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Abstract

Wyoming is notable for its lack of agricultural cooperatives. This study identifies factors that might have hindered cooperative development in the state and explores the potential for new cooperative models in Wyoming. Institutional theory provides the conceptual framework. Responses to survey questions suggest Wyoming producers are favorable toward cooperative development. However, knowledge of investment in new value-added cooperatives is lacking. A comparison of Wyoming statutes authorizing cooperative organization with other Northern Plains states identified a few discrepancies that might impede cooperative development. Coordination of state and federal resources would be beneficial.

Introduction

It seems curious that American farmers and ranchers, renowned for their strong beliefs in self-help, the free market and private ownership also would be known for organizing collective enterprises. In spite of deep-rooted independent values, the weak market position an individual producer holds when facing consolidated dealers and brokers creates a strong incentive to join forces. Developing out of economic need, American cooperative models are pragmatic and market minded. Through voluntary membership, democratic control and ownership traced to individuals, American models of cooperative business have long allowed individual producers collective access and power in capitalist markets. American farmers and ranchers have often employed collective action as a means to remain prosperous and independent in capitalist markets. But why have cooperatives evolved in some areas and not in others?

The primary goal of this study is to explore the potential for new agricultural cooperative models in Wyoming. Within the Northern Plains region, as well as nationally, Wyoming is notable for a lack of agricultural cooperatives. With comparable land area and population, North Dakota is ranked second in the nation for its 268 farmer cooperatives, while Wyoming's mere 13 put it near the bottom (USDA NASS 2001). With accelerating changes in today's agricultural

markets threatening to put many of the state's family-owned ranches and farms out of business, this may be an opportune time for Wyoming producers to reconsider cooperative business.

In order to identify factors that might have hindered cooperative development in Wyoming, this study began by addressing the question: What accounts for differences in cooperative innovation, development and success in particular areas within the Northern Plains region? In answering this, conclusions were drawn about the potential for new cooperative enterprises in Wyoming and what changes are needed to meet producer needs and goals in the state. This analysis should give some insight in to how new development efforts can best be best promoted and assisted.

Early Cooperatives in Wyoming – A Historical Perspective

Not surprisingly, the earliest and most persistent cooperative organizations in Wyoming were livestock associations. In 1871 the Wyoming Stock and Wool Growers Association was formalized by “pioneer stockmen for the general advancement of cattle and sheep growing.” Their more particular ambitions included “the detection, arrest and conviction of stock thieves and the purchase of rope with which to hang them” (Larson 1990, 168). The group's successor, the Wyoming Stock Growers Association, excluded sheep growers but grew rapidly out of an aggregation of county cattlemen groups after 1879. As the cattle boom crested in 1885 it claimed to be the largest cattle association in the world (Mercer [1894] 1954).

Smaller Wyoming ranchers organized several retaliatory groups to protect themselves from exclusion, harassment and vigilante raids. In 1883 the Johnson County Small Dealers Association vowed to resist the Wyoming Stock Growers, whom they charged with “oppressing small owners, stealing their stock and trying to drive them out of the country” (Mercer [1894]

1954, 188). Pockets of Grange membership in Lander and Johnson counties also were comprised of small cattlemen who opposed the Stock Growers (Larson 1990).

Orr (1935) followed cooperative development in Wyoming from 1926 to 1935 and concluded her analysis with a list of conditions favorable and unfavorable to cooperative formation in the state. She found that times of economic depression inclined Wyoming farmers to experiment with cooperative marketing and that “irrigation and farming have modified the landscape and changed more the attitude of people toward association” (1935, 117). She saw significant barriers to cooperative development in ranchers’ isolation, conservatism, and a particular type of individualism: “a singular indifference to small savings. The Westerner is not thrifty; he likes to take a chance” (Orr 1935, 122).

This historical perspective provides a glimpse at early cooperative movements in Wyoming and underlying attributes that might set the stage for the future of cooperatives in the state. However, in order to define and organize the deeper causes of spatial variation in cooperative activity within the Northern Plains, a theory of organizations is required. New institutional theory is presented as an aid in sorting through the past to define propositions about the lack of cooperative activity in Wyoming today. This theory also will point to what information or evidence will be needed to test these propositions.

Institutional Theory and Cooperative Organizations

New institutional theory expands fundamental economic models that describe a static equilibrium. It goes on to explain how humans organize to afford rules, enforce contracts and property rights, and provide incentives—both forcing and encouraging selfish individuals to gain collective benefits and efficiencies. One school of new institutional theory is based on the writings of North. North declares that his central focus is “on the problem of human

cooperation” (1990, 7). His precise definitions of institutions and organizations are useful in constructing a more complete picture of the incentives behind the history of cooperative development. North defines institutions as “the rules of the game” (1990, 3). Formal and informal institutions limit choices and encourage behaviors. Informal institutions encompass unwritten conventions, beliefs, social norms and codes of conduct while formal institutions include legal and civic systems. Market institutions may be informal generally agreed upon market actions, or established formal means for exchange: a handshake may replace written contracts between neighbors. Humans devise these constraints in order to reduce uncertainty and introduce stability into everyday interactions. Institutions, as a result, are inherently conservative; they explain paths of historical change as they transfer past influences and conventions into the present.

