

National FFA Ag Census Lesson Plans

NASS 2.1

Lesson Title Who uses census data and how is it used?

Precepts

Awareness

E1. – Address issues important to the community

Mental Growth

J2. – Think creatively

Communications

M1. – Demonstrate technical and business writing skills

National Standards

NL-ENG.K-12.1 – Reading for Prospective

NL-ENG.K-12.2 – Reading for Understanding

Student Learning Objectives

As a result of this lesson, the student will ...

1. Identify three target groups that use Census of Agriculture data
2. Describe how the Census of Agriculture data are utilized.

Time

Instruction time for this lesson: 60 minutes.

Resources

National FFA Organization's "Essential Learnings" materials, 2003

USDA's National Agricultural Statistics Service, www.nass.usda.gov

USDA's Census of Agriculture, www.agcensus.usda.gov

Tools, Equipment, and Supplies

Overhead projector

Scissors

Scenario – AS.1 (1 copy per group)

Scenario – AS.2 (1 copy per group)

Cards – AS.3 (1 copy per pair of students)

TM.1 (1 copy)

TM.2 (1 copy)

Assess.1 (1 per student for your records)

Assess.2 (1 per student)

Key Terms

The following terms are presented in this lesson and appear in bold italics:

(There are no key terms cited in this lesson.)

Interest Approach

Activity Set-Up: Once students have entered the class split them into two groups. Depending on class size, you may split them into smaller groups and have two or three groups working on the same scenario. Give each group one of the two scenarios (AS.1 or AS.2), and ask the students to analyze the data and determine who could use this data and how it would be useful.

Welcome, it's great to see you all today! Raise your hand if you have ever taken a survey. Great! Would someone like to share what kind of survey you have participated in?
Solicit answers from the class about the types of surveys that they had taken part in.

Wow! It certainly sounds like we have taken part in quite the array of surveys. What do you suppose that all those companies that surveyed you did with that information? How do you think the information was used?

Have students give insight as to how they think the data were used.

Wonderful answers! I am not 100% sure how each company handles their survey results; however, we can be certain that they use the information to better their company and improve their customer relations. Now, let's take a look at some other types of data and determine who could use this data and how they would use it.

When I say "Group," begin to count off by twos and go around the room. All of the ones will go to the left side of the room, and all the twos will go to the right side of the room. You will have 30 seconds to count off, move to the correct side of the room turn and face the front of the class. Questions? Group!

You may choose to split the groups in some other way. Be sure that your groups have an equal number of participants.

All of the ones will be a group and all of the twos will be a group. On the cue "Go," quickly find a seat so that it is easy for everyone to communicate. You will have 15 seconds. What questions are there? Go!

Thank you! In a moment each group will receive a set of data. Here is an example of how we need to analyze our data sets: my data set states that 30 ranchers in Highland County own a horse. Who might use this data – Ag Extension Agents? How would they use this data – to increase the number of educational meetings for horse owners?

Now, when I say "Analyze," review your group's data and determine who could use it, and how they would be able to use it. You will have five minutes to complete this task. What questions do you have? Analyze!

Watch for questions from the students or puzzled looks to be sure that students understand the activity. Notify students when they have one minute remaining to complete the task.

You have one minute left; please begin to wrap up your analysis.

Notify students when time is up. Lead the class through a discussion of their data. Use a writing surface to record their thoughts and ideas on who and how the data could be used.

5, 4, 3, 2, 1... time is up, pens down! Thank you for using all the allotted work time for this task.

Let's begin to discuss the data. Which group would like to go first?

Great! Thanks for stepping up to the plate and volunteering to go first! Please share your group's data sheet with the class.

Thank you! Based on your conversation, what person or groups of people did you feel could use this data?

Solicit answers from the group. Once the group has completed its response, allow other students in the class to share their ideas. Some possible answers associated to the school lunch data could be: principal, food ordering personnel and the school board. Possible answers for the after school activities survey could be: school board, principal, recreation committee or community involvement programs.

Those are all great answers! How do you suppose that these individuals or groups of people could use this data?

Solicit answers from the group. Once the group has completed its response, allow other students in the class to share their ideas. Some possible answers for the school lunch data could be: purchase foods that would appeal to students, look at arranging an agreement with a local pizza place to allow food orders once a week and offer more variety for school lunches. Possible answers for the after school activities survey could be: offer an after school leadership program or have students become more involved with community outreach and service activities.

Fabulous work! Let's look at the other groups' scenario. Please share your data sheet with the class.

Thank you! Who did you decide would be the person or groups of people who could use this data?

Solicit answers from the group. Once the group has completed its response, allow other students in the class to share their ideas.

