day is not possible, what flying season do you feel would have been acceptable to meet your farm program needs? (Enter Start Date and End Date)**

This question was difficult to map because it basically is asking several different things at once – the start of an acquisition period as well as its length. The responses varied, since the respondents were asked to manually select the starting and ending dates. Many responses were thrown out because the starting date was after the ending date, the dates were out of the range (2013), or the season was either just one day or an entire year. The dates selected did not necessarily match those chosen in question 15.

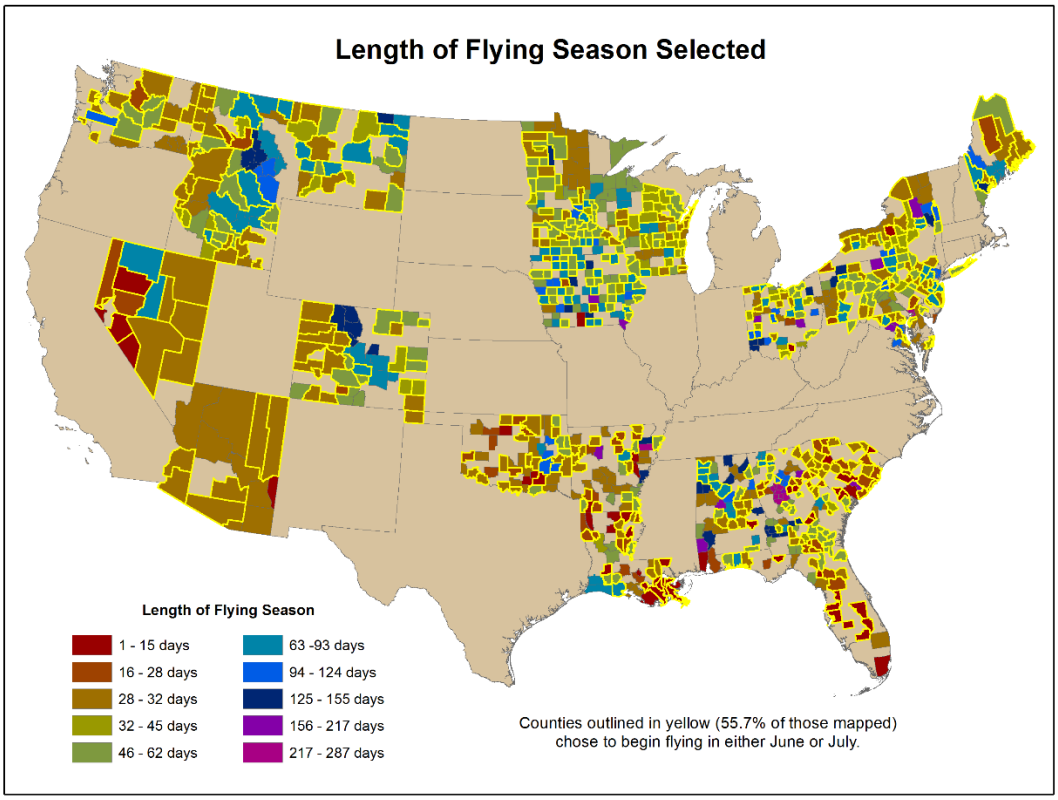
The maps created for this question display two things – the preferred month for NAIP acquisition and the preferred length of the acquisition season. A respondent who carefully considered the question would plan the dates to coincide with a preferred time frame. The range for acquisition periods was between 1 -287 days, with 45 days as the median response from 905 counties. 45% of the counties responded with one month or less, and 75% of the counties responded with 2 months of less. 55.7% of the counties would prefer to begin acquisition in either June or July.

It would be interesting to compare on an overlay the ideal date, the preferred flying season (Question 16), the flying season as planned by APFO, and the actual date of acquisition. If the information from these layers could be condensed into one or two layers, these could then be compared to the responses to question 7 regarding the availability dates of the imagery and its usefulness for FSA programs, as well as to comments about availability, if any.

Many counties were not included in these maps because the responses did not fit within the time frame of 2013 NAIP. Many responses were 2014 rather than 2013; a few were even 2015.



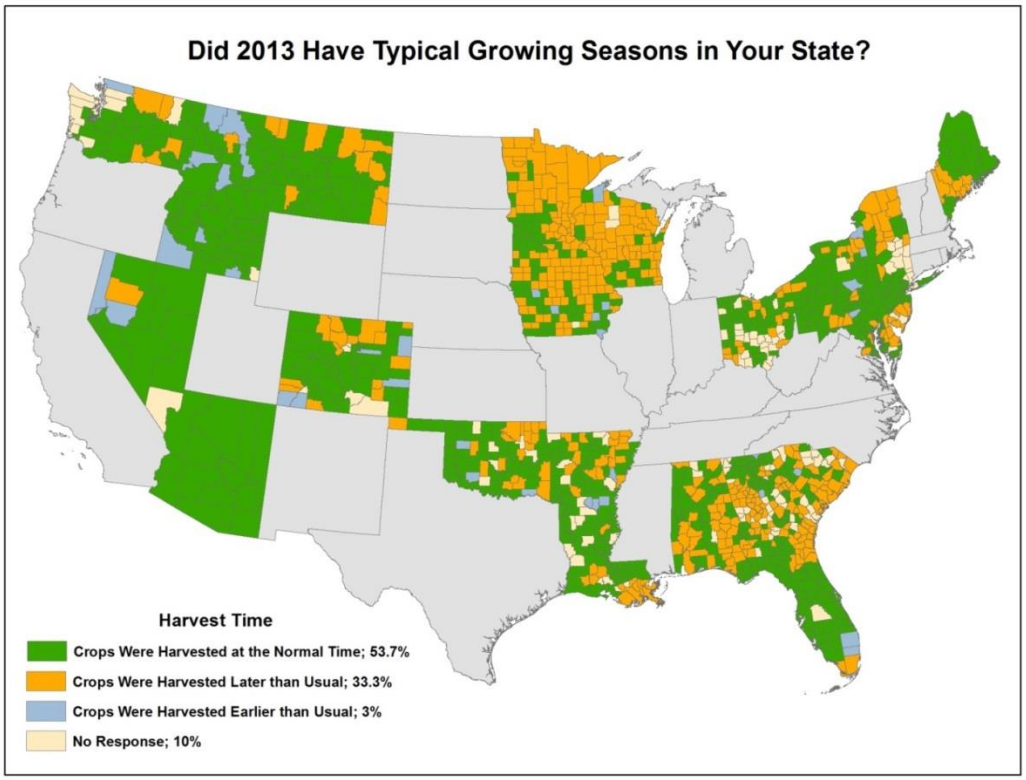

*Map 11: Preferred Month to Begin Flying.*




*Map 12: Length of Flying Season Selected.*

**17. Did 2013 have typical growing seasons in your state?**

Over 53% of the counties reported normal harvest times for the state; a third of the respondents reported that crops were harvested later than usual. The largest block of late crops appears to be in Minnesota, Iowa and Wisconsin.




*Map 13: Did 2013 Have Typical Growing Seasons in Your State?*

This map raises many questions: what are the most common crops in these areas, when are they typically harvested, why were the harvests at the normal time or later than usual, and what happened in areas where there is double cropping? Were there any natural disasters or periods of unusual weather which affected the growing season, and by extension the opinion about an ideal date for NAIP acquisition? Without comparing this information to some of the other maps, it is difficult to obtain value from this question. For example, the map shows that crops in southeastern Louisiana were harvested later than usual. This area also indicated that they were very unsatisfied with NAIP (mapped for question 21), and the comments indicated that the late availability was the problem. Further analysis would be required.

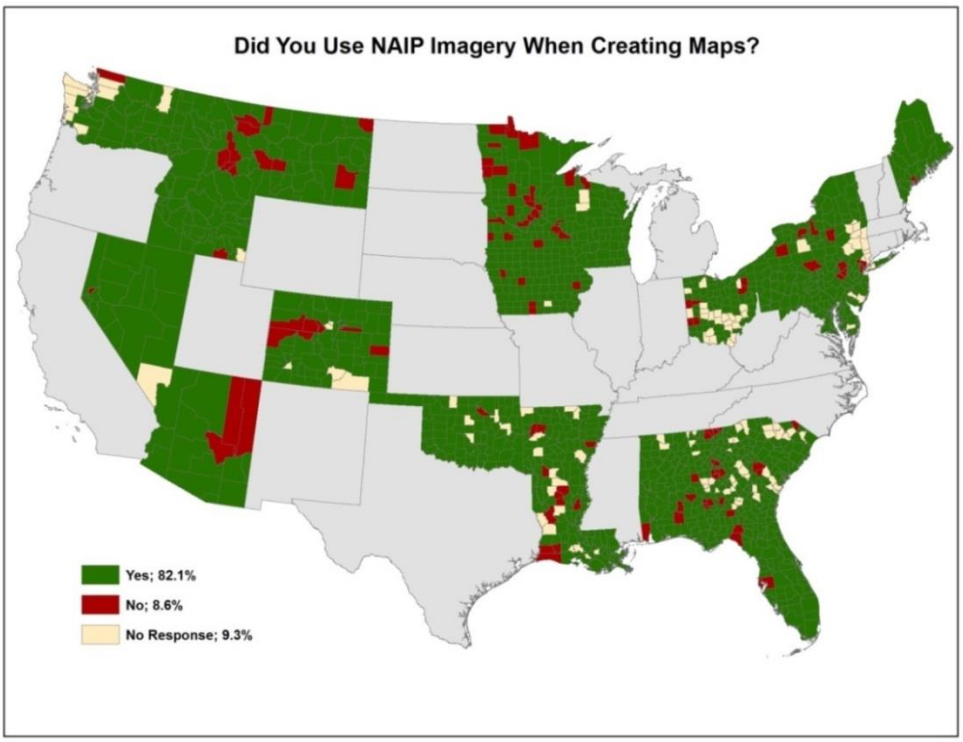
The questions in this section on the ideal flying date(s) do not provide a clear picture of what might be the optimal season for a given state. There is no clear pattern based on geographic region – there are counties near the Canadian border which would prefer having acquisition begin in September or October, and counties in the south which would prefer to see acquisition begin in June. This is a topic which would require some careful thought.

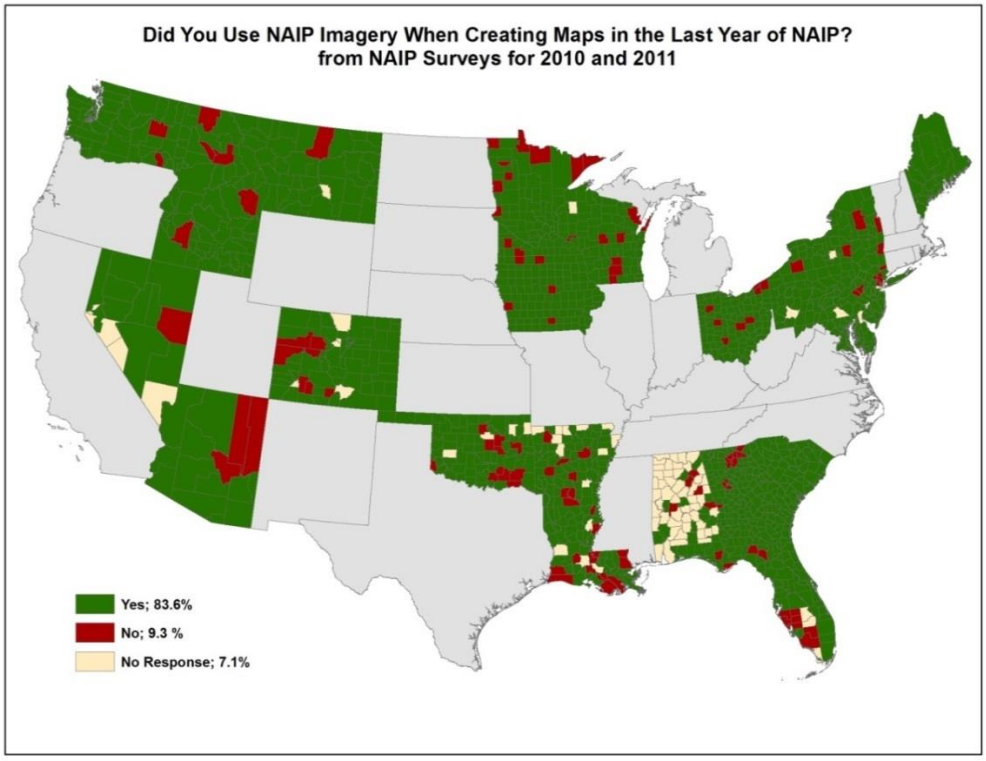
A comment from the State GIS Specialist in Florida indicated that spring and fall acquisition would be better due to the climatic problems of weather in the summer. That is probably part of the reason for the varied responses from southern counties.

## Section E: Uses for NAIP Imagery

**10. Did you use NAIP imagery when creating maps?**

In Question 10, the number of counties using the NAIP to create maps was about the same as it had been when the states received the most current NAIP acquisition (either 2010 or 2011).



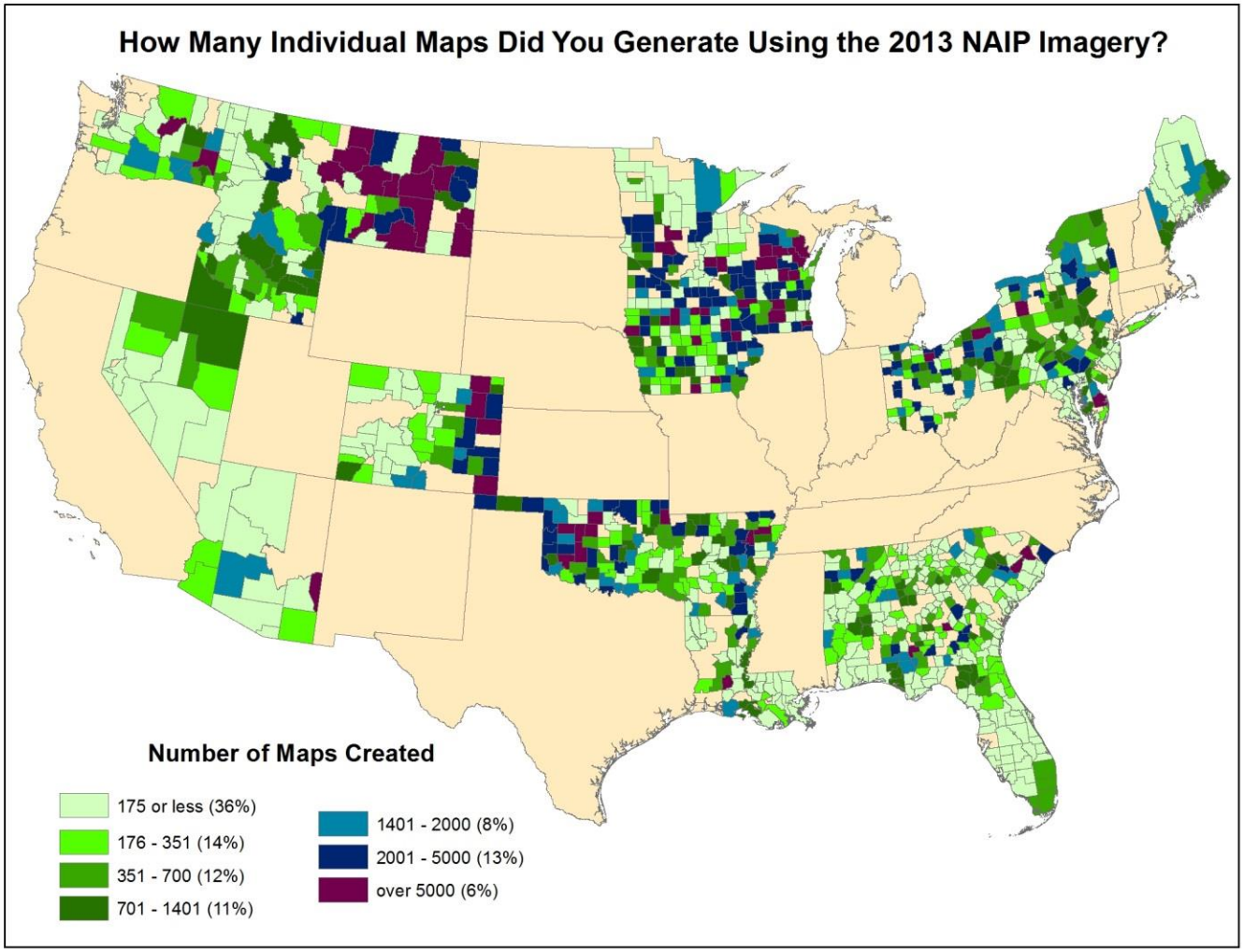




*Maps 14a & 14b: Did You Use NAIP Imagery when Making Maps? 2013 compared to 2010/2011*

**11. (If yes to question 10.) Approximately how many individual maps did you generate using the 2013 NAIP imagery?**

The responses from the counties show that NAIP was used for over 1,540,000 individual maps. The responses to this question ranged widely, from 0 to 42,000, with 350 as the median response given. 60% of responses were for 500 maps or less, and 69% of responses were for 1000 maps or less.

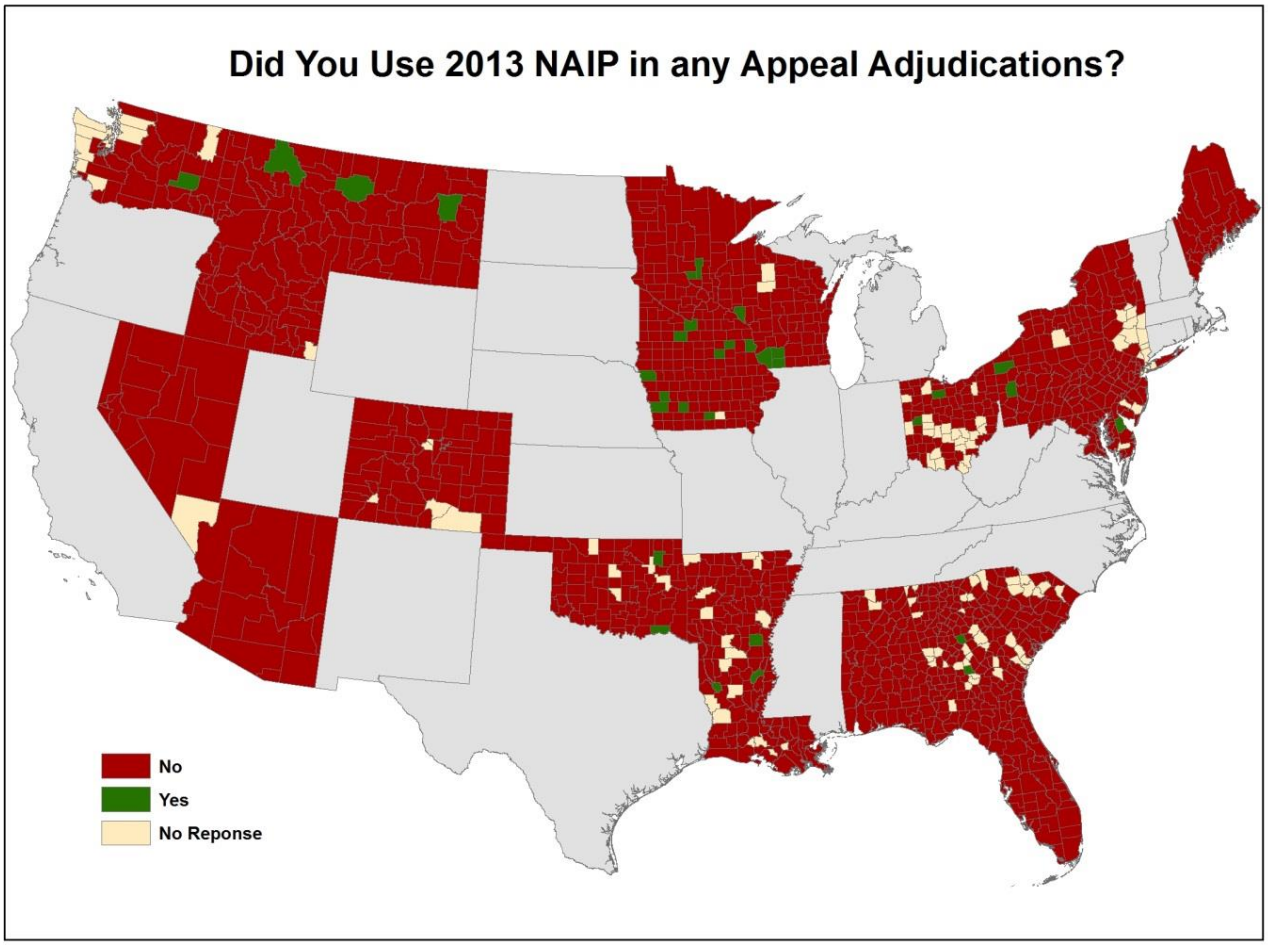
In addition, state level GIS Specialists reported making over 4,230,000 individual maps. Not all state personnel answered this question, and their responses ranged from 5 to 3,000,000, with a median value of 25,000. This would yield a total of over 5,770,000 individual maps made with NAIP imagery.




*Map 15: How Many Individual Maps Did you Generate Using the 2013 NAIP?*

**12. Did you use the NAIP imagery in any appeal adjudications?**

In general, NAIP was not used for many appeal adjudications. Only 2.4% of counties reported using it, while 88.2% did not. 9.4% of counties gave no response.




