OMB Control No.: 0536-0080 Exp. Date: 12/31/2027

Crop Management With or Without Cover Crops

IC.1 Are you the main decision maker for annual crop management on your farm?

- Yes à Continue
- No à Please give this survey to the main decision maker.

Section A: Information on Farms
In this section, please tell us about all the cropland for which you are the main decision-maker.
A.1 What state is most of your cropland located in? [In Qualtrics, we will provide a dropdown menu that includes all the states in our sampling area]
A.2 How many acres of cropland do you operate?
Owned acresRented acres
A.3 Do you have any fields that are certified organic?
YesNo
A.4 Does your operation earn at least 5% of your farm revenue in a typical year from

- grazing livestock?
 - Yes
 - No
- A.5 Does your operation earn at least 5% of your farm revenue in a typical year from feeding livestock (not grazing)?
 - Yes

• No

Section B: Cover Crop Practice on Farmer's Largest Field

[**Field Selection Version 1:** Largest field in a corn or soy rotation, for Group 1, general population]

FS.1 In this section, we will ask about the largest field that is currently in a rotation that includes corn or soybeans.

Please give a name for that field that we can use in this survey.
Field name

FS.2 The USDA Natural Resources Conservation Service (NRCS) manages the Environmental Quality Incentives Program (EQIP) and the Conservation Stewardship Program (CSP).

Did this field have an EQIP or CSP contract for cover cropping in 2024?

- Yes
- No

[**Field Selection Version 2:** Largest field in a corn soy rotation that has or had an NRCS contract, for Group 2, program participants without cover crops, and Group 3, program participants with cover crops]

In this section, we will ask about a specific field on your farm based on your past experience.

FS.1 The USDA Natural Resources Conservation Service (NRCS) manages the Environmental Quality Incentives Program (EQIP) and the Conservation Stewardship Program (CSP).

Do you currently have an EQIP or CSP contract for cover cropping?

- Yes à Continue to FS.2
- No à Go to FS.4

FS.2 Does the cover cropping contract include a field that is in a rotation that includes corn or soybeans?

- Yes à Continue to FS.3
- No à Go to FS.7

FS.3 For reference in this survey, what is the name of the largest such
field?
Field name à Go to B.1
Prefer fiable a Go to D.1

FS.4 Have you ever had an EQIP or CSP contract for cover cropping?

- Yes à Continue to FS.5
- No à Go to FS.7

FS.5 Did the cover cropping contract include a field that is currently in a rotation that includes corn or soybeans?

- Yes à Continue to FS.6
- No à Go to FS.7

FS.6 For reference in this survey, what is the name of the largest such field?
Field name à Go to B.1
ence in this survey, what is the name of your largest field that is in a ncludes corn or soybeans?
 Field name à Go to B.1

B.1 How many acres of cropland are in this field? acres
B.2 What county is this field located in? [In Qualtrics, we will provide a dropdown menu conditional on state]
B.3 Do you own or rent this field? (If both, select the option that describes most of the field?)Own
• Rent
B.4 How long do you expect to keep managing this field? If the field is rented, assume the landowner is willing.
• 0-5 years
• 6-10 years
Longer than 10 years
B.5 How would you describe the most common soil texture on this field?
• Sand
• Loamy sand
Sandy loam
Sandy clay loam
LoamSilt loam
• Silt
Silty clay loam
• Clay
Clay loam
Sandy clay
• Silty clay

B.6 What is the average slope of this field?

- Nearly level 0 − 2%
- Even, moderate grade 3 9%
- Variable, moderate grade
- Even, steep grade over 10%

	es						
• No)						
B.8 What	tillage system do yo	ou use on this	s field?				
 Co in Ch M M 	 Continuous conservation or reduced tillage (vertical, ridge, strip, or mulch tillag in all years) Chisel tillage in all years Continuous moldboard plow tillage in all years Mix of no-till and conservation tillage in different years Mix of reduced and moldboard or chisel tillage in different years 						
CoCoCo	h of the following morn corn (continuouorn soybean (2-year orn soybean wheat orn wheat soybean ther rotation (please	s corn) r rotation) t (no double of the course	cropping, 3-year	rotation)	on this field?		
D 10 147	at is the most recent	crop vou har	vected on this fi	old2			
H 111 \A/Þ≏	it is the most recent of	crop you nar	vesteu on uns n	ciu:			
CoSoW	ybean heat						
CoSoWOt	ybean	v many herbi	icide application	ıs did you ma	ake to this field		
CoSoWOt	ybean heat her:	v many herbi None	icide application	ns did you ma	ake to this field		
CoSoWOt	ybean heat her: e last crop year, how	-			1		

• Variable, steep grade

B.7 Is this field irrigated?