This paper is concerned with institutional factors influencing the development of a particular type of organization operating in agricultural markets. Agricultural cooperatives develop and operate within contexts of economic, cultural and legal institutions. Each of these institutional realms encompass factors which permit, restrict and encourage cooperative organizations. Cultural traits, social expectations and traditions may favor or discourage cooperative membership. Likewise, laws regulating agricultural cooperatives define and restrict behaviors but also provide incentives for cooperative development. Informal, formal and market institutions obviously do not act in isolation—forces in each overlap to complement or contradict incentives and constraints in each of the others. The Venn diagram presented in figure 1 defines areas where these influences intersect. In area aA, for example, strong market incentives lie outside of legally permitted activity. In area c, cooperative development is profitable and sanctioned by government policy but contradictory to established beliefs or values. Area d

encompasses conditions most amenable to development (i.e. profitable, legal and customary). Incentives for institutional change can be thought of using this model as well—strong incentives in one institutional sphere will create organizational incentives that pull at the boundaries of other constraints, making edges of overlapping areas more subject to institutional change.

Two broad propositions, which may offer a deeper look into historical patterns of cooperative activity on the Northern Plains, come to light through applications of institutional theory to cooperative organizations. The first is that compatible perceptions towards cooperatives are a necessary factor in determining whether cooperative organizations present a viable option to producers. Historical patterns in informal traditions, attitudes, beliefs and values have resulted in regional differences in producer participation in cooperative development. The second proposition regards the effect of formal political institutions. Proactive state laws, policies and a network of support agencies provide new cooperative ventures with tax advantages, loan guarantees, seed money, technical and managerial assistance. Regional differences in political, legal and financial institutions impact producers' ability and effectiveness in organizing once they do decide to act collectively. A detailed examination of both formal and informal institutional constraints and encouragements furthers an understanding of spatial variation in the intensity and type of agricultural organizations in Wyoming.

Informal Institutions – A Culture of Cooperation

While informal institutions play an important role in the development of organizations, problems with collecting empirical evidence to measure their effects are not easy to bridge. For this study, a survey of agricultural producers was used to gather evidence to determine whether attitudes and beliefs held by Wyoming producers regarding agricultural cooperatives in Wyoming are a constraint or an encouragement to cooperative development. Theory on informal

institutions, similar studies previously conducted in the region and a series of interviews were used to design a questionnaire which was mailed to a representative sample of chapter will present the results of this survey in detail.

Producer Survey Sampling Procedures and Methods of Analysis

With the hypothesis that compatible perceptions and goals of Wyoming producers towards cooperative membership are a necessary factor in determining whether these organizations present a viable option for economic development, a survey was conducted to gather evidence on informal constraints that might explain the low use of agricultural cooperatives in Wyoming. Specific objectives of the survey were to determine how producers view changes in agricultural markets and opportunities these changes bring to Wyoming, what producers know about and how they perceive cooperatives, and producers' awareness and perception of closed-membership processing cooperatives.

The population of interest for the sample was all Wyoming producers. The Wyoming Agricultural Statistics Service (WASS) provided a sampling frame. As their lists are confidential, WASS also was responsible identification codes, labeling the questionnaires for mailing and keeping track of non-responses for a follow-up mailing list. The producer lists maintained by WASS are routinely updated and are more comprehensive than lists from producer groups. A sample size of 500 was large enough to create reasonably sized strata groups while remaining within the survey budget.

A random stratified sample of 500 producers was drawn from the population frame of approximately 5800 Wyoming producers who reported over \$10,000 in annual sales. Additional information known about producers in the frame was capitalized on by stratifying the sample. Independent sampling of groups allows for local estimates from individual strata and

comparisons between strata groups (to compare the attitudes of livestock versus crop producers, for example). The sample was stratified into four groups: producers with 50 or more cattle, 50 or more sheep, 100 or more acres of row crops and 100 or more acres of small grains.

Contingency tables are used to examine correlations between selected variables. A Pearson chi-square test statistic (χ^2) is first used for each cross-tabulation to test for an association¹. At least 20% of the expected cell frequencies exceeded 5 for all cross-tabulations and no cell frequency was 0. The test statistic, degrees of freedom and p-value are reported for each correlation. When chi-squared tests provided evidence against overall independence, implying an association, several standard categorical measures were employed to describe the strength and pattern of the relationship. For ordinal measures, gamma (γ) and Kendal's Tau-B (τ_B) are reported as measures of strength². Phi (Φ) is reported as a measure of the strength for nominal measures³. Adjusted residuals were used as a measure of both strength and pattern for all significant associations⁴. Odds ratios (θ) are also reported for some 2 x 2 tables and sub-tables⁵. All statistical analyses were conducted with an alpha level of 0.05.

Selected Survey Results

Questionnaires were mailed on April 2, 2001. A second copy of the questionnaire and card requesting a response (along with a complimentary packet of garden seeds) were sent to all non-respondents on May 1, 2001. Out of the sample of 500, 4 questionnaires were returned with incorrect addresses. Thirty-three reply cards were returned, 18 of which indicated that the respondent was no longer in business in Wyoming. Out of the remaining valid sample of 478, in all 163 (34%) questionnaires were returned, 124 (26%) of which were complete. Operator age gives some evidence that the sample was not biased by non-response. A 95% confidence

interval for the mean age of survey respondents, 52.95, includes the mean operator age reported for Wyoming in the 1997 Census of Agriculture of 54.4 years (95% C.I. = 50.9, 54.9) (NASS).

