

## Building Leadership to Address Latino Educational Underachievement in the Midwest

November 23, 2015

**PI:** Martinez, R. (Michigan State University)

**Co-PI:** Greder, K. (Iowa State University)

**Award:** \$5,000

**Project Abstract:** Education is a long-time major concern among Latinos. This interstate project will involve partners from Michigan, Iowa and North Carolina in building leadership in Lansing and Southeast Michigan to address the problem of educational underachievement among Latinos. The project will train 20 educational leaders in the components and delivery of *Juntos para una Mejor Educación* (Juntos), a program with success in promoting educational achievement among Latino participants in North Carolina, Oregon, Iowa and other states. Leadership development through use of the Juntos program will promote the establishment of local community, university and school district partnerships. It will also strengthen the capacity of MSU Extension to engage community organizations and school districts in addressing the problem of Latino educational underachievement. The Juntos program will serve as the mechanism by which participants learn about the educational challenges within local Latino communities and about opportunities for partnerships in implementing the program. Program participants will design and pilot a Juntos program tailored to the local Latino community and context. It will build a community of practice in mid- and southeast Michigan that promotes Juntos in addressing Latino educational underachievement. Lessons learned from this project will inform the development of educational leadership in Missouri and Kansas the following year. The aim is develop locally designed Juntos programs in states across the North Central Region.

## Family Business Contributions to Sustainable and Entrepreneurial Rural Communities over Time

November 23, 2015

**PI:** Niehm, L. (Iowa State University)

**Co-PIs:** Muske, G. and Fitzgerald, M. (North Dakota State University)

**Award:** \$25,000

**Project Abstract:** The specific purpose of this project is to enhance understanding of the entrepreneurial efforts of rural family businesses and the factors that contribute to the sustainability of their businesses and communities over time. Adding a fourth wave of data collection to the National Family Business Panel (NFBP) will allow us to assess change over a nearly 20-year period to better understand how family businesses survive, thrive, or fail during recessionary periods. The requested funding would allow us to garner a unique understanding of family businesses by also adding a qualitative dimension to our previously collected quantitative waves of data (1997, 2000 & 2007). We will glean an in-depth understanding of entrepreneurial strategies used by family businesses and how they foster sustainability in rural communities, particularly during recessionary periods. This will be achieved through a mixed-method design and will position us to pursue a larger federal grant to continue our work and inform Extension efforts in both Iowa and North Dakota. These findings will also benefit other states in the north central region, particularly those participating in the NC 1030 Family Business Research Group (FBRG), for which we are members. The proposed project will position the research team of Niehm, Muske and Fitzgerald, as well as the NC 1030 FBRG, to forge new relationships and partnerships and extend our work, for example, with the Nebraska Rural Futures Institute. Such partnerships could extend the application and impact of our research findings and create synergies for new grant proposals and research collaborations.

**FINAL PROJECT REPORT  
NCRCRD SMALL GRANT FUNDING 2015-2016**

Family Business Contributions to Sustainable and Entrepreneurial  
Rural Communities over Time

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**Project Summary:**

The purpose of this project was to enhance understanding of the entrepreneurial efforts of rural family owned businesses and the factors that contribute to the sustainability of their businesses and communities over time. This was accomplished by adding a fourth wave of data collection to the National Family Business Panel (NFBP) that will allow for assessment of change over a nearly 20-year period. This wave of data provides insight into how family businesses survive, thrive, or fail during and after recessionary periods.

The NCRCRD funding provided support for a mixed-method design (qualitative open ended and survey questions) and will position the NC 1030 Family Business Research Group (FBRG) to pursue larger federal grants to continue our work and inform Extension efforts in both Iowa and North Dakota. These findings will also benefit other states in the north central region, particularly those participating in the NC 1030 FBRG of which we are members. The project also positions the research team to forge new partnerships and extend our work, for example, with the Nebraska Rural Futures Institute. Such partnerships will extend the application and impact of our research findings and create synergies for new grant proposals and research collaborations. A summary of the project accomplishments and deliverables follows, along with an overview of initial findings from data collection and analysis.

**Summary of Deliverables:**

The following steps were accomplished with NCRCRD funds during 2015-2016. Months during which specific steps were accomplished are noted along with researcher and collaborator roles.		
Upon receipt of NCRCRD funding, we discussed our research design and data collection with Iowa State University's Center for Survey Statistics and Methodology (CSSM)	October/November 2015	Niehm, Muske, Fitzgerald, CSSM
Questionnaire development and testing. Expansion and refinement of literature review and scale items to be used	November 2015 through April 2016	Niehm, Muske, Fitzgerald, Shin (RA)

Identification of sample (participants from early waves of data collection), contacting and confirmation of participant identity and role in family business	May/June 2016	CSSM
Data collection conducted by CSSM, creation of code book, cleaning of data, and	July/August, 2016	CSSM
Imputation of missing variables Coded qualitative data and identified themes	August/September 2016	Niehm, Shin (RA)
Merged data with other waves of NFBP data Developed syntax, created variables Completed initial analysis of wave 4 data Submitted abstracts for US Assoc. of Small Business & Entrepreneurship (USASBE)	September-November, 2016; analyses and manuscript/grant development ongoing	Niehm, Muske, Fitzgerald, Shin (RA)

**Research Design and Methodology:**

**Sample**

The sample for the 2016 survey was based on previous survey participation. In 2007, attempts were made to interview people who had completed interviews in either 1997 or 2000. The 2007 project resulted in 180 interviews with managers from operating businesses, with partial information obtained about 27 other open businesses. In addition, 365 cases were either unlocatable (208), unreachable after a maximum number of attempts (77), or resulted in refusals to participate (80) in 2007.

For the 2016 survey, all 207 businesses with interviews or partial information were initially included in the potential sample, as were the 77 businesses classified as “maximum calls.” It was anticipated that the nine-year gap since the last family business project could make locating respondents and their businesses difficult, particularly if the business had been closed or sold during that time. As a result, efforts were made by CSSM staff to verify telephone numbers and/or the existence of the business and/or its manager using online resources for all of these 284 cases prior to the onset of data collection. Selected refusals were also included in the internet search, depending on the information available from 2007. Randomly selected cases that were unlocatable in 2007 were also searched with no success, so the 2007 unlocatable cases were not included in the initial sample. As a result of extensive internet searches, 109 cases were removed from the initial sample because no working telephone number could be located for either the business or the Business/Household Manager.

The final sample for the 2016 survey consisted of 217 cases. Efforts would be made to interview as many of these cases as possible. Eligible respondents in order of priority included the original Business Manager, the original Household Manager, and other family members knowledgeable about the business

and what has happened to it since 2007. Unlike some previous project waves, only one interview would be conducted per business; although it was also acknowledged that in some cases more than one person might need to be contacted to complete the entire interview. In addition, information that could be obtained from any source regarding businesses that had closed or been sold would be recorded.

### **Survey and Study Design**

CSSM worked with a core group of three research faculty and a graduate student to develop the 2016 survey questions and establish protocols. Many of the survey questions were identical to items included in the 1997, 2000 and/or 2007 surveys. New portions of the interview included questions addressing online business activities and the potential impact of the 2007 recession. Several open-ended questions were included to accommodate the anticipated variation in business and household situations. A shortened screener was developed for businesses that were closed or sold.

Because of the small sample size, the survey was not programmed but designed for telephone administration by CSSM staff using paper and pencil. A project newsletter highlighting some of the results from past family business projects was developed to be enclosed with an advance letter to be sent prior to data collection. The advance letter included the purpose of the new project, elements of voluntary consent, notification of an upcoming telephone contact, and a request for participation. In addition, a two-level incentive was incorporated into the study design. Participants whose business was closed or sold and who completed the shorter screener would be sent a \$10 incentive after the project to thank them for their time. Participants whose business was open and managed by a family member, and who completed the longer interview, would be sent a \$25 incentive.

### **Survey Preparation**

Once the study and survey design were finalized, the principal investigator at Iowa State University submitted the project to the university's Institutional Review Board (IRB) for approval as an exempt study. The survey screener and main interview questions were finalized and CSSM prepared them for the interview process. All interviews were conducted by CSSM staff who had worked on at least one of the earlier project waves. The project manager reviewed project-specific objectives and details with other staff and reference materials were developed for use as needed throughout the data collection process.

### **Data Collection**

Data collection took place from July 18 through August 26, 2016. All interviews were conducted at the CSSM telephone lab. The average survey length was 5 minutes for a screener and 27 minutes for the full interview. Interviews were conducted primarily with the original Business Manager or Household Manager. In two cases the original Business Manager was no longer the owner or manager; but the new owner/manager was a member of the family, so the full interview was still completed.

Phone numbers with no personal contact were rotated through a minimum of 6 call attempts at various times (e.g., days and evenings, weekdays and weekends). Advance letters/newsletters were resent upon request. Additional tracking efforts were made to attempt to locate individuals whose phone numbers were no longer in service. CSSM's toll-free phone number was made available to respondents to call in at their convenience to complete or schedule interviews.

Completed screeners and interviews were edited by CSSM staff throughout the data collection period. Final data was coded, cleaned, and recorded in an Excel file along with open-ended text recorded from the interviews. Dispositions were assigned for all cases. Data and outcome files, frequency tables, a coding manual, and this methodology report were prepared and delivered to the researchers. A file with

updated names/addresses of participants who should receive an incentive was also delivered to the researchers; CSSM was not involved in distributing the incentives.

**Final Survey Results and Response Rates**

The table below shows final descriptive results for the study.

