

Form 5500-SF Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation		Short Form Annual Return/Report of Small Employee Benefit Plan This form is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA), and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code). ▶ Complete all entries in accordance with the instructions to the Form 5500-SF.		OMB Nos. 1210-0110 1210-0089 2016 This Form is Open to Public Inspection	
Part I Annual Report Identification Information					
For calendar plan year 2016 or fiscal plan year beginning 04/01/2016 and ending 03/31/2017					
A This return/report is for:		☒ a single-employer plan ☐ a multiple-employer plan (not multiemployer) (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.) ☐ a one-participant plan ☐ a foreign plan			
B This return/report is		☐ the first return/report ☐ the final return/report ☐ an amended return/report ☐ a short plan year return/report (less than 12 months)			
C Check box if filing under:		☒ Form 5558 ☐ automatic extension ☐ DFVC program ☐ special extension (enter description)			
Part II Basic Plan Information —enter all requested information					
1a Name of plan THE RESTATED NONCONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES			1b Three-digit plan number (PN) ▶ 020		
			1c Effective date of plan 05/01/1997		
2a Plan sponsor's name (employer, if for a single-employer plan) Mailing address (include room, apt., suite no. and street, or P.O. Box) City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) FARMERS COOPERATIVE COMPANY PO BOX 339 READLYN, IA 50668			2b Employer Identification Number (EIN) 42-0484570		
			2c Sponsor's telephone number 319-279-3397		
			2d Business code (see instructions) 115110		
3a Plan administrator's name and address ☐ Same as Plan Sponsor. ASSOCIATED BENEFITS CORPORATION 1415 28TH STREET, SUITE 100 WEST DES MOINES, IA 50266-1450			3b Administrator's EIN 42-1279416		
			3c Administrator's telephone number 515-226-0303		
4 If the name and/or EIN of the plan sponsor has changed since the last return/report filed for this plan, enter the name, EIN, and the plan number from the last return/report.			4b EIN		
a Sponsor's name			4c PN		
5a Total number of participants at the beginning of the plan year			5a	47	
b Total number of participants at the end of the plan year			5b	49	
c Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)			5c		
d(1) Total number of active participants at the beginning of the plan year			5d(1)	26	
d(2) Total number of active participants at the end of the plan year			5d(2)	27	
e Number of participants that terminated employment during the plan year with accrued benefits that were less than 100% vested			5e	0	
Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.					
Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including, if applicable, a Schedule SB or Schedule MB completed and signed by an enrolled actuary, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.					
SIGN HERE	Filed with authorized/valid electronic signature.	01/02/2018	KELLY HAYERTZ		
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator		
SIGN HERE	Filed with authorized/valid electronic signature.	01/02/2018	JEFF BRUNSCHEON		
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor		
Preparer's name (including firm name, if applicable) and address (include room or suite number)				Preparer's telephone number	

- 6a** Were all of the plan's assets during the plan year invested in eligible assets? (See instructions.) ☒ Yes ☐ No
- b** Are you claiming a waiver of the annual examination and report of an independent qualified public accountant (IQPA) under 29 CFR 2520.104-46? (See instructions on waiver eligibility and conditions.) ☒ Yes ☐ No
- If you answered "No" to either line 6a or line 6b, the plan cannot use Form 5500-SF and must instead use Form 5500.**
- c** If the plan is a defined benefit plan, is it covered under the PBGC insurance program (see ERISA section 4021)? ☒ Yes ☐ No ☐ Not determined

Part III Financial Information

7 Plan Assets and Liabilities		(a) Beginning of Year	(b) End of Year
a Total plan assets	7a	1874348	2335624
b Total plan liabilities	7b	11	607
c Net plan assets (subtract line 7b from line 7a)	7c	1874337	2335017
8 Income, Expenses, and Transfers for this Plan Year		(a) Amount	(b) Total
a Contributions received or receivable from:			
(1) Employers	8a(1)	226000	
(2) Participants	8a(2)		
(3) Others (including rollovers)	8a(3)		
b Other income (loss)	8b	313957	
c Total income (add lines 8a(1), 8a(2), 8a(3), and 8b)	8c		539957
d Benefits paid (including direct rollovers and insurance premiums to provide benefits)	8d	71221	
e Certain deemed and/or corrective distributions (see instructions) ..	8e		
f Administrative service providers (salaries, fees, commissions)	8f	5048	
g Other expenses	8g	3008	
h Total expenses (add lines 8d, 8e, 8f, and 8g)	8h		79277
i Net income (loss) (subtract line 8h from line 8c)	8i		460680
j Transfers to (from) the plan (see instructions)	8j		

Part IV Plan Characteristics

- 9a** If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristic Codes in the instructions:
1A
- b** If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristic Codes in the instructions:

Part V Compliance Questions

10 During the plan year:		Yes	No	N/A	Amount
a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? (See instructions and DOL's Voluntary Fiduciary Correction Program)	10a		X		
b Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 10a.)	10b		X		
c Was the plan covered by a fidelity bond?	10c	X			300000
d Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	10d		X		
e Were any fees or commissions paid to any brokers, agents, or other persons by an insurance carrier, insurance service, or other organization that provides some or all of the benefits under the plan? (See instructions.)	10e		X		
f Has the plan failed to provide any benefit when due under the plan?	10f		X		
g Did the plan have any participant loans? (If "Yes," enter amount as of year-end.)	10g		X		
h If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)	10h				
i If 10h was answered "Yes," check the box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3	10i				

Part VI Pension Funding Compliance

11 Is this a defined benefit plan subject to minimum funding requirements? (If "Yes," see instructions and complete Schedule SB (Form 5500) and line 11a below)	☒ Yes ☐ No
11a Enter the unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40	11a 0
12 Is this a defined contribution plan subject to the minimum funding requirements of section 412 of the Code or section 302 of ERISA?	☐ Yes ☒ No
(If "Yes," complete line 12a or lines 12b, 12c, 12d, and 12e below, as applicable.)	
a If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions, and enter the date of the letter ruling granting the waiver. Month Day Year 	
If you completed line 12a, complete lines 3, 9, and 10 of Schedule MB (Form 5500), and skip to line 13.	
b Enter the minimum required contribution for this plan year	12b
c Enter the amount contributed by the employer to the plan for this plan year	12c
d Subtract the amount in line 12c from the amount in line 12b. Enter the result (enter a minus sign to the left of a negative amount)	12d
e Will the minimum funding amount reported on line 12d be met by the funding deadline?	☐ Yes ☐ No ☐ N/A