Respondent Characteristics – Several cross-tabulations were conducted to examine relationships between cooperative membership, interest and availability with production type and region. A significant relationship was found between cooperative membership and livestock versus crop production ($\chi^2 = 14.314$, d.f. = 1, $p < 0.001$). Additional measures of strength show this association to be moderate ($\gamma = 0.314$, $\tau_B = 0.642$). Significant adjusted residuals (|3.8|) indicate that crop producers are more likely to hold membership in at least one cooperative than livestock producers (table 1). This relationship between production and cooperative membership did not carry over into more particular divisions of production type. Sheep versus cattle production and grain versus row crop production were both independent of cooperative membership ($\chi^2 = 1.788$, d.f. = 1, $p = 0.181$; $\chi^2 = 0.218$, d.f. = 1, $p = 0.614$, respectively). Given that for Wyoming cooperative members, the odds of being a crop producer are 4.5 times the odds of being a livestock producer ($\theta = 4.583$), it is not surprising that a significant correlation between membership and region ($\chi^2 = 28.595$, d.f. = 3, $p < 0.001$; $\Phi = 0.517$) indicated significantly higher membership in eastern counties (adj. resid. = +2.6) and lower membership in western counties where livestock production is dominant (adj. resid. = -5.0). In contrast with Kibbe's 1996 survey of North Dakota producers, age was not found to have an effect on cooperative interest or membership for Wyoming producers ($\chi^2 = 3.154$, d.f. = 2, $p = 0.207$; $\chi^2 = 0.873$, d.f. = 2, $p = 0.646$, respectively).

No association was found between interest in traditional cooperatives and livestock versus crop production ($\chi^2 = 2.344$, d.f. = 1, $p = 0.126$). However, evidence against independence was found between production type and interest in new-generation cooperatives

($\chi^2 = 6.910$, d.f. = 1, $p = 0.009$; $\gamma = 0.492$, $\tau_B = 0.237$). Significant adjusted residuals (|2.6|) indicate that Wyoming crop producers reported more interest in joining new-generation cooperatives than do livestock producers (table 2). Once again, this difference did not extend to sheep versus cattle production or grain versus row crop production ($\chi^2 = 1.304$, d.f. = 1, $p = 0.253$; $\chi^2 = 1.697$, d.f. = 1, $p = 0.193$, respectively). There was a difference in the availability of new-generation cooperatives in the state reported by grain versus row crop producers with a moderate strength ($\chi^2 = 8.051$, d.f. = 1, $p = 0.005$; $\gamma = 0.730$, $\tau_B = 0.347$). Significant adjusted residuals (|2.8|) indicate that row crop producers perceived a wider availability of new-generation cooperatives than grain producers. This difference reflects recent activity in sugar beet and dry edible bean cooperative development in the state.

Institutional theory and the history of cooperation in agriculture on the Northern Plains suggest that a familiarity with cooperatives facilitates producer involvement. Kibbe's survey of North Dakota producers (1996) reported relatively high rates of member producers who knew of family or friends who were also cooperative members. With the hypothesis that Wyoming producers would have much lower levels of familiarity, this survey posed the same question. Wyoming producers reported only slightly lower levels of familiarity with cooperatives through family and friends compared to North Dakota (51.6% in Wyoming versus 58.1% in North Dakota listed family members, and 67.7% versus 74% reported friends). There were strong correlations in Wyoming between these measures of familiarity and both membership and interest in cooperative business. Contingency analyses between knowing a family member and knowing a friend who was a cooperative member and cooperative membership both gave evidence against independence (family: $\chi^2 = 47.7$, d.f. = 1, $p < 0.001$; friend: $\chi^2 = 55.356$, d.f. =

1, $p < 0.001$). Both relationships were strong ($\gamma = 0.942$, $\tau_B = 0.682$; $\gamma = 0.944$, $\tau_B = 0.624$, respectively).

Markets – Responses to the set of questions regarding markets indicate that Wyoming producers’ perceptions of future opportunities in agricultural markets are favorable to cooperative development. Opportunities through “cooperation to gain value from processing and marketing,” and “cooperation to gain market power” received the most agreement while “high volume efficient production” was seen as least important. One producer commented that cooperation would be necessary for independent operators to stay in agriculture: “But can bull-headed independent farmers work together?”

Responses to questions pertaining to value-added opportunities indicate that Wyoming producers view increased size and efficiency as least suited to capturing market value. Very few respondents were so pessimistic as to agree that capturing more of the consumer dollar cannot be done in Wyoming. Cooperative ownership of processing and niche marketing received positive responses. Better commodity marketing was reported as the most important way for producers to capture value-added margins. This may indicate that many Wyoming producers are not interested in participating in further levels of food production. One respondent commented, “Value-added means we accept all cost and labor.” It may be that Wyoming producers are not willing to take on the additional risks and complications associated with owning further levels of production and marketing. No correlation was found between livestock versus crop production and agreement with commodity marketing as a means to capture added value ($\chi^2 = 0.132$, d.f. = 2, $p = 0.936$). Agreement with processing ownership to capture value and production type were not independent ($\chi^2 = 6.151$, d.f. = 2, $p = 0.046$; $\gamma = 0.368$, $\tau_B = 0.182$). Livestock producers

tended to be more neutral regarding this option (adj. resid. = +2.5) while crop producer were more likely to agree with processing ownership (adj. resid. = + 2.2).