<b>Final Survey Results 2016</b>	
<b>Initial Sample</b>	<b>326</b>
Removed – Not Eligible/Locatable	109
<b>Project Sample</b>	<b>217</b>
<b>Cases Not Screened</b>	<b>68</b>
Unlocatable	14
Refused	4
Maximum Calls	50
<b>Cases Verified or Screened</b>	<b>149</b>
Business Closed/Not Owned/Managed	58
Closed: Verified Only, No Screen	10
Closed: Screener Complete	41
Open: Screener Complete but Not Family-Owned	6
Not Family-Managed	1
Business Verified Open (No other information)	18
Open: Verified but Refused	8
Open: Verified but Maximum Calls	10
Business Open/Owned/Managed	73
Main Interview Completed	71
Screener Only Completed: (Open/Owned/Managed: Refused Main Interview)	2

As anticipated, many of the respondents and businesses from previous waves were not able to be contacted or screened for the project in 2016. There were 326 cases examined by CSSM staff prior to data collection, 109 of which were removed either because they were already determined to be ineligible or because no address or telephone number could be located for either the business or the Business/Household Manager. This left a project sample of 217 cases. Of the 217 cases, 68 could not be screened. There were 14 cases with phone numbers and mailing addresses that proved to be incorrect. There were 4 cases that refused to participate, providing no information about the status of the business. The remaining 50 cases were classified as Maximum Calls after 6 or more call attempts were made with no results.

Some information was obtained for the remaining 149 cases. CSSM verified that 58 of them are currently closed or no longer owned/managed by a family member. Screener data was completed for 48 of the 58, with 41 businesses closed, 6 open but no longer family-owned, and one open and owned by the family but no longer managed by a family member.

There were 18 businesses that were verified as being open, but no additional information was obtained. In 73 cases, CSSM verified that the business was both open and owned/managed by the respondent or another family member. Two of the 73 cases provided no additional information, but main interviews were completed with the remaining 71 cases.

Of the 217 study participants, basic information was obtained for 149 cases (68.7%) in this fourth wave of data collection. Of those 149 cases, 58 of the businesses were either no longer open or no longer owned or managed by the original family (38.9% of 149); 17 were verified as open but with no additional information (11.4% of 149); and 73 completed at least the screening process to verify they were open and still owned and managed by the original family (49.0% of 149). Main interviews were completed with 71 cases, which is 97.3% of the 73 eligible cases that completed initial screening, 78.0% of the 91 cases verified as still open for business, 47.7% of the 149 cases verified or screened as either open or closed, and 32.7% of the 217 total project sample.

### **Research Questions, Initial Data Analyses, and Findings**

A series of exploratory research questions were posited for this study (wave four data only) regarding small family-owned businesses in rural communities. The research questions were:

RQ1: What are the demographic characteristics of small family owned businesses who survived the recession of 2007-2009?

RQ 2: If a business had closed since 2007, what was the reason for closure?

RQ 3: How did the recession of 2007-2009 influence financial performance for small family owned firms?

RQ 4: How did small family owned firms use entrepreneurial business strategies and practices influence the ability to cope with challenges posed by the recession?

RQ 5: Was there a difference in business revenue for small family owned businesses who utilized entrepreneurial on-line/digital strategies versus those who did not use such practices?

RQ 6: What entrepreneurial online/digital strategies were most utilized by small family owned small family owned businesses?

## Results and Discussion:

Descriptive analyses were used to provide a demographic profile (RQ 1 and RQ 2) for the open and closed businesses in the sample. Of the 71 family owned businesses that sustained operation post-recession, the majority of owners (73%) were 50-69 years of age, male (65%), and 55% had a BA degree. The businesses were primarily located in rural areas (78%), had 3 or fewer employees (52%), and sole proprietorships (38%) were the dominant form of ownership. Of the businesses reporting that they had closed since the 2009 recession, 41 indicated the following three primary reasons for closure: retirement, health issues, and financial difficulties/did not make a profit.

To answer RQ 3, how the recession of 2007-2009 influenced financial performance for family owned firms, and RQ 4, if strategic/entrepreneurial changes were made by the family owned firm due to the recession, the sample was divided into two groups: those indicating perceived performance difficulties and those indicating no performance difficulties due to the recession. A cross-tab analysis was then conducted to assess group differences. Cross-tab analysis revealed a significant association [chi-square = 13.071, df = 4,  $p < .05$ ] between perceived difficulties with the economic recession and cash flow problems for the family owned business. This means there was a significant difference in cash-flow problems noted in 2015 between two groups (with vs. without difficulties during the economic recession). If the business had difficulties during the recession, they were more likely to also have cash-flow problems in 2015. However, between the two groups there were no significant differences in other business success variables, such as profit in 2015; perceived success in business operation, and changes in annual revenue since 2010.

In the cross-tab analysis for RQ 4, significant associations were found between business strategy and entrepreneurial practices used in 2007-2009 [chi-square = 24.965, df = 2,  $p < .05$ ] and those business strategy and entrepreneurial practices used since the recession, 2010 present [chi-square = 4.961, df = 1,  $p < .05$ ]. These findings indicate a significant difference in business strategy and entrepreneurial business practices used during 2007-2009 and in changes made since 2010 between two groups (with vs. without perceived difficulties during the economic recession). Interestingly, the cross-tab results showed that most of businesses with difficulties during the economic recession were likely to change at least one business practice while most of businesses without difficulties during the economic recession were not likely to change any business practice during 2007-2009. Conversely, businesses without having difficulties during the economic recession, who did not make any changes during 2007-2009, have made some changes since 2010. However, about half of the businesses with having difficulties during the economic recession have not made any entrepreneurial strategy/practice changes since 2010. Findings revealed that the most frequent strategy/practice changes made during the recession in 2007-2009 included: new/changed products or services, improved efficiency, decreased wages or hours, downsized staff, and changed space/location. Relatedly, specific types of business strategy/practice changes made since 2010 included: new/changed products or services, staff changes, improved efficiency, increased online presence, space/location changes, and changes in wages or hours.

RQ 5 examined if there were differences in business revenue between those rural family owned businesses who used entrepreneurial on-line/digital strategies and those who did not. There was a significant difference [chi-square = 15.918, df = 8,  $p < .05$ ] in business revenue for these two



groups attributed to use of the following entrepreneurial online/digital strategies: having dedicated staff assigned to manage websites/social media, those who focused on a single or limited set of online options, those who contracted or outsourced some on-line functions with another company. Except the significant relationship noted, there were no other significant differences or changes in business revenue since 2010 between those who used entrepreneurial on-line/digital strategies. However, it is interesting to note that the major entrepreneurial on-line/digital strategies employed by family firms (RQ 6) in this study, from most to least used were: website, social media, selling products online, tracking online customer and market information, an online catalog, customer service links, and other e-commerce functions. It may be that the small family owned businesses, regardless of having difficulties during the economic recession, have tried to overcome their difficulties by employing a select and manageable number of entrepreneurial practices related to online activities.

### **Conclusions and Implications**

Family businesses are integral part of the economic sector for many communities, especially rural communities. Many studies have examined the family-owned business from a cross sectional perspective. However, this research project utilized a longitudinal study approach with four waves of panel data 1997, 2000, 2007, and 2015 and can therefore give a perspective of the family-owned business over an 18-year time period that other studies are not able to capture.

It is important to identify entrepreneurial strategies and practices that can enhance the sustainability of family firms, particularly in challenging economic times, and also to support local communities and the economic viability of rural areas. Our research is ongoing and will include multiple analyses with the longitudinal data comprised of four waves of family business data. The new wave four data will provide unique insight regarding family business strategic behavior and performance in recessionary times. Findings from this research will be of value to academic researchers, family and small business consultants, rural/economic development specialists, and practitioners. For example, we found that these family business owners with difficulties during the economic recession were likely to change at least one business practice to adjust to changing times.

## Successful Disaster Recovery Using the Community Capitals Framework

November 23, 2015

**PI:** Goreham, G. (North Dakota State University)

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**Award:** \$24,976

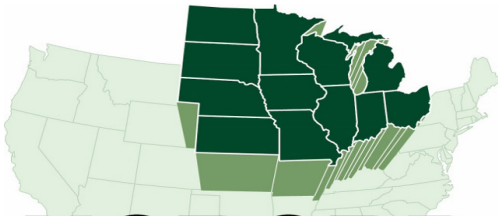
**Project Abstract:** The community capitals framework (CCF) can be a powerful tool to help communities successfully recover from natural disasters. This project develops useable CCF methods/materials for community leaders and officials to inventory their communities' assets that can be leveraged for disaster recovery. A team of research and Extension faculty from land-grant universities in five Midwestern states will meet to develop these methods/materials. The multidisciplinary team includes backgrounds in climatology, community development, education, emergency management, geography, journalism, and sociology. The methods/materials will be tested in case studies of three communities that have experienced a tornado (Nebraska), flood (North Dakota/Minnesota), or drought (Kansas). Although the research literature includes disaster recovery cases studies, very few case studies have been conducted using the CCF. The three case studies will use a mixed methods approach involving data from secondary, documentary, interview, observational, and photographic sources. A metaanalysis will be conducted on the three case studies to determine best disaster recovery practices based on the CCF. The case studies and meta-analysis will serve three functions. First, a report applicable to emergency management Extension educators will be written to describe how community leaders and officials can build an inventory of their communities' assets to be leveraged if and when they need to recover from a natural disaster. Second, the case studies and meta-analysis will serve as a pilot as the team applies for subsequent research grant funding from federal sources. And third, the findings will serve as the basis for subsequent implementation grant funding from regional sources.