•	s this field certified organic, or are you seeking organic certification? Yes No
Cover	crop history
	survey, <u>cover crops</u> refer to the non-cash crops planted primarily for managin y or soil quality, or for controlling weeds, pests and diseases.
•	To confirm, have you ever planted a cover crop on (field name)? Yes à Continue No à Go to B.24
B.15 V	When did you first try cover crops on this field?
	In the past 2 years
	3-5 years ago 6-10 years ago
	More than 10 years ago
B.16 V	What was the most recent year you planted cover crops on this field?

B.12 Was this field under a federal crop insurance policy in 2024?

• Yes

Questions B.17 to B.23 ask about the most recent year you planted cover crops on (field name).

B.17 In that year, did you plant a single species cover crop or a multi-species mix?

- Single species à Go to B.18a
- Two or three species mix à Go to B.18b
- Mix of 4+ species à Go to B.18b

B.18a Which plant group did it come from?

- Grass (like rye, oats, or wheat)
- Legume (like clover, vetch, or peas)
- Brassica (like mustard, rapeseed, or radish)
- Other: _____

B.18b Please select all the plant groups in the mix.

- Grass (like rye, oats, or wheat)
- Legume (like clover, vetch, or peas)
- Brassica (like mustard, rapeseed, or radish)
- Other: _____

B.19 In that year, what cash crop did you plant before your cover crop, and what cash crop did you plant after your cover crop?

Before the cover crop	After the cover crop
• Corn	• Corn
Soybean	Soybean
Wheat	Wheat
• Other:	• Other:

B.20 In that year, which of the following methods did you use to terminate the cover crop on this field? If this year, which methods do you plan to use? (Select all that apply)

- Tillage
- Roller/crimper or mowed
- Winter killed
- Grazed
- Harvested for forage
- Herbicide application

If you terminated with herbicide, <u>Continue</u>.

If you terminated without herbicide, <u>Go to B.22</u>.

B.21 What herbicide(s) did you use to terminate the cover crop? (Select all that apply)

- Glyphosate
- Atrazine
- 2,4-D
- Dicamba
- I don't know
- Other: _____

B.22 Have you ever grazed a cover crop on this field?

- Yes à Go to B.24
- No à Continue

B.23 Why not? (Select all that apply)

- I don't have grazing livestock
- I don't have neighbors with grazing livestock
- The field doesn't have fencing or other livestock enclosure
- The field doesn't have a water source for livestock
- Grazing is not part of my desired cover crop practice
- Other: _____

B.24 Have you ever harvested a cover crop for forage on this field?

- Yes
- No

.

B.25 In the past 10 years, **for this field**, did you enroll in any federal, state, local, or private conservation program to receive support for planting cover crops or other practices? (Select all that apply)

I have enrolled this field in	Cover crops	Other practices	I have not enrolled this field
Environmental Quality Incentives Program (EQIP)			
Conservation Stewardship Program (CSP)			
Conservation Reserve Program (CRP)			
Cover crop discount on my Federal crop insurance			
Private program for carbon credits			
Private program for other conservation activity			
Other Federal, State, local program, please specify:			

B.26 When you think about growing cover crops on this field, how important to you are the following <u>benefits</u> of planting cover crops?

	Not at all important	Slightly important	Moderately important	Important	Extremely important
Improve soil health					
Decrease erosion					
Decrease fertilizer needs					
Weed control					
Reduce nutrient loss to lakes and streams					
Carbon sequestration					

B.27 When you think about growing cover crops on this field, how important to you are the following <u>barriers</u> to planting cover crops?

	Not at all important	Slightly important	Moderately important	Important	Extremely important
Cost					
Difficulty terminating cover crop due to weather					
Difficulty planting cover crop due to weather					
Overall management time					
Cash crop yield risk					
Suitable equipment not available					
Herbicide cost or availability					

There might be times when weather influences how a cover crop affects the yield of the cash crop that follows it.