Cross-tabulations between statements regarding capturing added value in markets and respondent's age indicate that younger producers saw more value in better production and marketing contracts with agribusinesses ($\chi^2 = 10.981$, d.f. = 4, $p = 0.027$; $\gamma = -0.332$, $\tau_B = -0.198$). A stronger association was found indicating that younger producers were also more optimistic about their ability to capture added value in Wyoming markets ($\chi^2 = 6.588$, d.f. = 2, $p = 0.037$; $\gamma = 0.462$, $\tau_B = 0.237$). Cross-tabulation results are given in table 3. No other cross-tabulation with age or production type revealed a significant correlation.

Cooperatives – When asked directly about attitudes regarding agricultural cooperatives, respondents tended to agree with favorable statements. Likewise, they disagreed and were more neutral towards negative statements. Respondents were most neutral about cooperatives' importance as pacesetters for new technology and marketing. It is somewhat surprising that Wyoming producers were also neutral when asked whether “cooperatives reduce producer independence,” as this belief was often cited by development agents and others in the state as a stumbling block to co-op development in Wyoming. Further contingency analysis with response variables for age, production type, and cooperative membership and interest gave no evidence against their being no relationship with the belief that cooperatives reduce independence.

Respondents reported that they view cooperatives as beneficial in agricultural markets. (56.8% agreed, “cooperatives increase bargaining power and value returned to the farmer” while only 7.3% agreed, “farmers are better off without cooperatives interfering with the market.”) Respondents were most emphatic when asked about the future role of cooperatives. Sixty-two

percent agreed, “cooperatives will become increasingly important” while only 7.3% would agree, “cooperatives were helpful in the past but not today.”

A second set of questions regarding agricultural cooperatives asked: “If producers in your area were meeting to form a new cooperative, would you consider joining in order to. . .” Responses are reported in table 4. Consistent with previous responses, gaining constant markets followed by capturing value added through processing and marketing were cited as the most important reasons for joining a new agricultural cooperative. Approximately 70% of the respondents agreed with all other reasons given for joining a cooperative except “to purchase shares to resell later.” For this statement almost half of the respondents were neutral, indicating a lack of knowledge or interest in new tradable-stock cooperatives. A similar question put to North Dakota producers elicited an overall positive response, but investment in share value was similarly ranked below market and service objectives (Kibbe 1996, 80). Only 4.8% of Wyoming subjects felt so strongly that they would never join a cooperative and only 7.3% reported that they would join only as a last resort. Cross-tabulations between reasons for joining and age and production type either had low expected cell frequencies or gave no evidence against independence.

Financial Considerations – According to North’s framework describing informal constraints and organizational innovation, tolerance for change is a function of both perception and knowledge. A lack of knowledge regarding new cooperative models would therefore be detrimental to development of these organizations in the state. Results from this set of questions regarding Wyoming producers’ perceptions of potential risk and return from investment in new-generation co-op stock indicate a low level of knowledge of this cooperative model. “Don’t know” was the mode response for every investment alternative and this set of questions also had

a very high non-response rate (ranging from 12.9% to 25% for individual comparisons). This response may simply indicate a lack of understanding of an admittedly confusing question. However, because this same set of questions was answered by 47% of North Dakotan respondents on a previous survey (as opposed to 36% of those from Wyoming), it is possible that this also points to some gap in knowledge on the part of Wyoming producers.

North Dakota producers rated new-generation investment as higher risk than each of the six alternatives – stocks, bonds, mutual funds, CD's, land, farm improvements (Kibbe 1996, 90). Wyoming producers who did respond to these questions agreed with this risk assessment on every comparison except mutual funds and stocks. Wyoming producers, however, did not agree with their North Dakotan neighbors on the potential returns from cooperative investment. North Dakotan respondents saw new-generation stock as having a higher return potential than every alternative except for stocks (Kibbe 1996, 88), while Wyoming producers thought that each alternative investment (other than Certificates of Deposit) would yield a higher return than investment in a new generation cooperative.

Formal Institutions – Law and Policy

By North's definition, formal institutions fall into three broad categories: Political and judicial rules define the hierarchical decision-making structure of a polity, economic rules govern the operation of market exchanges and contracts contain provisions specific to particular exchange agreements and are governed by both market customs and legal rules. Formal institutions develop in response to changes in relative prices, altered incentives and cultural norms. All of these formal rules may complement or contradict informal cultural institutions. This section of the paper is concerned with legislative and judicial rules that define the sphere of formal institutions. Positive conditions created by favorable laws are necessary, though not

sufficient, for cooperative development. However, what is legal is not always profitable or culturally acceptable. In the model presented in Figure 1, formal institutions coincide with market and cultural institutions in area d. The focus here is on state laws and policies that might account for spatial differences in cooperative development.

Wyoming statutes under which agricultural producers may form cooperative associations were examined to identify any differences that might have contributed to low levels of cooperative development in the state. The Standard Marketing Act (proposed legislation, drafted primarily by Aaron Sapiro, and widely adopted by states in the early 1920s) is used here as a common background from which to compare Wyoming's cooperative law and other state statutes in the Northern Plains region.

Incorporator Qualifications

The first group of state statutes compared define incorporator qualifications. Generally, restrictive qualifications were hypothesized to be detrimental to cooperative development. However, restricting incorporators and members to agricultural producers may be beneficial in qualification for federal exemptions and aid.