# *Successful Disaster Recovery Using the Community Capitals Framework*

**2017**

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The North Central Regional Center for Rural Development (NCRCRD) is one of four regional centers in the United States that work to improve the quality of life in rural communities. With funding from the USDA National Institute of Food and Agriculture and the land-grant universities in our 12-state region, the NCRCRD helps Extension professionals, researchers and other partners address issues that affect rural areas across the region. The center provides leadership in rural development by linking research with education and community outreach to facilitate, integrate, link and coordinate research and action for rural America.

This material is based on work supported by annual base funding through the National Institute of Food and Agriculture, U.S. Department of Agriculture. Any opinions, findings, conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect the view of the U.S. Department of Agriculture or other funders.

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For examples throughout the publication, McCook, Neb., is in brown, Breckenridge, Minn., is in blue and Pilger, Neb., is in red.



# Introduction

After a disaster, why do some communities come back stronger than ever, yet others struggle or decline?

Flora and Flora (2013, revised 2016) developed the community capitals framework (CCF) to understand how communities function. They determined that communities with healthy and sustainable community and economic development pay attention to seven types of capital: natural, cultural, human, social, political, financial and built. Their research also focused on the interaction among the seven capitals.

These capitals are a community's assets – its strengths, resources and capacities. They bring usefulness, value and quality to the community.

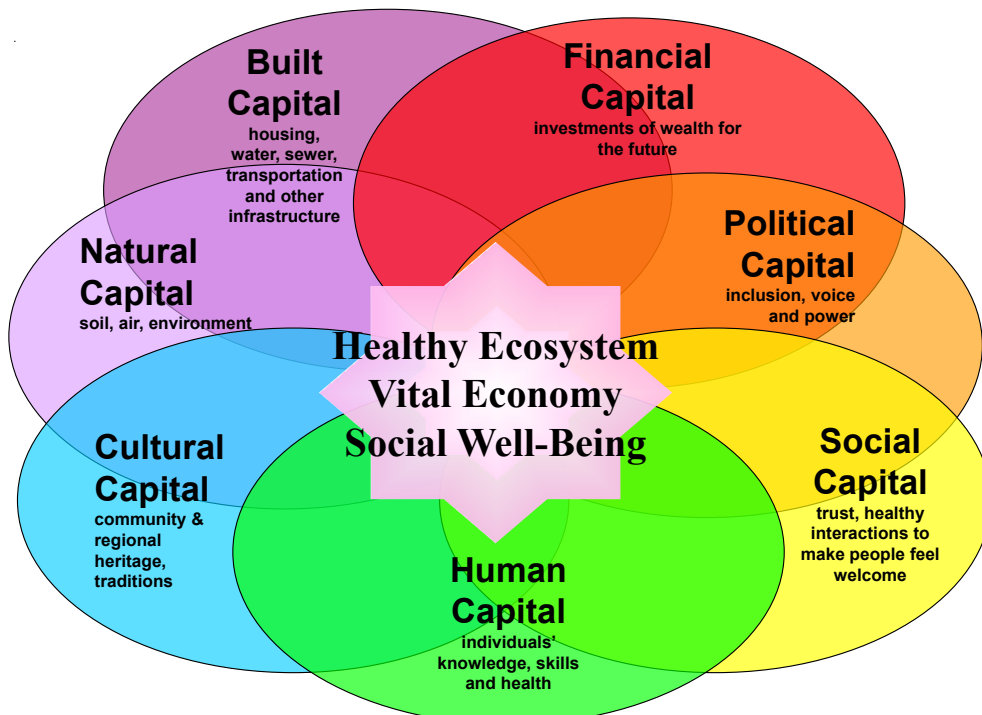
The community capitals framework can be a powerful tool to help communities recover from disasters successfully. After experiencing a disaster, a community can review its pre- and post-disaster capitals or use the community capitals framework in the recovery process.

This publication summarizes a research project funded by the North Central Regional Center for Rural Development. The information is based on case studies of three communities that experienced natural disasters:

**McCook, Neb.** – drought

**Pilger, Neb.** – tornado

**Breckenridge, Minn.** – flood



Flora, C.B., Flora, J.L. (2008) Rural Communities: Legacy and Change (3<sup>rd</sup> Edition). Boulder, CO: Westview Press.

**McCook, Neb.**, (population 7,526 in 2016) experienced a drought beginning in 2012 and extending into 2014. In June 2012, the weather station recorded a record-breaking high temperature of 115 F. The annual total rain accumulation was 9 inches, 12 inches below average. By the end of July, exceptional drought encompassed almost the entire state of Nebraska.

*Droughts are a different type of disaster than sudden-onset events such as tornadoes, floods, earthquakes and hurricanes. Sudden-onset events have an identifiable beginning and end, but the beginning and ending of a drought are more subtle. Likewise, impacts of a drought are different. Droughts most directly damage natural capital, while sudden-onset events are most likely to damage built capital.*

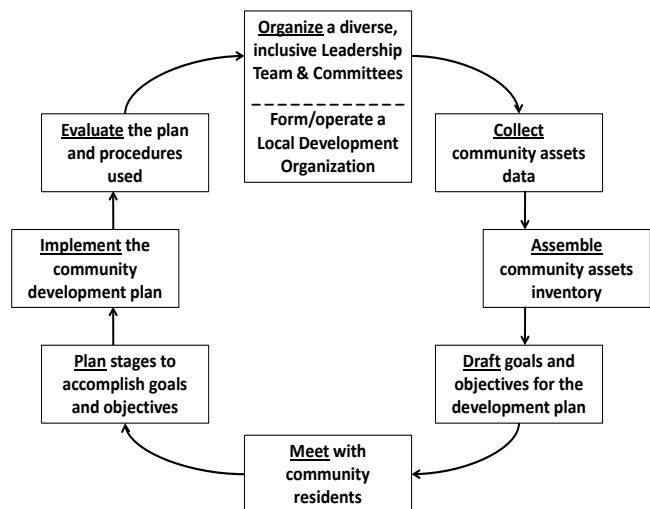
*Also, the ways in which community capitals are used in response to and recovery from drought have distinctive features. For example, instead of focusing on restoring damaged lifelines inherent in built capital, the focus during a drought is on limiting the damage to natural capital, such as farm and ranch land, wildlife and water sources.*

**Pilger, Neb.**, (population 360 in 2016) was struck by two tornadoes at about 4 p.m. on June 16, 2014. The tornadoes destroyed nearly three-fourths of the small town, leaving a desolate landscape where tree-lined streets, residences and businesses once stood. One of the community's two churches was destroyed, as was a middle school serving the combined Wisner-Pilger school district with the community of Wisner (population 1,200) seven miles away.

**Breckenridge, Minn.**, (population 3,270 in 2016) has flooded several times since the town was founded in 1857, although the 1997 flood likely had the most profound impact on the town's self-identity and development. What made the 1997 flood unique was the rapidity and severity of the flood and the scope of recovery that affected nearly every aspect of the town, its people and its institutions. As a twin city, Breckenridge is on the Minnesota side of the Red River across from Wahpeton, N.D.

Although research literature includes many disaster recovery cases studies, very few have been conducted using the community capitals framework. This project applied the community capitals framework to disaster recovery in these three communities. This publication uses examples from the case studies to help Extension educators, business and community leaders, government officials, emergency managers and others inventory their communities' assets that can be leveraged for disaster recovery. Communities with high capacity in the capitals may be better able to respond to and recover from disasters.

This publication provides a process community leaders can use to inventory and leverage the seven community capital assets after a disaster. Many of the ideas are taken from Beginning Again North Dakota: An Asset-based Development Program for Rural Communities Using a Community Capitals Framework (2017). That resource can provide more in-depth details.



Arrows illustrate the overall process of the BAND program

# Inventory Assets

Community officials and leaders can take four steps to inventory a community's assets using the community capitals framework:

1. Organize a leadership team.
2. Collect asset-based information.
3. Organize assets into community capitals.
4. Prioritize assets for recovery.

## ■ Organize a Leadership Team

Ideally, a recovery leadership team is formed before a disaster strikes. For example, this may be a group organized by local emergency managers or a Voluntary Organizations Active in Disaster (VOAD) group. If one is not established, form a team immediately after a disaster.

Membership in this group may be pre-planned and listed in a town's or county's emergency operations plan. Or the group may develop organically, with key players in the community initiating the effort. The group may function separately from a long-term recovery committee, whose purpose is to coordinate the mobilization of resources.

Once a leadership team is established, the team must determine its function, structure, membership and budget.

- **Function:** Why does the team exist? What are team goals and action steps? Is this team going to provide leadership to the long-term recovery committee for the community, or will it work independently?
- **Structure:** Who is the leader? Who makes decisions? Who communicates on the team's behalf? Who has financial responsibilities?

- **Membership:** Is the team diverse? Is the town well represented? Does it include members who have influence to get things done?
- **Budget:** Are funds available to support the group's priorities? Can the group apply for funding or work with agencies that can?

## ■ Collect Asset-based Information

If a community's assets have not been documented before a disaster, the leadership team should make this a priority. The leadership team can use the community capitals framework to guide the collection of asset-based information.

The team may assemble data from many sources, collect photos and talk with people affected by the disaster. One team member should serve as the organizer of the information collected. This member is responsible for setting up a depository for all the team members to share data. Collecting information on assets can be an ongoing process.



