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# Impacts of Section 199A and Profit Distribution on Representative Marketing Cooperatives

Phil Kenkel, Bill Fitzwater Cooperative Chair. Oklahoma State

Greg McKee, University of Nebraska

Mike Boland, University of Minnesota

Keri Jacobs, Iowa State University

# The Tax Cuts and Jobs Act of 2017

- Reduced corporate taxes from a maximum rate of 35% to a flat rate of 21%
- Eliminated the Domestic Production Activities Deduction (DPAD)
- Created a new Section 199A deduction for agricultural cooperatives

# Section 199A

- Cooperative level deduction equal to the lesser of 9% of qualified business income (QBI) or 50% of W-2 wage expense
- Cooperatives can structure commodity payments as per unit retains paid in money (PURPIN) and not deduct commodity payments from QBI
- Cooperatives can retain or pass on the Section 199A deduction
- Farmers and other non-corporate businesses receive a 20% “pass through entity deduction” on qualified business income
- Farmers marketing through a cooperative face an offset in their pass through entity deduction of the lesser of 9% of QBI or 50% of W-2 wages
- Farmer offset is not related to the amount of the Section 199A deduction passed on by the cooperative

# Question Raised by TCJA

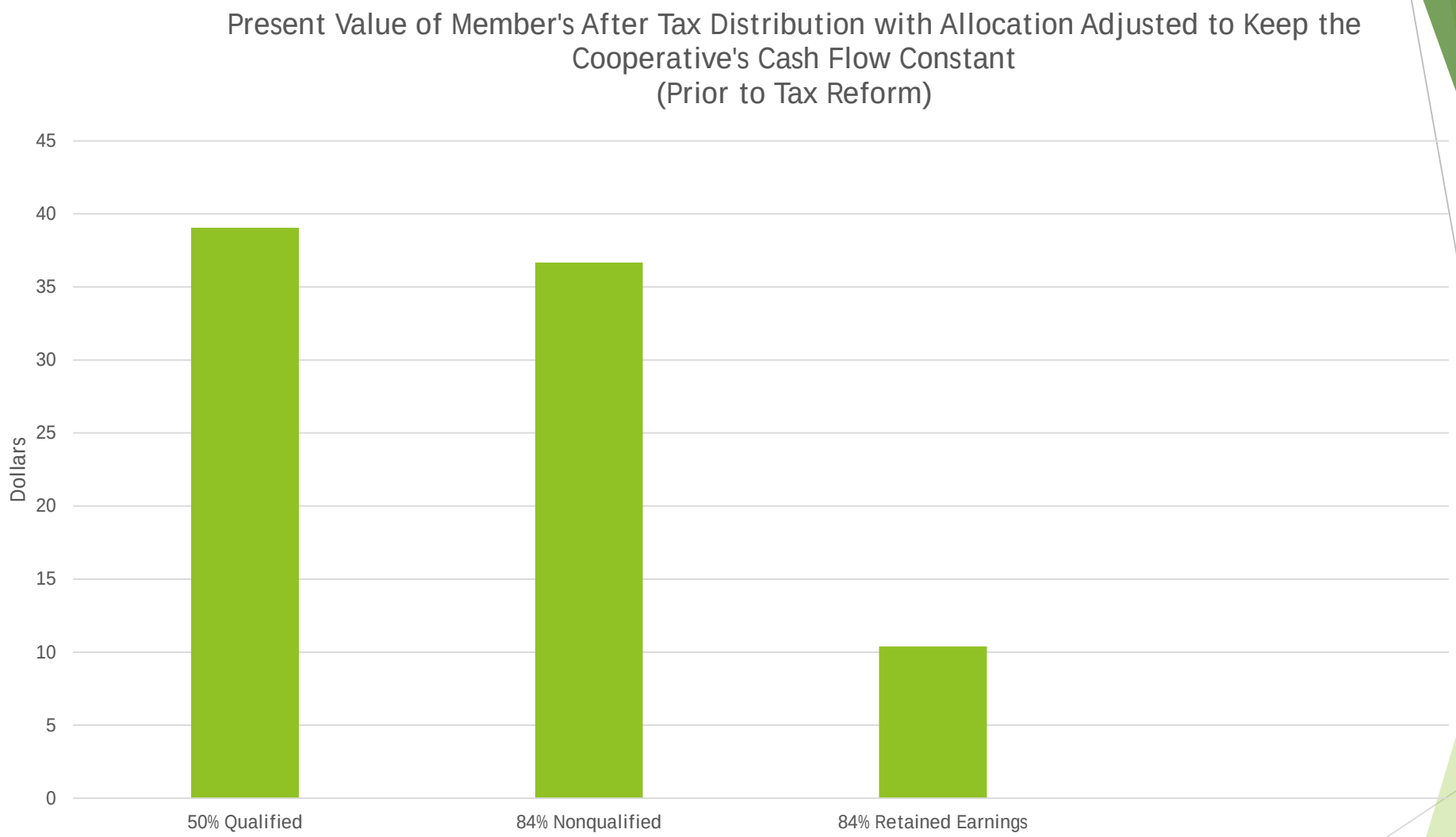
- (1) Has the change in tax rates effected the optimal profit distribution choices of cooperatives?
- (2) What level of Section 199A pass through is needed to keep a producer marketing through a cooperative equivalent with a producer marketing through a non-cooperative firm?
- (3) How do the decisions on patronage distribution and Section 199A effect the cooperative and the producer?
- Our approach in examining these questions is to consider the member's benefit from the cooperative and the cooperative's sustainable growth rate.