Part VII Plan Terminations and Transfers of Assets

13a Has a resolution to terminate the plan been adopted in any plan year?	☐ Yes ☒ No
If "Yes," enter the amount of any plan assets that reverted to the employer this year	13a
b Were all the plan assets distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?	☐ Yes ☒ No
c If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)	
13c(1) Name of plan(s):	13c(2) EIN(s)
	13c(3) PN(s)

Part VIII Trust Information

14a Name of trust	14b Trust's EIN
14c Name of trustee or custodian	14d Trustee's or custodian's telephone number

Part IX IRS Compliance Questions

15a Is the plan a 401(k) plan? If "No," skip b.	☐ Yes ☐ No
15b How did the plan satisfy the nondiscrimination requirements for employee deferrals under section 401(k)(3) for the plan year? Check all that apply:	☐ Design-based safe harbor ☐ "Prior year" ADP test ☐ "Current year" ADP test ☐ N/A
16a What testing method was used to satisfy the coverage requirements under section 410(b) for the plan year? Check all that apply:	☐ Ratio percentage test ☐ Average benefit test ☐ N/A
16b Did the plan satisfy the coverage and nondiscrimination requirements of sections 410(b) and 401(a)(4) for the plan year by combining this plan with any other plan under the permissive aggregation rules?	☐ Yes ☐ No
17a If the plan is a master and prototype plan (M&P) or volume submitter plan that received a favorable IRS opinion letter or advisory letter, enter the date of the letter ____/____/____ and the serial number _____.	
17b If the plan is an individually-designed plan that received a favorable determination letter from the IRS, enter the date of the most recent determination letter ____/____/____.	
18 Defined Benefit Plan or Money Purchase Pension Plan Only: Were any distributions made during the plan year to an employee who attained age 62 and had not separated from service?	☐ Yes ☐ No
19 Was any plan participant a 5% owner who had attained at least age 70 ½ during the prior plan year?	☐ Yes ☐ No

SCHEDULE SB (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Single-Employer Defined Benefit Plan Actuarial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500 or 5500-SF.	OMB No. 1210-0110 2016 This Form is Open to Public Inspection
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For calendar plan year 2016 or fiscal plan year beginning 04/01/2016 and ending 03/31/2017

▶ **Round off amounts to nearest dollar.**

▶ **Caution:** A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.

A Name of plan <u>THE RESTATED NONCONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES</u>	B Three-digit plan number (PN) ▶ <u>020</u>
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF <u>FARMERS COOPERATIVE COMPANY</u>	D Employer Identification Number (EIN) <u>42-0484570</u>
E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B	F Prior year plan size: ☒ 100 or fewer ☐ 101-500 ☐ More than 500

Part I	Basic Information
1 Enter the valuation date: Month <u>04</u> Day <u>01</u> Year <u>2016</u>	
2 Assets:	
a Market value	2a <u>1874281</u>
b Actuarial value	2b <u>1979728</u>
3 Funding target/participant count breakdown	
a For retired participants and beneficiaries receiving payment.....	(1) Number of participants <u>15</u> (2) Vested Funding Target <u>648409</u> (3) Total Funding Target <u>648409</u>
b For terminated vested participants.....	<u>6</u> <u>101624</u> <u>101624</u>
c For active participants.....	<u>26</u> <u>706310</u> <u>744192</u>
d Total.....	<u>47</u> <u>1456343</u> <u>1494225</u>
4 If the plan is in at-risk status, check the box and complete lines (a) and (b)..... ☐	
a Funding target disregarding prescribed at-risk assumptions	4a
b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor	4b
5 Effective interest rate	5 <u>6.20 %</u>
6 Target normal cost.....	6 <u>106276</u>

Statement by Enrolled Actuary

To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE		<u>12/20/2017</u>
	Signature of actuary	Date
<u>MARK A HENDRICKS</u>	Type or print name of actuary	<u>17-05452</u>
		Most recent enrollment number
<u>MERCER</u>	Firm name	<u>816-556-4800</u>
<u>2405 GRAND BLVD, SUITE 900</u> <u>KANSAS CITY, MO 64108</u>	Address of the firm	Telephone number (including area code)

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions ☐

For Paperwork Reduction Act Notice, see the Instructions for Form 5500 or 5500-SF.

Schedule SB (Form 5500) 2016
v. 160205

Part II Beginning of Year Carryover and Prefunding Balances		(a) Carryover balance	(b) Prefunding balance
7	Balance at beginning of prior year after applicable adjustments (line 13 from prior year)	181943	269275
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)		
9	Amount remaining (line 7 minus line 8)	181943	269275
10	Interest on line 9 using prior year's actual return of <u>-2.23</u> %	-4057	-6005
11	Prior year's excess contributions to be added to prefunding balance:		
a	Present value of excess contributions (line 38a from prior year)		49635
b(1)	Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of <u>6.37</u> %		3162
b(2)	Interest on line 38b from prior year Schedule SB, using prior year's actual return		
c	Total available at beginning of current plan year to add to prefunding balance		52797
d	Portion of (c) to be added to prefunding balance		52797
12	Other reductions in balances due to elections or deemed elections	33210	
13	Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)	144676	316067

Part III Funding Percentages			
14	Funding target attainment percentage	14	101.65%
15	Adjusted funding target attainment percentage	15	132.49%
16	Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	113.88%
17	If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage	17	%

Part IV Contributions and Liquidity Shortfalls					
18 Contributions made to the plan for the plan year by employer(s) and employees:					
(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
05/02/2016	11000	0	11/01/2016	11000	0
06/01/2016	11000	0	12/01/2016	11000	0
07/01/2016	11000	0	01/03/2017	11000	0
08/01/2016	11000	0	02/01/2017	11000	0
09/01/2016	11000	0	03/01/2017	11000	0
10/03/2016	11000	0	04/03/2017	11000	0
Totals ►			18(b)	226000	18(c) 0