## ■ Organize Assets Into Community Capitals

Team members should organize the community's assets — pre-disaster and in the current post-disaster situation — under the seven capitals: built, financial, social, human, political, cultural and natural.

### McCook Pre-disaster Asset Examples

- Financial capital: strong ag-based economy; small-town, family-owned banks
- Political capital: strong city council, local water ordinances in place to address drought
- Social capital: strong sense of community, high volunteerism, well-connected to news sources
- Human capital: effective leadership structures, trained management personnel
- Cultural capital: community pride, Buffalo Commons storytelling festival
- Natural capital: suitable soils, topography and climate for strong agricultural sector
- Built capital: up-to-date water infrastructure, broadband, multiple schools

### McCook Post-disaster Asset Examples

- Financial capital: reduced financial reserves
- Political capital: some increased program support
- Social capital: no change
- Human capital: increased youth awareness to drought
- Cultural capital: no change
- Natural capital: reduced soil and forage health, decreases to wildlife habitat, decreases in pheasant populations
- Built capital: improved water infrastructure, air conditioning in schools



Gary Goreham brainstorms Breckenridge, Minn., community assets before and after the flood in each community capital with a focus group of local leaders.

### Pilger Pre-disaster Asset Examples

- Financial capital: strong ag-based economy, small-town family-owned bank
- Political capital: village council
- Social capital: strong sense of community, annual events reflect community pride
- Human capital: Pilger Development Fund just getting started
- Cultural capital: community pride, swimming pool fundraisers
- Natural capital: close to river, hunting destination, Tree City USA for 16 years
- Built capital: on two major highways, local businesses

### Pilger Post-disaster Asset Examples

- Financial capital: loss in tax base, 73 homes destroyed, Midwest Bank and Co-op commitment to rebuilding
- Political capital: new opportunities for leadership, attendance at meetings up
- Social capital: high citizen bonding, especially right after the tornado; people connected through Reinvent Pilger process
- Human capital: citizens determined to make Pilger thrive involved in Reinvent Pilger task forces
- Cultural capital: no change
- Natural capital: 275 trees donated to replace the 300 lost, opportunities for kayaking and trail development, RV park added four new hook-ups
- Built capital: new buildings and businesses, road improvements

### Breckenridge Pre-disaster Asset Examples

- Financial capital: businesses, banks, Breckenridge Chamber of Commerce, twin city to Wahpeton, N.D.
- Political capital: strong city government leaders with connections to state and federal legislators
- Social capital: several churches and civic organizations, newspaper
- Human capital: population of 3,708 in 1990, committed community leaders
- Cultural capital: rural character, river culture
- Natural capital: the river(s), agricultural lands
- Built capital: homes, city and county government buildings, schools, churches, hospital/nursing home, business buildings

### Breckenridge Post-disaster Asset Examples

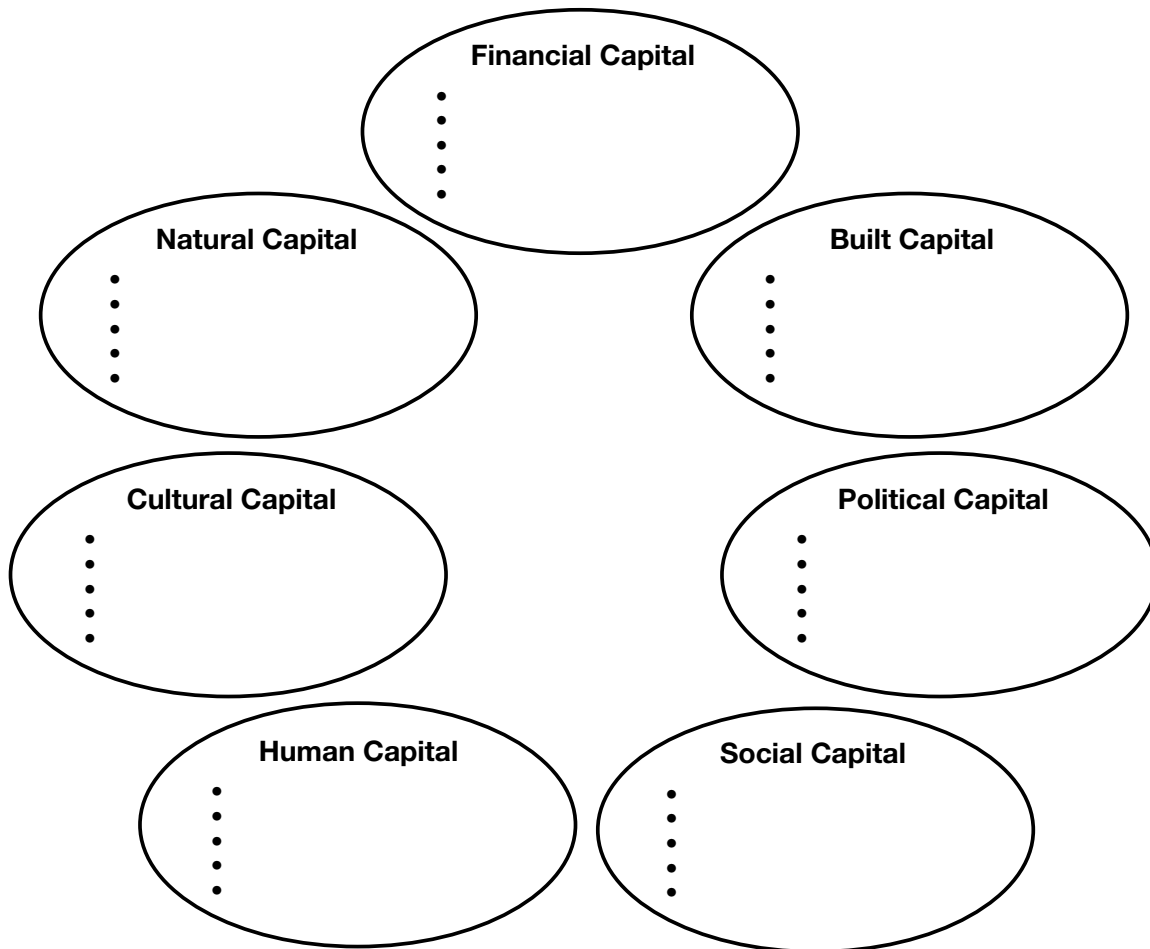
- Financial capital: fewer businesses, merger into Wahpeton-Breckenridge Chamber of Commerce
- Political capital: still strong city government leaders with connections to state and federal legislators
- Social capital: still several churches and civic organizations, newspaper
- Human capital: population decline to 3,290 in 2015, committed community leaders
- Cultural capital: continued rural character and river culture
- Natural capital: the river(s), agricultural lands
- Built capital: new and improved homes, new city government building, renovated county government building, new housing addition, new hospital/nursing home, fewer business buildings, flood mitigation and diversion infrastructure

## ■ Prioritize Assets for Recovery

To begin prioritizing assets, write the name of each of the seven capitals on large sheets of paper. Place the seven pages on the wall or tables. Go through the information collected, and list each asset in at least one of the capitals. Using the Community Asset Inventory Display, work as a team to prioritize two to five assets per capital. The priority assets will guide how community residents develop recovery goals at a community meeting.

**Pilger, Neb.,** Midwest Bank owners announced that they intended to rebuild (financial capital) shortly after the tornado. The Farmers Co-Op (financial capital) followed suit and had bins available for storage by corn and soybean harvest in the fall, and the volunteer fire department (built capital) said it would replace its building. By early September, the city clerk and her husband had replaced their home, and other homeowners were looking into the options to replace or restore their residences (built capital). Throughout the decades, Pilger has persevered during floods, fires and another major tornado that struck 60 years to the month in June 1954. Now, on the road to recovery, Pilger was ready to reinvent itself for not only survival but also prosperity into the future (human capital).

### Community Asset Inventory Display



# Leverage Assets

Once the leadership team inventories and prioritizes the community's assets, the team will facilitate the process to leverage those assets.

The five steps community officials and leaders can take to use the community's assets to their maximum potential following the community capitals framework are:

1. Develop draft goals.
2. Share draft goals in a community meeting.
3. Implement the plan.
4. Evaluate.
5. Celebrate accomplishments.

## ■ Develop Draft Goals

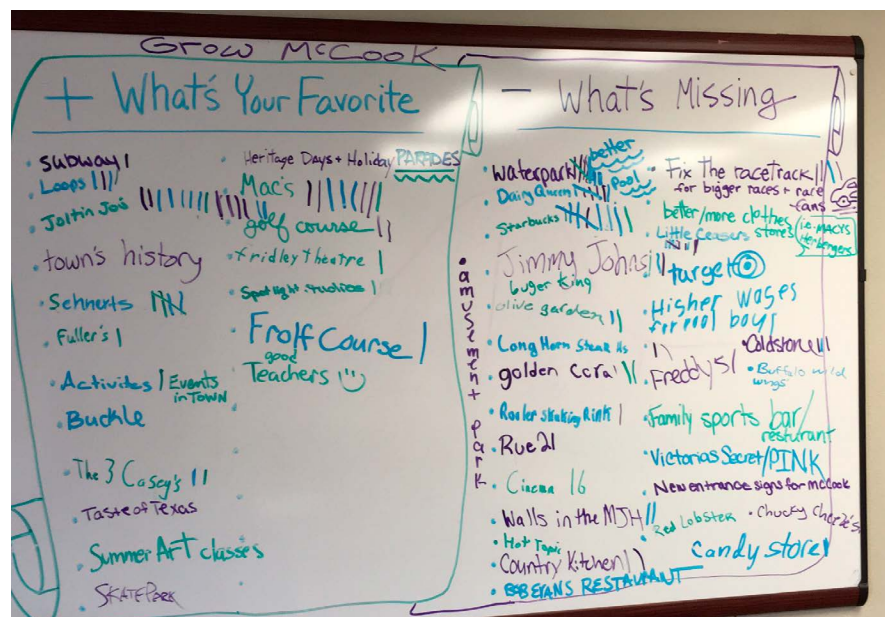
Now that assets are inventoried, it's time to develop draft goals for recovery using those prioritized assets to their maximum potential.