# Overview of Cooperative Taxation

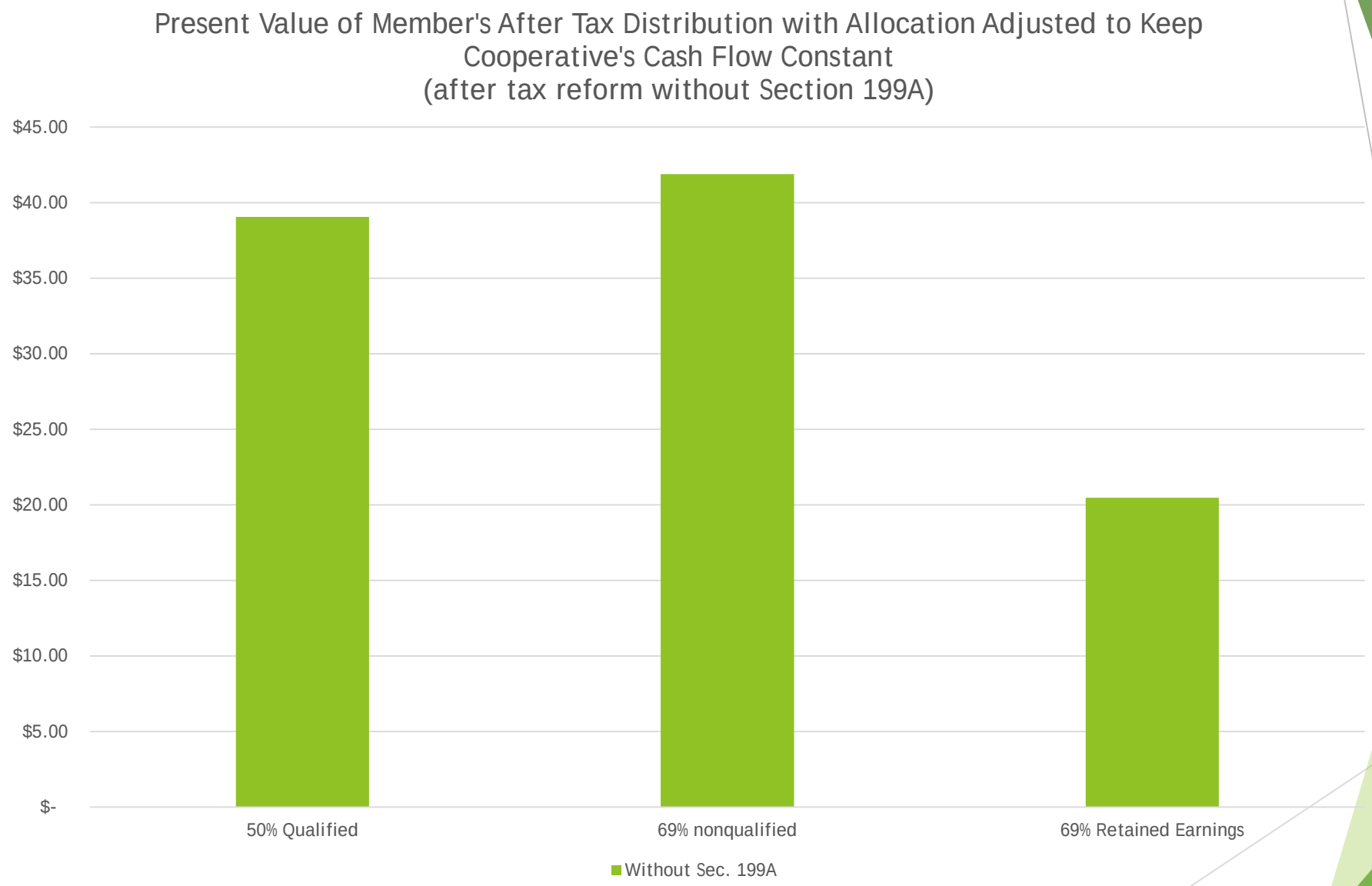
- A cooperative computes its taxes similar to other corporation but can deduct cash and revolving equity patronage.
- Any remaining income including non-member profits and member profits retained as unallocated retained earnings are taxed at the corporate rate.
- The member pays taxes on the distributed profits from the cooperative
- Qualified revolving equity is tax deducible to the cooperative and taxable to the member in the year issued
- Nonqualified revolving equity is tax deductible to the cooperative and taxable to the member in the year the equity is redeemed