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:		
a	Contributions allocated toward unpaid minimum required contributions from prior years.	19a 0
b	Contributions made to avoid restrictions adjusted to valuation date	19b 0
c	Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c 214240
20 Quarterly contributions and liquidity shortfalls:		
a Did the plan have a "funding shortfall" for the prior year?		☐ Yes ☒ No
b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner?		☐ Yes ☐ No
c If line 20a is "Yes," see instructions and complete the following table as applicable:		

Liquidity shortfall as of end of quarter of this plan year			
(1) 1st	(2) 2nd	(3) 3rd	(4) 4th

Part II		Beginning of Year Carryover and Prefunding Balances	
		(a) Carryover balance	(b) Prefunding balance
7	Balance at beginning of prior year after applicable adjustments (line 13 from prior year)		
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)		
9	Amount remaining (line 7 minus line 8)		
10	Interest on line 9 using prior year's actual return of _____%		
11	Prior year's excess contributions to be added to prefunding balance:		
a	Present value of excess contributions (line 38a from prior year)		
b(1)	Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of _____%		
b(2)	Interest on line 38b from prior year Schedule SB, using prior year's actual return		
c	Total available at beginning of current plan year to add to prefunding balance		
d	Portion of (c) to be added to prefunding balance		
12	Other reductions in balances due to elections or deemed elections		
13	Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)		

Part III		Funding Percentages	
14	Funding target attainment percentage	14	%
15	Adjusted funding target attainment percentage	15	%
16	Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	%
17	If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage	17	%

Part IV		Contributions and Liquidity Shortfalls			
18 Contributions made to the plan for the plan year by employer(s) and employees:					
(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
05/01/2017	11000	0	11/01/2017	12000	0
06/01/2017	11000	0	12/05/2017	12000	0
07/12/2017	12000	0			
08/01/2017	12000	0			
09/05/2017	12000	0			
10/02/2017	12000	0			
Totals ▶			18(b)		18(c)

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:	
a Contributions allocated toward unpaid minimum required contributions from prior years	19a
b Contributions made to avoid restrictions adjusted to valuation date	19b
c Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c
20 Quarterly contributions and liquidity shortfalls:	
a Did the plan have a "funding shortfall" for the prior year? ☐ Yes ☐ No	
b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? ☐ Yes ☐ No	
c If line 20a is "Yes," see instructions and complete the following table as applicable:	
Liquidity shortfall as of end of quarter of this plan year	
(1) 1st	(2) 2nd
(3) 3rd	(4) 4th

Part V	Assumptions Used to Determine Funding Target and Target Normal Cost		
21	Discount rate:		
a	Segment rates:	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">1st segment: 4.43%</div> <div style="text-align: center;">2nd segment: 5.91%</div> <div style="text-align: center;">3rd segment: 6.65%</div> </div>	☐ N/A, full yield curve used
b	Applicable month (enter code)	21b	0
22	Weighted average retirement age	22	63
23	Mortality table(s) (see instructions) ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute		
Part VI	Miscellaneous Items		
24	Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment. ☒ Yes ☐ No		
25	Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment. ☐ Yes ☒ No		
26	Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment. ☒ Yes ☐ No		
27	If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment.	27	
Part VII	Reconciliation of Unpaid Minimum Required Contributions For Prior Years		
28	Unpaid minimum required contributions for all prior years	28	0
29	Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a)	29	0
30	Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	30	0
Part VIII	Minimum Required Contribution For Current Year		
31	Target normal cost and excess assets (see instructions):		
a	Target normal cost (line 6)	31a	106276
b	Excess assets, if applicable, but not greater than line 31a	31b	24760
32	Amortization installments:	Outstanding Balance	Installment
a	Net shortfall amortization installment	0	0
b	Waiver amortization installment	0	0
33	If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount		33
34	Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)		34 style="text-align: center;">81516
	Carryover balance	Prefunding balance	Total balance
35	Balances elected for use to offset funding requirement		0
36	Additional cash requirement (line 34 minus line 35)		36 style="text-align: center;">81516
37	Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)		37 style="text-align: center;">214240
38	Present value of excess contributions for current year (see instructions)		
a	Total (excess, if any, of line 37 over line 36)	38a	132724
b	Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	38b	
39	Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)		39 style="text-align: center;">0
40	Unpaid minimum required contributions for all years		40 style="text-align: center;">0
Part IX	Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)		
41	If an election was made to use PRA 2010 funding relief for this plan:		
a	Schedule elected	☐ 2 plus 7 years ☐ 15 years	
b	Eligible plan year(s) for which the election in line 41a was made	☐ 2008 ☐ 2009 ☐ 2010 ☐ 2011	
42	Amount of acceleration adjustment	42	
43	Excess installment acceleration amount to be carried over to future plan years	43	

Plan Name: The Restated Noncontributory Retirement Plan for Cooperatives
Plan Sponsor EIN: 42-0484570
ERISA 3-digit Plan #: 020
Plan Year Ending: 03/31/2017

The required attachment marked with an "X" in the Attachment column is included within the Schedule SB – Single-Employer Defined Benefit Plan Actuarial Information pdf attachment to Form 5500 or Form 5500-SF, Part VI, line 11 which consists of the entire actuarial information issued by the plan's Actuary.

Form/Schedule	Line #	Description	Attachment
5500 Sch. SB		Actuarial Assumptions and Methods	X
5500 Sch. SB		Summary of Plan Provisions	X
5500 Sch. SB		Statement of Enrolled Actuary	X
5500 Sch. SB	7	Explanation of Discrepancy in Prior Year Funding Standard Carryover Balance or Prefunding Balance	
5500 Sch. SB	18	Contributions	
5500 Sch. SB	19	Discounted Employer Contributions	
5500 Sch. SB	22	Description of Weighted Average Retirement Age	X
5500 Sch. SB	24	Change in Actuarial Assumptions	X
5500 Sch. SB	25	Change in Method	
5500 Sch. SB	26	Schedule of Active Participant Data	X
5500 Sch. SB	32	Schedule of Amortization Bases	

SCHEDULE SB (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation</small>	Single-Employer Defined Benefit Plan Actuarial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code). ► File as an attachment to Form 5500 or 5500-SF.	OMB No. 1210-0110 2016 This Form is Open to Public Inspection
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For calendar plan year 2016 or fiscal plan year beginning 04/01/2016 and ending 03/31/2017

► Round off amounts to nearest dollar.