Northern Plains states vary somewhat in requirements for incorporators to be either agricultural producers or residents of the state. In defining who may incorporate a cooperative organization, the Standard Act uses language similar to Capper-Volstead antitrust requirements, allowing "persons engaged in the production of agricultural products." This requirement is followed by Wyoming and Nebraska. North Dakota and South Dakota do not address whether incorporators must be agricultural producers. Montana is more restrictive than the Standard Act, requiring that incorporators "hold title to agricultural, horticultural or farm lands" (Mont. Code Anno. § 35-16-201 (Baarda 1982)) thus excluding tenant or itinerant farmers. The Standard Act

also requires that the majority of incorporators be residents of the state. Within the region only South Dakota and Wyoming require all incorporators to be resident (Wyoming statute § 17-10-103 stipulates that they be “qualified electors”).

The fact that Wyoming follows the Standard Act in requiring cooperative incorporators (as well as members (Wyo. Stat. Anno. §17-110(6) (2001)) to be agricultural producers is not detrimental to cooperative development, as it eases qualification for federal exemptions and aid programs. Wyoming’s residency requirement, however, may impede the development of regional cooperatives incorporated in the state and limit access to out of state investors.

Association Purposes

State statutes defining association purposes were examined with the hypothesis that definitions of cooperative association purposes that are inclusive and appropriate to the state’s type of production would generally benefit cooperative development. Furthermore, purposes fitting the needs of value-added processing or other vertically integrated processing and marketing (such as including by-products, financing, and allowing multiple activities) are assumed to aid new-generation cooperative development.

North Dakota and South Dakota are inclusive in allowing cooperative associations to operate for “any lawful purpose except banking, insurance and railroads” (N. D. Cent. Code §10-15-02 (2001); S.D. Codified Laws §47-15-2 (2001)). The history of anti-monopoly agrarian movements in the Dakotas makes it clear why these statutes are so lenient and why particular industries are excluded. As empowering producers in agricultural markets was the primary intent of most cooperative legislation in the 1920s, it is not surprising that the Standard Act along with Wyoming, Nebraska, and Montana statutes all explicitly mention marketing and supply as

permissible cooperative purposes. Montana adds “broad purposes including trade in any branch of industry” (Mont. Code Anno. §35-15-201(Baarda 1982)).

Purposes related to processing, inclusion of byproducts, financing and multiple activities were all assumed to benefit new-generation cooperative development. Again, North Dakota and South Dakota presumably cover all of these activities under “any lawful purpose.” The Standard Act lists purposes of “harvesting, preserving, drying, processing, canning, packing, grading, storing, handling, shipping or utilization” of agricultural products. It also explicitly includes use of byproducts, financing and allows multiple activities but does not address production (Bingham Act §883f-4 (Baarda 1982)). Nebraska follows the Standard Act in listing processing purposes and adds “any business purpose” (R.S.Neb. §21-1301 (Baarda 1982)). Prior to new processing cooperative amendments in Wyoming, Wyoming and Montana were similar to the Standard Act regarding processing but omit grading. Wyoming and Montana also mention both financing and multiple activities. Montana and Nebraska are the only states in the region to expressly allowing production. Wyoming’s new processing cooperative statutes are discussed later.

North Dakota and South Dakotas’ inclusion of any cooperative purpose, other than those expressly listed, is an advantage to development. Wyoming does not deviate from the Standard Act, nor does it add to it. Regional statutes regarding cooperative purposes are relatively similar and are probably a neutral factor in Wyoming cooperative development.

Association Powers

Cooperative proponents argue that to compete effectively cooperatives must be granted powers similar to private corporations. Most powers are directly related to cooperative association purposes addressed above. Additional considerations include the power to exercise

rights of ownership, to contract, sue and be sued and lend or invest money. Statutes granting cooperative associations power to conduct business were compared under the hypothesis that limitations make adopting a cooperative business structure less competitive in that state.

North Dakota and South Dakota stand out in the region as the most inclusive in granting cooperative powers. Powers not listed in cooperative statutes are generally covered under corporate statutes which are very broad in the powers they grant. Statutes in all states compared were found to be relatively similar and appear to be neutral in their impact on cooperative development.

Liability

Statutes regarding personal liability of cooperative members and directors were examined with the hypothesis that risk of personal liability would dissuade participation and limit cooperative development efforts. Liability in every state in the Northern Plains region is covered by general corporation law “except where conflicting or inconsistent” (Baarda 1982). The Standard Act reiterates limits on cooperative members’ liability: “No member shall be liable for the debts of the association” exceeding unpaid membership fees or other unpaid balances (Bingham Act §883f-14 (Baarda 1982)). A similar standard is followed in every Northern Plains state. Corporate limits liability of directors as well (limiting self-dealing, for example).