# Analysis of Profit Distribution Choices

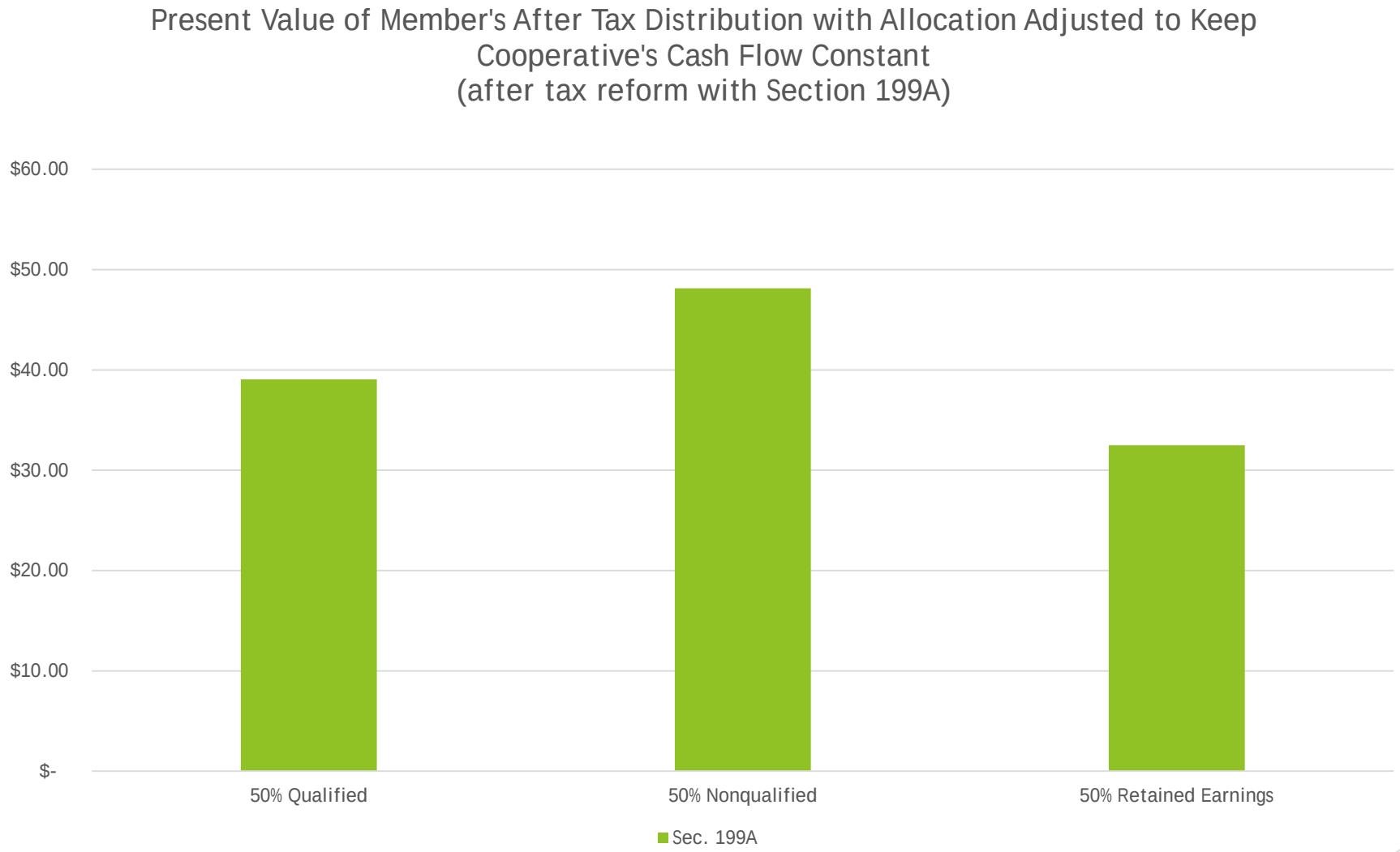
- Adjust the cash patronage percentage such that the cooperative has the same cash flow across all alternatives
- Determine the cash received and tax paid by the member in both the current year and the year the equity is revolved
- Adjust the revolving year cash inflows and outflows for the time value of money
- Calculate the present value of the after tax income from alternative profit distributions with the cooperative cash flow constant
- This simple approach considers timing and tax effects and doesn't require any assumptions about the cooperative




Assumes cooperative tax rate (federal and state) of 41%, member tax rate of 35%, 20 year revolving period 5% time value of money. Prior to TCJA retaining funds as qualified equity maximized member return.




Assumes 27% cooperative tax rate, 35% member tax rate, 20 year revolving period, 5% time value of money
After TCJA retaining profits as nonqualified equity is preferable




Assumes 27% cooperative tax rate, 35% member tax rate, 20 year revolving period, 5% time value of money. If the cooperative can retain part of the Section 199A deduction the advantage to nonqualified increases

# Has the change in tax rates effected the optimal profit distribution choices of cooperatives?

- Non qualified revolving equity provides a 7% higher return to the member relative to qualified equity at the same cash flow to the cooperative
- If the cooperative retains enough Section 199A to offset the potential taxes from retaining nonqualified equity the advantage of nonqualified over qualified increases to 23%
- Retaining funds as unallocated retained earnings reduces the member's potential return by 51% without Section 199A and 32% with Section 199A with no advantage to the cooperative's current year cash flow
- Tax rate changes have made nonqualified revolving equity the most logical choice for retaining profits!

# Section 199A Pass Through Needed to Keep Cooperative Producers Equivalent with Producers Marketing Through Non-Cooperatives

- Producers offset is the lesser of 9% of QBI or 50% of W-2 wages and wage restriction is likely binding
- Producers with no W-2 wages will face no offset
- The potential offset for a typical corn and soybean producers was calculated using Iowa State Farm Costs and Returns data

| | Corn | Soybeans |
|---|---|---|
| Yield (bushels) | 214 | 60 |
| Price/bushel | $ 3.28 | $ 9.32 |
| Revenue/acre | $ 701.92 | $ 559.20 |
| W-2 Wages/acre | $ 11.51 | $ 9.32 |
| Other expenses/acre | $ 591.32 | $ 447.83 |
| Qualified Production Income/acre | $ 99.09 | $ 102.05 |
| 20% QPI/acre | $ 19.82 | $ 20.41 |
| 50% W-2 Wages/acre | $ 5.76 | $ 4.66 |
| Binding offset (W-2 Wages)/acre | $ 5.76 | $ 4.66 |
| Offset per bushel | $ 0.03 | $ 0.08 |
| Section 199A at Cooperative Level/bushel | $ 0.08 | $ 0.08 |
| %Section 199A Pass Through Needed/bushel | 34% | 97% |
| Percent of total production (2017) | 89% | 11% |
| Weighted Average Pass Through Needed | 41% | |
| Pass Through Needed $/bushel | $ 0.032 | |

Typical producers needs around $.03/bushel pass through from the cooperative which We will show is around 41% of the cooperative's total deduction