Focusing on the priority assets, the leadership team may draft goals to propose to the community or lead a process for community members to be involved in the drafting. The process for developing goals will differ for each community. However, community recovery goals should be:

- S – Specific
- M – Measureable
- A – Attainable
- R – Realistic
- T – Timely

The leadership team may want to prioritize draft goals rather than take on too much at once. Separate documents might include the asset, the goal, who is in charge of working toward that goal, the tentative plan, a deadline and resources needed.

McCook, Neb., focus group participants brainstorm community assets and gaps and vote on priorities.



## ■ Share Draft Goals in a Community Meeting

The priority assets and draft goals identified by the leadership team should be presented at an all-community meeting. The community meeting is a time for residents to comment on the draft assets and goals presented, share their ideas for their community and, if possible, come to consensus on how to move forward.

Invite all residents for the broadest input possible, but reach out to specific demographics who might be less likely to attend. Invite community leaders who aren't part of the leadership team. Encourage all to provide input, or use a process where all can provide their input anonymously.

The facilitator should be someone who has experience in facilitation and conflict management, and who is seen as neutral.

### Community Meeting Planning

- Develop an agenda.
- Gather materials to distribute: draft priority assets and goals, official disaster documents or summaries.
- Develop visuals: PowerPoint slides, wall charts, etc.
- Plan logistics: where and when, including an accessible location and avoiding as many conflicts as possible

### Possible Community Meeting Agenda

- Welcome attendees, review agenda, share ground rules.
- Introduce leadership team members.
- Describe the process so far.
- Share draft assets and goals.
- Explain the feedback process.
- Explain that the feedback will be considered and the assets and goals may be updated based on feedback.
- Explain how community members can get involved to help carry out the goals, how they will be kept up to date on the process and how they can continue to contribute.
- Recruit volunteers for priority goals during or after the meeting.

A second or even third community meeting may be hosted to gather more feedback or buy-in, or to share progress.

This community recovery process continues to differ from the work of the long-term recovery committee, which focuses on helping individuals repair their homes, for example, while the leadership team focuses on whole community recovery.

**McCook, Neb.,** didn't have public meetings because of the nature of a long-term drought. Groups and organizations in McCook responded on an as-needed basis to drought impacts. For example, dry conditions increased the risk of fires. Chadron State Park closed to the public for a time to fight the fires. In the years following the drought, focus group meetings facilitated by the research team were held with various McCook sectors.

**Pilger, Neb.,** had a preliminary meeting of community leaders in early September 2014 that brought together 70 people to begin a visioning and strategic planning process known as Reinvent Pilger. In late September, 150 people gathered for a Pilger community town hall meeting. They established eight task forces consisting of community residents, who developed strategic action plans to help reinvent their community. Those task forces were:

- Community Center
- School/Pre-school
- Sustainability/Trees
- Bar/Restaurant/Coffee Shop
- Recreation
- Communications
- Community Cleanup
- People Attraction/Branding

Each task force identified an initial focus and named two co-chairs. Subsequent meetings were held between 2014 and 2016. Each meeting reflected on the progress that the task forces were able to achieve. The mayor of Greensburg, Kan., attended one meeting. In 2007, Greensburg was devastated by a tornado. Since then, Greensburg has made great strides in rebuilding with a focus on green technology. The mayor reinforced the message of hope for the people of Pilger.

**Breckenridge, Minn.**, leaders started meeting almost daily as the waters were still receding. City council members, county commissioners, pastors, school administrators, business leaders, non-governmental organization representatives, civic organization members and others organized recovery efforts. The Lend a Helping Hand flood recovery center and program was a result. This organization provided grants to residents both for immediate emergency and long-term unmet needs.

## ■ Implement the Plan

Document the plan in an easy-to-read table or spreadsheet that includes details for carrying out the plan: each goal, specific objectives and action steps for each goal, deadline, how the task will be completed, who is responsible, resources needed, etc.

Leadership team members should follow up regularly to make sure the plan is being carried out. Leadership team members also should communicate regularly with other leadership team members and the community as a whole.

**McCook, Neb.**, financial leaders provided payments through crop insurance programs, and applied for and received federal relief funds for crop failures and livestock feeding. The McCook Economic Development Corporation, which is a public-private nonprofit organization, continued to provide positive branding campaigns and created a positive environment to attract businesses that stimulate the economy following the agricultural impacts. Community members raised \$20,000 in funds and received a \$10,000 grant from the Tony Hawk Foundation to build a permanent park that offers year-round recreational opportunities that are not dependent on water supply.

**Pilger, Neb.**, formed the People Attraction/Branding Task Force to attract new residents and retain young adults (human capital). This task

force was responsible for identifying needs of new residents and working with experts on strategies to recruit new residents. During the summer of 2016, a new sign was installed on the highway.

**Breckenridge, Minn.**, city officials and emergent local leaders were instrumental in creating the Project Breckenridge organization (social capital) that conducted landscape and aesthetics projects (natural capital). Officials from the local churches leveraged their facilities (built capital) and coordinated with school officials (social capital) to relocate classes to the various churches for the remainder of the academic year.

Local leaders emerged and joined with civic and service organization volunteers to form the Lend a Helping Hand organization (social capital). This organization provided grants (financial capital) to residents for immediate, emergency home repair (built capital). Private individuals, civic clubs, churches and businesses contributed nearly \$1.8 million (financial capital) during a three-year period after the flood, which served as an unmet needs fund.

## ■ Evaluate

The leadership team should evaluate accomplishments regularly, realizing disaster recovery is a long-term process. Determine what has been done and what still needs to be done to meet goals. This evaluation process also is an opportunity to revisit priority assets or determine if assets and/or goals need to be changed or added.

## ■ Celebrate Accomplishments

Although disaster recovery may not be “done” for years, recognize individuals and the community as a whole along the way. Recognizing and celebrating the accomplishment of community development projects can be an important means of enlisting participation and support from community residents for future projects.

Inventorying assets may continue as the community sees the need throughout the recovery process.

**McCook, Neb.**, continues to experience positive rippling effects of community recovery. The annual festival of storytelling and music continues as a celebration of perseverance among older generations. Newer initiatives, such as a Rural Futures Institute/University of Nebraska-Kearney partnership that offers a health and aquaponics-themed day camp series, educate youth.

**Pilger, Neb.**, residents have chosen to mark June 16 as a celebration. In June 2016, that became evident with Pilger Days returning, highlighted by several business open houses and ribbon cuttings, food, street dances, kids' activities and free swimming at the pool. Since June, several businesses, including Pilger Pride, the local convenience store, have opened, and through fundraising efforts, so has the community center. Both serve as a social capital hot spot. The community center/senior center provides recreational and educational opportunities.

**Breckenridge, Minn.**, and Wahpeton, N.D., have named a park along the river Volunteer Park. In April 2017, they placed a plaque in the park again thanking the volunteers who 20 years before gave so much to the cities.

## Conclusion

This publication provides an overview of how the community capitals framework may be used for disaster recovery in communities. For a more in-depth review of the process, additional examples that aren't disaster related and sample forms, see *Beginning Again North Dakota*.

## Resources

Flora, C., Flora, J., and Gasteyer, S. (2016 revised from 2013). *Rural Communities: Legacy and Change*, 15th ed. Boulder, Colo.: Westview Press.

Goreham, G., Tweeten, K., Taylor, C., and Fier, B. (2017 revised from 2009). *Beginning Again North Dakota: An Asset-based Development Program for Rural Communities Using a Community Capitals Framework*. [www.ag.ndsu.edu/publications/farm-economics-management/beginning-again-north-dakota-an-asset-based-development-program-for-rural-communities-using-a-community-capitals-framework-1](http://www.ag.ndsu.edu/publications/farm-economics-management/beginning-again-north-dakota-an-asset-based-development-program-for-rural-communities-using-a-community-capitals-framework-1)

*This project was funded by the U.S. Department of Agriculture North Central Regional Center for Rural Development, Michigan State University, Award # FAR0024260.*

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## Cultivating Successful Wine and Cider-Making Enterprises in the NC Region

November 23, 2015

**PI:** Miller, M. (University of Wisconsin-Madison)

**Co-PIs:** Cochran, D. (Iowa State University) and Steele, J. (University of Wisconsin-Madison)

**Award:** \$10,000

**Project Abstract:** Burgeoning wine and cider industries in the North Central Region offer significant opportunities for farmers, entrepreneurs and rural communities. They can capture market share, draw in recreational traffic to other local businesses, and incentivize sustainable farming practices by connecting consumers to the land. For these industries to continue to grow and thrive, producers will need ample educational support that is reinforced with evidence-based research. For states where the concentration of producers is significant but not yet sufficient to justify a large and comprehensive program, it makes sense for land grant universities to collaborate. The goal of this project is to identify a framework for educational support that meets the needs of growers and producers of wine and cider through a collaborative process involving the University of Wisconsin Center for Integrated Agricultural Systems, the Iowa State University Department of Horticulture and the University of Wisconsin Department of Food Science. Specifically, we intend to develop a strong proposal for a National Institute of Food and Agriculture Beginning Farmer and Rancher Grant that will enable us to implement the framework that we identify. In addition to drafting the grant, the primary activities funded through the project will include a preliminary brainstorming session, a producer survey and needs assessment, and a grant-planning workshop so that we garner input and invite relevant stakeholders to take part in the grant-planning process.