*Map 16: Did you Use 2013 NAIP in any Appeal Adjudications?*

**13. (If yes to question 12.) How many times was NAIP imagery used in appeal adjudications?**

Responses show that NAIP was used for 585 adjudication appeals in 32 different counties. 31 of the counties reported 12 individual appeals or less, while the 32nd county reported 500 appeals.

| Number of Appeal Adjudications | Number of Responses |
|---|---|
| 1 Appeal | 12 |
| 2 Appeals | 10 |
| 3 Appeals | 2 |
| 5 Appeals | 3 |
| 6 Appeals | 2 |
| 8 Appeals | 1 |
| 12 Appeals | 1 |
| 500 Appeals | 1 |

*Chart 14: Spreadsheet – Number of Adjudication Appeals*

**28. Mark the following activities that the 2013 NAIP imagery was useful for. (Select all that apply.)**

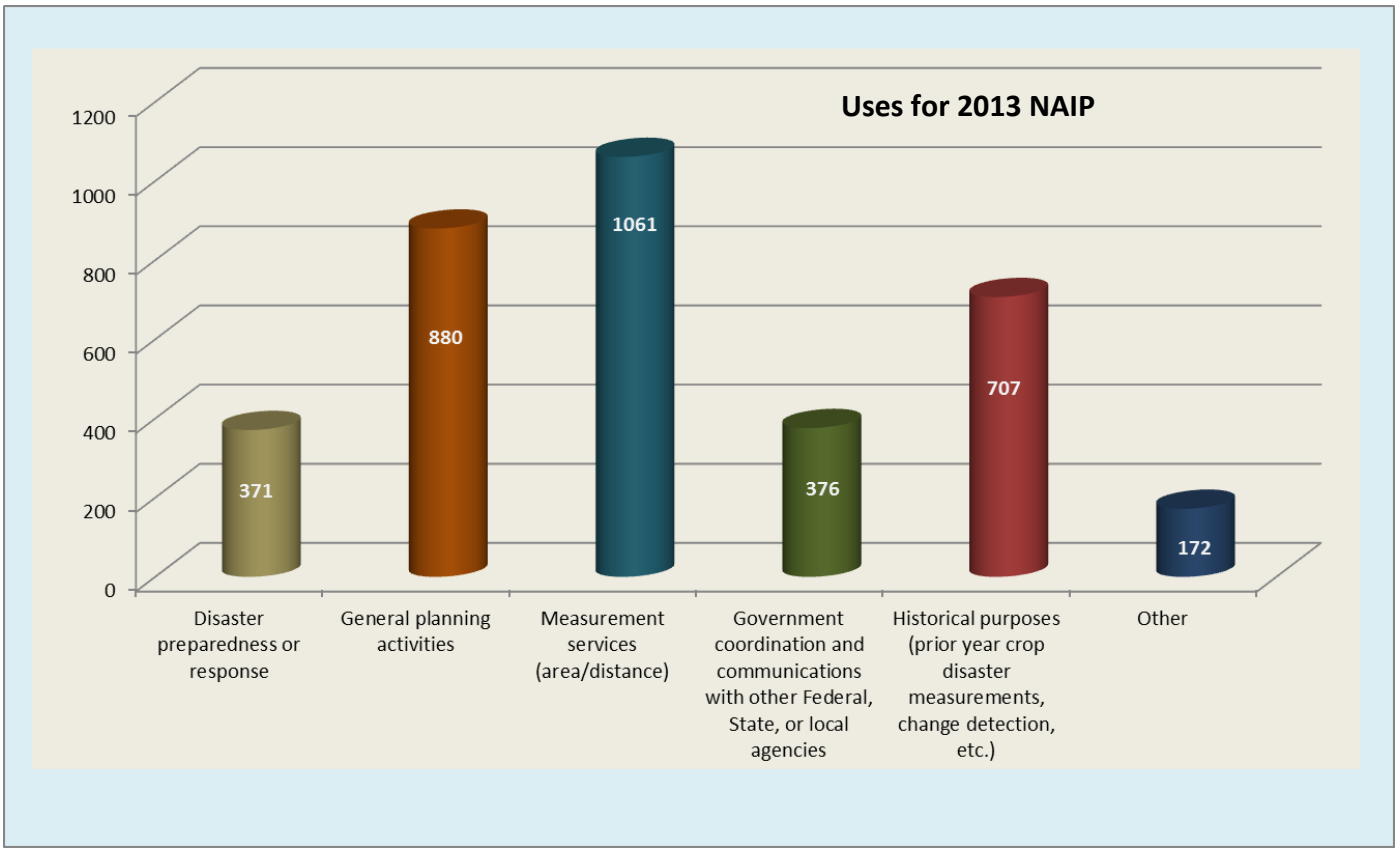



*Chart 15: Activities of NAIP Usefulness*

The responses to the "Other" section are listed in Appendix 3 on page 68. Duplicate responses were combined. Several of the responses indicated that NAIP was not available in time for this year's compliance activities.

## Section F: Awareness of NAIP Features

24. **Are you aware that there is a web map service for the state seamline data layer? This layer includes image acquisition dates and other related information, and may be accessed in FSA Thin Client and ArcGIS Desktop Applications.**

The presence of the seamline data layer is still not widely known, with only ¼ of county personnel and just over ¾ of state personnel being aware of it.

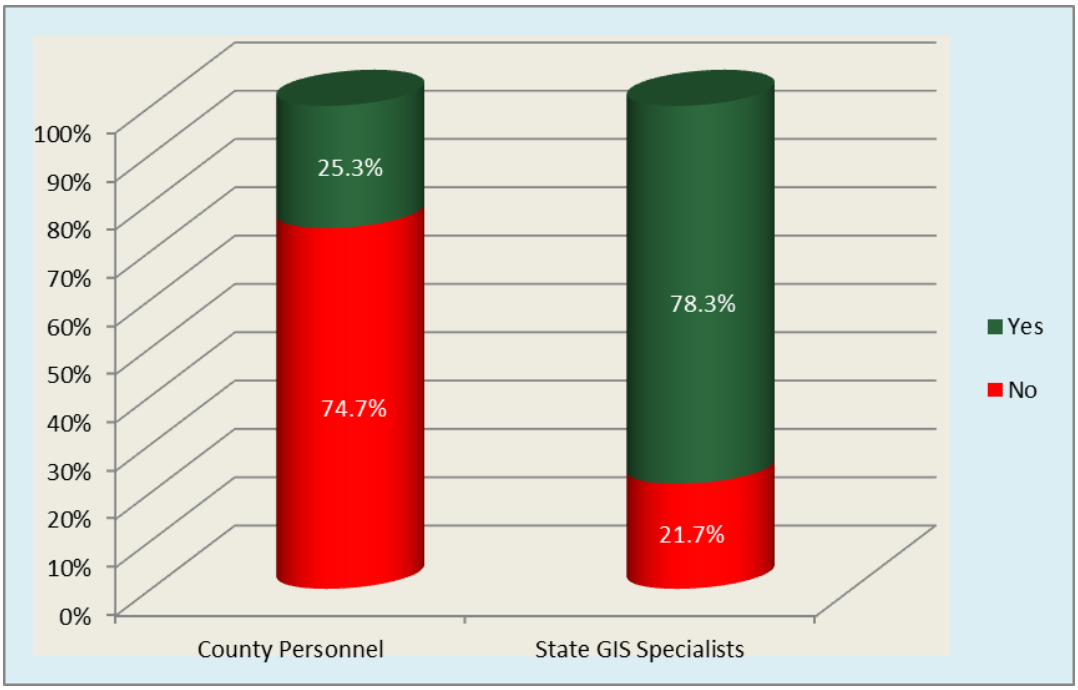



*Chart 16: Awareness of Seamline Layer*

**25. (If yes to question 24.) How useful was the seamline layer in providing image dates for specific areas?**

The usefulness of this data has not been made clear to NAIP users in FSA.

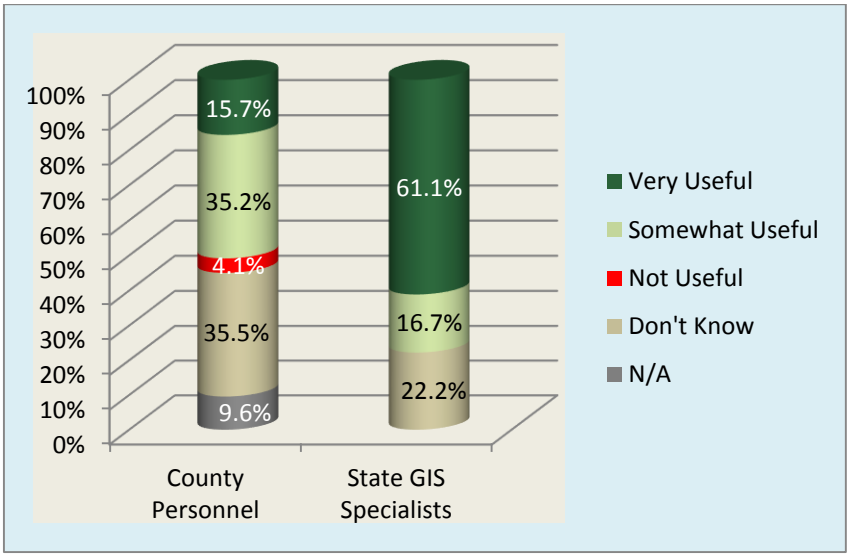



*Chart 17: Usefulness of Seamline Layer*

**26. Are you aware that the 4-band NAIP imagery enables display of both Natural Color (NC) and Color Infrared (CIR) imagery when accessed in FSA Thin Client and ArcGIS Desktop Applications?**

Awareness of the four band imagery's potential to display in Natural Color and Color Infrared is more prevalent than is awareness of the seamline layer, with over 40% of county personnel and over 95% of state specialists aware of it.

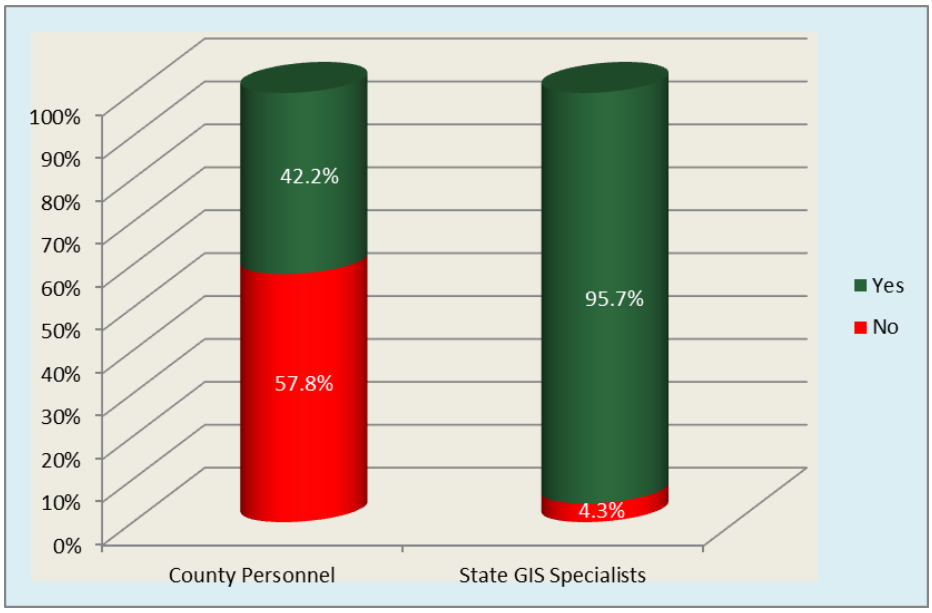



*Chart 18: Awareness of Four Band Imagery*

**27. (If yes to question 26.) Was the Color Infrared (CIR) version of the imagery useful?**

Use of the CIR imagery layer is another possible topic where more background information to states and counties might be useful.

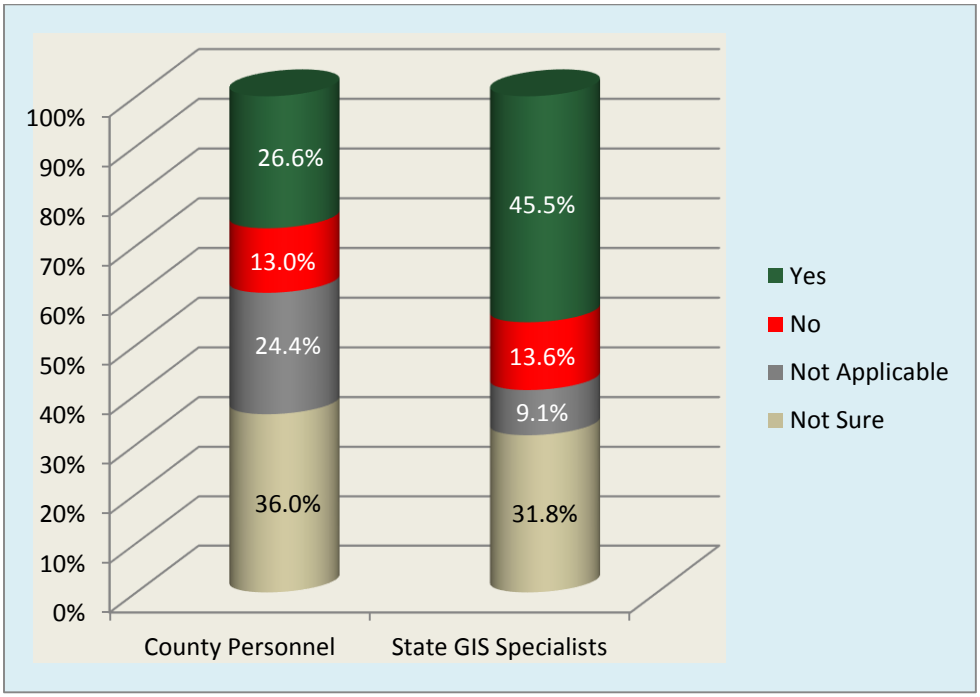
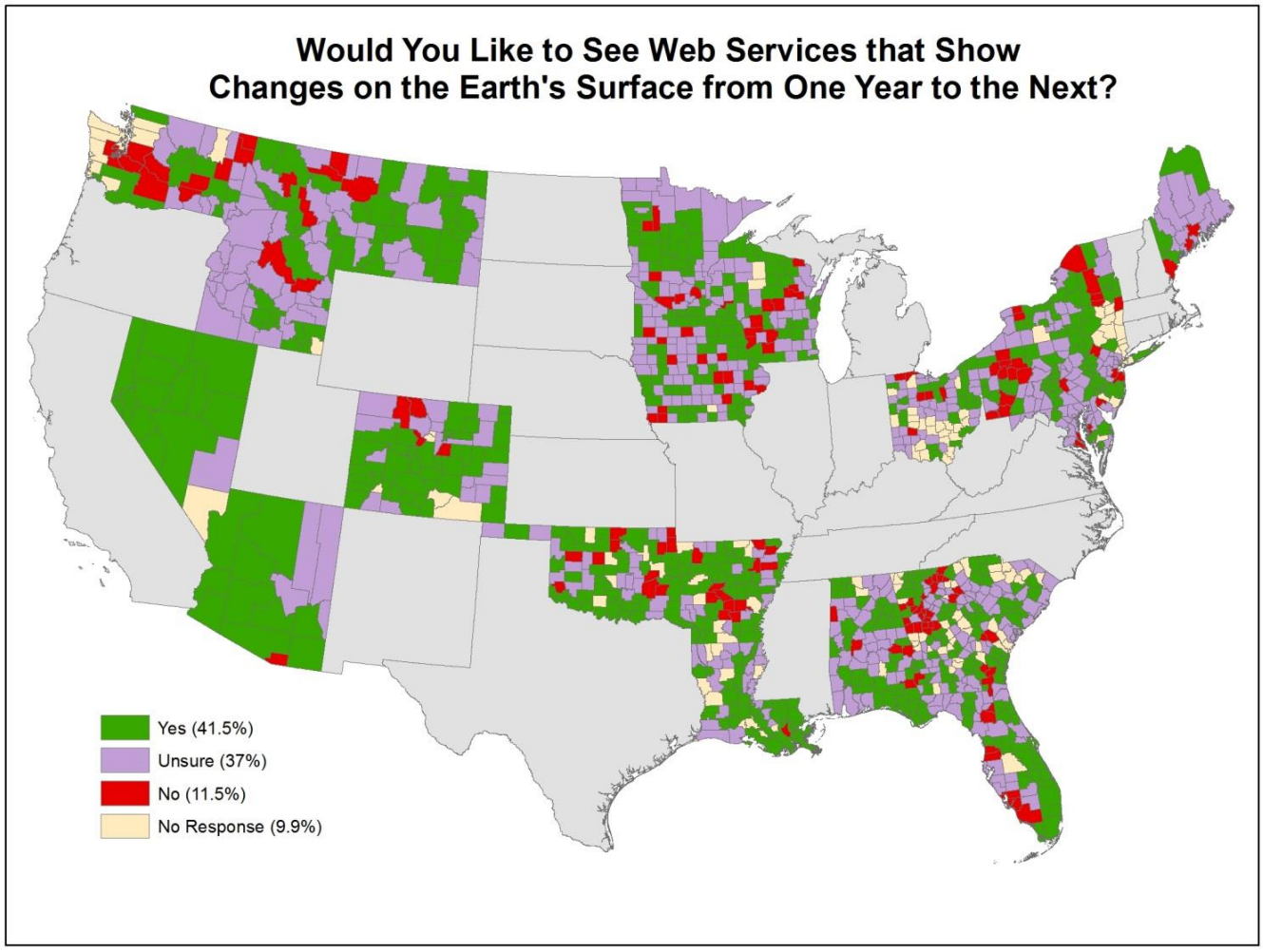



*Chart 19: Usefulness of Four Band Imagery*

**29. For your work, would you like to see the web services (imagery) that show change on the earth's surface from one year to the next? This could include commonly used indices such as NDVI, or analyses of land and water cover.**

A prototype web service would need to be created, and its usefulness explained in order to make this question easier to answer.




*Map 17: Would You Like to See Web Services that Show Changes on the Earth's Surface?*

Among the GIS Specialists, 18 responded "Yes", 4 were "Unsure," and 1 responded "No."

**30. (If yes to question 29.) What types of indexes, layers, or analysis would you like to see?**

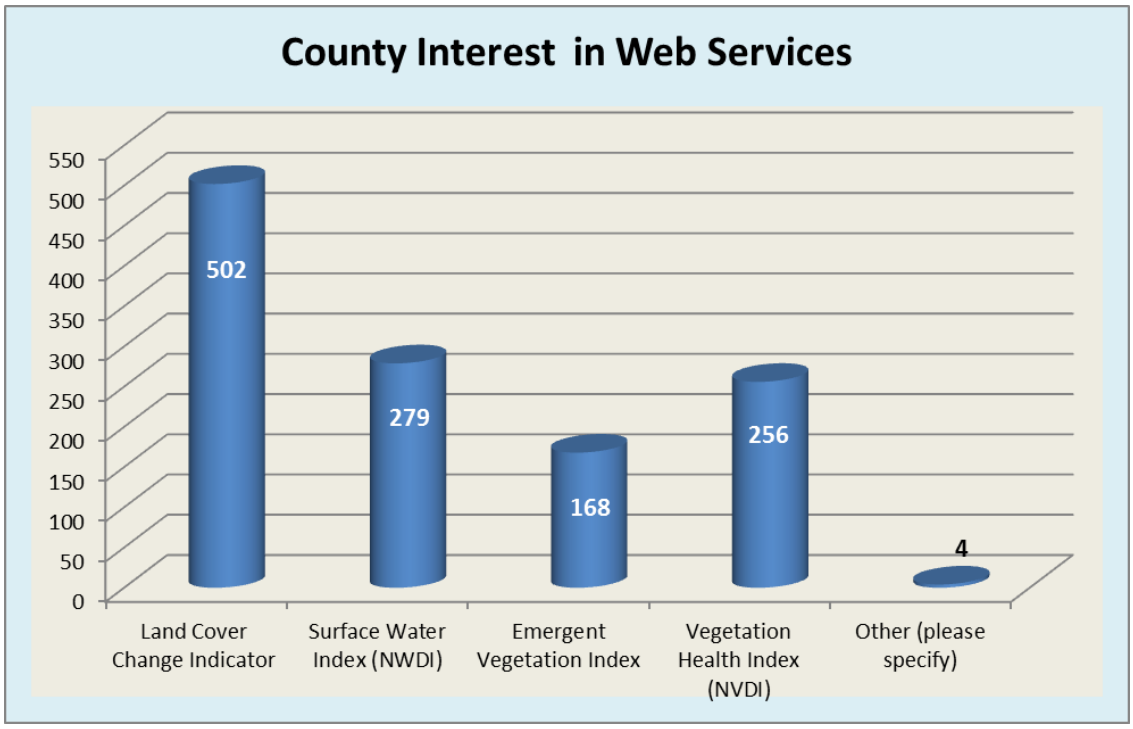



*Chart 20a: County Personnel Interest in Web Services*

The "other" web services requested were PLSS boundaries and roads. It would be helpful to provide the county personnel with instructions on how to display this data from existing web services. Since Land Cover Change is the most requested, it may be a good idea to begin work on this, at least as an example of what is possible. NDVI and NDWI services would be relatively easy to create.

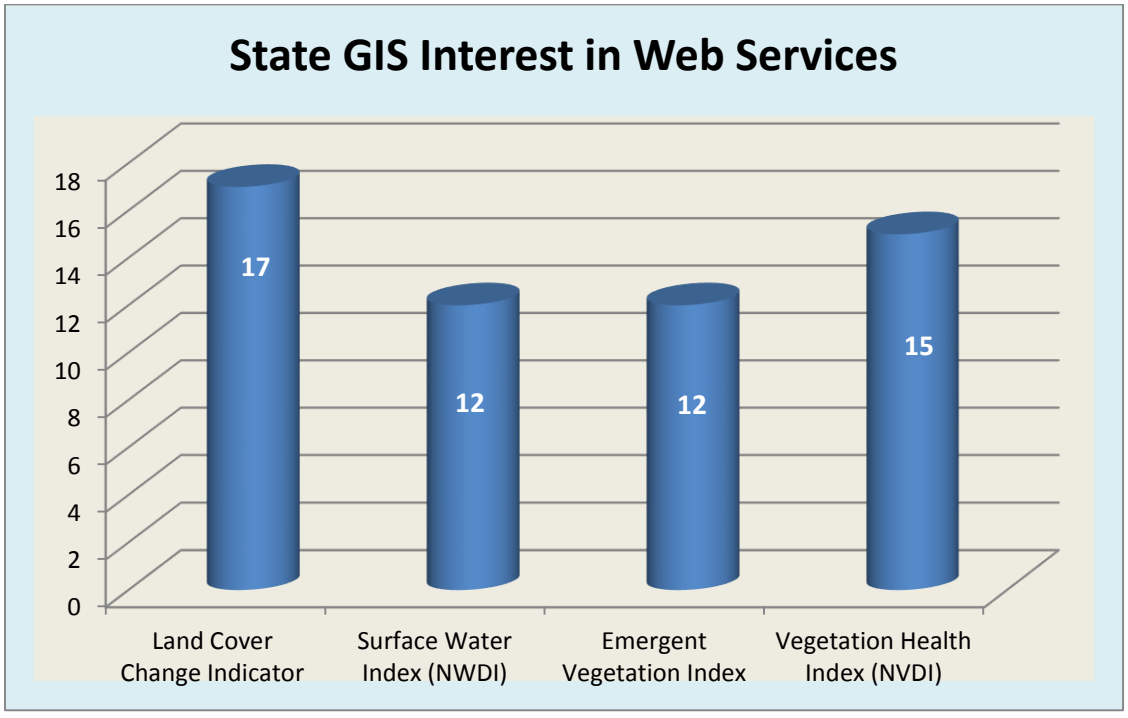



*Chart 20b: State GIS Specialists' Interest in Web Services*

**31. Are you aware of the map on ArcGIS Online entitled NAIP 2013 Imagery Feedback? This map uses Volunteered Geographic Information (VGI), and allows users to mark problems they have found with the new NAIP, and to leave comments.**

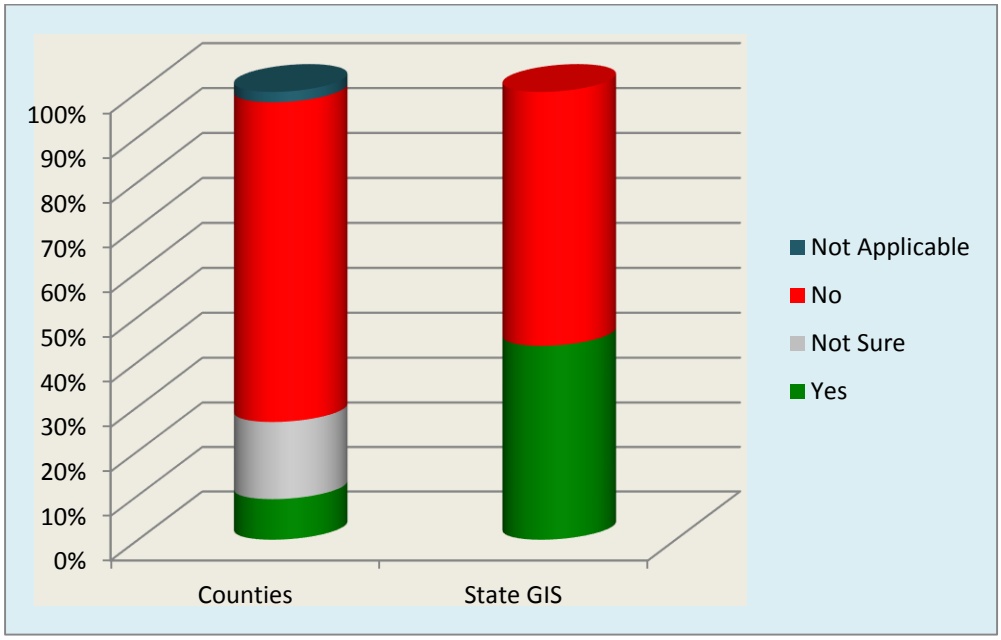



*Chart 21: Awareness of VGI NAIP Problems Map*

This service was explained in the GIS telecom the same week as the NAIP Survey opened. Before next season's imagery is available, it might be good to give a repeat presentation, and to provide reminders throughout the summer and fall.