# (3) How do the decisions on patronage distribution and Section 199A effect the cooperative and the producer?

- Analyzed using representative corn and soybean cooperative and a separate representative wheat marketing cooperative
- Baseline scenario was 50% cash and 50% nonqualified revolving equity profit distribution, 50% Section 199A retained by the cooperative and a 20 year equity revolving cycles
- Impacts of alternative profit distribution choices, Section 199A retention choices and equity revolving cycles were systematically analyzed
- Member benefit was measures by current year return from the cooperative (cents per bushel) and Internal Rate of Return (IRR) over 30 year time horizon
- Cooperative benefit was measured by the sustainable growth rate

# Sustainable Growth Rate

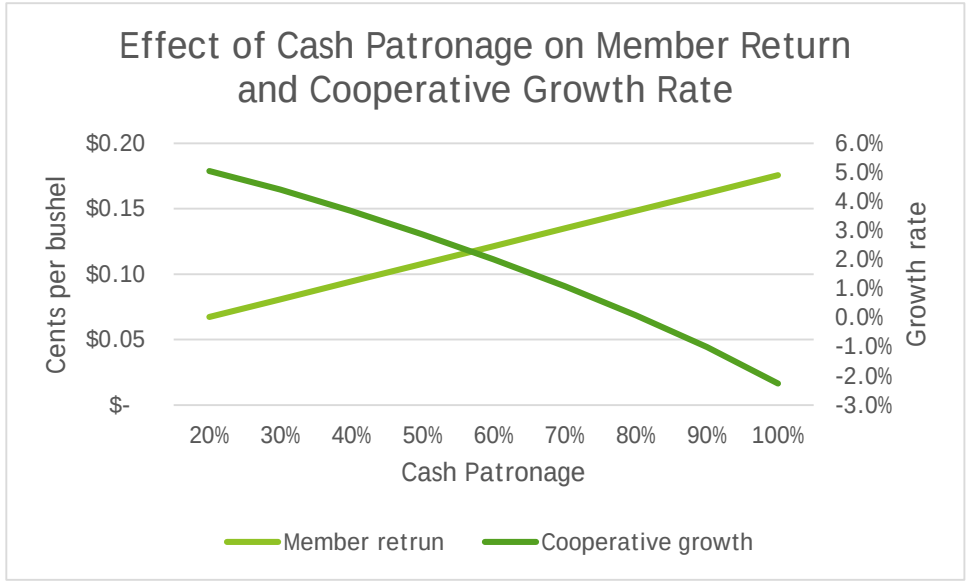
- Common metric for investor owned firms
- Rate at which the cooperative can grow using retained profits while keeping the debt/asset ratio constant
- Calculated as Return on equity x Retention Ratio where the retention ratio = cash patronage rate plus revolving equity payments as a percent of current income
- = ROE x the percent of profits that you are retaining in the cooperative

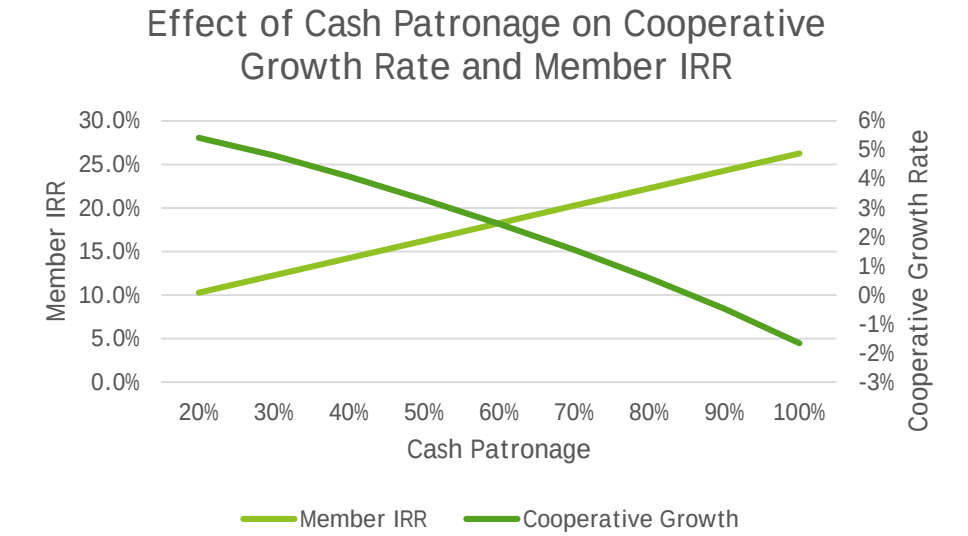
# Representative Corn and Soybean Marketing Cooperative

- Created from information from Co-metrics.
- Price, volume, margin and expense information based on a 7 year time series of financial information from a cooperative determined to be representative. Maintenance, depreciation, insurance and property taxes model as percent of fixed assets and accounts receivable, inventory and regional patronage model as percent of farm supply sales.
- Simulation program developed at Oklahoma State University used to create a 30 year set of pro-forma financial statements with modeling of revolving equity payments.
- The simulations were focused on various combinations of cash and nonqualified equity. A 20 year age of stock revolving fund was used for the baseline with 10, 15 and 25 year revolving programs also modeled.