The Standard Act does not address director liability. Only seven states, including Wyoming, North Dakota and South Dakota, have statutes that specifically describe directors’ personal liability. North Dakota and South Dakota (and Wisconsin) each hold directors liable if they are negligent or act in bad faith in the distribution of cooperative assets. South Dakota, however, protects directors who rely on faulty financial statements. (New Mexico, Texas, and Ohio cooperative statutes also limit director liability with very narrow exceptions (Baarda

1982).) Wyoming statutes are alone in the US in making directors personally liable for cooperative debt. This liability is addressed in two separate statutes. Wyoming Statute 17-10-114 (2001) makes directors liable for excess of indebtedness over assets or capital: “If indebtedness... shall at any time exceed the amount of the assets of a non-stock corporation or the amount of subscribed capital stock of a stock company, the directors assenting thereto shall be personally and individually liable for such excess to the creditors.” Under §17-10-118 (2001), Wyoming cooperative directors also are “jointly and severally liable for all debts of the corporation... and for all such debts incurred while they continue in office” from dividends or apportionments paid when the cooperative is insolvent. In order to relieve this liability the director must file a written objection to the board action with the secretary of the cooperative and with the county clerk (Wyo. Stat. Anno. §17-10-118 (2001)). Regardless of what the original intent of these Wyoming statutes may have been, holding directors personally responsible for cooperative debts of an insolvent cooperative is unique to Wyoming and poses a significant barrier to cooperative development in the state.

State Tax Treatment

There are no general rules for state and local tax treatment of cooperatives, although reduced or modified rates are not uncommon (Harl et al. 1980). No state specifically exempts patronage refunds (Harl et al. 1980). Most state and local tax authorities regard cooperative associations as partnerships or non-profit corporations. States in the Northern Plains region predominantly follow the Standard Act in deeming cooperatives as non-profit. Wyoming requires registration paid as a for-profit corporation at inception, and afterwards classifies agricultural cooperatives as non-profit organizations with no additional annual filing requirements or fees (Sawyer 2001). Wyoming, along with 15 other states, including North

Dakota and South Dakota, does not impose franchise fees (Harl et al. 1980). Wyoming is also one of five states without a personal income tax. Wyoming's liberal corporate tax policy is favorable to cooperative development in the state.

Declarations of Intent

Policy declarations, references to state assistance and additional antitrust provisions included in state statutes were examined for clues to the intention of state legislatures enacting these laws. Cooperative purposes reflected in state statutes generally emulate the market ideologies of Sapiro and Nourse. Wyoming's statutes include a statement describing the role of cooperatives envisioned in agricultural markets: "to promote, foster, and encourage the intelligent and orderly marketing of agricultural products through cooperation; and to eliminate speculation and waste; and to make the distribution of agricultural products as direct as can be efficiently done between producer and consumer; and to stabilize the marketing problems of agricultural products" (Wyo. Stat. Anno. §17-10-101 (2001)). Wyoming's endorsement of these market goals also is reflected in state antitrust provisions included in the statutes. Within the region, only Montana includes a provision from the Standard Act encouraging producers to seek state assistance in cooperative development efforts.

Wyoming Cooperative Law and Cooperative Development

An examination of formal legislative and judicial institutional factors that might hinder cooperative development efforts in Wyoming reveals that the state's cooperative law does not differ much from national norms and is similar, in most respects, to surrounding states in the Northern Plains region. This is not surprising as cooperative laws in most states were enacted around the same time and patterned after the Standard Marketing Act. Differences between state statutes are mainly due to particular omissions from this proposed legislation. When Wyoming

laws differ from this norm they are often more hands-off than surrounding states and mirror the state's liberal corporate policies. Cooperatives have broad liberty in Wyoming in establishing their articles of incorporation and bylaws and are relatively free from tax burdens and filing requirements. Wyoming has adopted a passive policy regarding development, for the most part, and does not provide many direct incentives to cooperatives.

The biggest legal roadblock to cooperative development in Wyoming may be in two statutes that inexplicably assign personal liability for cooperative debts to directors. Limits on out-of-state incorporators may also hamper regional development efforts. Several comments from respondents to the producer survey reported in the previous chapter complained about poor cooperative management and leadership. Wyoming statutes regarding director liability may well (and probably should) create serious reservations for members who might otherwise consider leadership positions in Wyoming cooperatives. Wyoming's strict residency requirement for cooperative directors may also be a constraint, especially given the low population of potential directors in the state.

Wyoming's New Processing Cooperative Law

As of July 1, 2001, the Wyoming Processing Cooperative Law gave producers in the state an unprecedented new cooperative law (Wyo. Stat. Anno. §§ 17-10-201-253 (2001)), Wyoming's new law by-passes federal Subsection T tax exemption requirements, allowing the new rules to address some basic structural impediments to cooperative development in value-added markets.

Under standard agricultural cooperative definitions, membership is limited to producers who process only what they grow. To be competitive with other business structures in food markets, lobbyists for Wyoming's new law argue that co-ops must be allowed to integrate multiple ingredients in a production process and to own multiple levels of processing and

marketing. They also emphasize the need to raise sufficient amounts of capital and to be compensated for higher investment risks. Under Wyoming's new law, all of this can potentially be done without giving up the benefits of democratic control and a cooperative ownership structure that passes added value directly back to the farm or ranch.

A Wyoming processing cooperative under this new law will be organized as an unincorporated association, similar to a Limited Liability Company (another Wyoming native): members are not responsible for cooperative debt and eligibility under IRS check the box rule I.R.C. § 301.7701-31(a) has been established through an IRS private letter ruling (Hanson 2001b). In addition to producer-members, a class of non-patron investors is established under the law with both voting rights and profits based on their investment. Producer patrons are allotted one vote each, which collectively count as a majority to ensure producer control.