- Examples of favorable conditions might be when the weather is good for cover crop growth and also for timely termination.
- Examples of unfavorable conditions might be when the weather is too dry for cover crop growth or too wet to terminate it on time.

Different conditions might have different effects on the yield of the cash crop that follows a cover crop, depending on your region and your farm.

B.28 In your opinion, if you were to grow <u>corn</u> after a cover crop, would you expect the corn yield to be lower, higher, or unchanged under the following conditions?

	Over 10% lower	5-10% lower	2-4% lower	No change (-1% to +1%)	2-4% higher	5-10% higher	Over 10% higher
Condition s favorable for cash crop after cover crop							
In typical conditions							
Condition s unfavora ble for cash crop after cover crop							

B.29 Thinking about how frequently conditions are unfavorable, typical and favorable for corn after cover crop, what percentage of the time do you think each would occur?

(Note: the percentages should add to 100.)

	Percentage
Conditions favorable for cash crop after cover crop	
In typical conditions	
Conditions unfavorable for cash crop after cover crop	
	100%

B.30 In your opinion, if you were to grow <u>soybeans</u> after a cover crop, would you expect the soybean yield to be lower, higher, or unchanged under the following conditions?

	Over 10% lower	5-10% lower	2-4% lower	No change (-1% to +1%)	2-4% higher	5-10% higher	Over 10% higher
Conditions favorable for cash crop after cover crop							
In typical conditions							
Conditions unfavorable for cash crop after cover crop							

B.31 Thinking about how frequently conditions are unfavorable, typical and favorable for soybeans after cover crop, what percentage of the time do you think each would occur?

(Note: the percentages should add to 100.)

	Percentage
Conditions favorable for cash crop after cover crop	
In typical conditions	
Conditions unfavorable for cash crop after cover crop	
	100%

Section C: Cover crop contracts

In this section, we will show you contracts that would pay you to adopt specific cover cropping practices on the field identified in Section B.

- First, we will introduce the features of the contracts.
- Next, we will show you the contracts.

Contract length and flexibility

- <u>Some</u> contracts require cover cropping every year.
- <u>Flexible</u> contracts only require cover cropping in a minimum number of years (for example, at least 2 of 3 years).
- Payments are made for each year that cover crops are planted.
- C.1 Please rate how desirable the following are as possible attributes of a conservation contract:

	Not desirable	Somewhat desirable	Very desirable
Single-year contract			
Multiple-year contract			
Flexibility about the years you must plant cover crops			
Planting cover crops every year of the contract			

The contracts that we will show you all allow you to apply for a contract extension if extreme circumstances interfere with cover crop termination or cash crop planting.

- C.2 Have you or anyone you know ever had to apply for a contract extension due to extreme circumstances?
 - Yes
 - No

Cover crop seed mix

- Cover crop contracts may allow for any single species or multi-species cover crop mix, or contracts may require a multi-species mix that must include a legume.
- C.3 Which of the following categories of cover crops have you planted on this field and on your farm in the past?

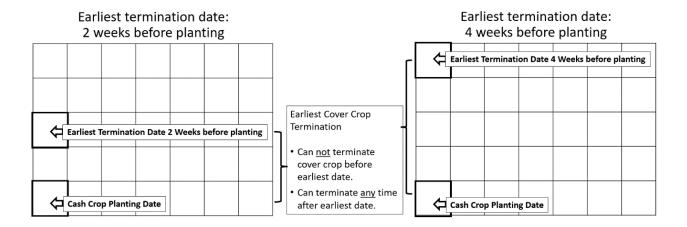
	On this field?		On some of your other fields?	
	Yes	No	Yes	No
Single species non-legume cover crop				
Single species legume cover crop				
Multi-species cover crop mix without a legume				
Multi-species cover crop mix with a legume				

C.4 Are you aware that cover crop mixes with a legume contribute nitrogen to the soil?

- Yes
- No

Earliest cover crop termination date

- Cover crops may be terminated any time after the earliest termination date.
- The earliest termination date in a contract is either <u>two weeks</u> or <u>four weeks</u> before planting the cash crop.
- For all contracts, terminating at or after planting the cash crop is allowed.



C.5 How challenging do you think it would be to terminate a cover crop in a two-week window versus a four-week window prior to cash crop planting?