# Cultivating Successful Wine and Cider Enterprises in the North Central Region

## Final Report



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## **Project Goals and Activities**

The goal of our project was to identify a framework for research and educational support that would meet the needs of growers and producers of wine and cider in the North Central Region. Specifically, the intention of the project was to develop a strong proposal for future funding. To reach this goal, our plan was to conduct a brainstorming session, an industry survey, and a planning workshop with members of the project team and industry stakeholders. These combined activities were intended to strengthen our proposal and increase our likelihood of receiving funding.

## **Project Accomplishments**

At the outset of the project, we identified a funding opportunity that fit our objectives: The Agricultural Marketing Service Multi-State Specialty Crop Program. The program competitively awards grants of up to \$1 million to enhance the competitiveness of specialty crops through collaborative, multi-state projects.

### *Brainstorming Session*

Members of the project team and potential external collaborators met to brainstorm possible ideas for the Multi-State Specialty Crop Program grant and decided that a narrower focus on hard cider would increase the competitiveness of our proposal due to the rapid growth in the cider industry and the relative lack of research and educational opportunities pertaining to cider compared with wine. In this initial brainstorming session we identified additional individuals to invite to a more comprehensive project planning workshop.

### *Project Planning Workshop*

After this initial brainstorming session, we convened a project planning workshop hosted by the University of Wisconsin – Madison Center for Integrated Agricultural Systems (CIAS) on December 1<sup>st</sup>, 2015. In addition to members of the project team, this project planning workshop included the following potential collaborators and industry stakeholders:

- James Luby, Professor of Horticulture at the University of Minnesota
- John Tillman, Researcher, University of Minnesota Fruit Breeding Program
- Nick Smith, Wine and Cider Outreach Specialist with the University of Wisconsin
- Dan Bussey, Orchard Manager at Seed Savers Exchange in Decorah, Iowa
- Tim Johnson, Seed Bank Manager at Seed Savers Exchange in Decorah, Iowa
- Deirdre Birmingham, Owner of The Cider Farm in Mineral Point, Wisconsin and Grants Advisor with the Michael Fields Agricultural Institute in East Troy, Wisconsin
- Herdie Baisden, Owner and Manager of Maiden Rock Winery and Cidery in Stockholm, Wisconsin
- Harry Hoch, Owner and Manager of Hoch Orchards in La Crescent, Minnesota

- Rob Fisk, Owner and Cider Maker for Wyndfall Cider in Jordan, Minnesota
- James Lindeman, Owner and Cider Maker for The Cider House of Wisconsin in McFarland, Wisconsin
- Joseph Baird, Owner and Cider Maker at Mershonian Cidery in Stoughton, Wisconsin

During the workshop, we identified priorities for the industry based on stakeholder input, and we agreed upon the basic framework for a Multi-State Specialty Crop Program grant proposal and roles and responsibilities for each of the project collaborators. Specifically, the industry stakeholders stated that their primary priority was knowing “what to grow” in terms of what apple varieties performed best in our region and made the best cider. Their second priority was knowing “how to grow it” or in other words, how growing practices affected the properties of cider apples. And their third priority was “why to grow it in the first place” meaning that they wanted to see some economic research around the feasibility of growing cider apples. Numerous other possible topics were identified, but these topics were agreed upon as priorities among stakeholders and areas where the potential collaborators had sufficient expertise to develop a strong proposal. Each of the non-university participants was paid honoraria as specified in the original grant proposal for their participation in the workshop.

#### *Multi-State Specialty Crop Program Proposal*

After the workshop we proceeded to draft the grant proposal. This work was coordinated by Matt Raboin, a CIAS Outreach Specialist, using personnel funding from the NCRCD award. The resulting grant proposal included collaboration between three land grant universities (the University of Wisconsin, Iowa State University, and the University of Minnesota) drawing from the areas of expertise represented by each university. Further collaborators included Seed Savers Exchange and grower partners. The proposal focused on the three themes identified during the project planning workshop: (1) what to grow, (2) how to grow it, and (3) why to grow it in the first place. The full proposal is attached in Appendix 1.

#### *Industry Survey and Needs Assessment*

Due to the unexpectedly tight time constraints of the Multi-State Specialty Crop Program, we were not able to conduct the industry survey in time for it to inform our proposal. None the less we still conducted an industry survey under the assumption that it would help inform our project if successful and that it would help strengthen future proposals if the current one was not successful.

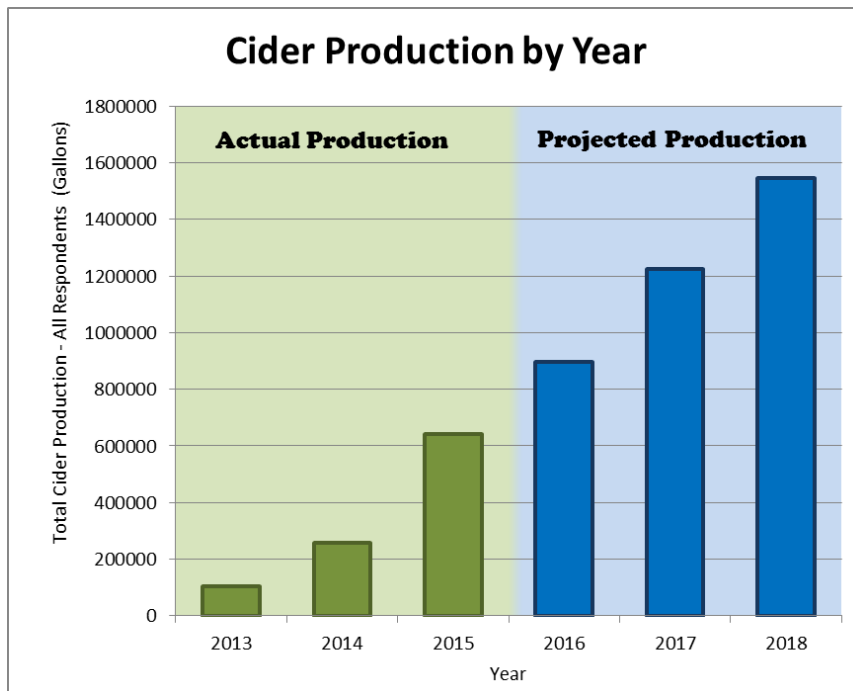
A survey was sent out to 130 hard cider businesses in the North Central Region, and we received 44 completed surveys. A report with analysis of these findings is currently being revised and edited and is slated for publication through CIAS before the end of the calendar year. A brief summary of some key findings follows.

Most of the cider companies were relatively young businesses, with 77 percent of them beginning production in 2010 or later. Most of the cider companies were small, with 68 percent having 2015 sales of less than \$100,000. 22 percent had sales of \$100,000 - \$500,000, and 10 percent had sales over

\$500,000. On average, the companies employed 1 full time employee, two part time employees, and 1 seasonal employee in cider production, sales and marketing.

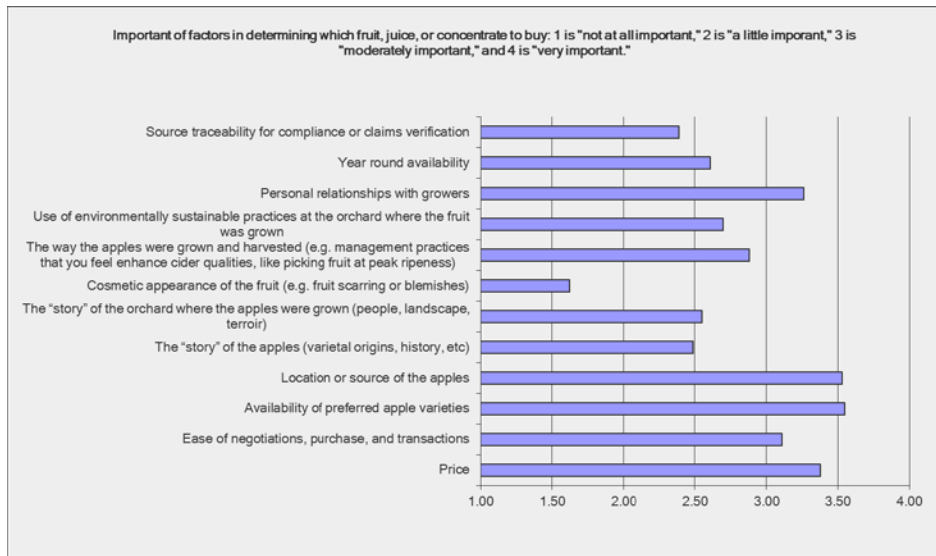
Actual production of cider by the responding companies showed a 5 fold increase between 2013 and 2015, and the companies project steady, continued growth from 2016 – 2018 with total production going well over 1 million gallons. Only 14 percent of the companies described their business as “losing money” or “losing a lot of money” while the other 86 percent were either “breaking even,” “profitable,” or “very profitable.” Considering how many of the businesses are still very new, this early level of profitability is encouraging.