**32. (If yes to question 32.) Have you used this map?**

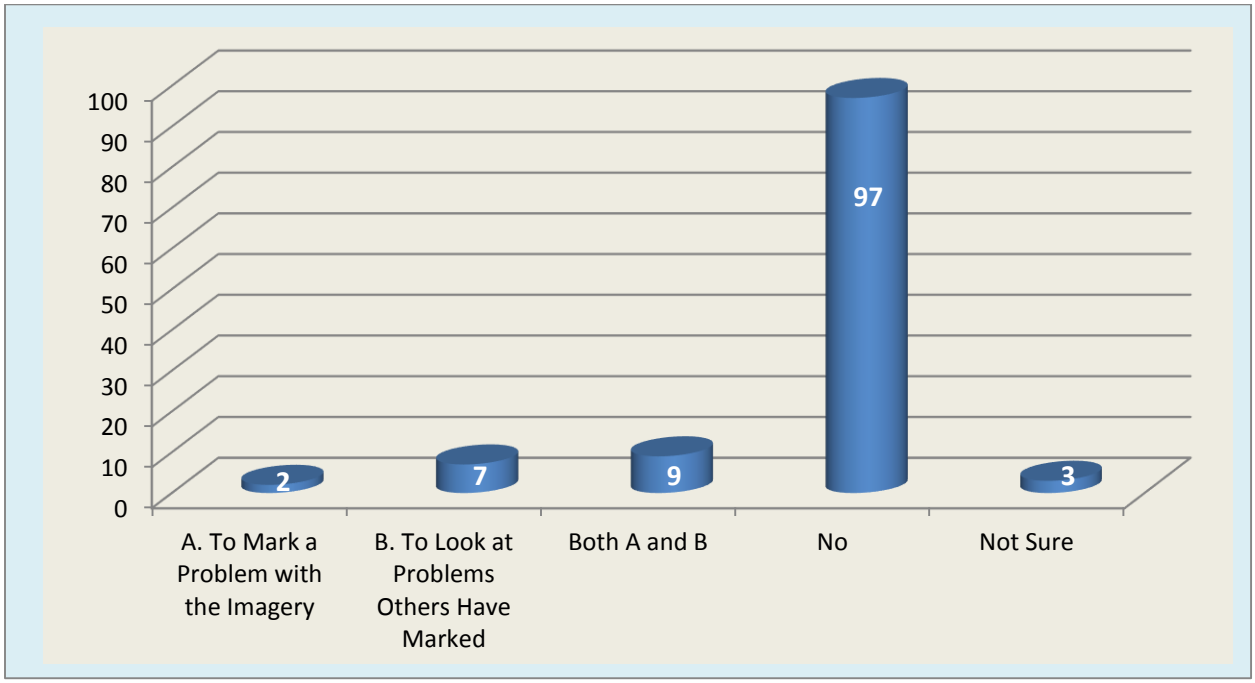



*Chart 22: Have You Used the VGI NAIP Problems Map?*

Of the State GIS Specialists who knew of the map, six had not used it, three had looked at problems others had marked, and one had made a notation and looked at problems others had marked.

## Section G: Focus on Idaho ½ Meter Acquisition

2013 was the first year in which imagery with a ½ meter pixel resolution was acquired for a state. Since many respondents to the NAIP Survey every year request finer resolution imagery, the expectation would be that this imagery would have received positive reviews. Survey responses proved to be somewhat different.

On Question 21, asking about Overall Satisfaction, the responses from Idaho were 56% positive, but the opinion overall was decidedly less positive than for the NAIP county respondents as a whole. Responses from each county can be seen on the Overall Satisfaction map on page 6.

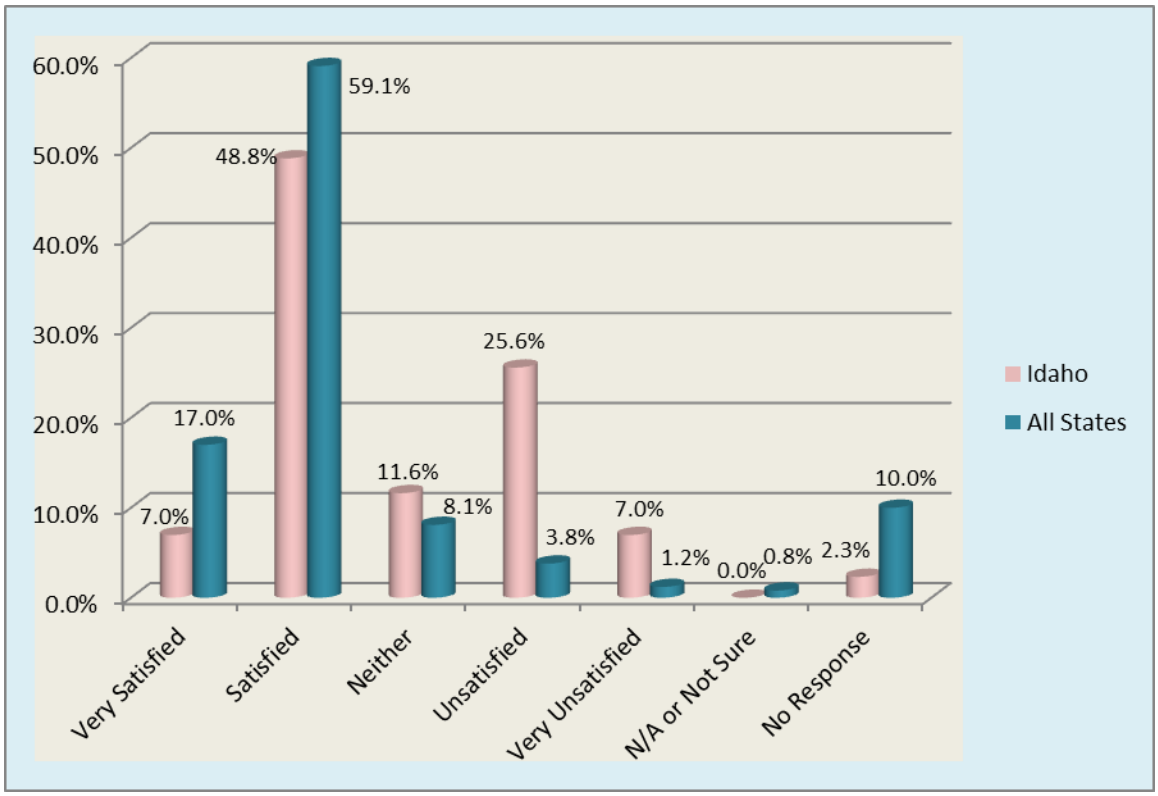



*Chart 23: Satisfaction with NAIP in Idaho, Compared to all 2013 NAIP States*

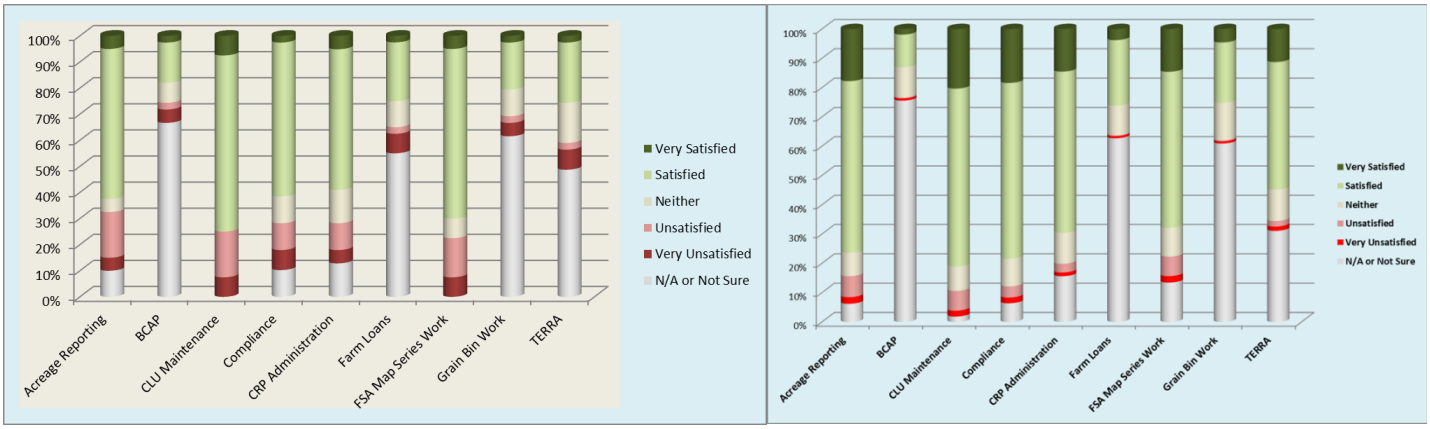
The comments from the Idaho counties show that the biggest problem was with the late flying dates and availability, which made it impossible to complete this years' work before the deadline. The late flying also affected the image tonal quality, making it less than optimal for the counties' needs. The seamline file showed that some areas were flown in October; the delay was due to the lateness in obtaining funding for this acquisition, and smoke cover also hindered flying. The government shutdown also played a role in delaying delivery.

- Needs to be flown earlier in the season.
- Obtain the new imagery earlier in the year so that there is a color variation between different land uses and re-fly those areas with cloud cover. The biggest problem we have seen for 2013 is all cover is close to the same color making it difficult to locate boundaries or determine land use.
- Fly with drones. Yearly flights
- timely flights for the county

- We would just like it to be flown earlier in the season and it would be great if we could have it prior to the first crop reporting deadline of November 15th.
- Our NAIP was taken too late in the year. It is nearly impossible to discern CLU boundaries or other necessary details. The NAIP needs to be taken during June if possible to optimize its effectiveness. Also, I would like to see the same quality maps as are available on Google Earth. Their maps are much better quality and resolution and can be zoomed in much closer for better detail. Would it be possible to contract with them and use their maps?
- Obtain cover when crops are growing not when crops have already been harvested
- Timing of flight to give better contrast and help to distinguish field boundaries better.
- The flight should not be done in the fall after harvest. It makes the fields very hard to see and know where measurements need to take place.
- We would like to see our area flown earlier in the year. In the higher elevations, several Lemhi/North Custer County farms were snow covered and the imagery was not usable on the October date it was flown. Other than that, the NAIP imagery is great!
- Would like to have it flown earlier in the season and also it would be extremely helpful to have the new imagery prior to the first crop reporting deadline in the fall (November 15th)
- Faster service and better reliability for our producers.
- The imagery was flown way too late in the year. Everything was brown and there was very little contrast. All crops had been harvested and couldn't see contrasting fields very well.

On the three questions (7 – 9) regarding the use of NAIP for various programs, the responses from Idaho were much more negative than they had been for the NAIP states as a whole.

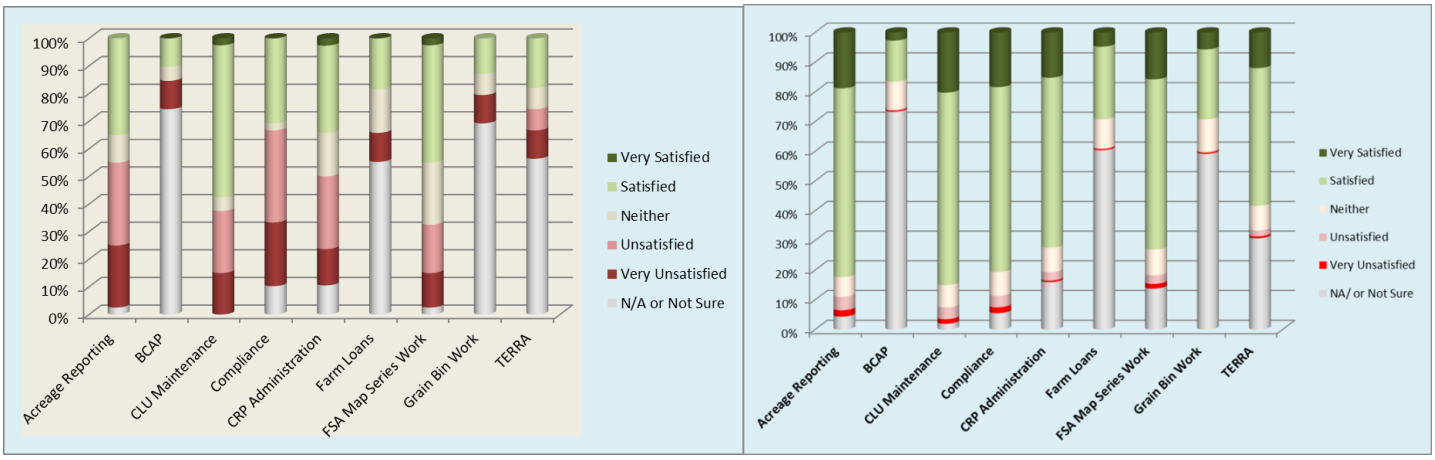
For Availability:




*Charts 24a & b: Satisfaction with Availability: Idaho (left) Compared to all 2013 NAIP States (right)*

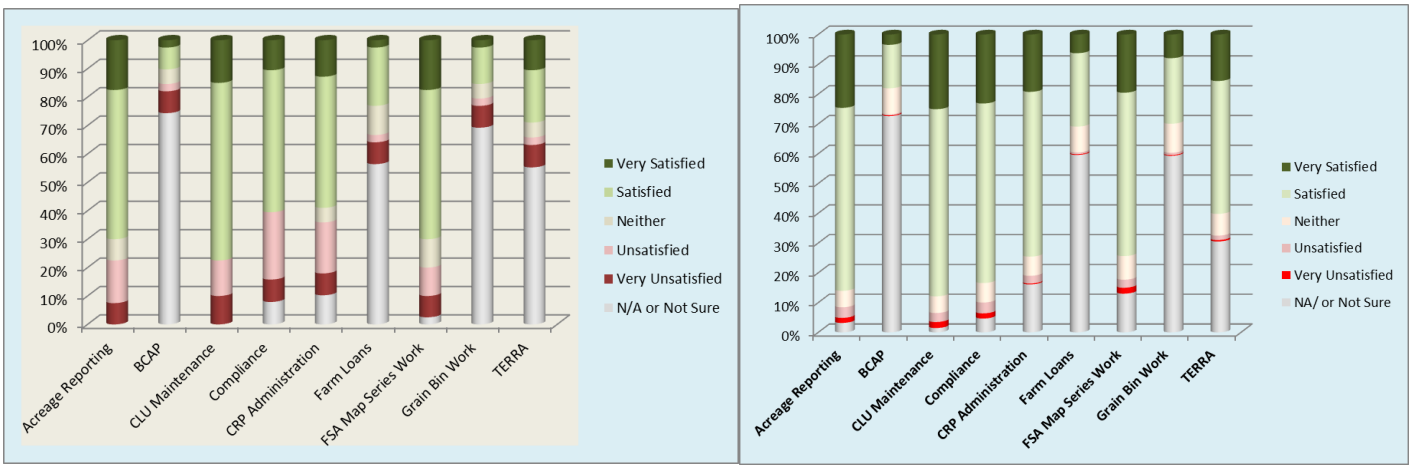
Availability was the most pressing issue for all states, but the difference, particularly the larger percentage of negative responses, is particularly noticeable. The dissatisfaction in Idaho is shown to the largest extent in the Date Flown questions; for Compliance in particular the number of negative responses is very large. The responses for Overall Quality are more positive, but they still do not match those of the other states.

For Date Flown:




*Charts 25a & b: Satisfaction with Date Flown (Question 8): Idaho (left) Compared to all 2013 NAIP States (right)*

For Overall Quality:




*Charts 26a & b: Satisfaction with Overall Quality (Question 9): Idaho (left) Compared to all 2013 NAIP States (right)*

The southeastern counties in Idaho, in particular, responded negatively to the questions regarding image quality: Lightness/Darkness, Contrast, and Color. The counties' responses can be seen on the maps for Questions 18 – 20 on page N.

There were no comments from the state level in Idaho; responses to the questions regarding availability and quality were similar to those from the counties.

This year's monetary difficulties prevented this pilot from being a good test of the value in obtaining ½ meter imagery. Before another ½ meter project is contracted, it would be especially important to know that the acquisition will be able to begin and end in time to be ready for the counties when they need it. A comparison with the inspection results could help determine the extent to which the responses to the survey were colored by the dissatisfaction with the late flying and delivery.

## Section H: Comparisons with Previous NAIP Acquisitions

A number of comparisons were included within earlier sections of the Survey Report, between responses from the County personnel and State GIS Specialists, and between responses from different years. These include:



In addition, a number of comparison charts have been created to continue the charts in the previous NAIP surveys.

**Comparison: Overall Satisfaction, 2006 - 2013**

The Overall Satisfaction for NAIP 2013 was less than it had been for the previous two years, and the percentage of "Very Satisfied" respondents was lower than in all years since 2007.

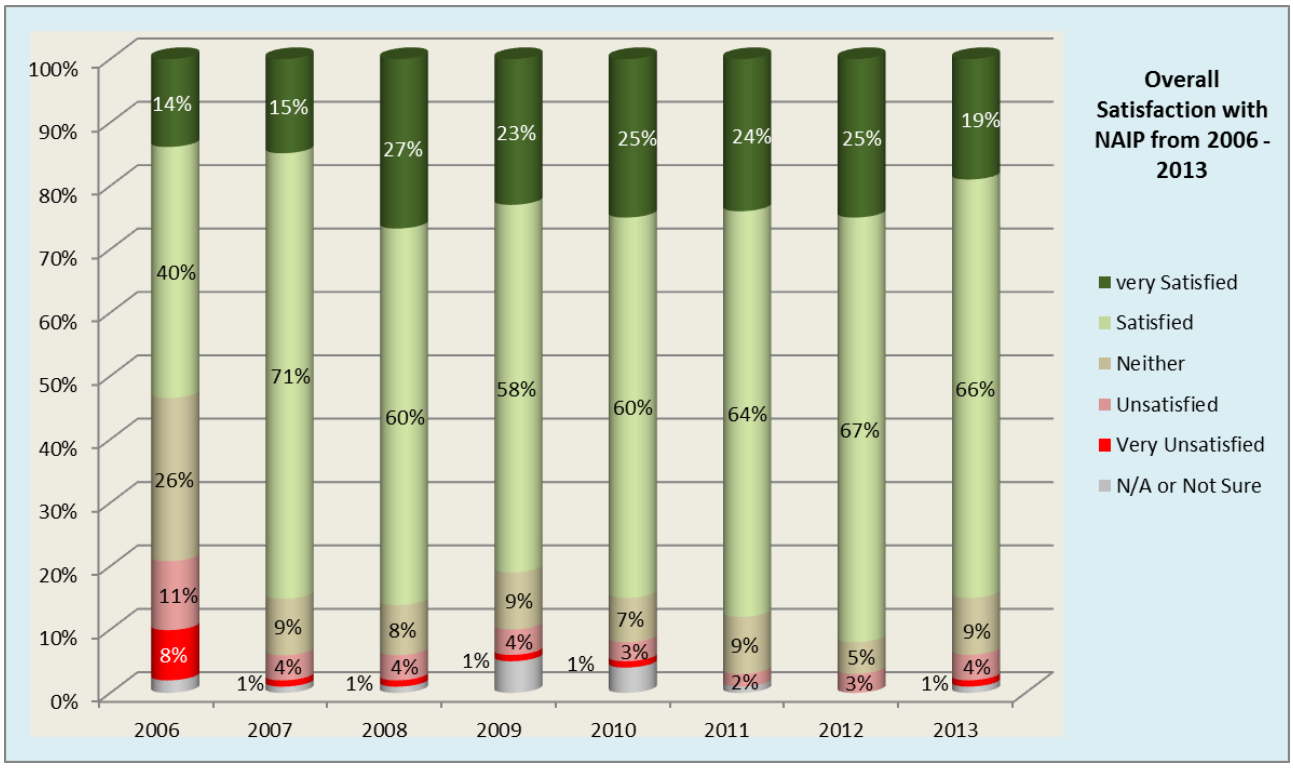



*Chart 27: Overall Satisfaction with NAIP, 2006 – 2013*

Satisfaction with the quality of 2013 NAIP imagery was not quite as high as is had been in the two past years.

## Comparison: Satisfaction with Darkness/Lightness, 2006 -2013

Satisfaction with the Darkness/Lightness and Contrast of the imagery was not as high as in 2012, but it was comparable to many previous years.