► Caution: A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.

A Name of plan THE RESTATED NONCONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES	B Three-digit plan number (PN) ►	020
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF FARMERS COOPERATIVE COMPANY	D Employer Identification Number (EIN) 42-0484570	
E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B		
F Prior year plan size: ☒ 100 or fewer ☐ 101-500 ☐ More than 500		

Part I Basic Information			
1 Enter the valuation date: Month <u>04</u> Day <u>01</u> Year <u>2016</u>			
2 Assets:			
a Market value.....	2a	1,874,281	
b Actuarial value.....	2b	1,979,728	
3 Funding target/participant count breakdown			
	(1) Number of participants	(2) Vested Funding Target	(3) Total Funding Target
a For retired participants and beneficiaries receiving payment	15	648,409	648,409
b For terminated vested participants	6	101,624	101,624
c For active participants	26	706,310	744,192
d Total	47	1,456,343	1,494,225
4 If the plan is in at-risk status, check the box and complete lines (a) and (b) ☐			
a Funding target disregarding prescribed at-risk assumptions	4a		
b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor	4b		
5 Effective interest rate.....	5	6.20%	
6 Target normal cost	6	106,276	

Statement by Enrolled Actuary
 To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE	<u>MARK A HENDRICKS</u> <i>MAH</i> Signature of actuary	<u>12-20-2017</u> Date
<u>MARK A HENDRICKS</u> Type or print name of actuary		<u>1705452</u> Most recent enrollment number
<u>MERCER</u> Firm name		<u>816-556-4800</u> Telephone number (including area code)
<u>2405 GRAND BLVD, SUITE 900</u> <u>KANSAS CITY MO 64108</u> Address of the firm		

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions ☐

Part II Beginning of Year Carryover and Prefunding Balances

	(a) Carryover balance	(b) Prefunding balance
7 Balance at beginning of prior year after applicable adjustments (line 13 from prior year).....	181,943	269,275
8 Portion elected for use to offset prior year's funding requirement (line 35 from prior year)		
9 Amount remaining (line 7 minus line 8).....	181,943	269,275
10 Interest on line 9 using prior year's actual return of <u>-2.23%</u>	-4,057	-6,005
11 Prior year's excess contributions to be added to prefunding balance:		
a Present value of excess contributions (line 38a from prior year)		49,635
b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of <u>6.37%</u>		3,162
b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		
c Total available at beginning of current plan year to add to prefunding balance.....		52,797
d Portion of (c) to be added to prefunding balance.....		52,797
12 Other reductions in balances due to elections or deemed elections.....	33,210	
13 Balance at beginning of current year (line 9 + line 10 + line 11d – line 12).....	144,676	316,067

Part III Funding Percentages

14 Funding target attainment percentage	14	101.65%
15 Adjusted funding target attainment percentage	15	132.49%
16 Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	113.88%
17 If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage.	17	%

Part IV Contributions and Liquidity Shortfalls

18 Contributions made to the plan for the plan year by employer(s) and employees:					
(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
05/02/2016	11,000	0	07/12/2017	12,000	0
06/01/2016	11,000	0	08/01/2017	12,000	0
07/01/2016	11,000	0	09/05/2017	12,000	0
08/01/2016	11,000	0	10/02/2017	12,000	0
09/01/2016	11,000	0	11/01/2017	12,000	0
10/03/2016	11,000	0	12/05/2017	12,000	0
11/01/2016	11,000	0			
12/01/2016	11,000	0			
01/03/2017	11,000	0			
02/01/2017	11,000	0			
03/01/2017	11,000	0			
04/03/2017	11,000	0			
05/01/2017	11,000	0			
06/01/2017	11,000	0			
Totals ▶			18(b)	226,000	18(c) 0

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:

a Contributions allocated toward unpaid minimum required contributions from prior years.....	19a	0
b Contributions made to avoid restrictions adjusted to valuation date	19b	0
c Contributions allocated toward minimum required contribution for current year adjusted to valuation date.....	19c	214,240

20 Quarterly contributions and liquidity shortfalls:

- a** Did the plan have a "funding shortfall" for the prior year? ☐ Yes ☒ No
- b** If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? ☐ Yes ☐ No
- c** If line 20a is "Yes," see instructions and complete the following table as applicable:

Liquidity shortfall as of end of quarter of this plan year

(1) 1st	(2) 2nd	(3) 3rd	(4) 4th
---------	---------	---------	---------

Part V Assumptions Used to Determine Funding Target and Target Normal Cost

21 Discount rate:			
a Segment rates:	1st segment: 4.43 %	2nd segment: 5.91 %	3rd segment: 6.65 %
			☐ N/A, full yield curve used
b Applicable month (enter code).....			21b 0
22 Weighted average retirement age			22 63
23 Mortality table(s) (see instructions) ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute			

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment.....		☒ Yes ☐ No
25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment.....		☐ Yes ☒ No
26 Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment.....		☒ Yes ☐ No
27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment.....	27	

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

28 Unpaid minimum required contributions for all prior years	28	0
29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a).....	29	0
30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	30	0

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):			
a Target normal cost (line 6)	31a	106,276	
b Excess assets, if applicable, but not greater than line 31a	31b	24,760	
32 Amortization installments:	Outstanding Balance	Installment	
a Net shortfall amortization installment.....	0	0	
b Waiver amortization installment	0	0	
33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount	33		
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)....	34	81,516	
	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement.....			0
36 Additional cash requirement (line 34 minus line 35).....	36	81,516	
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c).....	37	214,240	
38 Present value of excess contributions for current year (see instructions)			
a Total (excess, if any, of line 37 over line 36)	38a	132,724	
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	38b		
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37).....	39	0	
40 Unpaid minimum required contributions for all years	40	0	

Part IX Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)

41 If an election was made to use PRA 2010 funding relief for this plan:	
a Schedule elected	☐ 2 plus 7 years ☐ 15 years
b Eligible plan year(s) for which the election in line 41a was made	☐ 2008 ☐ 2009 ☐ 2010 ☐ 2011
42 Amount of acceleration adjustment	42
43 Excess installment acceleration amount to be carried over to future plan years	43