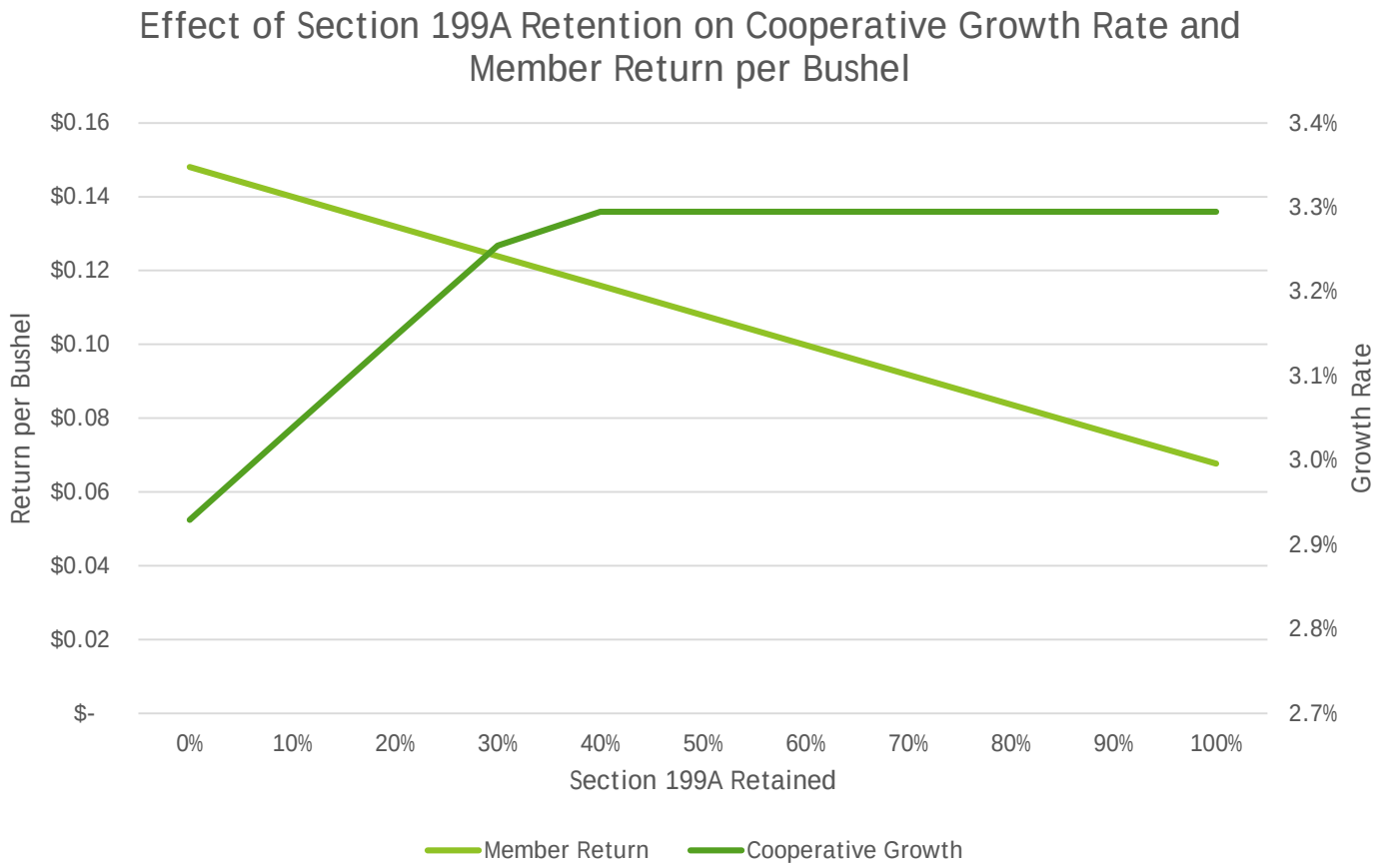
# More Assumptions and Comments

- The maximum Section 199A credit available to the cooperative was limited to 50% of the W-2 wages. Total personnel expense was adjusted for 30% benefits and 85% member business resulting in a credit of 29.8% of personnel expense
- The cooperative currently has a ratio of allocated equity to total equity of 35%. If the existing profit distribution structure was maintained allocated equity would be less than 25% of total equity within 10 years. At 50% cash and 50% nonqualified the ratio of allocated equity to total equity increases to 48% over that 10 year time period.