Ironically, Wyoming's progressive new law probably passed through the legislature without much fanfare precisely *because* of the lack of new cooperative development in the state. The lobby behind this new law is the only new processing cooperative venture currently active in the state—the Mountain States Lamb and Wool Cooperative. With a prominent leadership, two state lobbyists and a growing membership that spans nine western states, this cooperative venture was the driving force behind Wyoming's new law.

While the IRS has granted a favorable tax status to cooperatives organized under Wyoming's new processing cooperative law, some question remains as to whether federal antitrust requirements will be met by cooperatives organizing under these statutes. Following a general trend in new cooperative business models, Wyoming processing cooperatives will be difficult to distinguish from other forms of business organizations. The Capper-Volstead Act uses the term "association, corporate or otherwise" (7 U.S.C. 291) and not "cooperatives" to

refer to exempt organizations. Assuming other requirements are met, there is no reason why a Limited Liability Company or other form of partnership could not qualify. However, for antitrust exemption three basic requirements in section 291 must be met.

First, the Capper-Volstead Act covers “persons engaged in the production of agricultural products.” The Supreme Court has affirmed that “It is not enough that a typical member qualify, or even that most members qualify . . . the very presence of non-producers may shift the stance of a cooperative to a posture antithetical to members” (Swayne Co., Inc. v. Sunkist Growers, Inc., 389 US 384 (1967)). The inclusion of a class of non-producer investor members under the Wyoming statute does not meet this requirement. Second, “no member of the association is allowed more than one vote because of the amount of stock or membership capital he may own” *or* “that the association does not pay dividends on stock or membership capital in excess of 8 percent per annum” (7 USC 291). The Wyoming statute’s requirement that “A non-patron member has the voting rights in accordance to his non-patron membership interests as granted in the bylaws” (Wyo. Stat. § 17-10-230 (a)) clearly violates the first provision. The requirement for producers’ votes to count collectively as a majority may guarantee producer control, but it clearly does not meet the standard of one-member one-vote. A cooperative may alternatively choose to limit its investment returns, although this may dissuade potential investors. The third condition for antitrust exemption is that “the association may not deal in the products of non-members in an amount greater... than by members.” If most product is acquired by the cooperative via delivery contracts this requirement will be easily met. It is only essential that good records be kept of non-member business. The co-op must also be aware that that majority of producers must be participating in risk of production (i.e., not buying on commodity markets to fulfill contract obligations).

Summary and Conclusions

The primary goal of this study was to explore the potential for new agricultural cooperative models in Wyoming in light of regional history, culture, law and changes in the structure of agriculture. Wyoming is notable for its lack of agricultural cooperatives. In order to identify factors that might have hindered cooperative development in the state, institutional theory provided an expansive conceptual view of cooperatives as organizations operating within economic, cultural and legal constraints. Regional agricultural history, economic models, a survey of Wyoming producers' attitudes towards cooperative business and a comparison of state cooperative laws each contributed to the study objectives.

Distinct cultures of cooperation have evolved out of the history of cooperation in agriculture on the Northern Plains. While farmers to the eastern plains organized collectively to gain power over markets, Wyoming producers formed protective organizations to control poorly allocated land resources. Wyoming producers' responses to survey questions regarding market opportunities and perceptions of cooperative business were favorable toward cooperative development. However, responses to statements regarding financial considerations indicated some lack of knowledge regarding investment in new value-added cooperatives. A comparison of Wyoming statutes authorizing cooperative organizations with other Northern Plains states identified a few discrepancies that might impede cooperative development in the state: Wyoming statutes hold cooperative directors personally liable for cooperative debt and require all incorporators to be residents of the state. A recently enacted and unprecedented processing cooperative law in Wyoming presents producers with new opportunities but may not be compatible with federal antitrust requirements under the Capper-Volstead Act.

Wyoming has not traditionally actively promoted cooperatives. Wyoming producers who are interested in opportunities presented by new cooperative models would benefit from education and assistance in making financial decisions. Coordination of state and federal resources also would aid Wyoming producers in realizing the development potential of cooperative businesses as a tool to adapt and compete in increasingly integrated, direct and niche markets in the food industry.

Footnotes

¹ Pearson chi-squared test statistic: $\chi^2 = \sum \frac{(f_o - f_e)^2}{f_e}$. (H_O: The variables are statistically independent; H_A: The variables are statistically dependent.)

² Gamma (γ) is interpreted as the difference between the proportions of concordant and discordant pairs. Gamma falls between -1 and $+1$, with larger absolute values indicating stronger association. Kendal's Tau-B (τ_B) has a similar interpretation but is more stable under arbitrary categories.

³ Phi (Φ) is a normed measure ranging between 0 and 1, with 0 indicating perfect independence and 1 perfect dependence.