The Restated Noncontributory Retirement Plan for Cooperatives
Valuation Date: April 1, 2016
Schedule SB, Line 26 - Schedule of Active Participant Data
Group 0226 - Farmers Cooperative Co. EIN/PN: 42-0484570/020

SERVICE GROUPS BY AGE GROUPS

MALE

AGE GROUP	SERVICE GROUP										TOTAL
	< 1	1 -4	5 -9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
<20											0
20-24		4									4
25-29		3	2								5
30-34											0
35-39					1						1
40-44				1							1
45-49					2						2
50-54			1		2						3
55-59		1	2	1					1		5
60-64					1						1
65-69			1	1							2
70-74											0
75+											0
TOTAL	0	8	6	3	6	0	0	0	1	0	24

FEMALE

AGE GROUP	SERVICE GROUP										TOTAL
	< 1	1 -4	5 -9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
<20											0
20-24											0
25-29											0
30-34											0
35-39		1									1
40-44				1							1
45-49											0
50-54											0
55-59											0
60-64											0
65-69											0
70-74											0
75+											0
TOTAL	0	1	0	1	0	0	0	0	0	0	2

TOTAL

AGE GROUP	SERVICE GROUP										TOTAL
	< 1	1 -4	5 -9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
<20											0
20-24		4									4
25-29		3	2								5
30-34											0
35-39		1			1						2
40-44				2							2
45-49					2						2
50-54			1		2						3
55-59		1	2	1					1		5
60-64					1						1
65-69			1	1							2
70-74											0
75+											0
TOTAL	0	9	6	4	6	0	0	0	1	0	26

Schedule SB, line 22 – Description Of weighted average retirement age

Age	Retirement Rate	LX Table
55	3.00%	100,000.00
56	3.00%	97,000.00
57	3.00%	94,090.00
58	3.00%	91,267.30
59	3.00%	88,529.28
60	3.00%	85,873.40
61	10.00%	83,297.20
62	30.00%	74,967.48
63	25.00%	52,477.24
64	25.00%	39,357.93
65	40.00%	29,518.45
66	25.00%	17,711.07
67	25.00%	13,283.30
68	25.00%	9,962.48
69	25.00%	7,471.86
70	100.00%	5,603.90
Average Retirement Age		62.90

Schedule SB, Part V – Summary of Plan Provisions

Mercer has used and relied on the plan documents, including amendments, and interpretations of plan provisions, supplied by Associated Benefits Corporation as summarized below. Associated Benefits Corporation is solely responsible for the validity, accuracy and comprehensiveness of this information. If any plan provisions supplied are not accurate and complete, the results of any calculation may differ significantly from the results that would be obtained with accurate and complete information. Moreover, plan documents may be susceptible to different interpretations, each of which could be reasonable, and the results of estimates under each of the different interpretations could vary.

The following is a summary of what we understand to be the most relevant plan provisions for purposes of our valuation; these provisions should not be used for purposes of determining benefits under the plan.

	<u>Contributory Plan</u>	<u>Noncontributory Plan</u>
<u>Effective date</u>	May 1, 1953; amended to comply with ERISA effective May 1, 1975; restated January 1, 2016.	May 1, 1980; restated January 1, 2016.
<u>Participation date</u>	April 1 and October 1	Same.
<u>Plan year</u>	April 1 through March 31	Same.
<u>Eligibility</u>	<p>Employer chooses:</p> <ol style="list-style-type: none"> 1. Employees who work at least 1,000 hours per year are eligible on the April 1st or October 1st following attainment of age 21 and completion of four months of employment. 2. Employees are eligible on the April 1st or October 1st following attainment of age 21. <p>West Central Cooperative (Group 138) – New employees hired on or after January 1, 2006 are not eligible to participate.</p> <p>Five Star Cooperative (Group 168) – Eligibility is attainment of age 18.</p>	<p>Same.</p> <p>NEW Cooperative, Inc. (Group 23) – New employees hired on or after September 1, 2010 are not eligible to participate.</p> <p>Farmers Cooperative Company (Group 76) – New employees hired on or after April 1, 2012 are not eligible to participate.</p> <p>IAHC FC Stone Group, Inc. (Group 201) – New employees hired on or after April 1, 2006 are not eligible to participate.</p> <p>New Vision Coop (Group 205) – New employees hired on or after April 1, 2011 are not eligible to participate.</p>

Schedule SB, Part V – Summary of Plan Provisions

	<u>Contributory Plan</u>	<u>Noncontributory Plan</u>
<u>Employee contribution</u>	Central Valley Ag (Group 327) – Prior to July 1, 2009 employees contributed 3% of their monthly earnings. From July 1, 2009 through August 31, 2014 employees contributed 5% of their monthly earnings. Effective September 1, 2014 employees contribute 4% of their monthly earnings. All other groups - employees contribute 2¼% of their monthly earnings. Several contributory groups currently waive the employee contribution requirement.	No employee contributions.
<u>Contribution account</u>	An account is established for each participant consisting of his employee contributions with interest through April 30, 1975. Employee contributions after May 1, 1975 are added to the Account and the Account is credited with interest. Effective for plan years after March 31, 1988, interest shall be credited at the annual rate of 120% of the Federal mid-term rate for April of the plan year. For 2015, this rate was 2.04%. For 2016, this rate is 1.74%.	N/A.
<u>Monthly earnings</u>	Monthly Earnings are calculated by dividing the prior calendar year total earnings by the number of weeks worked and multiplying the result times 4 1/3 to obtain a monthly rate. Earnings are limited to \$200,000 per year indexed as provided for by law – limit for 2016 is \$265,000.	Same. Note that total earnings include 401(k) and Section 125 elective deferrals.
<u>Average monthly earnings</u>	Plan benefits are computed using the average of the monthly earnings for the highest five consecutive years prior to termination.	Same.