	Not more challenging	Somewhat more challenging	Much more challenging
For the field identified in section B			
For many fields with cover crops			

Time it takes to apply for the contract

- Some contracts employ a streamlined enrollment paperwork process that can be completed in <u>1 hour</u>, while others may take <u>2 hours</u> or <u>3 hours</u>.
- This is the total time you would spend to complete all paperwork to apply and enroll in the contract.
- It does not include additional management time that you might spend to comply with contract requirements.

Contract application location

Contract application will be completed in one of the following ways:

- The enrollment paperwork for some contracts can be completed through a website, or
- Some contracts require a program staff member to <u>visit your farm</u> to complete the enrollment paperwork, **or**
- Other contracts require you to visit to your local <u>county seat</u> to complete the enrollment paperwork.

C.6 About how long does it take you to drive one-way to your county seat?

- Less than 30 minutes
- 30 to 45 minutes
- 45 minutes to an hour
- Over an hour
- I don't know where my county seat is

Professional advice before and after planting

- All contracts provide some technical assistance to help you comply with contract requirements.
- In some contracts, this includes a <u>cover crop agronomist</u>, while others use a <u>general agronomist</u>.

C.7 Have you ever received any technical assistance or advice from ...

	Yes	No
General agronomist with private company		
Cover crop agronomist with Extension		
General agronomist with Extension		
General agronomist with NRCS		
Cover crop agronomist with NRCS		

Contract processing time

- Processing time is the number of months it takes for the application to be processed and your field to be officially enrolled in the contract.
- Different contracts may have different processing times that vary from 1 to 9 months:

Range of possible processing times in contracts

Payment provider

- Payment provider is the organization that gives you the payment.
- The paperwork burden and application process will not be affected by the type of payment provider.
- These are the potential providers:
 - o USDA
 - O State government
 - o Private agribusiness
 - O Non-governmental organization

Per acre payment (per year of cover cropping)

- You will receive a payment in the years you plant cover crops.
- In years that you plant a cover crop, you will receive the payment after the cover crop is terminated (typically April or May).
- If you sign a contract but do not plant cover crops in a particular year, you will not be paid in that year.
- The per acre payment is based on the field enrolled. The larger the enrolled field is, the larger the total payment will be.
- For years when cover crops are planted, the payment will be equal to:

Payment rate (\$/acre) × acres in this field

[The "levels" of contract features will vary across questions and across respondents in a way that is determined by an experimental design. For a full list of the possible levels of each feature, please see **Appendix A: Contract Features**.]

[Contract Enrollment Version 1: Two options vs not enrolling in either one. Half of all respondents will randomly receive Version 1]

Please consider the following two cover crop contracts that would pay you each year you plant cover crops that would be available for your field identified in section B.

• Please consider your choice carefully, because the overall survey results will be shared with policy makers crafting future cover crop programs.

The details and responsibilities of the contracts are described below.

	Contract A	Contract B
Cover crop seed mix	Any single species or multi-species mix	Multi-species mix (includes a legume)
Contract length and flexibility	Must cover crop 3 out of 3 years	Must cover crop at least 2 out of 3 years
Earliest cover crop termination date	2 weeks before cash crop planting	4 weeks before cash crop planting
Application time and location	2 hours via a website	3 hours at your county seat
Professional advice before and after planting	Cover crop agronomist with Extension	General agronomist with NRCS
Contract processing time	2 months	3 months
Payment provider	Private agribusiness	USDA
Per acre payment (per year of cover cropping)	\$25 per acre	\$60 per acre

Please think about these as real contracts for your farm, and whether you would choose to enroll in one of them. If you would not choose either one, then choose Neither.

CE.1 Would you enroll your field identified in section B in Contract A, Contract B, or Neither?

- Contract A
- Contract B
- Neither

[**Contract Enrollment Version 2:** A single option vs not enrolling at all. Half of all respondents will randomly receive Version 2]

Please consider the following cover crop contract that would pay you each year you plant cover crops on your field identified in section B.

• Please consider your choice carefully, because the overall survey results will be shared with policy makers crafting future cover crop programs.

The details and responsibilities of the contract are described below.