Excellent answers! It appears that all of those groups would be able to successfully use this data. How do you think the individuals or groups could use the data?

Solicit answers from the group. Once the group has completed its response, allow other students in the class to share their ideas.

Your creativity and analytical minds allowed us to infer how the data sets could be used. Let's give ourselves a round of applause as we quickly move back to our seats.

Summary of Content and Teaching Strategies

Objective 1. – Identify three target groups that use the Census of Agriculture data.

Now that we are thinking like an analyst, let's look at the Census of Agriculture data. Remember from yesterday, the Census of Agriculture is taken every five years to achieve a complete count of U.S. farms, ranches, and the people who operate them. The census asks for information such as land use and ownership, operator characteristics, production practices, income and expenditures as well as many other areas. The Census of Agriculture generates a lot of data!

When I say "Partner," quickly find a partner, find a seat next to them and await further instructions. You will have 10 seconds. Questions? Partner!

When I say "Brainstorm," create a list of at least three individuals or groups that may use the Census of Agriculture. You will have 60 seconds to create your list. What questions do you have? Brainstorm!

While the students are brainstorming ideas, be sure to have the overhead ready and display TM.1 for the students to draw notes from. Let students know when they have 30 seconds left to complete their brainstorm.

You have 30 seconds left, so capture your last thoughts.

You were such diligent workers, thank you for staying on task. Who will volunteer to share their list first?

Allow students to share the lists they have generated.

Those are all great answers! Please pull out a writing utensil and paper, focus your attention to the screen and prepare to capture the information as we look at four target groups that regularly use the Census of Agriculture data.

At this time, display TM.1.

Let's explore the key target groups:

The groups that use the Census of Agriculture data are:

- Legislators and government officials
- Companies/ cooperatives
- Producers
- Community planners

Knowing that these groups have such an impact on the agriculture industry, let's find a way to remember each one of these groups.

Use the Motion Moment to help students remember each of the target groups that use the Census of Agriculture data. The Motion Moment allows students to create different motions that will help them to remember specific terms or key words in a lesson.

When I say "Motion," enthusiastically get out of your chair, push it in, and stand with both arms straight above your head. What questions are there? Motion!

Great! Now, that we are alert, let's create a motion that will help us to remember each of our target groups. What motion should we use to represent a legislator or government official? Community planner? Company or cooperative? Producer?

Sample motions for each of the groups listed could be:

Legislator/ government official – tapping the gavel to indicate making laws and regulations

Community planner – jotting down notes in a pretend notebook

Company/ cooperative – folding your hands together to represent working together

Producer – driving a tractor

As you go through each group, be sure to review the motion several times while saying the group name with the motion. At the end, quickly review each group and motion.

That was fun! Thank you for being so creative! Have a seat!

Objective 2. - Describe how the Census of Agriculture data is utilized.

We just identified who would use the Census of Agriculture data and have created motions to remember each of these groups. Now, let's take a look at how these particular groups would use this data.

At this time, use TM.2 for students to draw notes from associating the "who" with the "how." Lead the group in a discussion as to why the how's are important to the agriculture industry.

Let's capture all the ways that the Census of Agriculture data is used in our notebooks. How do you suppose that legislators and government officials would use the data? Companies and cooperatives? Producers? Community planners?

Solicit answers from the students for each group before showing them the answers on TM.2. As you begin to discuss TM.2, be sure to expand upon each of the sub-areas listed in parentheses next to each group.

How target groups use the Census of Agriculture data:
Legislators/ Government Officials

- to allocate funds (determine the distribution of funds for those states and communities in need)
- plan community programs (determine what areas of agriculture that legislation could solicit to talk with; this could concern a particular bill that is being proposed or hopes of one to come)
- ensure that local service centers are appropriately staffed (make sure that all agriculture services areas are appropriately staffed for the demand of a particular community or state)

Companies/ Cooperatives

- target needed services in the community (a company may start offering a new service if they see the need for that service in the community)
- plan community programs (companies may plan a customer appreciation event for the community)
- determine facility locations (a company will choose its location by determining where there is a need for the company services and also by determining the economic impact of that location)

Producers

- plan community programs (producers may choose to host a community gathering, auction, or choose to establish a community awareness event)
- make decisions about the future of their own operations (the Census will help producers make future decisions about their specific commodity, such as what crops to plant, livestock to raise, etc.)