⁴ Adjusted residuals (adj. resid.) = $\frac{f_o - f_e}{\sqrt{f_e(1 - \text{row}\hat{\pi})(1 - \text{column}\hat{\pi})}}$ (with π = proportion) and are

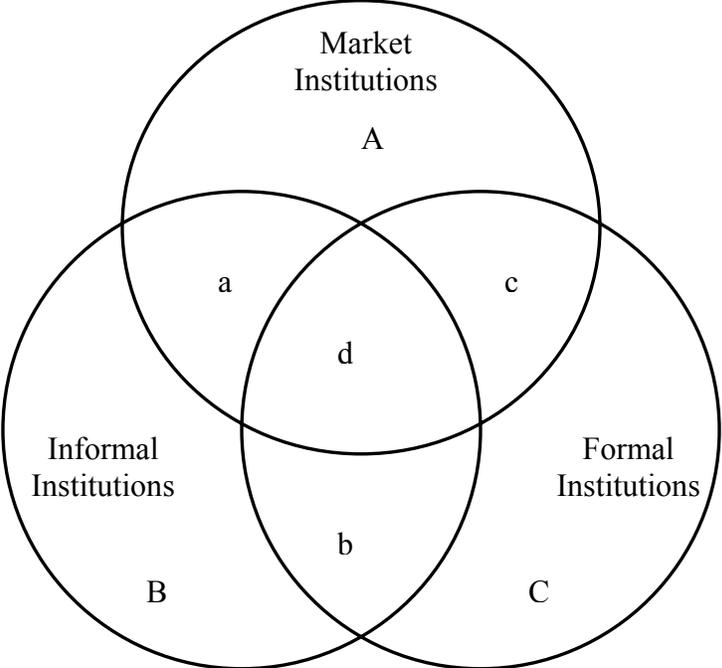
interpreted as approximate z statistics (i.e., for an alpha level of .05 an absolute value of $|z|$ shows a significant association. The sign of the residual indicates the pattern of an association.

⁵ The odds ratio (θ) = $\frac{\pi(\text{success})_1 / \pi(\text{failure})_1}{\pi(\text{success})_2 / \pi(\text{failure})_2}$.

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Figure 1. Venn diagram modeling influences of market, formal and informal institutions on cooperative organizations.



Adapted from Conry, Ferrera and Fox 1986, 30.

Table 1. Cross-tabulation: Cooperative Membership by Production Type

			Co-op Membership		Total
			Not a member of any co-op	Member of one or more co-ops	
Livestock V Crop Production	Livestock	Count	28	28	56
		Expected Count	18.2	37.8	56.0
		% w/in Lvstck V Crop	50.0%	50.0%	100.0%
		Adjusted Residual	3.8	-3.8	
	Crop	Count	12	55	67
		Expected Count	21.8	45.2	67.0
		% w/in Lvstck V Crop	17.9%	82.1%	100.0%
		Adjusted Residual	-3.8	3.8	
Total	Count	40	83	123	
	Expected Count	40.0	83.0	123.0	
	% w/in Lvstck V Crop	32.5%	67.5%	100.0%	

Table 2. Cross-tabulation: New-generation cooperative interest by Production Type

			Interest in new-gen co-op:		Total
			Not interested	Interested	
Livestock V Crop	Livestock	Count	45	11	56
		Expected Count	38.2	17.8	56.0
		% w/in Int. in:N-gen co-op	53.6%	28.2%	45.5%
		Adjusted Residual	2.6	-2.6	
Crop	Crop	Count	39	28	67
		Expected Count	45.8	21.2	67.0
		% w/in Int. in:N-gen co-op	46.4%	71.8%	54.5%
		Adjusted Residual	-2.6	2.6	
Total		Count	84	39	123
		Expected Count	84.0	39.0	123.0
		% w/in Int. in:N-gen co-op	100.0%	100.0%	100.0%

Table 3. Cross-tabulation: Age by Agreement that Capturing Added Value “Can’t be done”

			Added Value: Can't do			Total
			Disagree	Neutral	Agree	
Binary Age	25 to 53	Count	49	12	2	63
		Expected Count	42.8	16.9	3.4	63.0
		% w/in Age	77.8%	19.0%	3.2%	100.0%
		Adjusted Residual	2.5	-2.1	-1.2	
	54 to 85	Count	27	18	4	49
		Expected Count	33.3	13.1	2.6	49.0
		% w/in Age	55.1%	36.7%	8.2%	100.0%
		Adjusted Residual	-2.5	2.1	1.2	
Total		Count	76	30	6	112
		Expected Count	76.0	30.0	6.0	112.0
		% w/in Age	67.9%	26.8%	5.4%	100.0%

Table 4. Reasons For Wyoming Producers to Join a New Cooperative

Statement	Response				Mean*
	Agree	Neutral	Disagree	Missing	
Capture value associated with the higher quality of your production.	89 71.8%	25 20.2%	6 4.8%	4 3.2%	0.69
Add value to my production from further processing and marketing	96 77.4%	21 16.9%	4 3.2%	3 2.4%	0.76
Avoid dealing with middlemen.	88 71.0%	30 24.2%	5 4.0%	1 0.8%	0.67
Reduce reliance on unreliable government farm programs.	74 59.7%	37 29.8%	11 8.9%	2 1.6%	0.52
Gain more constant market outlets.	104 83.9%	17 13.7%	2 1.6%	1 0.8%	0.83
To purchase shares to resell later.	25 20.2%	60 48.4%	38 30.6%	1 0.8%	-0.11
Increase knowledge and information.	88 71.0%	31 25.0%	4 3.2%	1 0.8%	0.68
Network with other producers who have similar interests.	91 73.4%	31 25.0%	1 0.8%	1 0.8%	0.73
I would only consider joining as a last resort.	9 7.3%	36 29.0%	77 62.1%	2 1.6%	-0.56
I would not join an agricultural cooperative.	6 4.8%	27 21.8%	89 71.8%	2 1.6%	-0.68

*Responses coded “Agree” = 1, “Neutral” = 0, “Disagree” = -1. Mode response indicated by bold type.