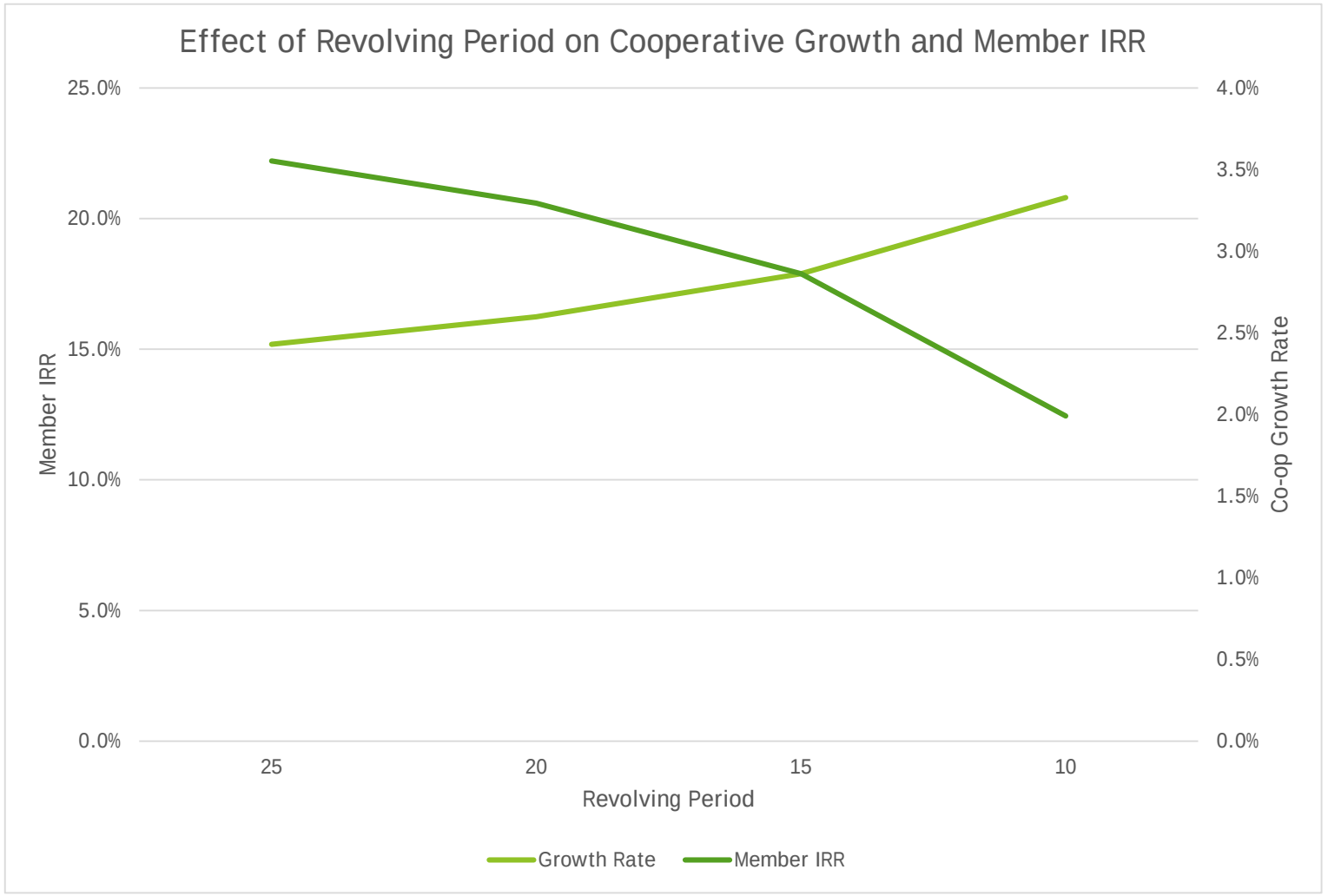



Cash patronage has a major effect on cooperative growth and member return.
Current year member return ($/bushel) shows the same pattern as IRR which considers a 30 year time span.
We will subsequently use the simpler measure of member return per bushel.

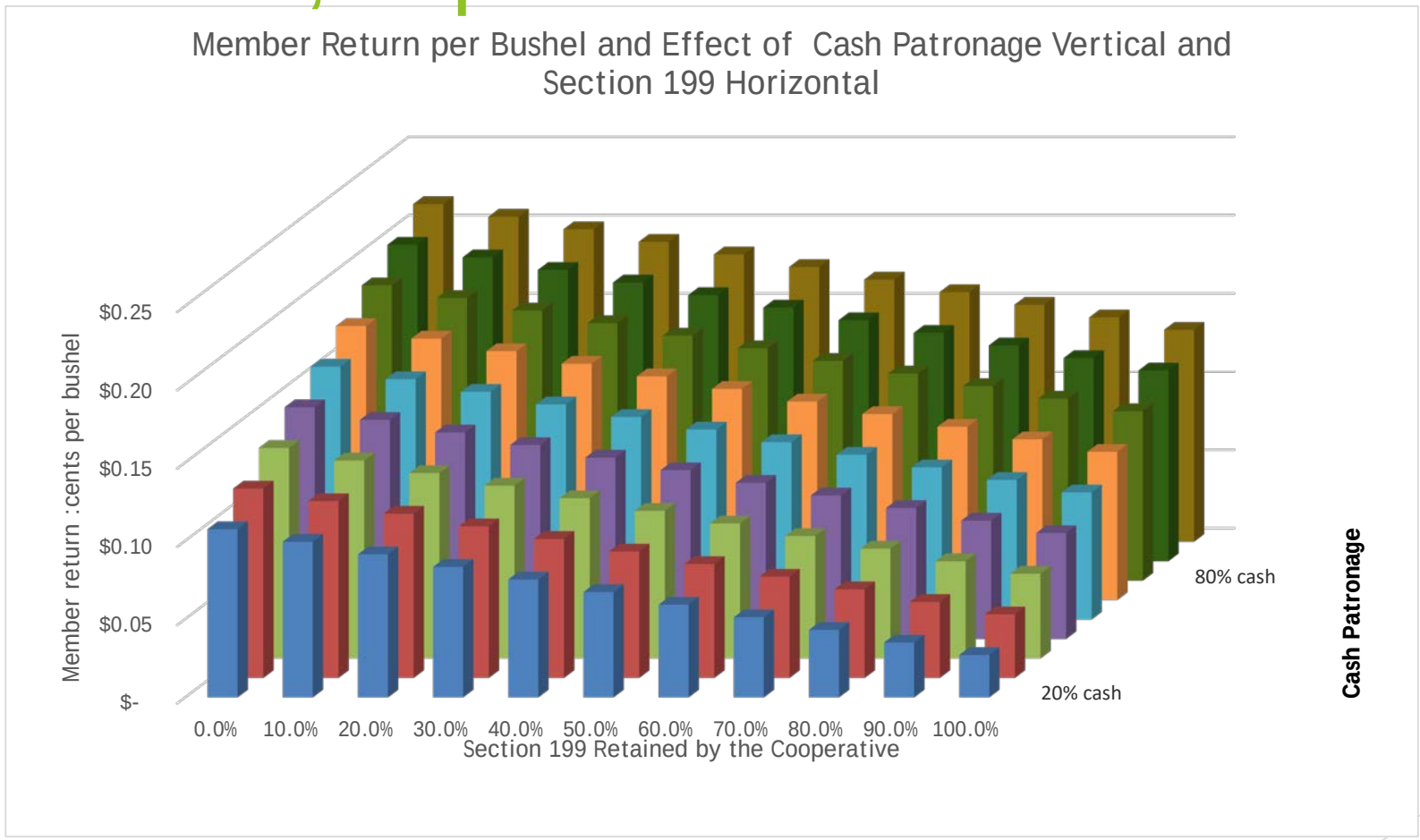



Retaining the Section 199A deduction improves the cooperatives growth rate and reduces the Member's return. However the advantage to the cooperative plateaus at the level where the tax deduction equals the potential taxes from retaining profits as nonqualified equity. This graph is at the baseline profit distribution of 50% cash and 50% nonqualified equity. Section 199A retention has A more moderate impact on both the growth rate and member return relative to cash patronage.