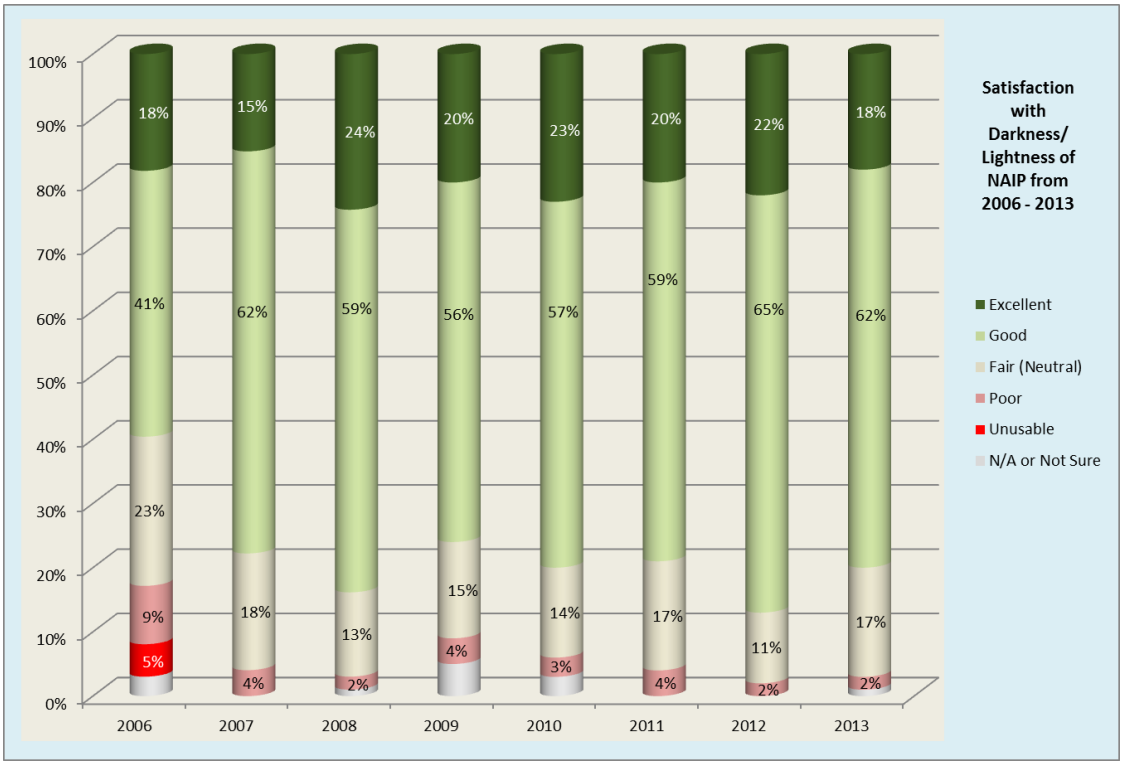



*Chart 28: Satisfaction with Darkness/Lightness, NAIP 2006 – 2013*

## Comparison: Satisfaction with Contrast, 2006 -2013

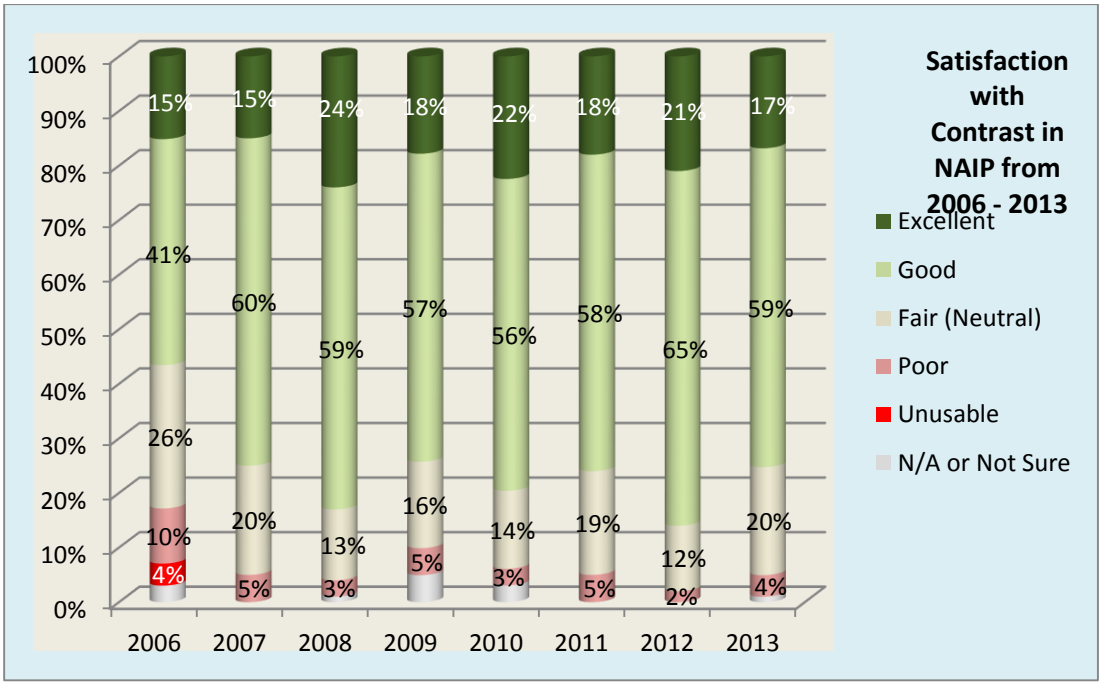
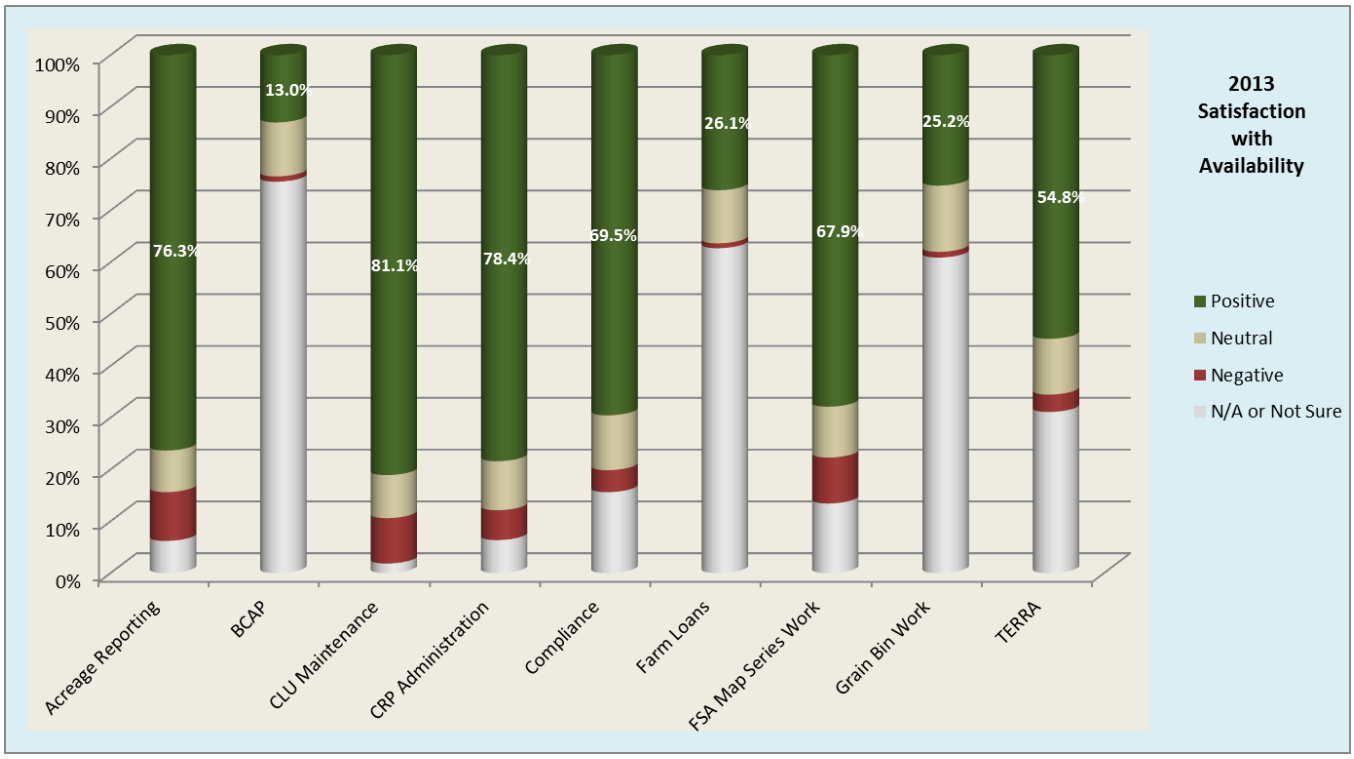
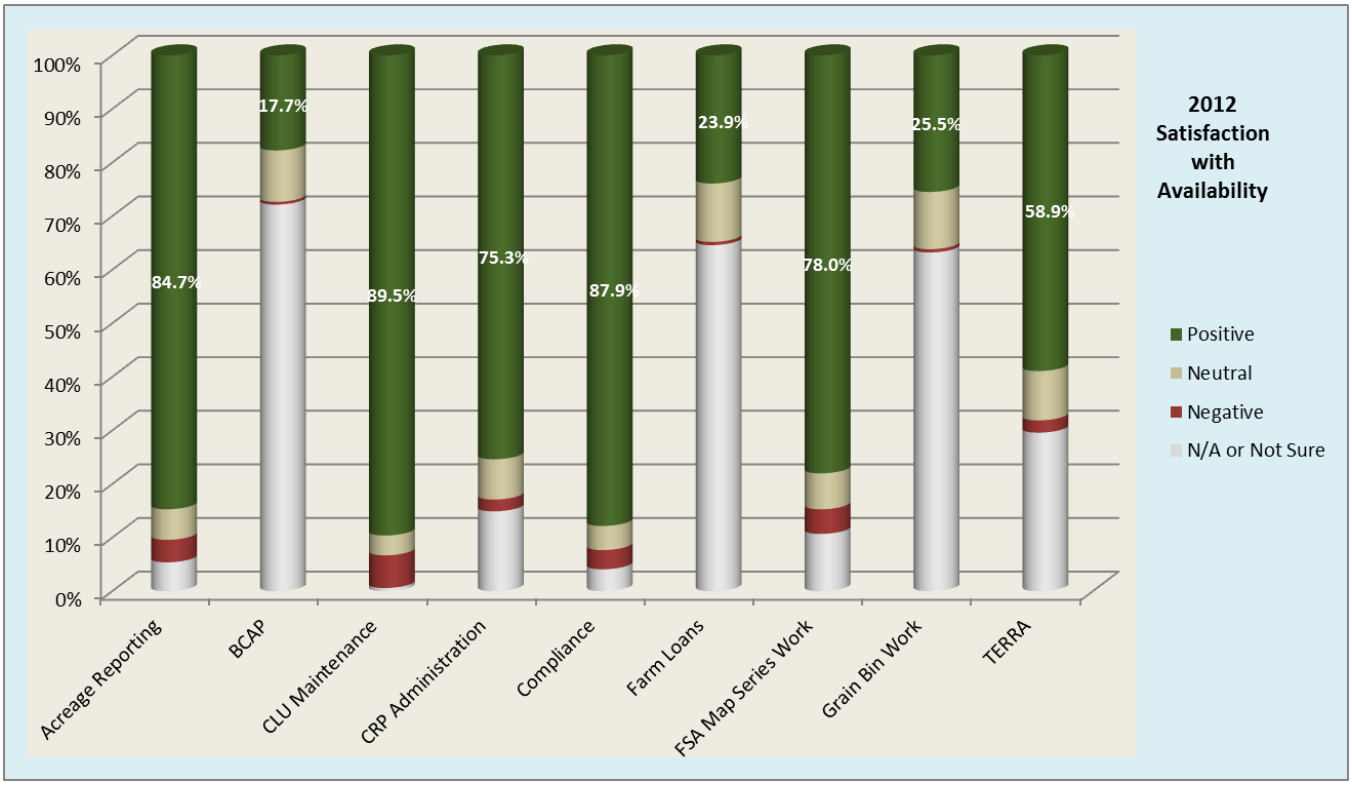



*Chart 29: Satisfaction with Contrast, NAIP 2006 – 2013*

**Comparison: Satisfaction with Availability, 2012 -2013**

The biggest problem reported with NAIP 2013 was with the availability dates, which were too late in many cases. Satisfaction with availability, compared between 2012 and 2013, showed a definite decline. In question 7, dealing with use in different FSA programs, satisfaction was less for all activities except for CRP Administration and Farm Loans.

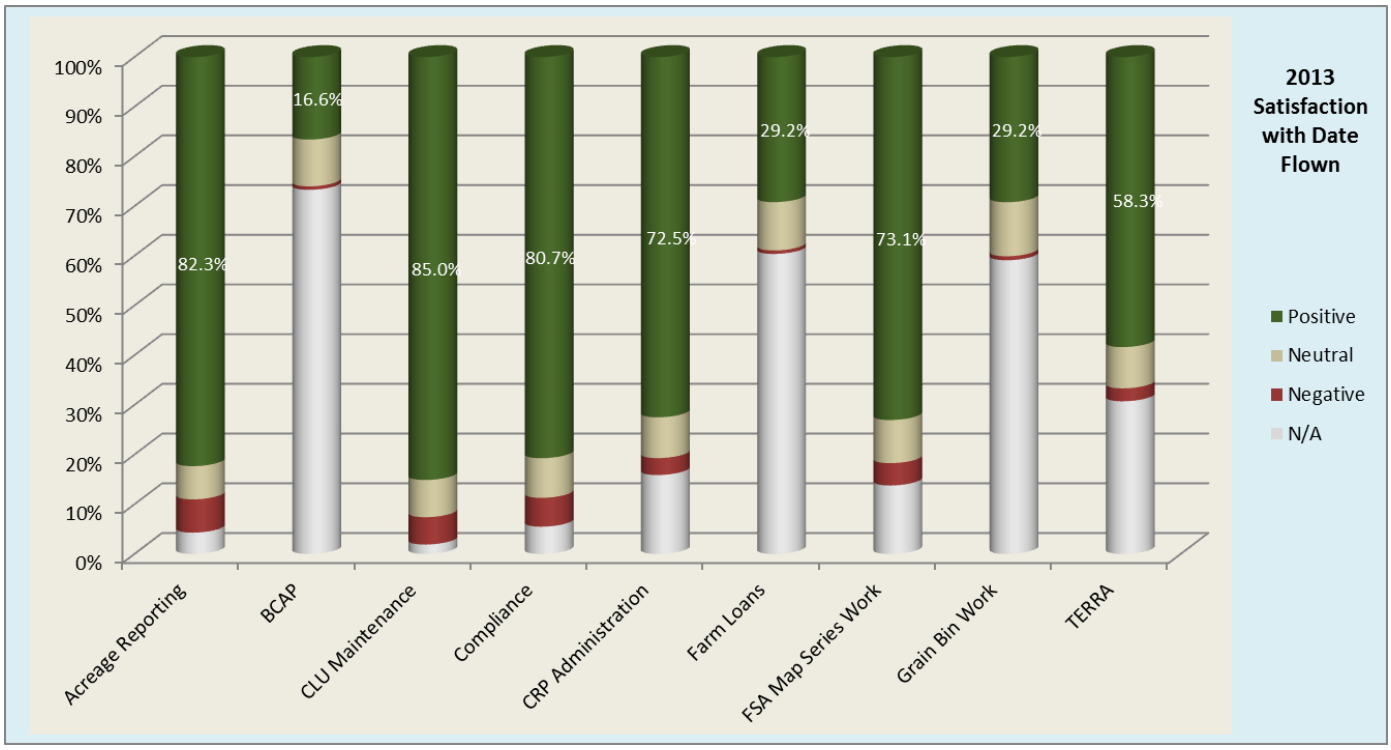


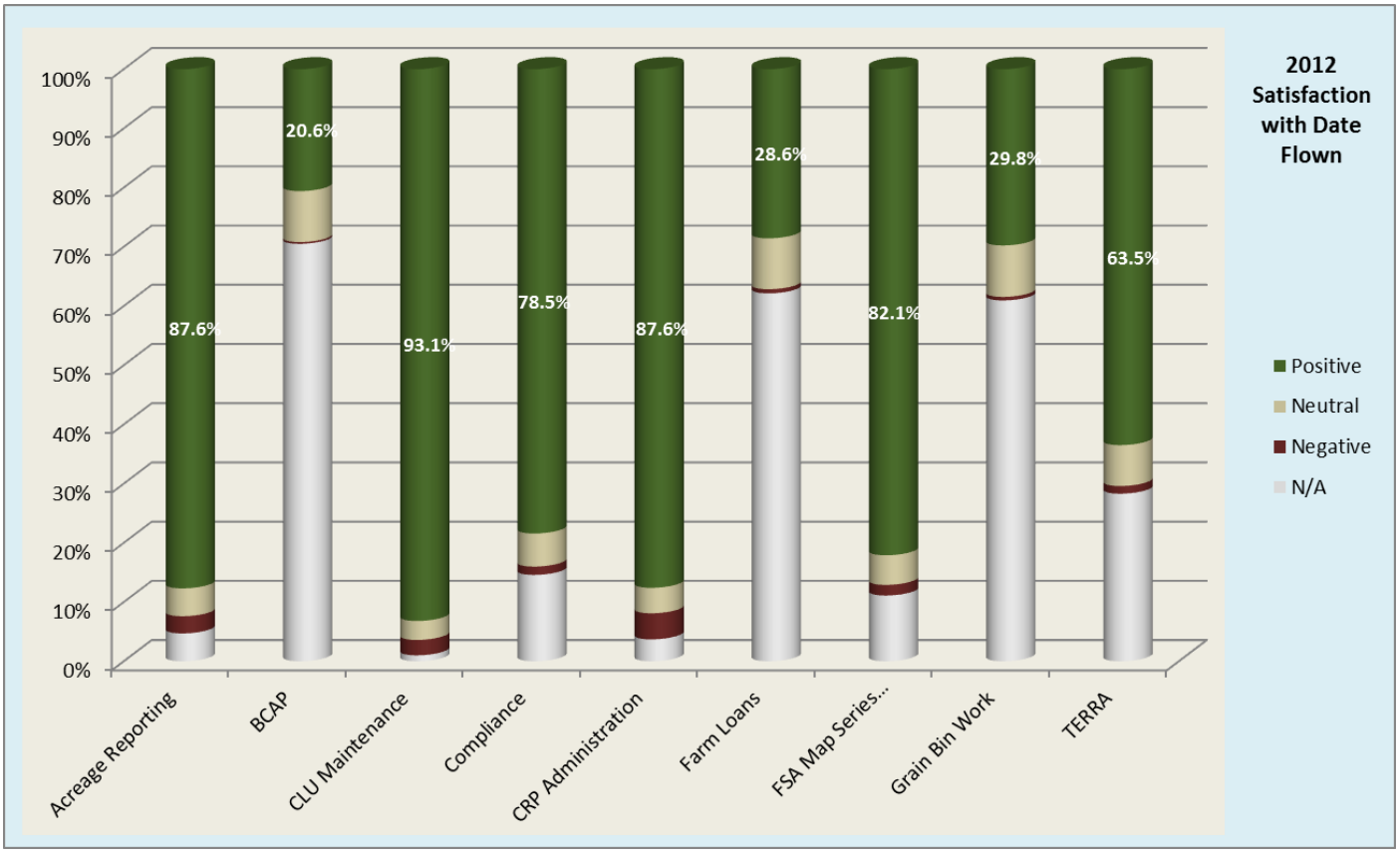




*Charts 30a & b: Satisfaction with Availability, Compared 2012 and 2013*

**Comparison: Satisfaction with Date Flown, 2012 -2013**

The same level of dissatisfaction might be expected with the Date Flown, but this was not always the case.




*Charts 31a & b: Satisfaction with Date Flown, Compared 2012 and 2013*

**Comparison: Editing of CLU Boundaries, 2011 – 2013**

**Did CLU need to be edited to match the 2013 imagery?**

The question about editing the CLU may indicate greater consistency in geometric accuracy as the NAIP program becomes more mature. It may also indicate increased land use change in many areas, or other reasons for needing to edit the boundaries. The higher number of "Not Sure" responses may be due to the shorter time frame between NAIP availability and this survey date.

The most positive sign is a lower number of responses stating that boundaries needed to be edited due to shifts in the imagery. This would hopefully parallel fewer requests to shift the imagery in order to match the CLU boundaries.