Cover crop seed mix:	Any single species or multi-species mix
Contract length and flexibility:	Must cover crop 3 out of 3 years
Earliest cover crop termination date:	2 weeks before cash crop planting
Application time and location:	2 hours via a website
Professional advice before and after	General agronomist with a private company
planting:	
Contract processing time:	2 months
Payment provider:	USDA
Per acre payment (per year of cover	\$25 per acre
cropping):	

Please think about this as a real contract for your farm. If you would not enroll in it, choose No.

CE.1 Would you enroll your field identified in section B in this cover crop contract?

- Yes
- No

Section D: Farmer Attitudes toward Environmental Protection

The next two questions ask about the importance of environmental issues to your crop management decisions. First we ask about the importance to **your farm,** and then we ask the importance to **other people in the nation**.

D.1 How important to $your\ farm$	are these environmental	issues? Please	mark one	for
each row.				

	Not at all important	Slightly important	Moderately important	Important	Extremely important
Financial cost of nutrient losses					
Water quality impacts of nutrient losses					
Soil erosion					
Soil organic matter					
Carbon sequestration					
Soil water holding capacity					
Nitrogen fixing crops to replace some nitrogen fertilizer					

D.2 How important do you think these environmental issues are for the well-being of **other people in the nation**? Please mark one for each row.

	Not at all important	Moderately important	IMPARTIE	Extremely important
Water quality impacts of nutrient losses				
Soil erosion				
Soil organic matter				
Carbon sequestration				
Soil water holding capacity				
Nitrogen fixing crops to replace some nitrogen fertilizer				

Section E: General background information

Farm and cover crops practice

- E.1 Which of the following implements does your farm operation own? (Select all that apply)
 - A seed drill (e.g., no-till drill)
 - A roller/crimper
 - A boom sprayer or highboy
- E.2 Across your entire farm, apart from the field that you identified in section B, do you have any other fields where you currently use any of the following cover crop systems?

I have fields that have	Yes	No
Continuous or nearly continuous use of cover crops (every year if possible)		
Rotational cover crop use (at regular intervals in my crop rotation)		
Occasional cover crop use (not at regular intervals)		

- E.3 What best describes your level of whole-farm experience with cover crops?
 - I have never tried them and am not interested in trying them
 - I have never tried them but would consider trying them
 - I have tried them in the past but will not keep using them
 - I have tried them but am still deciding if I will continue using them
 - I use them and will likely continue using them
 - I use them and will continue using them

If you have never tried cover crops, <u>Go to E.9</u>. If you have tried cover crops before, Continue.

- E.4 When did you first try to plant cover crops **anywhere** on your **farm**?
 - In the past 2 years
 - 3-5 years ago
 - 6-10 years ago
 - More than 10 years ago

your farm ? (Sele	ect all that apply)	1 1	,
Broadcast the coAerially seeded oDrilled the coverUsed a row crop	planter other than a rance seeder (e.g., a	ut incorporating it	-
on your farm ? (Select a	•	ou used to terminate cover	crops anywhere
TillageRoller/crimper oWinter-killGrazed			
Harvested for forHerbicide application	•		
E.8 Compared to the san	-	h no cover crop, how does	planting cover
	I apply herbicides fewer times	I apply herbicides about the same number of times	I apply herbicides more times
Total herbicide use for cash crop and cover crop			

E.5 What was the most recent year you planted a cover crop **anywhere** on your **farm**?

E.6 Which of the following methods have you used to plant cover crops **anywhere** on

E.9 Please indicate whether you agree or disagree with the following statements:

	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree
I am concerned that cover crops will make me lose eligibility for crop insurance.					
Specifically, I am concerned that unfavorable conditions for cover crop termination will make me lose eligibility for crop insurance.					

E.10 Do you think planting cover crops influences the chance that your cash crop yield is low enough to trigger a crop insurance payout?

- Yes, increases the chance of payout
- No change
- Yes, decreases the chance of payout
- Don't know

The next three questions ask about how you think about cover crops and crop insurance. In each case, please finish the sentence.

E.11 Planting cover crops makes me...

- Much less likely to buy crop insurance
- Somewhat less likely to buy crop insurance
- No more or less likely to buy crop insurance
- Somewhat more likely to buy crop insurance
- Much more likely to buy crop insurance

E.12 Planting cover crops makes me...