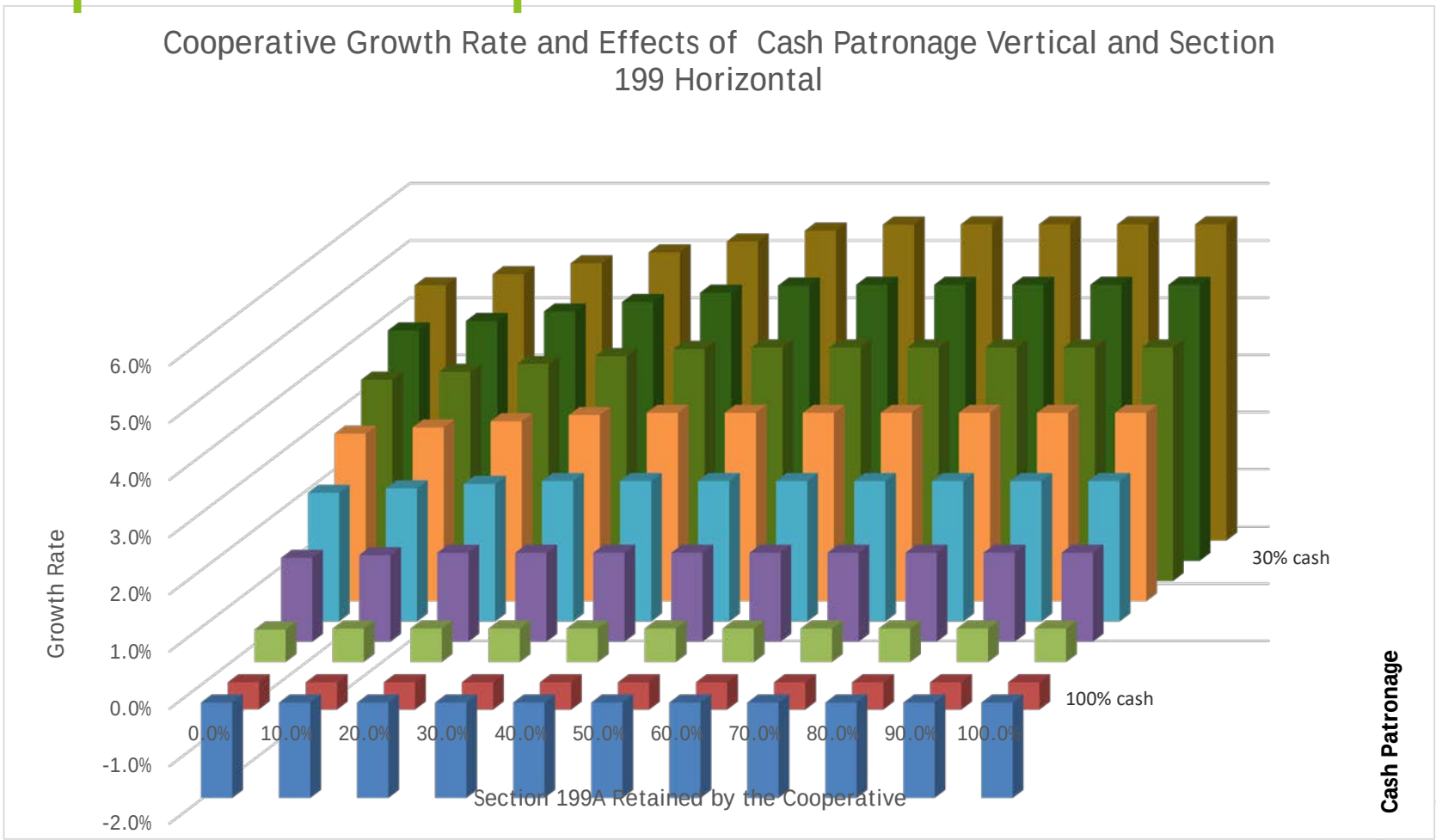

Revolving period has the least dramatic impact on cooperative growth and Member return

# All Combinations of Patronage and Retention, Impact on Member Return




Consistent effect. Member return is increased with higher cash patronage and higher Section 199A pass through

# All Combinations of Patronage and Retention, Impact on Cooperative Growth Rate




Cooperative growth is improved with lower cash patronage and higher retention of Section 199A

Advantage of Section 199A reaches a plateau but the plateau occurs later as the cash patronage level is reduced since the cash patronage is creating a tax deduction

# Summary of Patronage Impacts

- Cash patronage has the largest impact on the cooperative's growth rate changing it from -1.7% at 100% cash to 5.4% at 20% cash. At cash patronage levels above 70% the cooperative has negative growth.
- Cash patronage also has the largest impact on the member's return increasing it from $.07/bushel at 20% cash to $.18/bushel at 100% cash, although 100% cash patronage is clearly not feasible