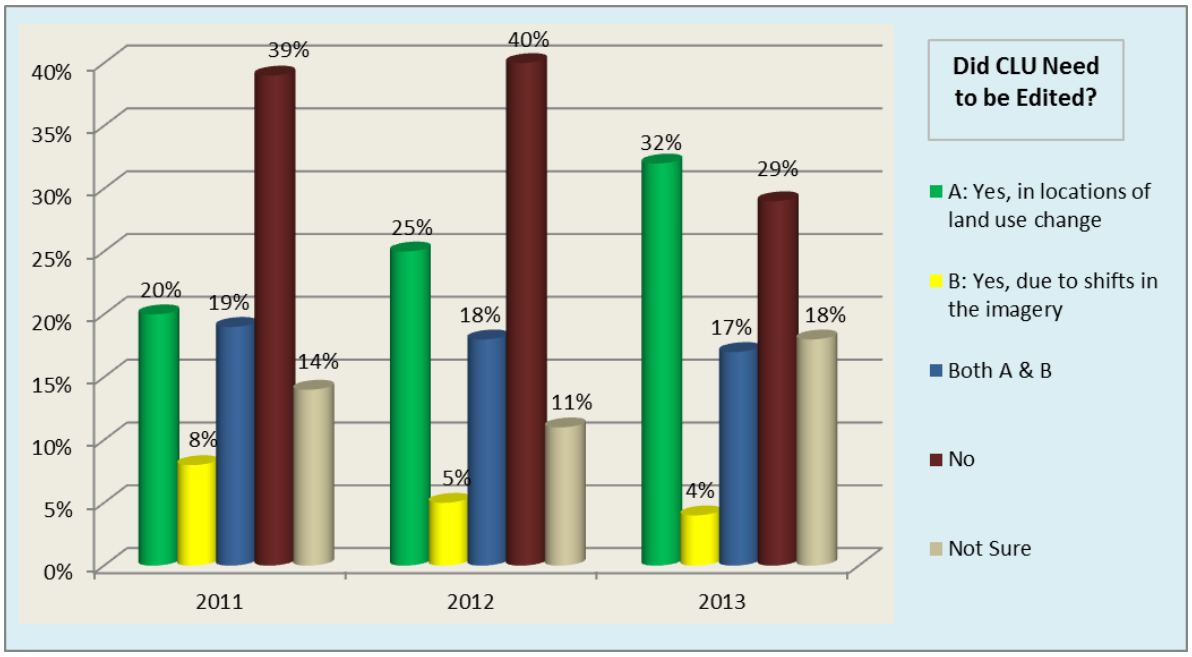



*Chart 33: Did CLU Need to Be Edited? 2011 - 2013 NAIP*

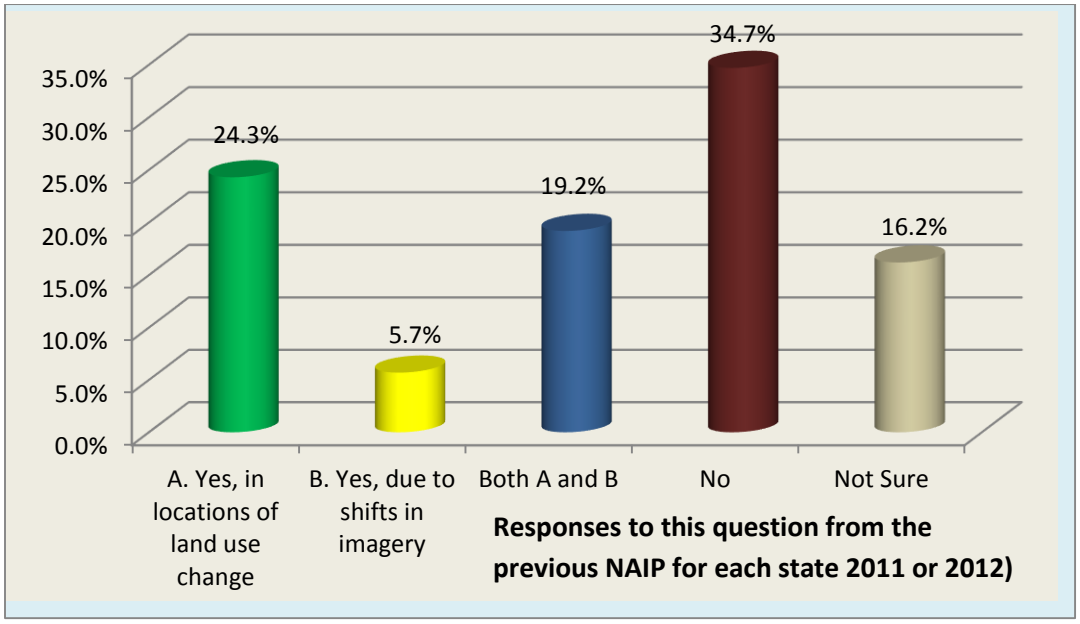



*Chart 33: Did CLU Need to Be Edited? 2010 or 2011 NAIP*

Responses from the surveys of 2010 and 2011 were mapped, and compared with the 2013 map; this is on page 18 of this survey. Please refer to this map for comparisons of individual counties. An overlay map would be a good way to display this comparison for anyone wanting to see more detail in the responses.

### Comparison: Ideal Date and Season for NAIP Acquisition, 2006 - 2013

Every year's survey has asked respondents the question "**If NAIP imagery could have been collected on a single day, what day would have been ideal?**" Mid July to early August seems to be the favorite time.

| Year | Most Frequent Date |
|---|---|
| 2006 | July 15th |
| 2007 | July 15th |
| 2008 | August 1st |
| 2009 | July 15th |
| 2010 | July 15th |
| 2011 | July 15th |
| 2012 | July 15th |
| 2013 | August 1st |

The following question was "**Given that a single day is not possible, what flying season do you feel would have been acceptable to meet your farm program needs?** Responses to this question showed an increase in frequency for the Start date until July, followed by a steep drop off – indicating that a late August – September start would usually be too late. The responses for an End date formed a somewhat more symmetrical pattern from May – October, with a peak in August, followed by a sharp decline in frequencies.

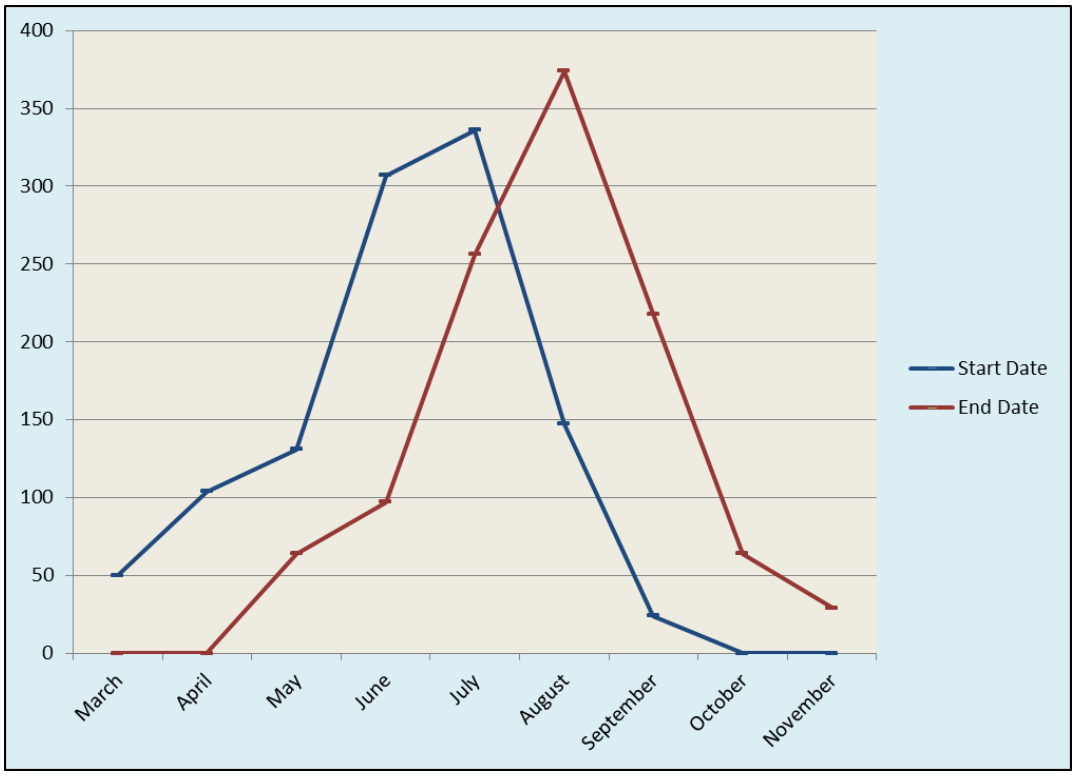
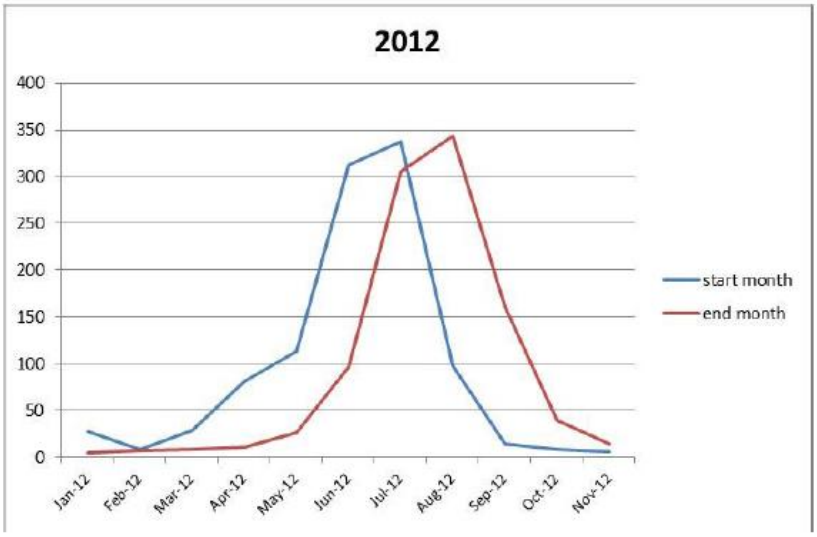


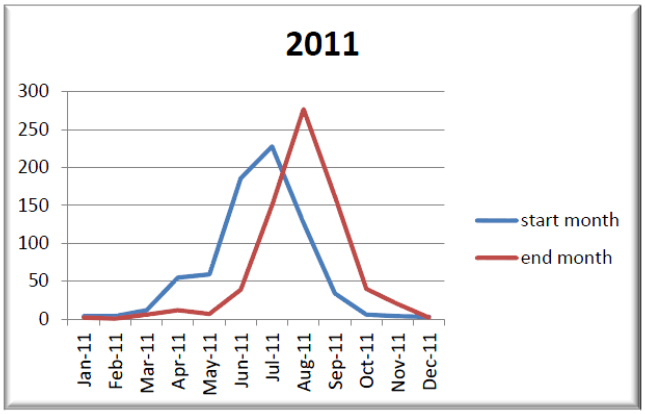

*Chart 34: Graphed Preferred Start/End Dates for NAIP Acquisition, 2013*

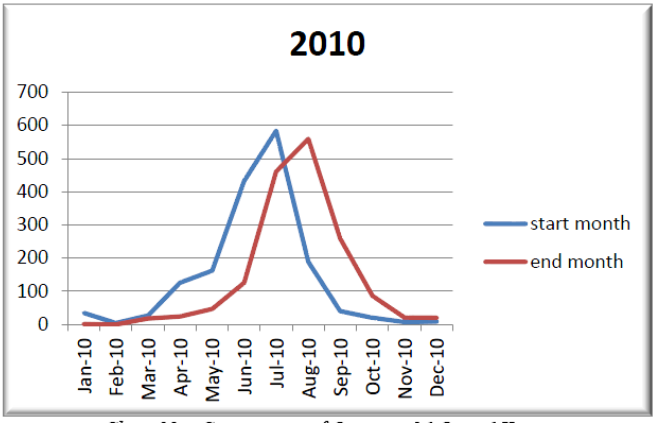
Although the chart of total preferences indicates peaks for a July start and August end, this is not always the case. The Florida state specialist indicated that for them, spring and fall are better seasons for imagery acquisitions. The map of county responses (Question 15) indicated a checkerboard pattern in preferred start dates, especially in the south.

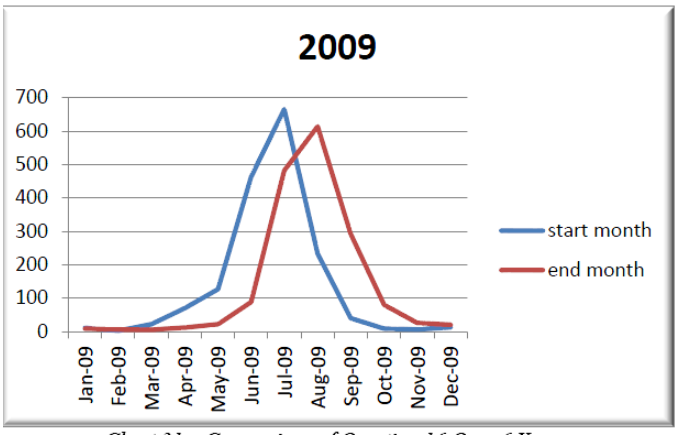
It was also interesting that the responses to the "Ideal Date" questions and the "Ideal Start/End Dates" did not always match. In addition, the chart does not account for those who might want an acquisition period of several months.

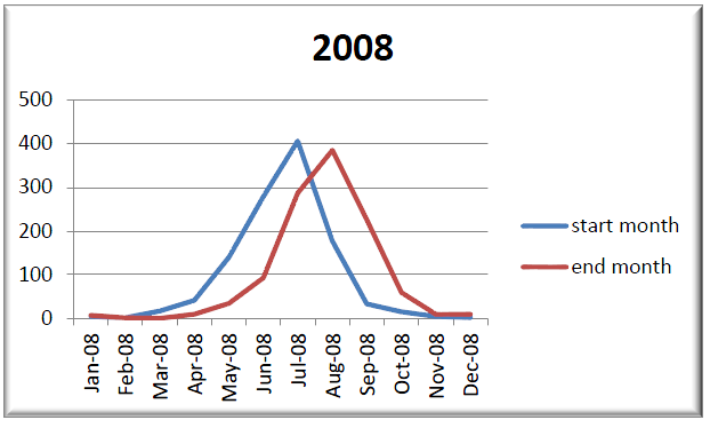
This chart was difficult to create because so many dates were out of range. A very large number of respondents entered 2014 as the year. These responses were removed, and then added back because there were so many of them. The question could possibly be restructured to prevent this from happening again.

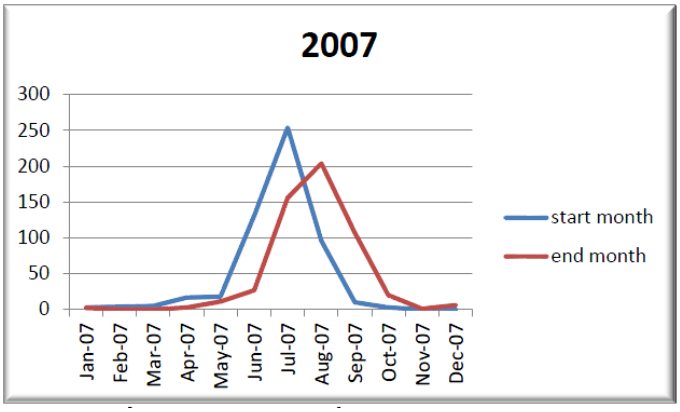


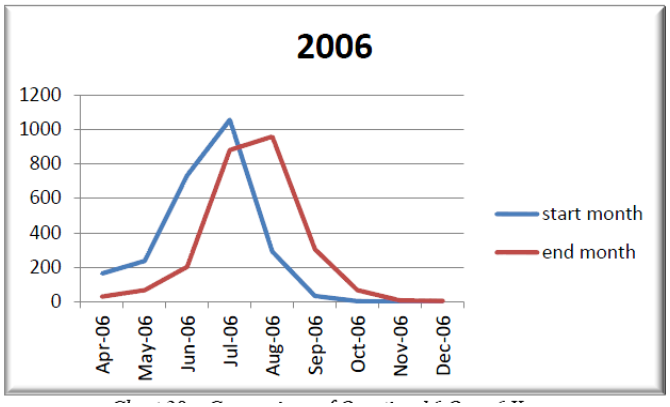






*Charts 35 a-g: Graphed Preferred Start/End Dates for NAIP Acquisition, 2006 - 2012*

**Comparison: Harvest Dates, 2006 - 2013**

The question "**Did 2013 have normal growing seasons**?" showed that 60% experienced normal harvest times, while 37% were late and only 3% were early. If the later availability of NAIP occurred in states with later harvests, the situation might have been somewhat easier to tolerate. A comparison of harvest dates, planned acquiusition seasons, acquisition dates, availability dates, county satisfaction responses, and county free entry comments could pinpoint the areas in which the scheduling was a particular problem. This could help to plan for the next acquisition cycle.

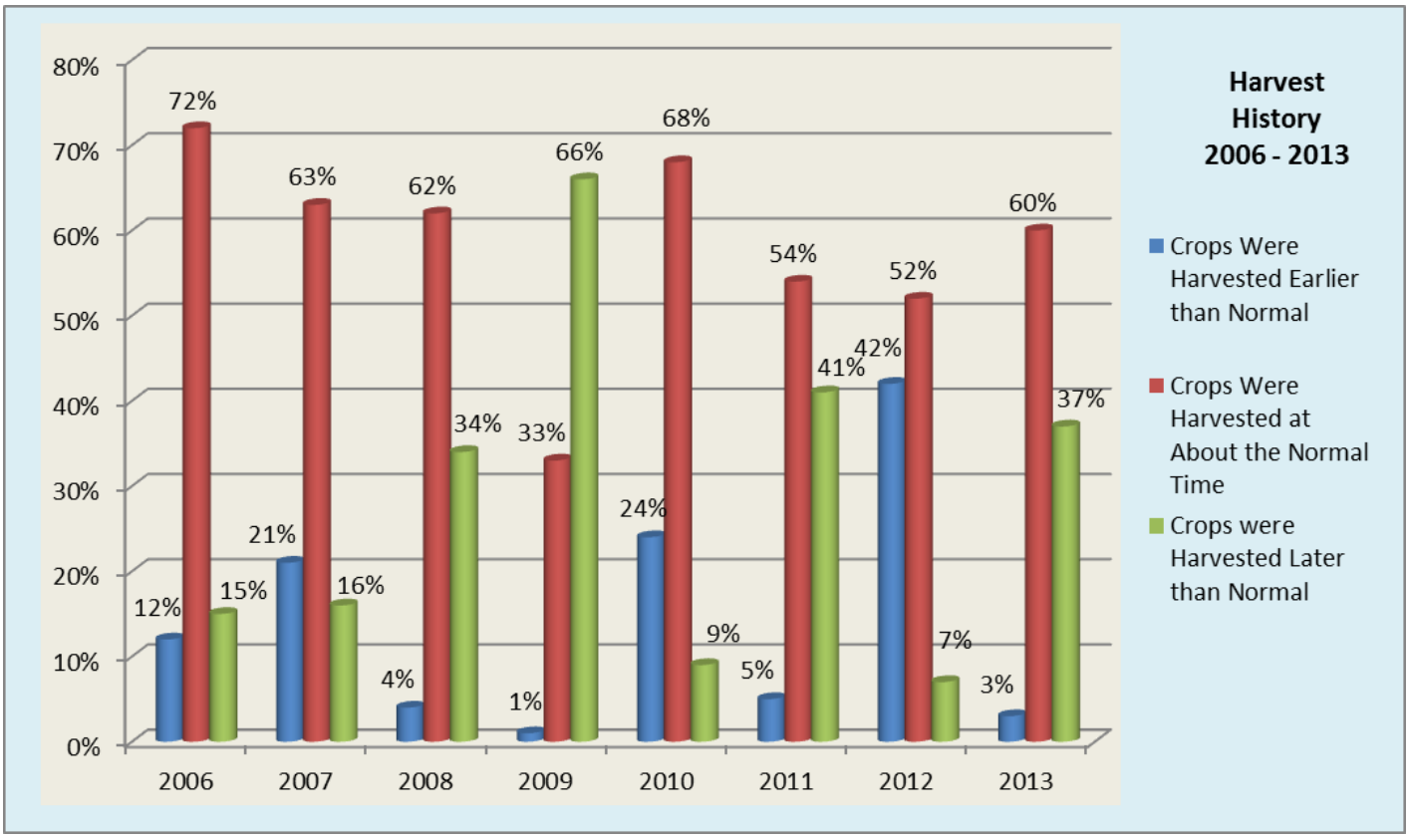



*Chart 36: Harvest Dates, 2006 - 2013*

**Comparison: NAIP Usefulness, 2006 – 2013**

The three main activities for which NAIP was used continue to be Measurement Services, General Planning Activities, and Historical Purposes. The somewhat lower response for Measurement Services may be due to later availability. Five of the comments in the "Others" section indicated that NAIP was not available in time to make measurements, or that they had not had a chance to use it much due to the late arrival.

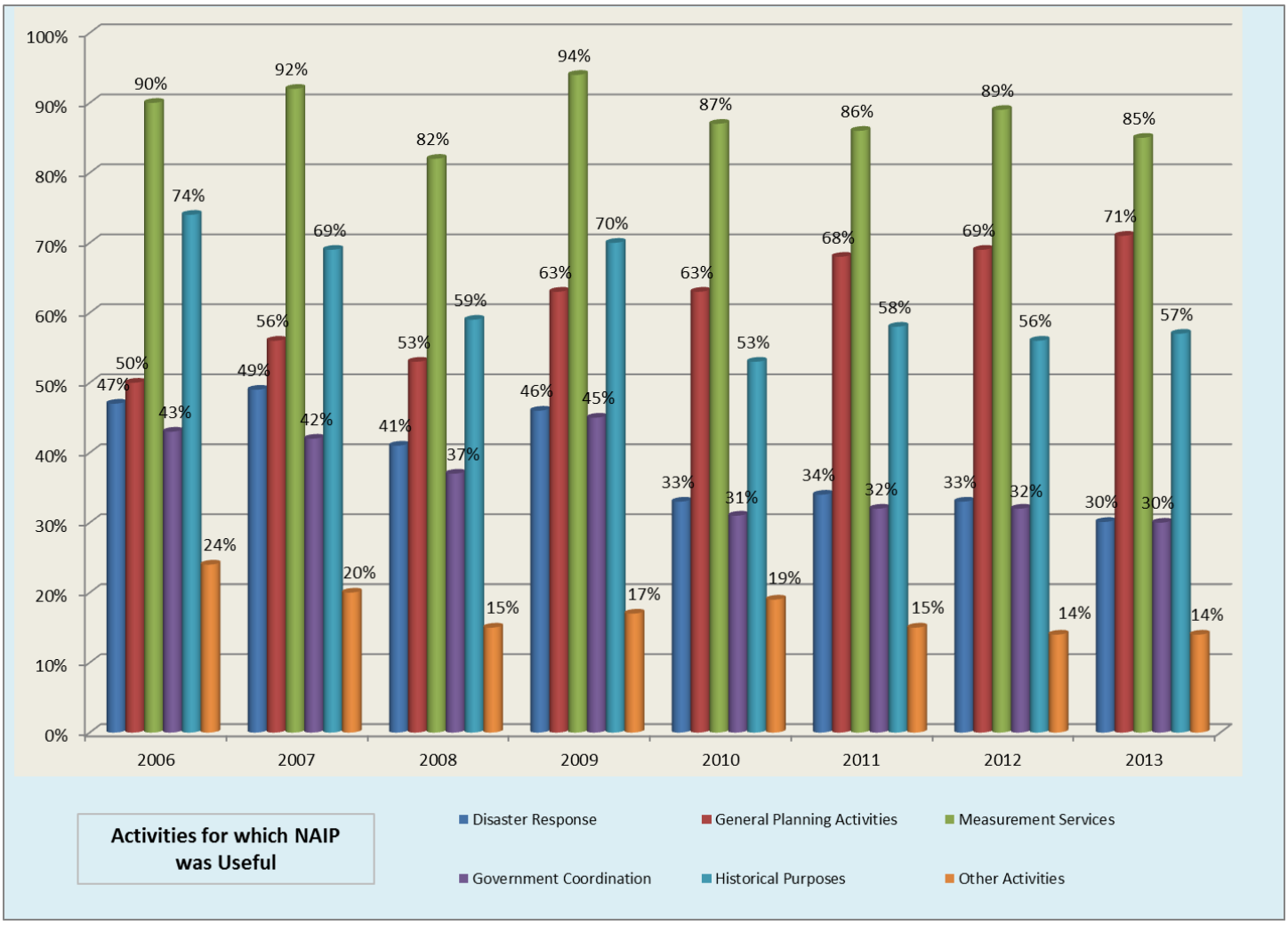



*Chart 37: Activities for Which NAIP is Useful, 2006 - 2013*

**Comparison: Seamline Data Layer Web Service, 2011 – 2013**

**Are you aware that there is a web map service for the state seamline data layer? This layer includes image acquisition dates and other related information, and may be accessed in FSA Thin Client and ArcGIS Desktop Applications.**

Awareness of the Seamline layer  increased dramatically over the last two years. It is important to note that the quesition included a "Not Sure" option, and the chart below (for comparison) displays the Yes/No percentages only from whose who responded as Yes or No. However, the responses were 46% Yes, 13% No, and 41.6 Not Sure. Even with a substantial number of "Not Sure" responses, this is still a large improvement in in awareness.