Schedule SB, Part V – Summary of Plan Provisions

	<u>Contributory Plan</u>	<u>Noncontributory Plan</u>
<u>Credited service</u>	Prior to May 1, 1975, Credited Service is the number of years and months from date of hire. Since May 1, 1975, Credited Service is the number of 1,000-hour plan years. If less than 1,000 hours in year of hire or termination, partial credit is given equal to the number of full months worked divided by 12. Employers who adopt the Plan choose whether to grant Credited Service prior to date of adoption.	Same.
<u>Normal retirement date</u>	Participants are entitled to retire and receive their full pension benefit on the first of the month coincident with or immediately following their 65th birthday.	Same.
<u>Normal retirement benefit</u>	<p>The monthly pension is equal to the percent of Average Monthly Earnings specified in the Employer's Adoption Agreement multiplied by years of Credited Service.</p> <p>The following employers (by group number) have selected the 1.55% post March 31, 1994 accrual formula: 32, 71, 122, 138, and 168.</p> <p>The following employers (by group number) have selected the 1.65% post March 31, 1994 accrual formula: 81.</p>	<p>The monthly pension is equal to 1.1% of Average Monthly Earnings multiplied by years of Credited Service.</p> <p>Participants have a minimum benefit equal to the accrued benefit as of the later of March 31, 1989 and the date the Employer adopted the Noncontributory Plan, PLUS 1.1% of Average Monthly Earnings multiplied by years of Credited Service earned after the later of March 31, 1989 and the date of adoption. Section 401(a)(17) Members have an additional minimum benefit equal to the accrued benefit frozen as of 3/31/94 (determined limiting Earnings to \$235,840) PLUS 1.1% of Average Monthly Earnings multiplied by Credited Service after April 1, 1994.</p> <p>The frozen March 31, 1994 accrued benefit is adjusted to reflect increases in the Member's Average Monthly Earnings after March 31, 1994 as allowed by 42 C.F.R. Section 1.401(a)(4)-13.</p>

Schedule SB, Part V – Summary of Plan Provisions

	<u>Contributory Plan</u>	<u>Noncontributory Plan</u>
<u>Normal retirement benefit (cont'd)</u>	<p>Participants have a minimum benefit equal to the accrued benefit frozen as of 3/31/1994 under the prior contributory formula (1.1% of Average Monthly Earnings up to \$400 PLUS 1.65% of Average Monthly Earnings in excess of \$400 multiplied by Credited Service) PLUS the future benefit percent of Average Monthly Earnings specified in the Employer's Adoption Agreement multiplied by years of Credited Service after April 1, 1994.</p> <p>Central Valley Ag (Group 327) – the monthly pension is equal to 1.25% of Average Monthly Earnings multiplied by years of Credited Service through June 30, 2009 plus 1.75% of Average Monthly Earnings multiplied by Years of Credited Service on and after July 1, 2009.</p> <p>For plan years after March 31, 1994, participants are guaranteed a minimum accrual for each plan year. The minimum accrual is equal to one-half of the accrual on the benefit formulas since April 1, 1994 PLUS the benefit deemed to be purchased by employee contributions made since April 1, 1994 under IRC Section 411(c)(2).</p>	<p>NEW Cooperative, Inc. (Group 23) – the monthly pension is equal to 1.4% of Average Monthly Earnings multiplied by years of Credited Service.</p> <p>Green Plains Grain Company LLC (Group 177) – Accruals frozen as of January 1, 2009.</p> <p>IAHC FC Stone Group, Inc. (Group 201) – the monthly pension is equal to 1.25% of Average Monthly Earnings multiplied by years of Credited Service. Accruals frozen as of September 1, 2009.</p>
<u>Form of monthly retirement income</u>	<p>The standard form of receiving monthly retirement income will be for a participant's lifetime. However, if the participant is married and unless he specifically elects the standard form or another alternate form of benefit and his spouse consents, his benefits will be paid on a joint and 50% survivorship basis with 120 guaranteed payments.</p>	<p>Same.</p>

Schedule SB, Part V – Summary of Plan Provisions

	<u>Contributory Plan</u>	<u>Noncontributory Plan</u>
<u>Optional forms</u>	Lifetime with 60, 120 or 180 payments guaranteed. Joint and $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$ or full, with 120 payments guaranteed. 60, 120 or 180 guaranteed payments only. Lump sum, if actuarial value is less than \$5,000.	Same.
<u>Optional form conversion factors</u>	For lifetime annuities: 8% and the 1984 Unisex Pension Mortality Table. For lump sum and certain only annuities: the applicable interest rate under Internal Revenue Code 417(e)(3)(C) for the third calendar month preceding the month that contains the distribution and the applicable mortality table published in accordance with Internal Revenue Code Section 417(e)(3)(B).	Same.
<u>Early retirement benefit</u>	A participant may retire at (i) age 55 with 10 years of service, (ii) age 62 with five years of service, or (iii) any time after the sum of his attained age and service is 85 or more provided that he has at least 20 years of Credited Service and his last five years of service count as Credited Service. The benefit is calculated in the same manner as the normal retirement benefit, based on Credited Service to early retirement. If the participant qualifies under the rule of 85 described in (iii) above, there is no reduction in the benefit. Otherwise, the benefit is reduced 1/300 for each month by which the early retirement date precedes age 62.	Same.

Schedule SB, Part V – Summary of Plan Provisions

Termination benefit (vested)

Contributory Plan

Employer chooses:

1. Participants who terminate employment after completing five years of service are 100% vested in their accrued benefit which is payable at age 65.

Employers with this vesting schedule (by group number): 32, 81, 138, 168, and 327.

Participants are vested in accordance with the following schedule:

<u>Years of service</u>	<u>Vested %</u>
Less than 2 years	0%
2 years	20%
3 years	40%
4 years	60%
5 years	80%
6 years or more	100%

Employers with this vesting schedule (by group number): 71

Participants who are not vested are entitled to their Employee Contribution Benefit payable at age 65. At the time of termination, a participant may, by written request receive his Contribution Account. His accrued benefit is reduced by the portion of the benefit funded by his Contribution Account.

A terminated participant with 5 or more years of Service but less than 10 years of Service may elect immediate commencement of the vested benefit any time after attaining age 62, without reduction. A terminated participant with 10 or more years of Service may elect immediate commencement of the vested benefit any time after attaining age 55, reduced by 1/300th for each month of the commencement date precedes age 62. No reduction applies if the participant meets the Rule of 85 described above.

Noncontributory Plan

Same.