# Summary of Section 199A Retention Impacts

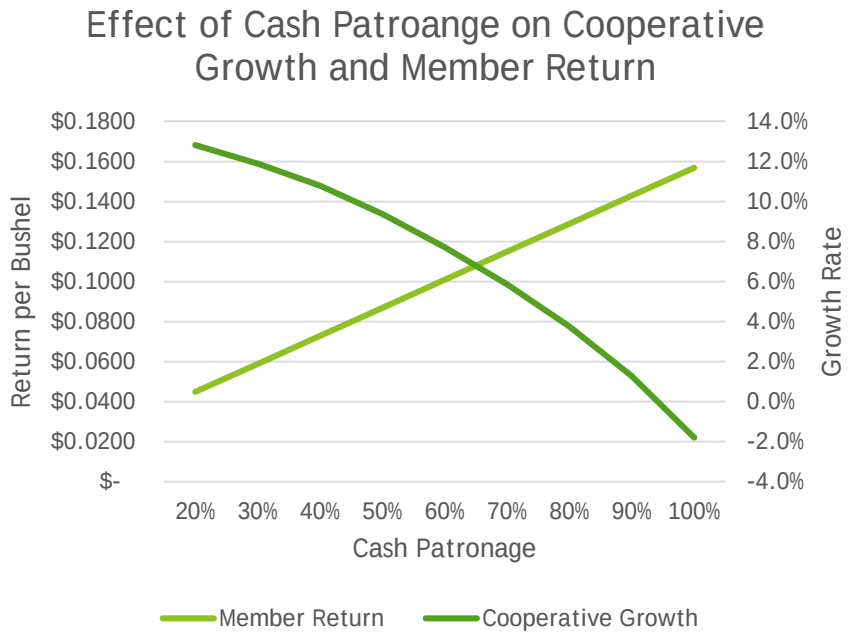
- Member's benefit increases from $.07/bushel when the cooperative retains 100% of the Section 199A to $.15/bushel when the cooperative passes on 100% of the Section 199A deduction (at 50% cash patronage)
- Cooperative growth rate falls from 3.3% when the cooperative retains 100% of the Section 199A to 2.9% when the cooperative retains 0% of Section 199A (at 50% cash patronage)
- At 50% cash patronage our representative cooperative needs to retain 30% of the Section 199A deduction to offset the taxes from the 50% of profits retained as nonqualified equity.

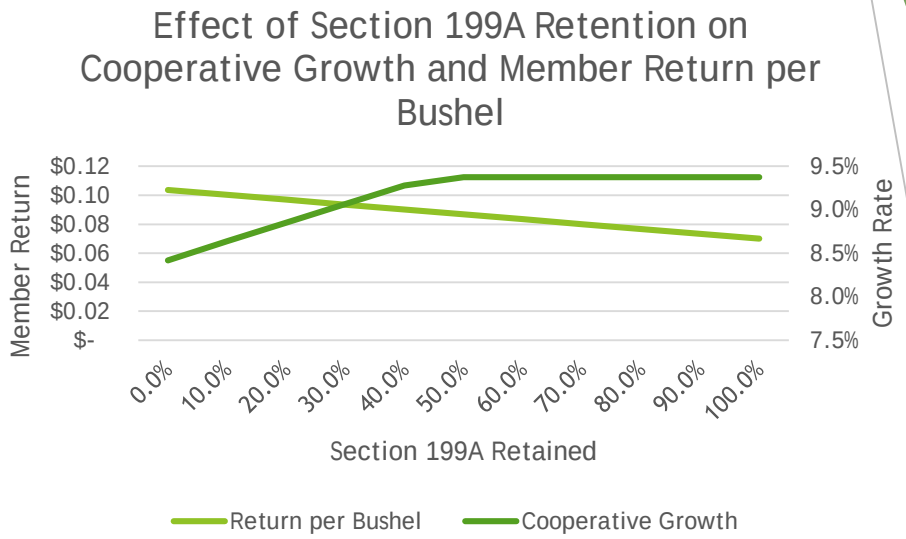
# Representative Wheat Cooperative

- Second set of simulations performed on representative wheat cooperative
- Similar format using data from a representative case study cooperative in Oklahoma
- While the size and structure of the cooperative was different the Section 199A pass through per bushel, patronage per bushels and cooperative growth rates were similar

# Wheat producers with W-2 wages may need a significantly higher pass through

| Wheat-Enterprise Data Kansas Farm Management Association | | |
|---|---|---|
| Yield (bushels) | | 30.7 |
| Price/bushel | $ | 6.33 |
| Revenue/acre | $ | 192.50 |
| W-2 Wages/acre | $ | 4.43 |
| Other Expense/acre | $ | 155.47 |
| Qualified Production Income/Acre | $ | 37.03 |
| 20% QPI/acre | $ | 7.41 |
| 50% W-2 Wages/age | $ | 2.22 |
| | | |
| Binding offset (W-2 wages) | $ | 2.22 |
| Offset per bushel | $ | 0.07 |
| | | |
| Section 199A at Cooperaive Level/Bushel | $ | 0.07 |
| Pass Through Needed % | | 99% |




Representative wheat cooperative demonstrates similar effects. At 50% cash patronage the cooperative needs to retain around 50% of the Section 199A deduction. Producer calculations suggest that producer may need 80%-100% to be equivalent suggesting a more difficult balancing act. However W-2 wage/acre is very bimodal with many producers having little or no W-2 wages

# Conclusions and Implications for Cooperative Boards

- Boards need to consider retaining funds as nonqualified equity
- Retaining funds as unallocated equity clearly reduces member return
- In balancing the growth of the cooperative and member return cash patronage is the most important consideration
- Section 199A retention decisions also involve a tradeoff between cooperative growth and member return but many cooperatives may be able to retain what they need at the cooperative level and still pass on enough to keep their member equivalent

# Final Thoughts

- In general boards should strive to retain the cash and deductions needed for stability and strategic growth and return the residual in the form most beneficial to the member
- Each producer's situation will be different.  There potential offset will depend on their W-2 wages and some may not even be able to take advantage of all of the Section 199A deduction passed through
- Cooperatives should be cautious on competing on the basis of cash patronage or Section 199A pass through but instead stress their entire long-run value package