Table 1: Actual and Projected Cider Production by Year (all survey respondents)



The cider companies had a very local orientation both in terms of apple/juice supply and sales. 70 percent of apples came from local sources (either their own orchard or an orchard that was within state or within 100 miles). Another 21 percent of apples came from regional states, and most of the remaining 9 percent came from other US orchards. Table 2 below demonstrates that cider makers prefer to buy their fruit from local sources where they can find the varieties they prefer at a reasonable price from growers whom they have established relationships with. Likewise, every respondent indicated that they sold the majority of their cider locally (within their state or within 100 miles).

Table 2: Rating the importance of factors in determining what fruit, juice, or concentrate to buy



Regarding constraints and opportunities that the industry faces, 75 percent of respondents either “agreed” or “strongly agreed” that there is still significant room for growth in the regional cider industry, and many noted concerns in their open ended comments about the low quality of “soda-like mass-produced ciders” giving the cider category a negative reputation.

Table 3: Rating constraints and opportunities in the regional cider industry



The most significant challenges that cider makers face in starting and managing their business appear to fall in the categories of financing, marketing and distribution. With regard to marketing, several cider makers mentioned that the average consumer still isn’t familiar with craft cider and that negative experiences with major brand ciders left a “bad taste in their mouth.” For distribution, several cider

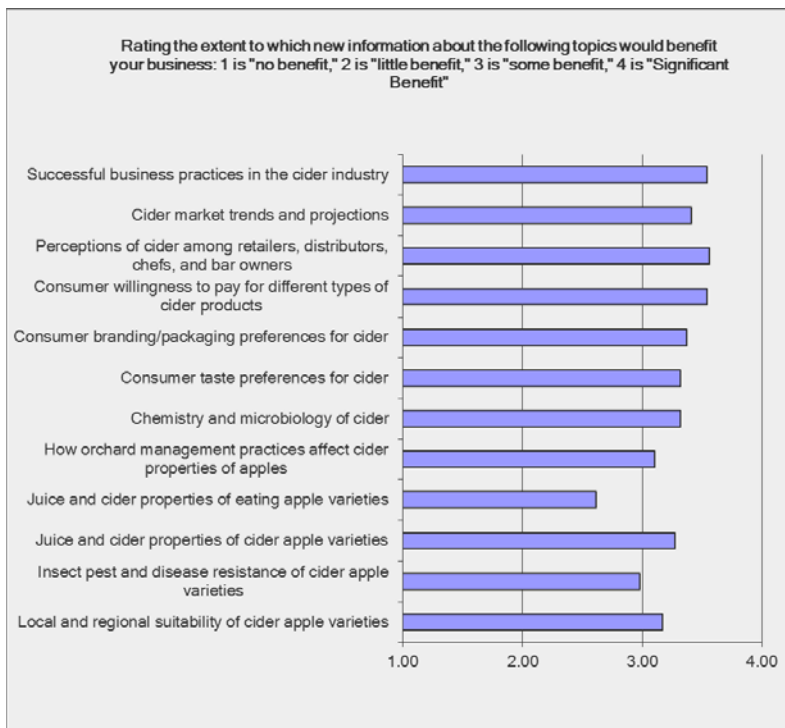
makers noted the challenges of maintaining profitable margins when working with distributors and complained that they still have to do most of the work of getting their cider into new accounts and pushing their product.

Table 4: Challenges in starting and managing a cider business



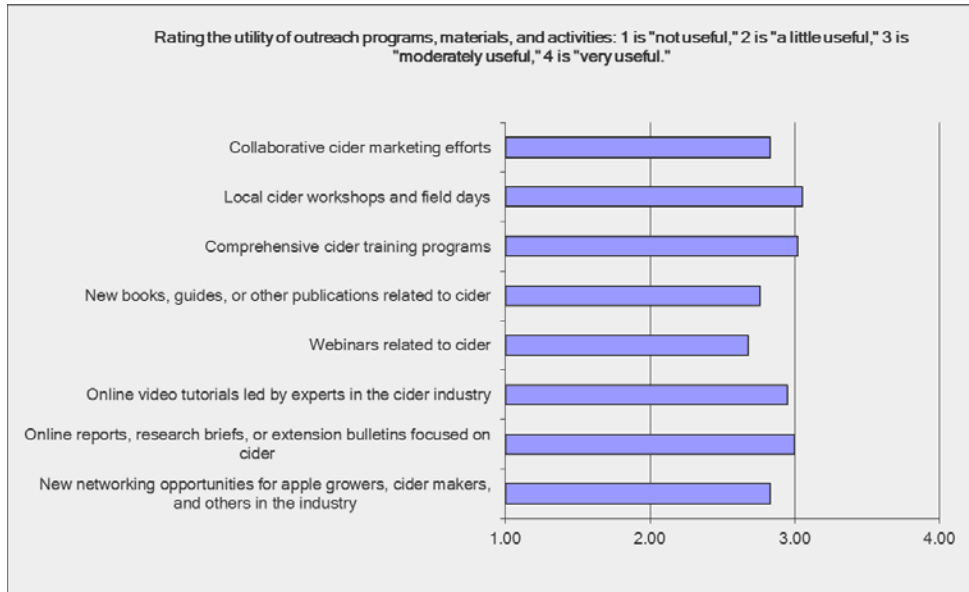
Not surprisingly, the topics for which cider makers would like to see more information followed their concerns about marketing and distribution. The highest priority was given to “perceptions of cider among retailers, distributors, chefs, and bar owners,” followed closely by “consumer willingness to pay for different types of cider products” and “successful business practices in the cider industry.”

Table 5: Prioritizing topics for research



For outreach approaches, respondents tended to prefer local cider workshops and field days, comprehensive cider training programs, and online reports, research briefs, and extension bulletins focused on cider. However, the margin of difference between these and other approaches was relatively small.

Table 6: Preferred outreach approaches



On the whole, this survey has helped us to better understand the scope, scale, needs and priorities of the North Central Region hard cider industry. Drawing from this information, we believe we can better target and prioritize our efforts when applying for additional sources of funding.

## Challenges

The greatest challenge faced in successfully completing this project was available personnel time to focus on project activities. In our original proposal we had requested a significantly higher personnel budget, but we were funded at a lower level (\$10,000 instead of the requested \$25,000) which primarily came out of the personnel section of the budget. Since one of the members of the project team (Matthew Raboin) depends on grant funding for 80 percent of his appointment, and the PI (Michelle Miller) depends on grant funding for 50 percent of her appointment, it was challenging to justify spending time on the project in place of other competing priorities. Having more funded time devoted to the project would have increased our chances of submitting a successful Multi-State Specialty Crop program proposal.

Unfortunately the Multi-State Specialty Crop Program proposal that we submitted was not successful. It did receive primarily positive comments from the reviewers, but the grant program proved to be exceptionally competitive, with only 6 percent of proposals getting funded.

## **Future Opportunities**

Our work on this project did attract the attention of the Damon S Bourne Foundation which has subsequently agreed to fund additional research and outreach related to hard cider over three years. We are using funding from the Damon S Bourne Foundation to continue to build off of what we learned through the grant planning workshop and industry survey under this NCRCRD project. With this added support along with the network of multi-state collaborators that we were able to establish through the NCRCRD project, we are hopeful that we will still achieve our ultimate goal of meeting the needs of growers and producers of cider in the North Central Region.



Appendix 1.

**Multi-State Specialty Crop Program  
Grant Proposal**

Submitted January 15<sup>th</sup>, 2016

# **Crafting Value: Research for Apple Growers Entering the Cider Industry**

**Prime Applicant: Board of Regents of the University of Wisconsin System**

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## Abstract

Science lags behind the US hard cider industry's meteoric rise. As cider becomes a multi-billion dollar industry in the next 2-3 years, the nation's apple growers might capture greater benefits if they have access to sound information about this growing opportunity. Our project will set new standards for cider research and empower growers with the information they need. Our research team combines interdisciplinary expertise from land grant universities in Wisconsin, Iowa, and Minnesota with direct engagement of growers and industry stakeholders. Together we will:

- Identify consumer cider preferences
- Employ new, more rigorous analytical methods for assessing the cider properties of apples
- Identify and evaluate promising cider apple varieties in the Seed Savers Exchange collection of over 1000 historical apple varieties
- Identify and evaluate promising cider apple varieties in the University of Minnesota apple breeding program, consisting of over 15,000 varieties
- Initiate grower-led trials of cider apple varieties and facilitate grower-to-grower learning
- Conduct a first of its kind experiment to assess how plant nutrition and growing conditions affect the cider properties of apples
- Conduct a constraints and opportunities analysis of the Midwest cider value chain

With the research results we will create an interactive database of cider apple varieties that combines cider and horticultural properties of apples with grower insights. We will share results at field days in Wisconsin, Minnesota, Iowa, and Michigan as well as through presentations at national conferences, a series of publications, and robust online outreach targeting a national audience.

# Project Narrative

“Why not go out on a limb? That’s where the fruit is.”

-Mark Twain

## 1. Project Purpose

### 1.1. A Growing Opportunity

Growth in the US hard cider industry has been likened to a “renaissance.” The beverage that sustained America’s first colonists, the preferred beverage of connoisseurs like John Adams and Thomas Jefferson, and the beverage that moved west with the likes of Johnny Appleseed, is fast becoming a beverage of our modern age as well.

Following consumer demand and resembling the early years of craft beer’s rise to prominence, cider markets are surging. At a 50 percent annual growth rate, the US cider industry has, on average, more than doubled every two years between 2009 and 2014 (IBIS, 2014) with total sales topping \$1.3 billion per year and projections for continued growth (Euromonitor, 2014). In the last five years, 314 new cider businesses opened across the US (The Cyder Market, 2015), and in a recent survey of 105 cider makers, every one of them projected increased production in the coming year (Miles and Peck, 2014).