As expected, the State GIS Specialists were more aware of the layer than were the County personnel, and the the State specialists found it more useful that County employees. There is still room for education in the reasons for this layer, and in how it can be used.

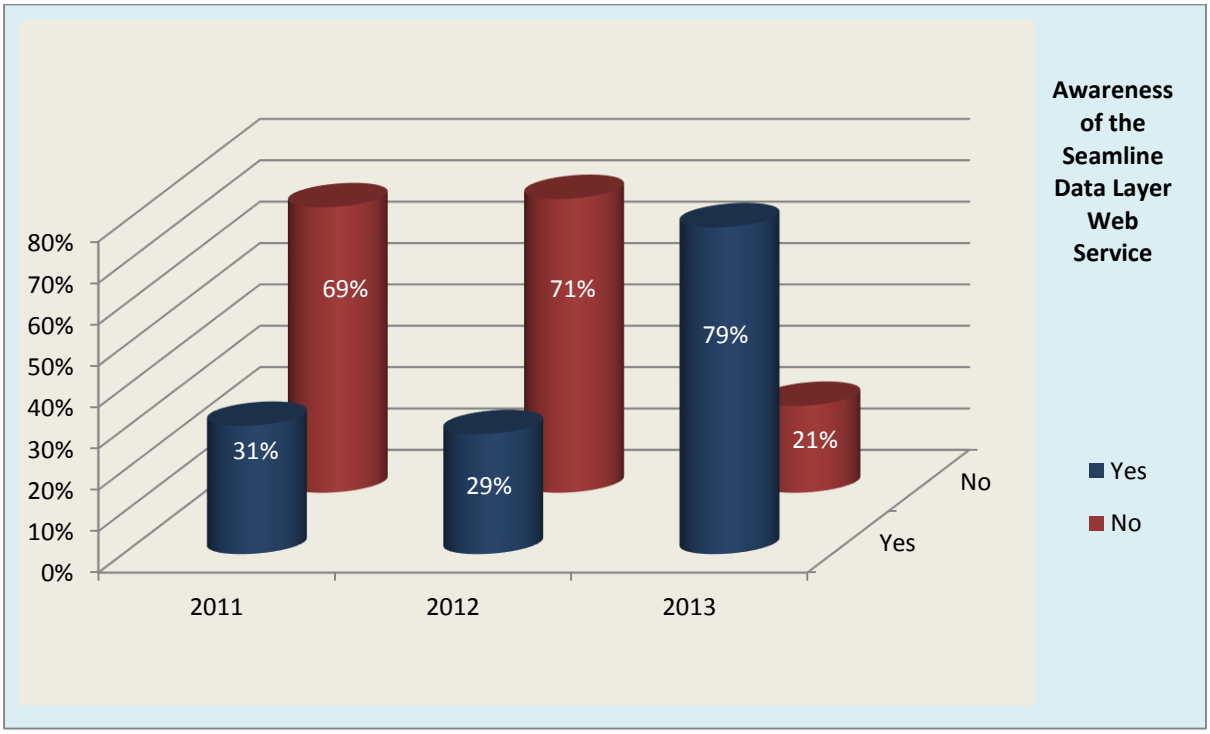



*Chart 38: Awareness of the Seamline Data Web Service, 2011 -2013*

**Comparison: Four Band Imagery, 2010 – 2013**

**Are you aware that the 4-band NAIP imagery enables display of both Natural Color (NC) and Color Infrared (CIR) imagery when accessed in FSA Thin Client and ArcGIS Desktop Applications?**

Awareness of the Four Band imagerry and its usefulness declined in 2013. The inability to access the CIR through MIDAS might be a possible explanation. Among the State GIS Specialists, 96% responded "Yes."

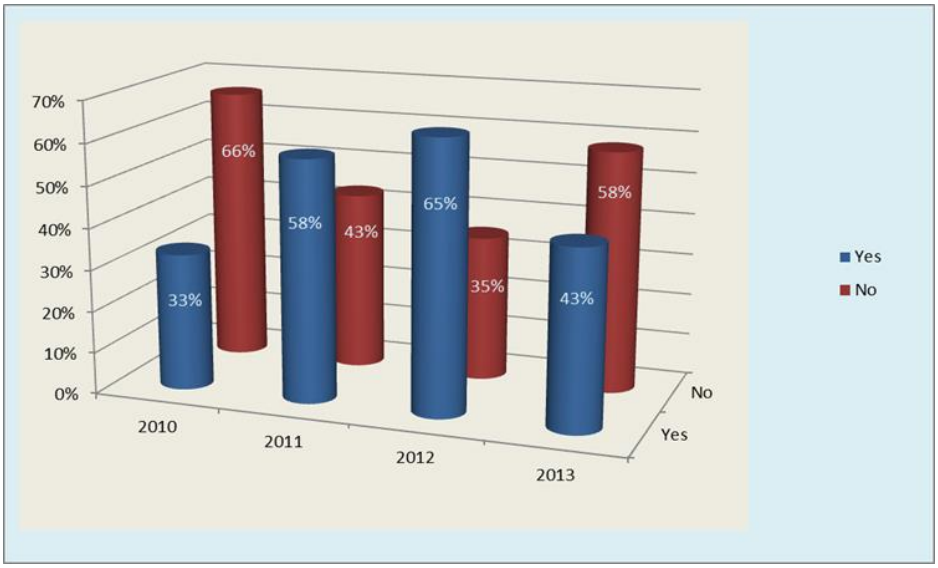



*Chart 39: Awareness of the Four Band Imagery, 2010 -201*

**(If yes to question 26.) Was the Color Infrared (CIR) version of the imagery useful?**

More training might be needed in the usefulness of CIR imagery. It might also be helpful to provide information on how to access Four Bands which can be used in analysis, is that is desired.

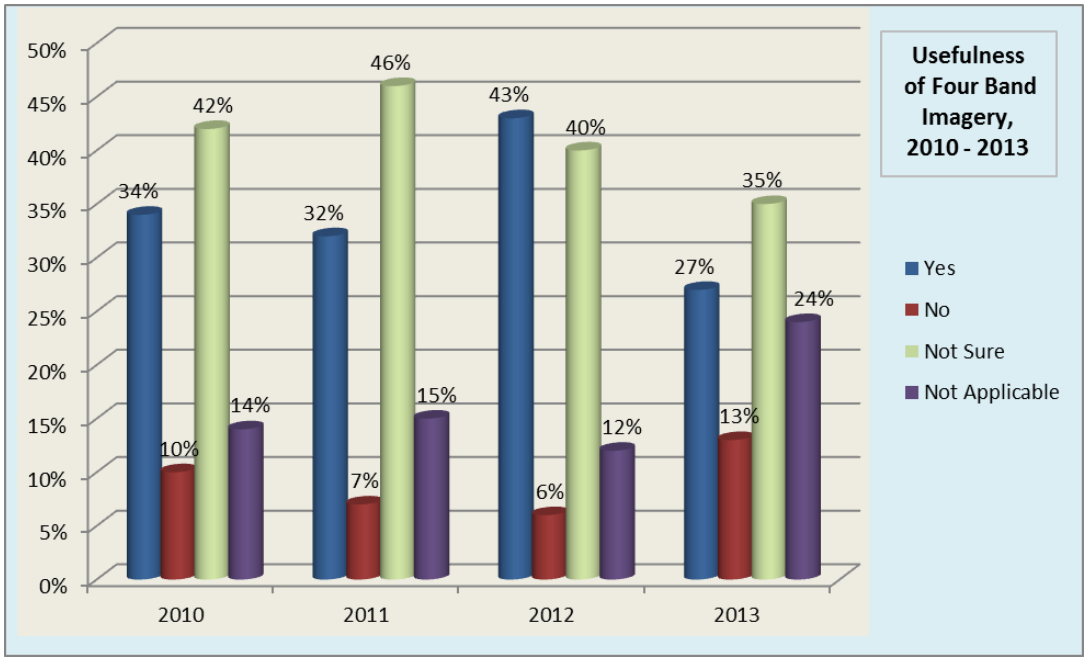



*Chart 40: Usefulness of the Four Band Imagery, 2010 -201*

# Section I: Comments

**33. Do you have any recommendations to improve the NAIP program? (Optional)**

There were many interesting comments, and most of them fell into some basic groups. The largest group of responses had to do with the flying season, and the fact that for many, the imagery's arrival was too late for this year's compliance. A few comments dealt with altering the flying schedule because of climatic issues, such as a blizzard.

Another large group of responses had to do with the desire for yearly NAIP acquisition. Others had to do with problems of image clarity. Although respondents were asked to not report on the delivery system, there were a large number of comments about MIDAS or other software issues.

Another small group of responses dealt with requests for assistance of different sorts, and another group suggested a need for more education about imagery acquisition.

**A. Positive responses**
**B. Date of acquisition and availability**
**Delaying acquisition due to weather**
**C. Annual NAIP is desired**
**Finer pixel resolution is desired**
**D. Clarity of the imagery**
**Zooming in makes the imagery unclear**
**Cloud cover**
**Contrasts and shadows**
**E. IT Problems**
**MIDAS**
**Old and new imagery together**
**Map Series**
**Other system related problems**
**F. Training and other requests**
**Comments to include in basic imagery training**
**G. Other comments**

In cases where it seemed relevant, the state of the respondent was included.

**A. Positive responses**:

- **(x4)** No it is very good!
- **(x2)** Keep up the good work!
- I think you are doing an excellent job with the NAIP program.
- None - looks good
- Was really pleased with 2013. Much, much improved over 2007!
- None at this time - Very satisfied with service.
- It looks good
- I thought the quality of the 2013 imagery was very good. It would be helpful to have new imagery every year.
- No the NAIP program works well.
- over all everything looks good

- the NAIP photos are good. But there are many times when it is not available due to software and internet problems
- (South Carolina-state) NAIP Imagery is outstanding. Our only issue is cloud cover in late summer. I understand that budget issues impacted the acquisition dates in 2013

### B. Concern with Availability

- Louisiana **x10**) The quality of the NAIP imagery is excellent. However, it was often unavailable during acreage certification, and this caused a huge issue with creating maps and a back log of work in our office. The imagery not being available sooner also held us up in acreage certification.
- (Colorado **x4** ) Would be great if this area was flown in late summer or early fall after hay is harvested, but prior to snowfall. Hay field boundaries are difficult to establish when imagery is during the growing season.
- (Arkansas) Fly a little later in the season. We had crops that had not even been planted yet. Only the earliest planted rice and corn shows up on the imagery. Everything else was either not planted or not up yet so it made it difficult/impossible to do compliance checks with the maps.
- (Arkansas) Yes, Please fly when leaves are off trees. It is much more accurate for measurement purposes.
- (Colorado) The image quality is good, we received it too late in the fall to use effectively on all producers for 2014 acreage reporting
- (Colorado) we didn't receive our imagery as timely as other areas of the state or region
- (Colorado) we received our imagery too late for us to use with many acreage reports for 2014 crop year
- (Colorado)We received our imagery too late in the fall to use for 2014 acreage reporting on many producers
- (Georgia) We had completed nearly all of our annual acreage reporting before the imagery became available so an earlier flight would have greatly benefitted us.
- (Georgia) Earlier flight would be of greater benefit since most of our acreage reporting was complete before new imagery was available this time.
- (Georgia) An earlier flight would have been of greater benefit to our office since most of our acreage reports were complete before current imagery became available.
- (Idaho) Needs to be flown earlier in the season.
- (Idaho) Obtain the new imagery earlier in the year so that there is a color variation between different land uses and re-fly those areas with cloud cover. The biggest problem we have seen for 2013 is all cover is close to the same color making it difficult to locate boundaries or determine land use.
- (Idaho)timely flights for the county
- (Idaho)We would just like it to be flown earlier in the season and it would be great if we could have it prior to the first crop reporting deadline of November 15th.
- (Idaho) Our NAIP was taken too late in the year. It is nearly impossible to discern CLU boundaries or other necessary details. The NAIP needs to be taken during June if possible to optimize its effectiveness. Also, I would like to see the same quality maps as are available on Google Earth. Their maps are much better quality and resolution and can be zoomed in much closer for better detail. Would it be possible to contract with them and use their maps?
- (Idaho) Obtain cover when crops are growing not when crops have already been harvested
- (Idaho) Timing of flight to give better contrast and help to distinguish field boundaries better.
- (Idaho) The flight should not be done in the fall after harvest. It makes the fields very hard to see and know where measurements need to take place.
- (Idaho) We would like to see our area flown earlier in the year. In the higher elevations, several Lemhi/North Custer County farms were snow covered and the imagery was not usable on the October date it was flown. Other than that, the NAIP imagery is great!
- (Idaho)Would like to have it flown earlier in the season and also it would be extremely helpful to have the new imagery prior to the first crop reporting deadline in the fall (November 15th)

- (Iowa) Would like to have imagery for use by September to help make any changes the producer has reported before the next PY.
- (Idaho)The imagery was flown way too late in year. Everything was brown and there was little contrast. All crops had been harvested and we couldn't see the contrasting fields very well.
- (Iowa) The timeline for the flight for the imagery needs to be just before harvest which is usually late August to late September in the southern Iowa region. The weather at this time seems to produce sharper images as seen in the past years' imagery allowing us to distinguish the different crops planted. (Iowa) Would appreciate the imagery becoming available sooner in the growing season.
- (Maryland) Our office needs to have the imagery made available in September. We are starting crop reports in October so it's double the work to take it on old maps then copy it on the new maps.
- (Minnesota) We need it available sooner.
- (Minnesota)Take land cover imagery in July and get it to the county offices as early as possible.
- (Montana) just to have the image taken later in the crop year
- (New Jersey) Have Imagery available earlier, to allow more time to make maps for the next crop years acreage reporting.
- (New York)Imagery was taken too late in the crop season and was not delivered to us timely
- (New York) Coordinate with states on ideal flight time frames.
- (New York) Cloud coverage was a problem in a few areas.
- (Pennsylvania) I feel for our state if NAIP is flown between May and July and we can receive in our COF's so we can use it for fall crop reporting for the next year is great. I usually start printing maps in August because producers can come in once 10/1 date comes so we are into next year for crop reporting. I know some of our counties in our state did not receive their NAIP until November and they were already taking acreage reports for next year. Some were adjoining counties so, though they may have gotten them before November. I think it's great having as new as possible NAIP to use for our programs.
- (Pennsylvania)I just wish it had been flown and available earlier so we could have used it for 2014 crop reporting maps.
- (Pennsylvania) For use with the 11/15 crop reporting deadline, it would be really useful to have the imagery available by 10/1 of that year. I know this fall was thrown off with the government shutdown, but it came too late to really help with fall crop reporting.
- (Wisconsin) For CRP it is helpful to see CRP practices from fall images to see hardwoods trees vs. pine trees and if food plots exist on CRP fields.
- (Florida - state)I rec'd regular updates from APFO re: imagery availability as it came online Sept - Dec 2013. Flight season for Florida is unique because it's mainly spring and fall as summer conditions are not conducive to image acquisition. I am happy with flight seasons.
- (Delaware- state) We didn't receive imagery until after the 2013 crop report season but quality was very good so it will be valuable for 2014 season.
- (Louisiana - state) For current year compliance we need flights flown earlier in my state. Also, when compared to generic web search engine imagery, our NAIP imagery is lacking.

**Delaying NAIP acquisition to the weather**

- (Iowa) The company that flies the imagery needs to communicate with the area to be flown to coordinate with the possibility of late planting due to adverse weather conditions in the area. Serious waste of time and money if the imagery cannot distinguish between the various crops planted. This is a very important part of the FSA for compliance and needs to be made an important issue to follow up on!
- (Iowa) fly based on the climate problems. If there was flooding, fly later than normal for the maturity variations of the crops to be visible
- (Minnesota) Try not to fly when there is an extensive area of a state that has increase prevented planting due to a May blizzard.

- (Wisconsin) In our part of the state we had an abundance of rain fall. This slowed the growing season and the imagery was hard to depict the crops. A later flying date would have been helpful this year.

**C. Annual NAIP is requested:**

- (x2) fly yearly
- We really could use yearly imagery at this time because of a lot of oil play.
- my county needs new imagery yearly-
- give us NAIP every year
- give us new imagery every year
- (Colorado) Would like to see new NAIP imagery every year. We live in a major metropolitan area and things are constantly changing.
- updated more often
- Supply new NAIP imagery at least every other year.
- get it on time and have new imagery every other year
- If imagery was updated every year instead of every 3 years it would be very helpful to our operations.
- getting it on time, and would really like it every other year if possible
- Fly with drones. Yearly flights
- Yes, take every year; there are constant land changes.
- (Iowa) The availability of annual flights is essential to the integrity of our compliance work and the accuracy of the maintenance of our CLU layer.
- Please make this imagery available yearly. There surely are ways to fund this and it is a very necessary part of our toolkit here at FSA.
- (Iowa) Please fly us and provide maps every year! This is one area the government should not cut funding. We are located near a metropolitan area where there is a lot of housing/development that takes place and flights help us maintain accurate records and detect fraud, thus lowering our numbers of erroneous payments.
- Receipt of photography sooner. It should be flown every year, with reduced staff it is a necessity.
- Keep the imagery coming on an annual basis. We did not receive 2012 imagery and that has had an adverse effect on our being able to provide timely service and calculate accurate violation issues.
- It is always useful to have the most current NAIP imagery available because of land changes in our county.
- THAT IT WOULD BE AVAILABLE AT ALL TIMES
- More frequent flying because in 3 years there are many field/strip changes and new construction.
- Fly more often!
- Annual NAIP when it is possible, which saves a lot of time and money at the local level.
- Every year flights and good contrast
- More timely delivery would be helpful and flights done more often.
- A flight each year would be helpful.
- I thought the quality of the 2013 imagery was very good. It would be helpful to have new imagery every year.
- Take the Imagery every year and make it available to the County office.
- Would like to see NAIP updated every year.
- New imagery yearly would be helpful.
- Probably hard to do, but fly a little more often than every few years.
- it would be ideal if we could go back to getting new imagery on an annual basis.
- (Wisconsin) We could really use a new flight every year and the timing with the crops is very important. In 2013 there is little to no distinction between corn, soybeans and hay ground.
- (Nevada - state) As usual a shorter time period between acquisitions would be beneficial, but Nevada can get by on 2 or 3 year cycle

**Finer pixel resolution** would be good**:**

- Higher resolution imagery.
- higher resolution image. Would be nice if we could partner with other entities to get the kind of image we can see for free on google maps, the county land records site, and other sources. It is unfortunate that our product is not as helpful for remote sensing as other sources.
- Better resolution...it is very difficult to discern trees from grass
- Sub-meter resolution would be very helpful in measurements performed in office (both estimates and paid-for).
- higher resolution imagery would be very helpful
- (Montana -state) Allow individual counties/cities to buy high resolutions again. Montana is too big with too little population for the whole state to only want a 1/2 meter product.

**D. Clarity of the Imagery**:

- **(x6**) CLEARER imagery! The county Assessor often has better imagery that we have to work with.
- CLEARER imagery! The county Assessor often has better imagery that we have to work with. Also, have a county office label function on the survey, so we can track / print that we have completed the survey for particular counties!
- Please provide sharper imagery. Often, the County Assessor has much sharper, clearer imagery.
- It seems that in the past the images were clearer, but it is ok.
- better quality would be nice... the photos look fuzzy
- It's a little blurry. If there's a way to sharpen up the image a bit, that would be more helpful.
- clearer images for compliance
- This flight was not as clear and in the past.
- sharper imagery (seems blurry to me)
- could be sharper (seems blurry to me)

**Zooming in makes imagery unclear:**

- **(x2)** It would be great if the imagery would be clear when zooming in really far. When I go to google maps, I can search for a farm for example and I can zoom in really far and the imagery is still crystal clear in most instances. This would be helpful if our NAIP imagery would function similarly. I had an instance where I had to redraw field boundaries and I zoomed in and it was very blurry. Unfortunately I needed to zoom in as far as I could to be as accurate as I needed to be.
- Often times we must zoom very small to determine detail for CRP contracts, compliance and determine if a permanent structure exists on cropland. The image then becomes very pixelated and blurry which is unhelpful.
- Allow to zoom in closer.

**Cloud cover:**

- Main problem with 2013 in Delaware was excessive cloud cover.
- Fly on a clear (no clouds) day.
- (New York) Small area of cloud cover in this imagery. Coordinate with States on ideal flight time frames.
- (New York) Cloud coverage created problems in a few areas.
- (New York) This imagery had a small area of cloud cover. Coordination with states on ideal flight time frames.
- (South Carolina-state) NAIP Imagery is outstanding. Our only issue is cloud cover in late summer. I understand that budget issues impacted the acquisition dates in 2013.

**Contrast and shadows:**

- Increase the contrast between vegetation types.
- There appear to be a lot of deep shadows in some areas. That makes it a problem to see all field edges/boundaries. I assume it depends on the time of day imagery is flown.
- Seems to be quite a bit of over hang from tree shadow which makes it harder to decide where the true boundary of the field starts.

- 2013 Imagery does not have enough contrast when you compare 2013 vs 2011. I would like to see more contrast/detail in the next flight.