Employers with 5-year cliff vesting (by group number): 23, 76, 170, 175, 190, 205, 226, 258 and 351

Employers with graded vesting (by group number): 36, 78, 135, 156, 177, 201, 223, 229, 302, and 345

Schedule SB, Part V – Summary of Plan Provisions

	Contributory Plan	Noncontributory Plan
<u>Death benefit</u>	<p>The spouse or beneficiary of a participant who dies after becoming eligible for early or normal retirement is entitled to receive a death benefit equal to the greater of the Actuarial Value of i) the survivor income payable had the participant retired and elected the joint and 100% survivor option on the first day of the month preceding his death, and ii) the participant's accrued benefit payable for 60 months.</p> <p>If an active participant dies prior to meeting eligibility requirements for early or normal retirement, the spouse or beneficiary is entitled to receive a death benefit equal to the greater of the Actuarial Value of i) the survivor income payable had the participant terminated employment and immediately began receiving benefits under 50% Joint & Survivor option, and ii) the member's accrued benefit payable for 60 months.</p> <p>If survived by a spouse, the death benefit is paid as a life annuity equivalent in value to the greater of the Actuarial Values. The spouse may elect to receive the benefit as a 60 month certain annuity. If not survived by a spouse, the death benefit is paid as a 60 month annuity.</p> <p>Such death benefit shall be paid first to the beneficiary designated by the participant. If no beneficiary is designated, it is paid first to the surviving spouse; if there is no surviving spouse, then in equal parts to the surviving children of the member; or if there are no surviving children, then in equal parts to the surviving parents of the member; or if there are no surviving parents, then in equal parts to the surviving siblings of the member. The death benefit is payable to the member's estate if the member is not survived by a spouse, child, parent, or sibling and has not designated a beneficiary.</p>	<p>Same.</p>

Schedule SB, Part V – Summary of Plan Provisions

	<u>Contributory Plan</u>	<u>Noncontributory Plan</u>
<u>Disability benefit</u>	If a participant is determined to be totally and permanently disabled, he is entitled to an immediate monthly income equal to his accrued benefit reduced 1/300 per month for each month prior to age 62 down to age 55 and actuarially thereafter. A minimum monthly benefit of \$50.00 is payable to a participant with at least five years of Credited Service at date of disability.	Same.
<u>Late retirement</u>	Benefit at actual retirement is based on Credited Service and Average Monthly Earnings to termination date.	Same.
<u>Maximum benefits</u>	Annual benefits may not exceed the limits in IRC Section 415. This limit is indexed annually. For 2016, the limit is \$210,000.	
<u>Changes since prior valuation</u>	None, except for changes in the maximum compensation and maximum benefit limits.	
<u>Benefits not included in the valuation</u>	To the best of our knowledge, no benefits were excluded from the valuation.	
<u>Significant events</u>	None.	

Schedule SB, Part V – Statement of Actuarial Assumptions / Methods

Actuarial Assumptions

Interest

Funding			
Segment rates or full yield curve	Segment		
Look-back months	0 for all groups except 138; 4 for group 138		
	Stabilized	Nonstabilized (except 138)	Nonstabilized (138 only)
First 5 years	4.43%	1.47%	1.39%
Next 15 years	5.91%	3.92%	3.98%
Over 20 years	6.65%	4.92%	5.00%

These rates were updated since the prior valuation, as prescribed by the IRS.

Expenses

Administrative related expenses (actuarial fees, PBGC premiums, and legal fees) assumed to equal \$64 per participant plus 0.08% of the market value of assets. This is based on analysis of expenses paid in the 2013-2014 plan year. The per participant expense assumption is equal to the current year flat-rate PBGC premium, and is updated annually.

Mortality

Section 430(h)(3) prescribed separate static annuitant and nonannuitant tables for the valuation year. These tables are based on the RP 2000 mortality tables projected with mortality improvement to the valuation year plus 7 and 15 years based on Scale AA.

Turnover

Based on select rates of turnover for the first four years of service and ultimate rates thereafter. Turnover rates reflect findings from the analysis of plan experience for the 2007-2010 valuation years. Sample rates are shown below.

Plan: The Restated Noncontributory Retirement Plan for Cooperatives

Group: 226

EIN/PN: 42-0484570/20

Schedule SB, Part V – Statement of Actuarial Assumptions / Methods

Age	Rate of turnover				
	Completed years of service				
	0	1	2	3	4+
25	25.00%	25.00%	20.00%	15.00%	11.00%
30	25.00	25.00	20.00	15.00	11.00
35	20.00	20.00	15.00	15.00	8.66
40	20.00	20.00	15.00	15.00	7.31
45	16.00	16.00	12.00	8.00	6.00
50	16.00	16.00	12.00	8.00	4.75
55	12.00	12.00	10.00	8.00	4.00
60	12.00	12.00	10.00	8.00	4.00

Disability None assumed.

Expected Return on Plan Assets Varies based on which asset pool the plan sponsor is invested in on the valuation date.

- Pool A 7.50%
- Pool B 6.25%
- Pool C 4.75%

As of April 1, 2016, assets for groups 78 and 201 were in Pool B, and assets for all other groups in this valuation were in Pool A.

The expected rate of return on plan assets is based on a blend of hypothetical past performance of each pool's target asset mix and the median simulated investment return using capital market assumptions published in Mercer Investment Consulting's *Capital Markets Outlook* for each pool's target asset mix. This assumption is net of an adjustment of 25 basis points for investment expenses.

Schedule SB, Part V – Statement of Actuarial Assumptions / Methods

Salary increases Salaries will increase according to an age-related table ranging from 8.25% down to 2.75% per annum. Illustrative future salary increase information is as follows:

<u>Age</u>	<u>Salary increase</u>
20	8.25%
25	7.50%
30	6.25%
35	5.50%
40	5.00%
45	4.25%
50	4.00%
55	3.75%
60	2.75%
65	2.75%

The salary increase assumption reflects findings from the analysis of plan experience for the 2007-2010 calendar years.

Incidence of retirement

No special retirement rates apply for Rule-of-85 retirements.

<u>Age</u>	<u>Rate of Retirement</u>
55	3%
56	3
57	3
58	3
59	3
60	3
61	10
62	30
63	25
64	25
65	40
66	25
67	25
68	25
69	25
70 & Over	100

For employees who become eligible to retire prior to age 55, turnover rates are used.

For frozen groups 177 and 201, same assumptions until eligible for unreduced retirement, but then 100% at unreduced retirement age.

Schedule SB, Part V – Statement of Actuarial Assumptions / Methods

Retirement rates reflect findings from the analysis of plan experience for the 2007-2010 valuation years.