Community Planners

- plan community programs (Ag Extension Agents, community recreation planners will plan community awareness programs, educational programs and recreational activities)
- target needed services in the community (the need to cover a specific area of interest – such as a fitting clinic for youth involved in FFA and 4-H)

How target groups use the Census of Agriculture data:

Legislators/ Government Officials

- to allocate funds
- plan community programs
- ensure that local service centers are appropriately staffed

Companies/ Cooperatives

- target needed services in the community
- plan community programs
- determine facility locations

Producers

- plan community programs
- make decisions about the future of their own operations

Community Planners

- plan community programs

- target needed services in the community

Once you have completed your discussion on how target groups use the Census of Agriculture data, lead into the next activity. The cards for this activity are placed at the back of the lesson as AS.3. Simply print out the sheet and cut the cards into eight equal squares. During this activity, each group will have eight cards placed face down in front of them. They will have to match the “who” to the correct list of “how”. Only two cards may be flipped over at one time. If the two cards are not a match, they must be flipped back over face down while the other person in the group takes a turn. Once the students have matched all the cards, have them raise their hands in the air and sit quietly. Be sure to check for accuracy with each set of matched cards.

Hold your notebooks high in the air so that I can see that you have captured the information in your notes? Great work!

We have just identified the “who” and the “how” for the Census of Agriculture, so lets put all of that useful information to work.

When I say “Clear,” remove all of the items from your desk and place them under your chair and select a partner for the next activity. You will have 20 seconds. “Clear!”

Awesome job, you are so quick!

How many of us have ever played the memory game? Great! So we have a pretty good idea of how to play the game for our next activity. The only difference is that, instead of matching pictures, we will be asked to match the “who’s” to the “how’s” when determining who and how the Census of Agriculture data are used.

When I say “Match,” each group will receive an envelope that contains eight cards that you will place face down on the surface in front of you. How to play: You will take turns flipping over two cards at one time. If the “who” and the “how” on the cards match they will remain face up, but if the two cards are not a match, flip them face down. Then your partner will pick two more cards to try. Once all of the cards are correctly matched, please raise your hand and sit quietly. You will have three minutes to match all four pairs. Questions? Who will volunteer to re-cap the rules of the game? Great job and thank you for volunteering! Match!

Be sure to monitor the class for questions regarding the game and watch for hands of those groups that have completed the activity. Give a one minute reminder so that students know they will need to be finishing up there matching.

Be sure to match the “who’s” and the “how’s.” You have one minute remaining!

Excellent! You worked together and found all the correct matches!

Review/ Summary

Quickly review the motions for the “whom” from Objective 1.

Today, we have explored who uses the Census of Agriculture data, and we have discussed how they might use the data when making choices in their companies, careers or for their communities. When I say “Review,” stand up and stand quietly behind your seat. You will have 20 seconds. Questions? Review!

Let’s quickly review the motions that we chose earlier to go with each of our “who” groups! Producers! Legislators! Companies! Community Planners!

Wonderful!! You may take your seats.

Do you ever feel like singing? Do you ever find yourself just wanting to sing along to your favorite song? Do you ever make up your own songs?

That’s it! Let’s get our musical juices flowing and create songs to put the “who’s” and “how’s” we learned about today together.

For the next activity, the Karaoke Moment, have students get into groups of three or four to write the lyrics to their Census of Agriculture tune! The Karaoke Moment allows students to create a song or rap for a group of ideas, facts or a process. Students may choose to rewrite the lyrics to an existing song or choose to make up their own song.

When I say “Music,” we will create the new #1 hit on the Census of Ag Charts! We can choose to rewrite the lyrics to an existing song or start from scratch with our own song. The lyrics should include at least three of the four “who” and “how” from the information that we learned about today. We will have six minutes to get into groups of four and create our new #1 hit before it will be debuted to the class! What questions are there? Music!

Notify students when there are two minutes remaining.

Music stars, we have two minutes remaining. We may want to start thinking about rehearsal time before the big debut!

Notify students when their time is about to expire. You may allow more or less time depending on the progress being made and if students are still diligently working. Once the time has expired ask for a group to volunteer to debut its hit song first.

Show time in 5, 4, 3, 2, 1--quietly take your seats! Which group would like to volunteer to debut its new #1 smash hit first?

Allow all groups to share their songs with the class. After each group performs, be sure to show appreciation for its hard work.

WOW! That was the best concert I have ever been to! Great job everyone; we put on a terrific show!

Thank you for working so diligently and being so creative today as we learned about who uses the Census of Agriculture data and how these groups analyze the data to better improve our communities. Tomorrow we will continue to learn about why citizens should participate in the Census of Agriculture and how it can benefit our lives and our communities.

Application

Extended classroom activity: Students should write a letter to a legislator that would describe the importance of agriculture in their community and how their input on agricultural issues helps their community.