## E. IT Issues:

**MIDAS:**

- Keep imagery; replace MIDAS with CLU functionality to simplify all processes.
- NAIP is fine - our problem is with MIDAS. We should be editing on CITRIX and let it update MIDAS instead of vice-versa.
- When using Map Maker to print maps the labeling of the CLU's are very congested "Farm, tract, CLU #, HEL Det, acreage" makes it very difficult to write the crop, plant date and percentages on the CLU for acreage reporting. "The old map maker was better."
- No, just need Midas to perform similar!
- No, I just wish Midas was as user friendly as the NAIP program is!
- It's very confusing with Midas & Citrix using the imagery. I think the imagery is fine but it's the 2 software programs that don't work properly together so it matches.
- Availability of NAIP in ARC GIS and MIDAS could be better.
- We occasionally get the very dark imagery in Midas. We can not use this for any editing, but it is much clearer than what we are using>
- It would be nice to have it appear faster in MIDAS and available when needed to print maps.
- MIDAS must work correctly and effectively for NAIP to be more useful!!!!
- It would be nice to have the year the imagery was flown when viewing NAIP in MIDAS or CITRIX.
- Speed of imagery in MIDAS is very slow and needs to be drastically increased to meet our workload expectations**.**

**Old and new imagery together:** (Is this an APFO problem?)

- **(x2**) when you got our new layer, the problems were not all with the new imagery, the old layer would cover up the new layer a lot of the time and I could not tell which layer was the correct layer to make corrections.
- The 2013 NAIP Imagery reverts to 2011 Imagery in Midas. Sometimes it flashes and then other times it stays locked in 2011 Imagery.
- the new imagery was not all the problem, the old imagery was also there and many times would be the old imagery and we were unable to tell which was the new or old imagery to make corrections. So many of my answers of satisfaction are not correct, only because of the questions I had to answer.

**Map Series:**

- **(x2)** The Map Series Tool is great, really helps the County Office with efficiency and accuracy of the current land use.
- The map book seems to mess up my layers and make me rebuild my project often. Goes down too much
- When creating mapbooks, ensure 2 roads are visible to make farm location easier for producers.
- When using Map Maker to print maps the labeling of the CLU's are very congested "Farm, tract, CLU #, HEL Det, acreage" makes it very difficult to write the crop, plant date and percentages on the CLU for acreage reporting. "The old map maker was better."
- when printing out maps acres are sometimes too hard to read

**Other system related comments:**

- (x3) To choose other counties' imagery with simple (short) step.
- Loss of access to NAIP is a big problem, especially when performing automatic map generation requiring whole state imagery access. Reliable, quick, and automatic, failover would be good, but copies stored on a server at the location of the CITRIX GIS servers and accessed by fiber optics would be best. (As you probably know, we currently have very slow and unreliable access in MIDAS.)
- The ability to clip an area of interest for our state and county to enable the imagery to load faster and be more user friendly.
- Faster service and better reliability for our producers.

- Correct the latency of screen changes and printing.
- Need to add more servers so that during peak work hours throughout nation, the systems are not so slow during crop reporting times.
- To be able to change color of annotation.
- Yes, that it be more consistent to work on a daily basis and not going down all the time.
- When the boundary lines are drawn for CLUs, a little more care can be taken. Knowing that there are several million lines being drawn, I do understand mistakes happen.
- Would like to be able to access when needed
- Be able to access when needed
- Wish it would pull up when needed
- Imagery goes out often. Seems to take a long to load.
- loss of imagery during editing really needs to be addressed, also slow loading of imagery.
- imagery is unreliable - constantly goes out
- Would like to see the NAIP imagery work better with FSA applications on loading and not locking up programs once loaded.
- the NAIP photos are good. But there are many times when it is not available due to software and internet problem

**F. Training and other requests:**

- Email help site!
- More training at county level
- Training video and problem hotline!
- Would like to know how to access previous years' images for compliance problems. Wetland conversions, cropping history for conservation programs etc.
- Clearer instructions
- **(x2)** Would like the availability of the TOPO maps for FSA.
- **(x3**) PLEASE ADD PLSS and ROADS
- An overlay of 1985 imagery to reflect changes in land use for Conservation compliance created in 1985 and amended in 1990

**Comments to include in basic imagery training:**

- **(x3)** Why can't we receive our imagery from satellite information instead of having an actual flight? Our producers are always asking why we don't have up-to-do maps like Google Earth. Also, why did it take so long for us to receive the actual imagery after it was flown?
- **(x2**) Create a way to shift the imagery to match up with existing boundaries.
- Street views would be nice
- If we could have this be real time while we go thru the crop reporting season and then freeze the view about August 15 of the season would help us out on both ends.(Reporting and Compliance)
- Rather than airplane flight, why are we not utilizing satellite imagery that is can be up-to-date when requested?
- Our office needs to have the imagery made available in September. We are starting crop reports in October so it's double the work to take it on old maps then copy it on the new maps.

**G. Other comments:**

- A shorter turn-around time from imagery taken to received by the office.
- Would like to see more consistency.
- Better quality imagery
- timing of delivery of NAIP, quality on website vs quality on ARCGIS not as good on ARCGIS
- Get NAIP to the counties soon.

- Imagery of entire county all of same day or closer than what we received in 2013

## Section J: Recommendations to Improve NAIP

- Based on the comments and the responses, the biggest hurdle appears to be providing the NAIP imagery in time for the counties to complete the work they are required to do in the fall. This was especially noted in Idaho, where there was a pilot half meter acquisition. This year's program was hampered by the problems with securing funding.
- Compare maps for the requested flight seasons, 2013 acquisition dates, historical harvest dates, actual acquisition dates (from the seamline files), date made available on the server (currently unmapped) and responses regarding availability and flight date (currently unmapped) to analyze the success of current flying seasons and make changes.
- After two years of positive (or unsure) responses to the question regarding a web service showing land conditions, create a prototype of some sort to demonstrate what might be possible. Then, either proceed with the idea, or remove the question.
- It would be good to again create some sort of basic presentation for counties on basics of imagery and of the NAIP program. There are still a good many misunderstandings. It would be especially important to explain the limitations of funding, and the concept of pixel resolution.
- Create a map of dates when the imagery was made available on the web service.

## Section K: Recommendations to Improve the NAIP Survey

Many questions are asked, but some are difficult to map or to even include in the report in such a way that they would be useful in planning. Some questions could be revised or perhaps eliminated. Some observations:

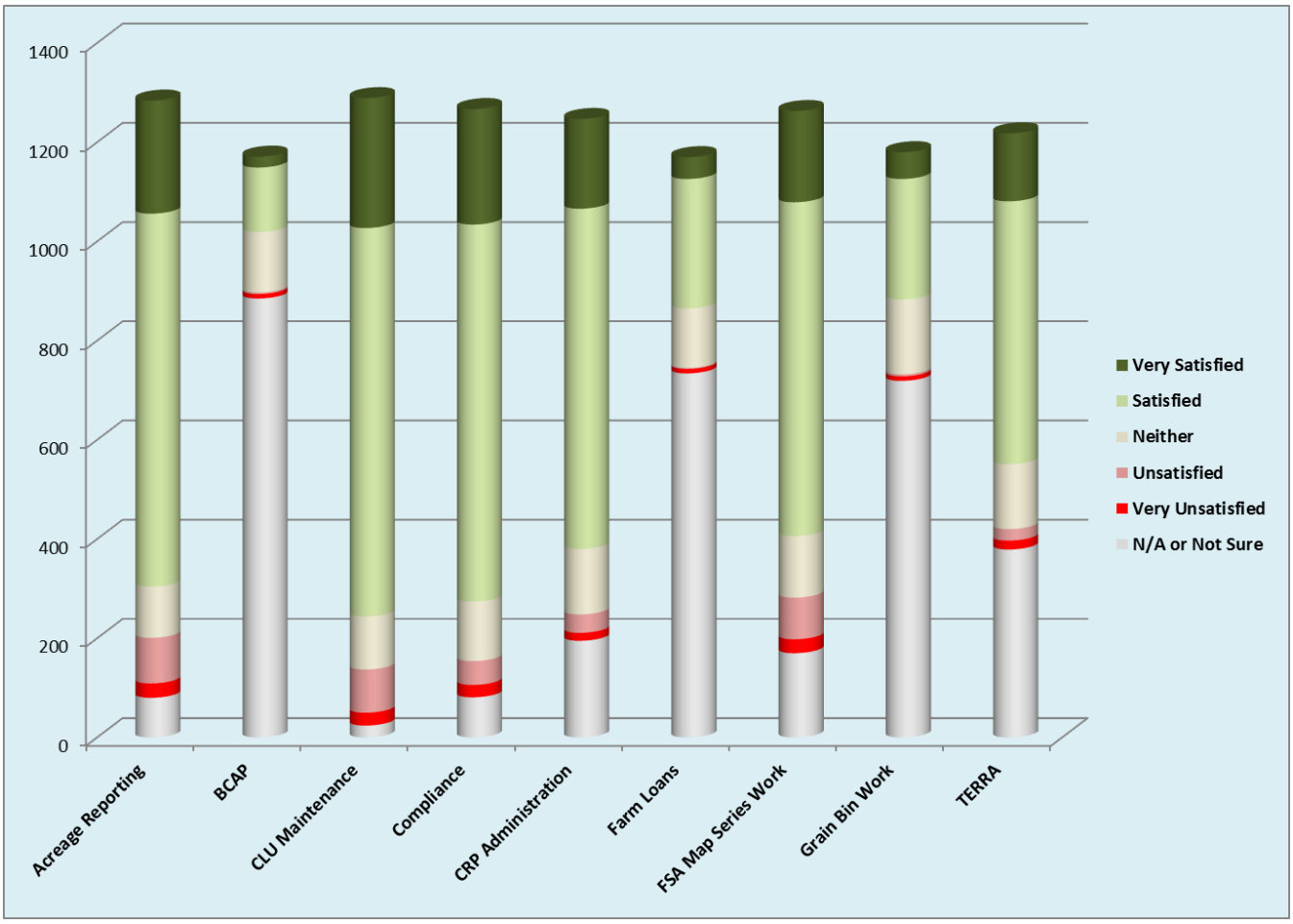
- There is still a problem with entering the correct county FIPS code. Perhaps adding the county name to the number would help. If the skip logic could be used to allow the respondents to select first the state (listed with name and FIPS) and then the county (by name and FIPS) this might make it easier. However, this would take a lot of time to set up.
- There was some resistance to the idea of having one person repeat the survey numerous times because several counties are administered by one service center. (In the case of southeastern Louisiana, the same person answered the survey for 10 parishes; I think there are two service centers for that area.) Is there some way to adjust for that? Could we administer the survey by service center instead of by county? (Or allow them to choose which way they want to report?) Could we create a map of service centers throughout the country, with the boundaries being the counties administered?)
- Very few people remember the exact date when NAIP was made available. It might be better to have some sort of more generalized question with a list to select from.
- The entries for ideal start and end date were all over the map – there were more false answers than in the FIPS Code question. The length of the flying season was calculated by subtracting the start date from the end date, and there were many which were very strange (either the same day, several months, or a negative time frame). Survey Monkey did not seem to have a good way to verify that the answers were logically correct. The responses are difficult to map or put in a graph. It might be better to create a dropdown list to select start/end dates with a set time frame (Such as starting June 15, 30 days of flying). Something like this could be mapped, and would be a more useful tool in planning acquisition dates.

- The question on harvest dates, as it stands, is interesting but does not really relate to the other questions as a planning tool. It would help to set a standard procedure for comparing this information with other input, in particular the comments. Mapping the comments could raise a privacy issue (and they would have to be just part of an attribute table), but they can help to understand the problems of a specific area.
- Some of these results could be more useful in a map with overlays (swipe function or similar viewing device). Some of these could be posted on ArcGIS Online. There is a tool allowing two layers to be viewed together (swiped) and this could be useful in seeing detail for specific areas.

# Appendix 1: Additional Charts for Questions 7 -9

## Question 7: Availability of the NAIP Imagery

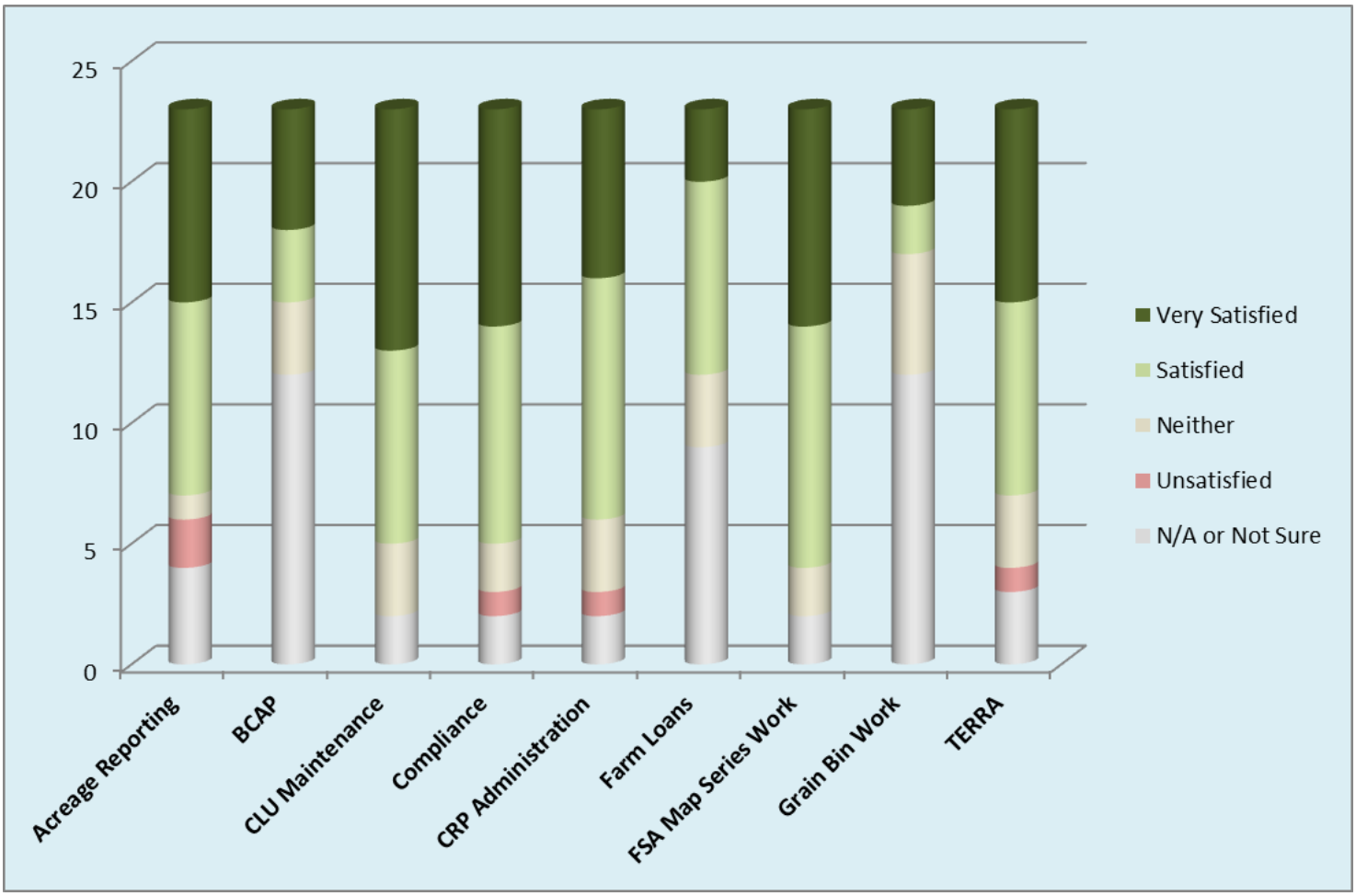
### County Responses




In a more simplified analysis, the counties gave more positive than negative responses (either Very Satisfied or Satisfied) for the date when NAIP was available to the county, as this availability related to some programs; these were probably programs with which county personnel have more familiarity.

| | Acreage Reporting | BCAP | CLU Maintenance | Compliance | CRP Administration | Farm Loans | FSA Map Series Wo | Grain Bin Work | TERRA |
|---|---|---|---|---|---|---|---|---|---|
| Positive | 76.3% | 13.0% | 81.1% | 78.4% | 69.5% | 26.1% | 67.9% | 25.2% | 54.8% |
| Neutral | 8.0% | 10.4% | 8.3% | 9.5% | 10.6% | 10.3% | 9.8% | 12.8% | 10.8% |
| Negative | 9.4% | 1.0% | 8.8% | 5.8% | 4.3% | 0.9% | 8.9% | 1.1% | 3.4% |
| N/A or No | 6.2% | 75.6% | 1.9% | 6.4% | 15.6% | 62.7% | 13.5% | 60.9% | 31.1% |

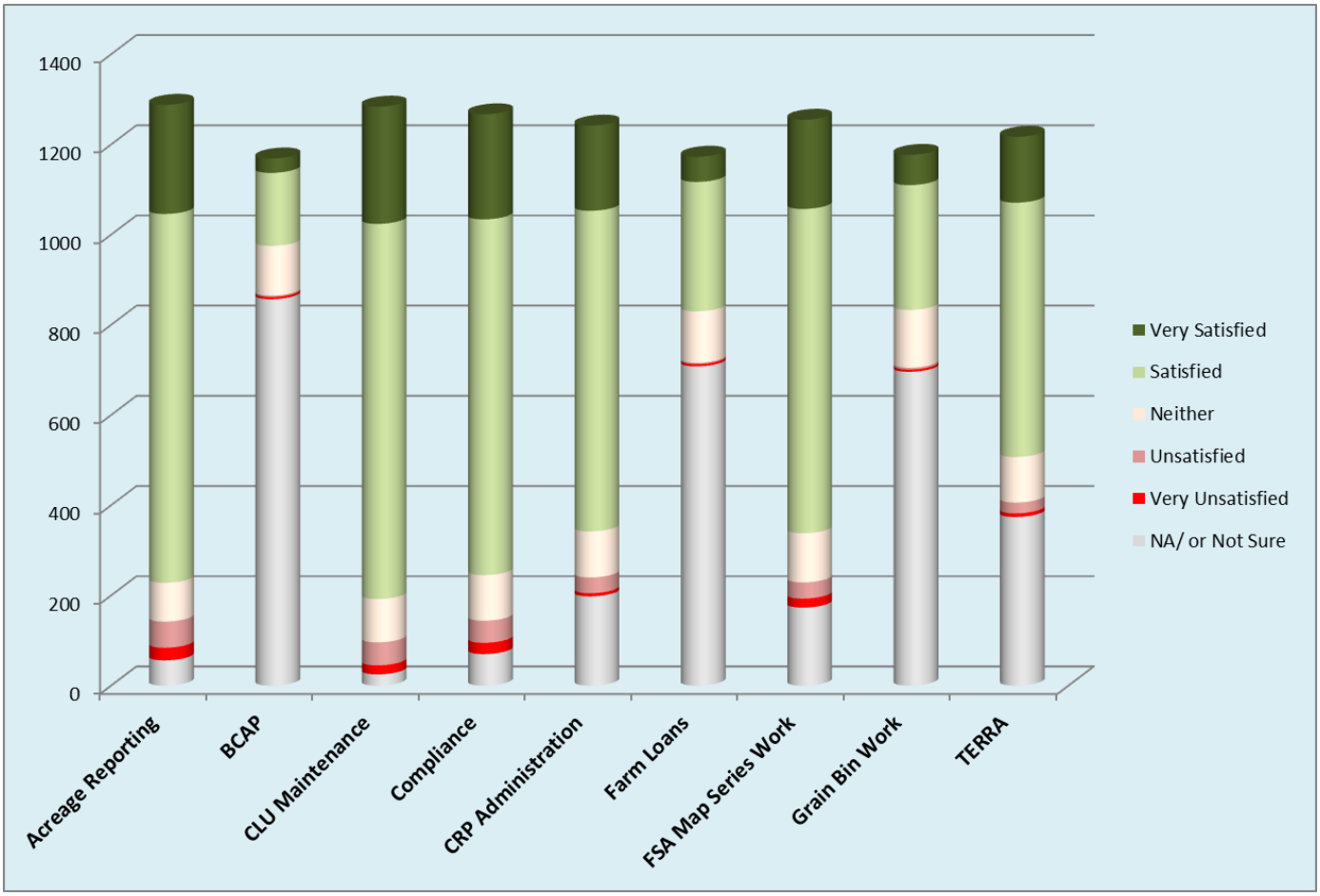
**State Responses:**




| | Acreage Reporting | BCAP | CLU Maintenance | Compliance | CRP Administratio | Farm Loans | FSA Map Series Work | Grain Bin Work | TERRA |
|---|---|---|---|---|---|---|---|---|---|
| Positive | 69.6% | 34.8% | 78.3% | 78.3% | 73.9% | 47.8% | 82.6% | 26.1% | 69.6% |
| Neutral | 4.3% | 13.0% | 13.0% | 8.7% | 13.0% | 13.0% | 8.7% | 21.7% | 13.0% |
| Negative | 8.7% | 0.0% | 0.0% | 4.3% | 4.3% | 0.0% | 0.0% | 0.0% | 4.3% |
| N/A or Not Sure | 17.4% | 52.2% | 8.7% | 8.7% | 8.7% | 39.1% | 8.7% | 52.2% | 13.0% |