Spouse's benefit 80% of all employees are assumed married with husbands two years older than their wives.

Form of payment 1/3 of participants are expected to commence benefits as a Life Only annuity, 1/3 as a 100% J&S annuity, and 1/3 as a 5-Year Certain annuity

Commencement for vested terminations Age 62

Contingency fund charge 0.3726% of covered payroll (0.3029% in prior valuation). Details of this calculation are provided in the Preliminary Results report dated June 2016.

Conversion basis For the Contributory Plan, contribution accounts are converted to equivalent monthly benefits using segmented interest rates and the mortality table described above.

Interest earned by employee contributions

Year	Interest rate
2014	2.25%
2015	3.00%
2016	3.75%
2017	4.50%
2018	5.00%
2019 and later	5.50%

These rates are based on five-year bond yields implied from the IRS Funding Yield Curve for April 2014.

Inflation The inflation assumption used to project the maximum salary limitation for future years is 2.2% (previously 3.0%). This assumption is based on the inflation assumption periodically published by Mercer Investment Consulting in their *Capital Markets Outlook* and historical averages.

Schedule SB, Part V – Statement of Actuarial Assumptions / Methods

Actuarial Methods

An actuarial valuation is only a snapshot of a plan's estimated financial condition at a particular point in time; it does not predict the plan's future financial condition or its ability to pay benefits in the future and does not provide any guarantee of future financial soundness of the plan. Over time, a plan's total cost will depend on a number of factors, including the amount of benefits the plan pays, the number of people paid benefits, the period of time over which benefits are paid, plan expenses and the amount earned on any assets invested to pay benefits. These amounts and other variables are uncertain and unknowable at the valuation date.

Because modeling all aspects of a situation is not possible or practical, we may use summary information, estimates, or simplifications of estimates to facilitate the modeling of future events in an efficient and cost-effective manner. We may also exclude factors or data that, if used, in our judgment, would not have significantly affected our results. Use of such simplifying techniques does not, in our judgment, affect the reasonableness of valuation results for the plan.

Valuations do not affect the ultimate cost of the plan, only the timing of when benefit costs are recognized. Cost recognition occurs over time. If the costs recognized over a period of years are lower or higher than necessary, for whatever reason, normal and expected practice is to adjust future cost levels to recognize the entire cost of the plan over time.

Asset Valuation Method

The asset valuation method is an average of the adjusted market value for each year during the last 2 years preceding the valuation date. The adjusted market value is the market value at each determination date adjusted to the valuation date based on actual cash flows and expected interest at the lesser of the expected rate of return and the third segment rate. This amount is adjusted to be no greater than 110 percent and no less than 90 percent of the fair market value, as defined in IRC Section 430.

A characteristic of this asset method is that over time, it is slightly more likely to produce an actuarial value of assets that is less than the market value of assets than an actuarial value that is greater than the market value.

Participant Methods

Participants or former participants are included or excluded from the valuation as described below:

- (a) **Participants included:** Associated Benefits Corporation provides us with data on only those employees who have completed the eligibility requirements so only participants are included in the valuation of the liabilities.
- (b) **Participants excluded:** No actuarial liability is included for nonvested participants who terminated prior to the valuation date.
- (c) **Insurance contracts:** The plan does not have any insurance contracts.
- (d) **Transferred participants:** The liabilities for benefits earned prior to their transfer by employees who have transferred to another Associated Benefits Corporation employer

Schedule SB, Part V – Statement of Actuarial Assumptions / Methods

have been included with the liabilities for terminated vested participants at their former employer.

- (e) **Nonvested terminated participants:** Benefits for return of employee contributions were estimated for four nonvested terminated participants. These participants are included in the data exhibits as vested terminations.

Actuarial Cost Method

Minimum Funding Method

Target liability for minimum funding calculations is computed using the traditional unit credit method of funding. The objective under this method is to fund each participant's benefits under the plan as they accrue. Thus, the total pension to which each participant is expected to become entitled at retirement is broken down into units, each associated with a year of past or future credited service.

A detailed description of the calculation follows:

- The plan's valuation date is the beginning of the plan year.
- An individual's **funding target** is the present value of future benefits based on credited service and average pay as of the beginning of the plan year, and an individual's **target normal cost** is the present value of the benefit expected to accrue in the plan year. If multiple decrements are used, the funding target and the target normal cost for an individual is the sum of the component funding targets and target normal costs associated with the various anticipated separation dates.
- The plan's **target normal cost** is the sum of the individual target normal costs, and the plan's **funding target** is the sum of the individual funding targets for all participants under the plan.

Plan: The Restated Noncontributory Retirement Plan for Cooperatives

Group: 226

EIN/PN: 42-0484570/20

Schedule SB, Line 24 – Change in actuarial assumptions

Administrative Expenses

The per participant administrative related expenses was changed from \$57 per participant to \$64 per participant.

Plan Name: The Restated Noncontributory Retirement Plan for Cooperatives
Plan Sponsor EIN: 42-0484570
ERISA 3-digit Plan #: 020
Plan Year Ending: 03/31/2017

The required attachment marked with an "X" in the Attachment column is included within the Schedule SB – Single-Employer Defined Benefit Plan Actuarial Information pdf attachment to Form 5500 or Form 5500-SF, Part VI, line 11 which consists of the entire actuarial information issued by the plan's Actuary.

Form/Schedule	Line #	Description	Attachment
5500 Sch. SB		Actuarial Assumptions and Methods	X
5500 Sch. SB		Summary of Plan Provisions	X
5500 Sch. SB		Statement of Enrolled Actuary	X
5500 Sch. SB	7	Explanation of Discrepancy in Prior Year Funding Standard Carryover Balance or Prefunding Balance	
5500 Sch. SB	18	Contributions	
5500 Sch. SB	19	Discounted Employer Contributions	
5500 Sch. SB	22	Description of Weighted Average Retirement Age	X
5500 Sch. SB	24	Change in Actuarial Assumptions	X
5500 Sch. SB	25	Change in Method	
5500 Sch. SB	26	Schedule of Active Participant Data	X
5500 Sch. SB	32	Schedule of Amortization Bases	

Plan Name: The Restated Noncontributory Retirement Plan for Cooperatives
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