FFA activity: Students should hold an information session for community members. During this meeting, items to discuss could include – how to fill out a Census form, why they should fill out a form, and information on who uses the data and how the data collected is used.

SAE activity: Have students participate in an exploratory SAE. Hours should be tracked for time spent exploring other types of census' programs and how they compare and contrast to the Census of Agriculture.

Evaluation.

Have students write a one paragraph essay based on the scenario listed below that can be found as Assess.2 at the end of the lesson.

Write a complete paragraph on one target group discussed in class that uses the Census of Agriculture data. Explain how that group uses the data, and how their use of that information could benefit your community. In your paragraph, be sure to include an introductory sentence, supporting details and a concluding sentence. Your paragraph will also be evaluated based on sentence structure, correct spelling and grammar.

Answers to Test:

Utilize the short essay rubric (Assess.1). You can determine what sections of the rubric you will choose to utilize.

Scenario 1

On September 1, a survey was taken of 100 high school students about high school lunches. The results are as follows:

67 of 100 students Eat from the vending machine because they do not care for the café lunches.

45 of 100 students If the café food contained more of the foods that they liked, they would be more apt to eat it.

15 of 100 students I love the café food! I eat it everyday!

77 of 100 students It should be an option to order from a local outside source (such as a pizza place) at least one time a week.

36 of 100 students They would eat the café food if there were more variety available. For example: choose 2 of the 3 sides, or 1 of the 2 desserts.

Who would find this data useful?

How would these individuals or groups use this information?

Scenario 2

On September 1, a survey was taken of 100 high school students about their after school activities. The results are as follows:

37 of 100 students Go straight home and watch TV.

27 of 100 students Participate in some sort of extracurricular activity after school.
Ex: sports, student council, FFA activities, National Honor Society, etc.

15 of 100 students Go to a friend's house.

77 of 100 students If there were a hosted, fun after school activity, they would participate in at least one.

36 of 100 students They work at least 3 days a week after school.

Who would find this data useful?

How would these individuals or groups use this information?

<p style="text-align: center;">Legislators / Government Officials</p>	<p style="text-align: center;">Companies / Cooperatives</p>
<p style="text-align: center;">Producers</p>	<p style="text-align: center;">Community Planners</p>
<ul style="list-style-type: none"> • to allocate funds • ensure that local service centers are appropriately staffed • plan community programs 	<ul style="list-style-type: none"> • plan community programs • determine facility locations • target needed services in the community
<ul style="list-style-type: none"> • plan community programs • make decisions about the future of their own operations 	<ul style="list-style-type: none"> • plan community programs • target needed services in the community

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TM.1

The groups that use Census of Agriculture data are:

- Legislators and government officials**
- Companies/ cooperatives**
- Producers**
- Community planners**

How target groups use the Census of Agriculture data:

Legislators/ Government Officials:

- to allocate funds
- plan community programs
- ensure that local service centers are appropriately staffed

Companies/ Cooperatives:

- target needed services in the community
- plan community programs
- determine facility locations

Producers:

- plan community programs
- make decisions about the future of their own operations

Community Planners:

- plan community programs

- target needed services in the community

ASSESS.1

Name: _____

**Census of Agriculture
Short Essay Rubric – Lesson #2**

Content	Outstanding (5-4)	Acceptable (3-2)	Unacceptable (1-0)	Comments	Pts. Awarded
Correct Paragraph Outline	Paragraph includes an introductory sentence, supporting sentences and a concluding sentence.	Paragraph lacks an introductory and concluding sentence.	Paragraph has no organizational component.		/ 5
Spelling and Grammar	Correct grammar and punctuation with interest retaining word selection.	Mostly correct grammar and punctuation but lacks interesting word selection.	Contains 3+ grammar and punctuation errors.		/ 5
Organization	Well organized, very clear and concise.	Somewhat well organized with very little clarity.	Unorganized and lacks all clarity and conciseness.		/ 5
All Information Included	All questions in the scenario are complete.	Lacks answers to one or more of the scenario questions.	The content provided does not pertain to the scenario given.		/ 5
Accuracy of Information	Accurate information with great supporting details.	Mostly accurate information, but lacks supporting details.	Inaccurate information with no supporting details.		/ 5

Total Points: _____ / 25

Comments:

ESS.2

Name: _____

Write a complete paragraph on one target group discussed in class that uses the Census of Agriculture data. Explain how that group uses the data, and how their use of that information could benefit your community. In your paragraph be sure to include an introductory sentence, supporting details and a concluding sentence. Your paragraph will also be evaluated based on sentence structure, correct spelling and grammar.