- Very likely to buy a lower coverage level of crop insurance
- Somewhat likely to buy a lower coverage level of crop insurance
- No more or less likely to change my coverage level of crop insurance
- Somewhat likely to buy a higher coverage level of crop insurance
- Very likely to buy a higher coverage level of crop insurance

E.13 Having crop	insurance	makes	me
------------------	-----------	-------	----

- Much less likely to plant cover crops
- Somewhat less likely to plant cover crops
- No more or less likely to plant cover crops
- Somewhat more likely to plant cover crops
- Much more likely to plant cover crops

E.14 Have you interacted with the following organizations in the past 10 years?

	Yes	No
NRCS		
Extension partners		
State or local staff, including Soil and Water Conservation District (SWCD)		

If you answered Yes to interacting with <u>any</u> of the organizations in the past 10 years, <u>Continue</u>. If you answered No to <u>all</u> of the organizations, <u>Go to E.16</u>.

E.15 Have you interacted with the following organizations in any of the following ways in the past 10 years?

	NR	NRCS		nsion ners		aff ıding
	Yes	No	Yes	No	Yes	No
Had a video call with						
In-person meeting at the local office						
In-person meeting at your farm						
Talked to the staff in other ways						

E.16 When thinking about a	conservation contract,	how favorable is	your view of the
following organization	ons?		

	Unfavorable	Somewhat unfavorable	Neutral	Somewhat favorable	Favorable
USDA					
State government					
Private agribusiness					
Non-governmental organization					

E.17 Based on your knowledge and experience of the following organizations, how likely are you to get technical assistance or advice from them in the next 10 years?

	Not likely	Likely	Very likely
USDA			
State government			
Private agribusiness			
Non-governmental organization			
University Extension			

E.18 In the past 10 years, **for your fields other than the one selected in section B**, did you enroll in any federal, state, local, or private conservation program to receive support for planting cover crops or other practices? (Select all that apply)

I have enrolled other fields in	Cover crops	Other practices	I have not enrolled my other fields
Environmental Quality Incentives Program (EQIP)			
Conservation Stewardship Program (CSP)			
Conservation Reserve Program (CRP)			
Cover crop discount on Federal crop insurance			
Private program for carbon credits			
Private program for other conservation activity			
Other Federal, State, local program, please			

specify			
E.19 How long have you been farming?	years		
E.20 What portion of your household's adjusted farming activities?	gross income w	as earned throug	h
 Less than 25% 25% to 49% 50% to 74% 75% or more 			
E.21 What is your age? years			
E.22 What is your sex? • Male			

- E.23 What is your race and/or ethnicity? (Select all that apply)
 - American Indian or Alaska Native
 - Asian

• Female

- Black or African American
- Hispanic or Latino
- Native Hawaiian or Other Pacific Islander
- White
- E.24 Have you ever served on active duty in the U.S. Armed Forces, Reserves or National Guard?
 - Never served in the military
 - Only on active duty for training in the Reserves or National Guard
 - Now on active duty
 - On active duty in the past 10 years, but not now
 - On active duty more than 10 years ago

E.25 Which category best describes your education?

- Less than high school
- High school diploma
- Some college, no degree
- Associate's degree
- Bachelor's degree
- Master's degree or other professional degree beyond a bachelor's
- Doctorate degree

The following questions are for summary purposes only. Your individual answers are confidential.

E.26 Earlier, you told us about the cropland acres your operation owns and/or rents (Question A.2). What was this farm operation's gross cash income in 2024?

- Less than \$350,000
- \$350,000 to \$999,999
- Above \$1,000,000

A general range of income will help us ensure that the survey represents all farms. Your individual answers are confidential and will not be linked to your name.

E.27 In 2024, what was the taxable income of all the people living in your household (including farm and non-farm income)?

- Less than \$25,000
- \$25,000 to \$37,499
- \$37,500 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- \$100,000 to \$149,999
- \$150,000 to \$249,999
- \$250,000 or more

[E.28 is only displayed if the respondent does not select any of the options in E.27]

E.28 A general range of income will help us ensure that the survey represents all farms. Your individual answers are confidential and will not be linked to your name.

In 2024, which of the following best describes the taxable income of all the people living in your household (including farm and non-farm income)?

- Less than \$49,999
- \$50,000 to \$99,999

- \$100,000 to \$249,999
- \$250,000 or more