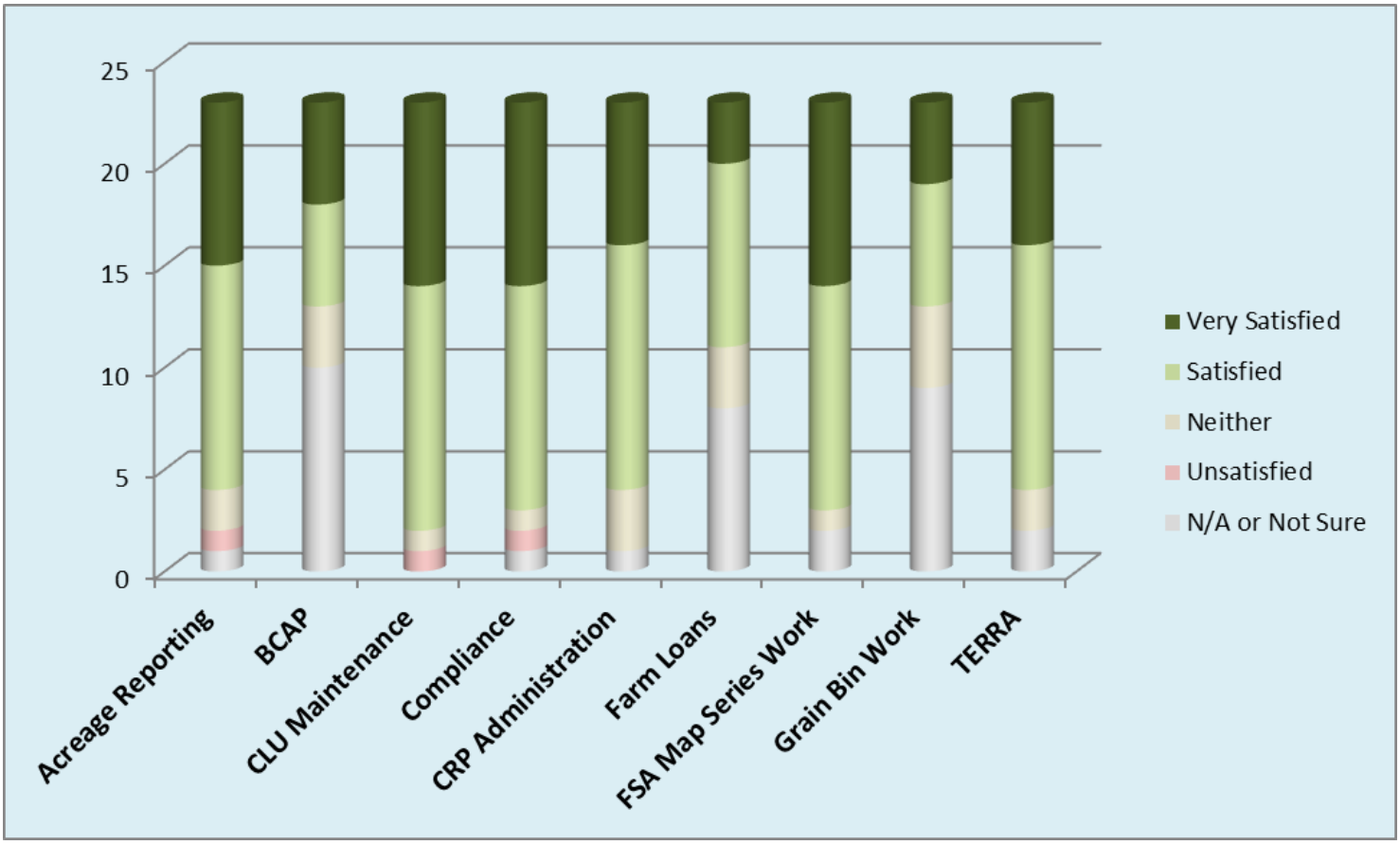
## Question 8: Date Flown

## County Responses:




| | Acreage Reporting | BCAP | CLU Maintenance | Compliance | CRP Administration | Farm Loans | FSA Map Series Work | Grain Bin Work | TERRA |
|---|---|---|---|---|---|---|---|---|---|
| **Positive** | 82.3% | 16.6% | 85.0% | 80.7% | 72.5% | 29.2% | 73.1% | 29.2% | 58.3% |
| **Neutral** | 6.7% | 9.4% | 7.5% | 8.0% | 8.2% | 9.7% | 8.7% | 10.9% | 8.3% |
| **Negative** | 6.68% | 0.68% | 5.53% | 5.84% | 3.38% | 0.68% | 4.46% | 0.76% | 2.63% |
| **N/A** | 4.3% | 73.3% | 1.9% | 5.5% | 15.9% | 60.4% | 13.8% | 59.1% | 30.7% |

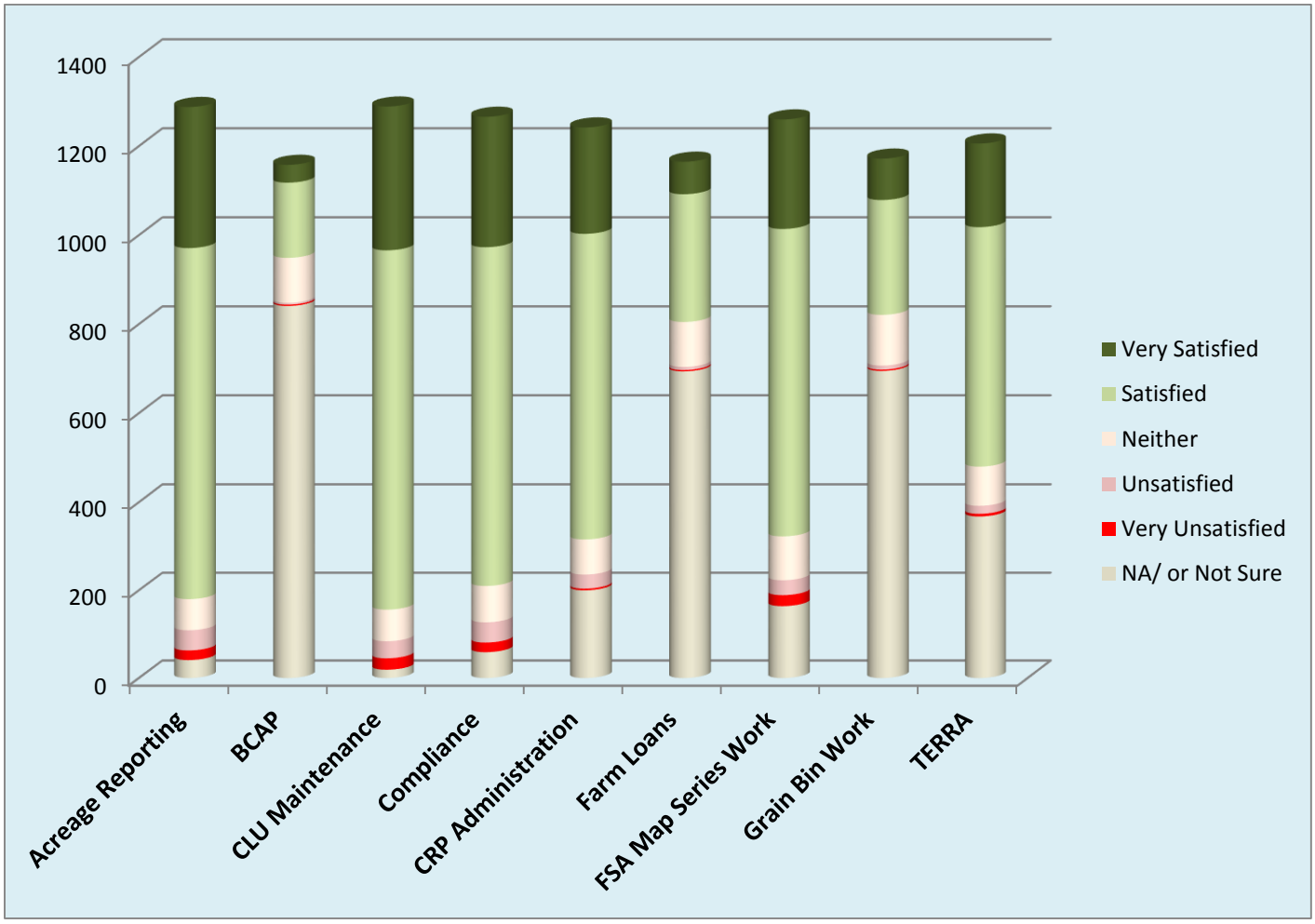
**State Responses:**




| | Acreage Reporting | BCAP | CLU Maintenance | Compliance | CRP dministratio | Farm Loans | FSA Map Series Work | Grain Bin Work | TERRA |
|---|---|---|---|---|---|---|---|---|---|
| Positive | 82.6% | 43.5% | 91.3% | 87.0% | 82.6% | 52.2% | 87.0% | 43.5% | 82.6% |
| Neutral | 8.7% | 13.0% | 4.3% | 4.3% | 13.0% | 13.0% | 4.3% | 17.4% | 8.7% |
| Negative | 4.3% | 0.0% | 4.3% | 4.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| N/A or Not Sure | 4.3% | 43.5% | 0.0% | 4.3% | 4.3% | 34.8% | 8.7% | 39.1% | 8.7% |

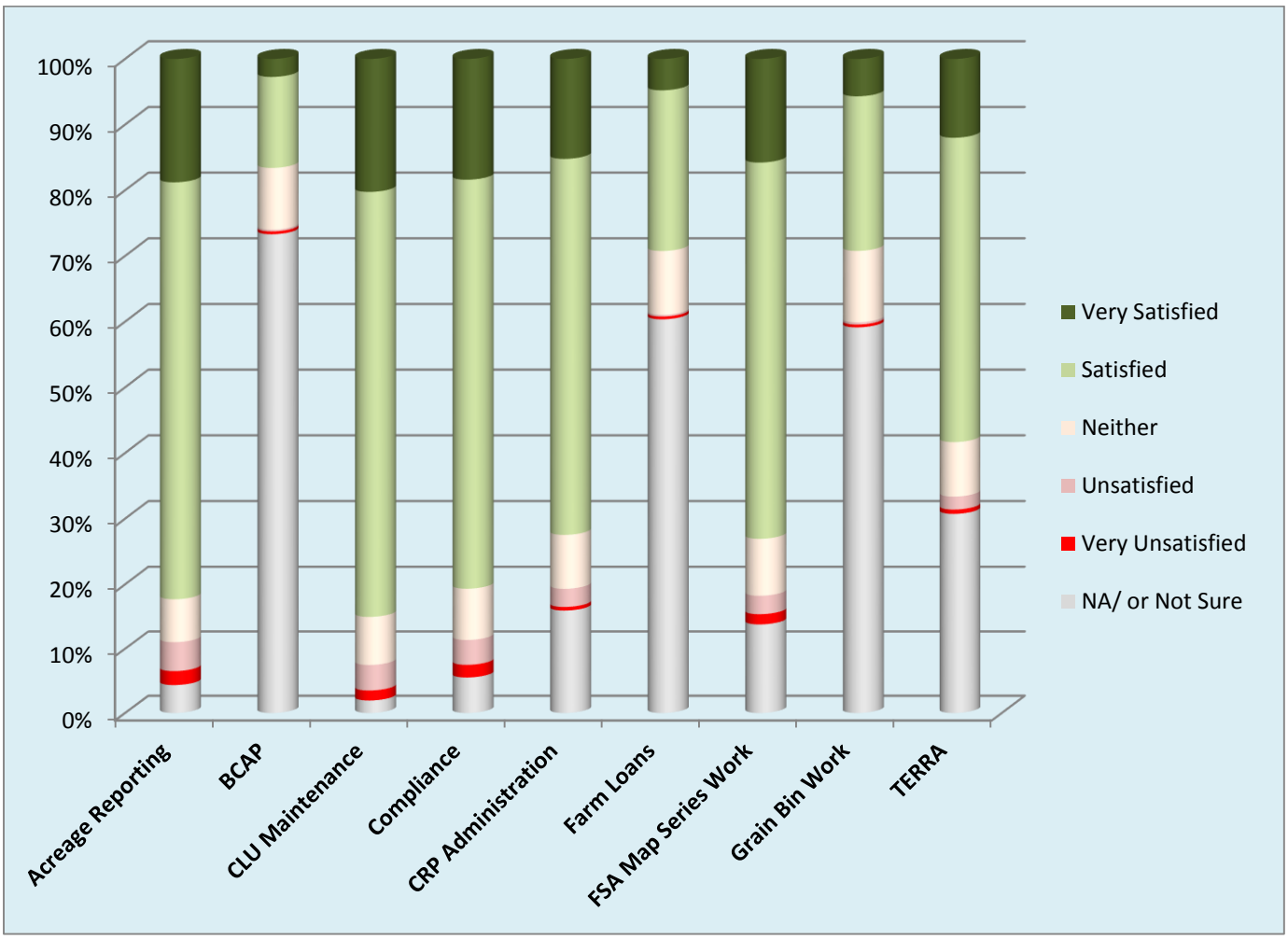
**Question 9: Overall Quality**

**County Responses:**



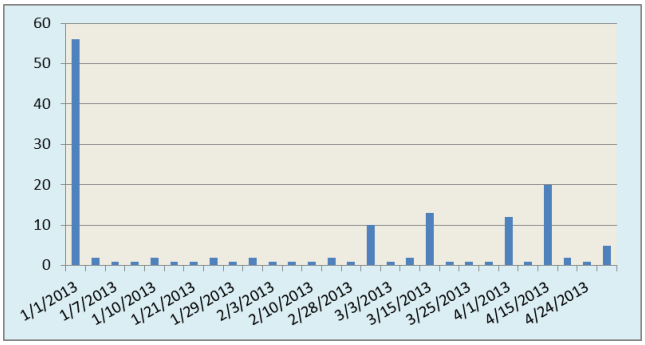

| | Acreage Reporting | BCAP | CLU Maintenance | Compliance | CRP Administration | Farm Loans | FSA Map Series Work | Grain Bin Work | TERRA |
|---|---|---|---|---|---|---|---|---|---|
| Positive | 86.0% | 18.0% | 87.9% | 83.4% | 74.6% | 30.9% | 74.4% | 29.9% | 60.2% |
| Neutral | 5.5% | 8.7% | 5.6% | 6.6% | 6.4% | 8.7% | 7.9% | 9.7% | 7.3% |
| Negative | 5.3% | 0.6% | 5.0% | 5.4% | 2.9% | 0.9% | 4.7% | 1.0% | 2.0% |
| Not Sure | 3.2% | 72.6% | 1.5% | 4.7% | 16.1% | 59.6% | 13.0% | 59.3% | 30.5% |

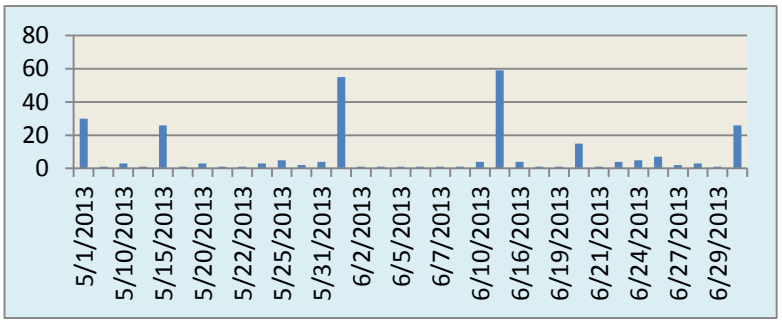
**State Responses:**

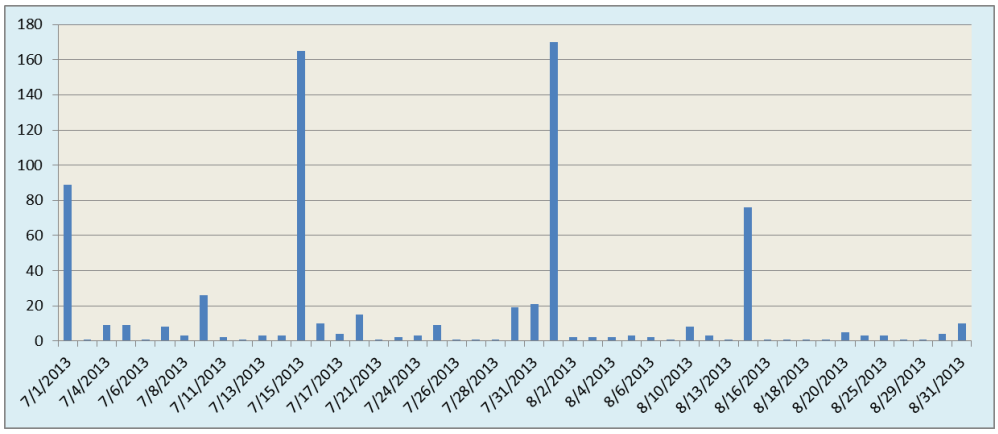


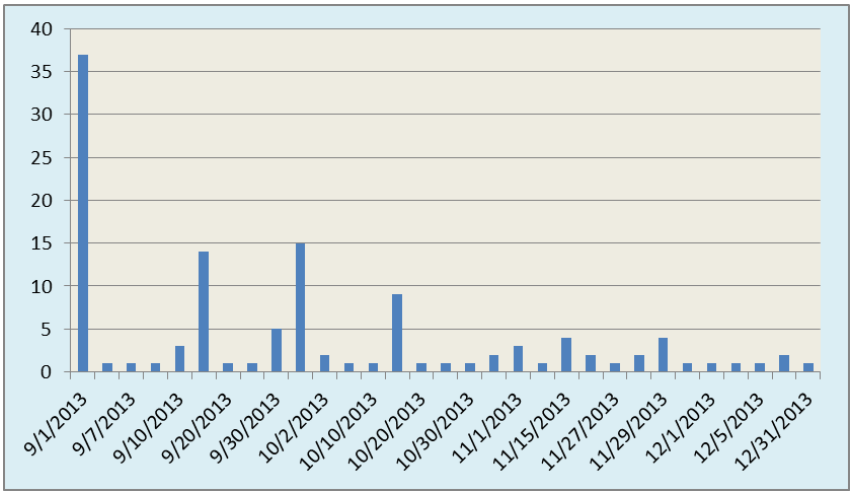

| | Acreage Reporting | BCAP | CLU Maintenance | Compliance | CRP Administration | Farm Loans | FSA Map Series Work | Grain Bin Work | TERRA |
|---|---|---|---|---|---|---|---|---|---|
| Positive | 87.0% | 47.8% | 95.7% | 87.0% | 82.6% | 60.9% | 87.0% | 47.8% | 91.3% |
| Neutral | 8.7% | 8.7% | 4.3% | 4.3% | 13.0% | 8.7% | 4.3% | 8.7% | 4.3% |
| Negative | 0.0% | 0.0% | 0.0% | 4.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| N/A or Not Sure | 4.3% | 43.5% | 0.0% | 4.3% | 4.3% | 30.4% | 8.7% | 43.5% | 4.3% |

# Appendix 2: Question 14, Date Notified of NAIP Availability



## Appendix 3: Question 28, Other Uses for NAIP

- 2013 imagery will be used when producers are reporting 2014 crops. Makes things a lot easier as farming practices are always changing field layouts etc., and is very helpful when edited for cropland boundary line changes.
- 2013 Program Compliance (3)
- Accurate re-contouring of fields instead of using producer's estimation of new field lines.
- Accurate reporting, CLU maintenance and farm record updating
- Acreage Reporting, Acreage reports (13)
- Acreage Reporting, Compliance
- Acreage Reporting, Landowner/Operator Inquiries
- Acreage reporting for crops in my area is what I use it for the most!
- acreage reporting maps (4)
- acreage reporting maps, maps for the farm owner/operator
- Acreage reporting, environmental reviews
- Acreage Reporting, Land Use
- acreage reporting, reference for making new farms (6)
- adjusting CLU boundaries
- all program activity (2)
- better imagery for certification maps
- bin sites for FSFL purposes
- Certification (2)
- Certification of acres, Spot checking farms, general compliance work.
- Certification, Sod Bust
- changes due to new homesteads and sod busting
- Changes in cropland - land in and out of production
- Cleaning up field boundaries and checking for land being cleared.
- CLU maintenance
- CLU maintenance, CRP compliance, wetland compliance, 2014 acreage reporting
- CLU Updating!! Great for updating CLU! (2)
- Commercial, residential, freeways taking away agriculture.
- Compliance (7)
- Compliance Violations, Updating Maps For Adding New Ground Or Reductions For Non Ag
- compliance and CRP
- Compliance issues. We can easily see when row crops are planted on CRP acres, which is a violation. Some imagery was good enough to count the number of hay bales harvested in some fields.
- Compliance on some crops not yet harvested at time of photo.
- Compliance Review
- Compliance spot checks
- Correcting boundaries for land that was cleared. Being able to identify strips in fields that were not visible before.
- correcting CLU- field acres

- create accurate and clear maps for producers to complete crop reports with.
- CREP (2)
- CREP compliance issues
- Crop Certification (2)
- Crop certifications and CRP signup (2)
- Crop conditions, field changes, helping producers with general farm/field changes and conditions.
- Crop reporting (5)
- Crop reporting and correction of field boundaries
- Crop reporting and keeping acreages up to date.
- Crop Reporting, Conservation
- cropland changes (2)
- CRP (7)
- CRP, Haying Compliance, New Breaking
- CRP Measurements, Putting sodbusters on maps, cropland boundary changes
- CRP spot checking, compliance spot checking
- CRP waterways and filter strips, cropland changes, arrived too late for most compliance activities
- CSP, EQIP
- Determining and updating field borders
- differentiate crops from grassland (CRP)
- Emergency Management, Map Series
- Environmental Compliance for FSA loans
- Farmland Preservation Applicants
- Field Line Corrections
- FSA-578 acreage reports (2)
- Have not got to use it that much yet
- identifying developed land
- Identifying fixed irrigation systems(center pivots)
- identifying housing developments
- identifying land use changes
- imagery not used for any activities in county to date (3)
- land changes due to development
- land that had been cleaned up (2)
- land use changes CRP violations
- Land use changes due to the high volume of oil and alternative energy activity.
- Land use changes related to wetland compliance
- Land use changes to delineate official acres.
- Land use changes, farm and tract divisions, CRP enrollment, acreage reporting eventually.
- Line work review
- Locating farms and tracts
- Locating the new buildings in cropland and areas where trees were removed to be planted. Producers give an area; however, it is not usually exact.
- map corrections(new areas brought into crop production and areas out for development)
- maps for acreage reporting

- more accurate maps for certification
- Non-agricultural land changes, new grain facilities, tiling lines, woods removal
- Our, FSA's, day to day operations (ex. taking acreage reports)
- Photocopies and update of farm records
- Physical changes in cropland, new buildings non-ag determinations, etc
- PLSS and Roads
- preparing maps for 2014 crop reports
- printing of farms and acreage.
- Producers became aware that some fields measure what we tell them because they could see the boundaries. This makes crop reporting a lot clearer and aids the producer with knowing the true acreage when the equipment no longer works. Make crop reporting much easier on our part.
- Producers certifying crops planted.
- Recons and Non-Ag
- Reporting of acreage and Farm Reconstitutions (2)
- review of fields
- Seeing and updating field changes
- Seeing the flood damaged areas for the implementation of our ECP program.
- Selecting locations and identifying farms not able to be done in the MIDAS environment.
- Showing new ground/land clearing
- Sod busts, reconstitutions, boundary lines,
- Spot checking for haying violations, checking areas that have been burned from lightening, weather, or human caused issues.
- Spot checks and Compliance
- Taking out building sites.
- To make acreage corrections on broken out cropland. (can detect any field clearing with the use of the 2013 imagery and make appropriate acreage change)
- Tract Divisions
- Unfortunately with the 11/15 reporting deadline, we were not able to wait for the 2013 imagery to print acreage reporting maps. We would have found this VERY useful it if had been available in time.
- Unfortunately, the imagery was not available in time for us to use it for the 11/15 reporting deadline. Most of our 2014 crop reporting will be done on 2010 imagery maps.
- update clu (field) acres
- Update Farm records for land that had been cleared and put into production. (2)
- Updated acreage reporting, i.e. timber removal since 2010. (3)
- Updating CLU boundaries.
- Updating CLU changes for general farm programs and CRP contracts
- Updating land changes
- Very Useful On Taking Acreage Reports From Producers.
- Very useful when available w/CLU edit functions. Now it just looks pretty, but not functional.
- was not used for any activity in this county
- We greatly depend on this imagery to make boundary changes that are accurate. Also helps be able to remind producers that they need to remove cropland for new building added or add to cropland land that has been cleared.

- We have not had it long enough to use it for much...
- We Have Not Worked With The NAIP Enough
- We have only had the imagery for a few months and have not had the opportunity to use it as much as we will.
- Well sites and home sites
- wetland conversions
- Wetland determinations, land use changes.