This surge in cider has captured the interest of many of the more than 25,000 apple growers (USDA, 2012) in the US. As it continues to grow, the cider industry is poised to take a larger “bite” out of the nation’s \$3.1 billion dollar apple crop.

Of particular interest is the new market opportunity of growing cider-specific apples. For much of recent history, growing apples specifically for cider simply did not make financial sense for most growers, and cider apples in the US were synonymous with low-grade eating apples, which do not carry much commercial value. Today, however, as the cider market grows and as consumer palettes evolve, many cider makers are looking to produce higher quality, more wine-like ciders, and they are realizing that just like you cannot produce a quality wine from low-grade table grapes, you cannot produce a quality cider from low-grade eating apples. The cider market is ready for cider apples, and many cider makers are willing to pay competitive prices to get them. For example, a survey of cider makers in Vermont found that they paid only \$0.12 per pound for eating apples to make cider out of, but they paid an average of \$0.45 per pound for specialty cider apples (Becot et al. 2015). This surpasses the record high of \$0.34 per pound that US growers received on average for fresh market apples in 2012 according to the USDA Census of Agriculture. A series of feasibility studies (Farris et al. 2013; Matson Consulting, 2012; Galinato, 2014) further confirms that growing cider apples does indeed have the potential to be profitable in this new market environment.

## 1.2. A Challenge to be Addressed

On the whole, the US apple industry has been quite slow in responding to this growing demand for cider apples (Warner, 2014), and understandably so. Growing apples is by nature a business that requires high initial investment costs that are slow to produce returns, so growers need to know with certainty that they have solid ground to land on before taking a leap into a new venture. Currently, the ground to land on for a new venture in cider apples is only as solid as the evidence mentioned above. Aside from a few, usually secondary research efforts across the country (Washington State University, 2015) there is a fundamental lack in available research in the very basics of cider apple production. Wine, by comparison, has entire fields of study in viticulture and oenology, with experts around the country, while cider enthusiasts primarily look to dated and geographically irrelevant research from the UK (Marsh, 1983).

In a stakeholder's meeting held to inform this research proposal, a participating apple grower summed it up best. Listing three items on her fingers in order of priority, she said, *"We need to know [1] What to grow, [2] How to grow it, and [3] Why to grow it in the first place."*

- Regarding "what to grow," there has never been a formal cider apple-breeding program in the US, and scattered research trials or profiles of cider apples have only experimented with a relatively small number of varieties that were not systematically chosen (Rothwell, 2010; Moulton et al., 2010; Thompson-Witrick et al. 2014). Some pioneering growers are experimenting on their own, but as of yet, there has not been an effort to pull together the lessons they have learned. We also do not know exactly what the market is looking for with respect to flavor profiles, and without solid research to base decisions upon, many growers are reluctant to plant cider apple trees.
- Regarding "how to grow it," very little research has looked at the affects that growing conditions have on cider qualities (again a comparison with wine is apt as choosing the right soil for planting is a foremost factor of consideration for prospective vineyards). For cider, one study of fertilized and unfertilized potted plants showed significant increases in desirable tannins in the unfertilized samples (Lea and Beech, 1978), and another study showed some difference between cider apples grown in organic vs. integrated orchards in France (Hecke et al, 2006). In sum, however, these limited studies provide little insight into how cider apples might be grown differently than eating apples to achieve desired cider qualities.
- Regarding "why to grow it in the first place," growers want to make decisions based on sound market analysis. In spite of the handful of feasibility studies mentioned earlier (Farris et al. 2013; Matson Consulting, 2012; Galinato, 2014), there are still several unanswered questions about what it is that the market demands, what types of businesses enterprise configurations are most likely to succeed in the current market environment, and what are the greatest constraints and opportunities for growth in the industry.



### 1.3. Addressing the Challenge

The time is ripe for cider research. Modern cider production demands a higher bar of academic rigor, and our research project will raise that bar. In particular, we will address the three basic questions highlighted by the grower mentioned above of (1) what to grow, (2) how to grow it, and (3) why to grow it in the first place.

For “what to grow”:

- We will employ new analytical methods that go beyond the simple classifications of cider apples that are currently available. Adding measurements of the concentrations of several flavor and aroma compounds in cider to the more traditional measurements of brix, acidity, and tannins, we will provide growers and cider makers with more robust information on cider apple qualities. We will further calibrate our testing priorities through consumer focus group tasting events where we will identify which flavors, aromas, and other cider attributes are considered most desirable.
- Drawing from the vast collection of over 1000 historical apple varieties at the Seed Savers Exchange orchard in Decorah, Iowa we will systematically assess a greater number of apple varieties than has been tested previously, providing more detailed information on each variety than is currently available for any variety and prioritizing those varieties that show the most promise for the US cider industry.
- We will leverage apple-breeding efforts that include over 15,000 genetically unique seedlings at the University of Minnesota and systematically identify the most promising varieties for cider. These varieties will then be selected and cloned for further assessment with the longer-term goal of releasing new, North American cider apple varieties with superior cider characteristics.
- After sharing findings of promising cider apple varieties from tests of historical varieties, we will catalyze grower-led experimentation with those cider apple varieties through on-farm trials that allow growers to test out varieties for themselves based on their own priorities. We will then facilitate information sharing and collaborative learning through a participatory research process situated in real world contexts.

For “how to grow it”:

- We will conduct a first of its kind experiment to assess how plant nutrition, soil moisture, and temperature affect juice qualities of apples. Working with participating orchards in Wisconsin, Minnesota, and Iowa, we will monitor soil nutrients, leaf tissue nutrient status, soil moisture, soil temperature, weather data, and cultural practices in order to assess how these factors influence the juice properties of apples harvested from the same orchards. Findings will help cider apple growers determine which sites are best for planting cider apples and how they can best manage soil conditions, available nutrients, and irrigation practices to produce the highest quality cider apples.

For “why to grow it in the first place”:

- We will take economic assessments of the cider value chain beyond the hypothetical realm of feasibility studies and into the realm of real world cider businesses, providing an in depth assessment of the Midwest cider value chain and the constraints and opportunities within it. We will then take the findings beyond presentation and into collaborative planning with key stakeholders through formation of the Midwest Cider Development Network. The network will provide a platform for longer-term, sustained efforts to advance the cider industry.

Addressing these objectives in a robust and systematic way will give growers the information they need to make sound decisions and investments when considering entering the cider industry.

Our research will be focused in the three states where the project partners are located: Wisconsin, Minnesota, and Iowa. These states alone are home to nearly 2,000 apple growers (USDA, 2012), and direct project outreach will extend to the state of Michigan where more than 1,500 additional apple growers reside. The primarily small to medium-sized operations in these Midwest states are not well placed to compete with higher volume growers on the coasts for the fresh market industry. Cider offers a potentially lucrative market alternative, especially with the interest of craft beverage consumers in buying local. The results of the research will also be relevant in all 50 states where apples are grown, as growers are eager to learn more about the emerging cider industry.

## **2. Other Federal Award Programs**

Related ideas to those contained in this proposal were submitted as part of a pre-proposal under the North Central Region Sustainable Agriculture Research and Education (SARE) grants program in October 2015. Full proposals have not yet been invited for this program. One member of the project team (Herdie Baisden, a project consultant and owner of Maiden Rock Winery and Cidery) is currently implementing an FY2014 Specialty Crop Block Grant titled “Growing Markets for Wisconsin Apple Growers for Fresh and Hard Cider.” Grower enthusiasm surpassed expectations under this project, and project workshops have had to cap the number of attendees due to space constraints. Our multi-state proposal builds on the success of this smaller project, bringing in the unique talents and resources from institutions in neighboring states to meet the demand of regional growers.

## **3. Work Plan**

### **3.1. The Project Team and Activities**

We have assembled a team with diverse talents and unique resources to draw from. The project will be anchored at the University of Wisconsin and administrated through the University of Wisconsin Center for Integrated Agricultural Systems (CIAS) in collaboration with the Principal Investigator, Jim Steele, in the Department of Food Science. Co-Principal Investigators at the University of Wisconsin include Dr. Julie Dawson, Assistant Professor of

Horticulture and Dr. Michael Bell, Director of CIAS. Sub-award recipients include the University of Minnesota Department of Horticulture through Co-Principal Investigator Dr. James Luby, Seed Savers Exchange through collaborator Dan Bussey, the Iowa State University Department of Horticulture through Dr. Diana Cochran, and a private consultant, Herdie Baisden of Maiden Rock Winery and Cidery in Wisconsin.

This project team will undertake the 7 activities that are listed and described below:

### *3.1.1. Primary Juice and Cider Testing*

Several of the activities that follow will involve juice and cider testing, so it will be helpful to describe the processes in advance. All juice and cider testing will be overseen by the project Principal Investigator, Dr. Jim Steele. Dr. Steele brings over 30 years of experience in fermentation science and has a long track record of successfully managing projects that involve close collaboration with industry stakeholders. Working under Dr. Steele will be Nicholas Smith, the University of Wisconsin Wine and Cider Outreach Specialist. Mr. Smith brings ten years of experience in the wine and cider industry, including research to identify grape varieties for the Upper Midwest and work as an applied chemist in wineries and cideries. Mr. Smith will be responsible for developing testing protocols, coordinating delivery of apples with project partners, conducting the juice and cider analyses, and writing up cider apple profiles. A research associate will be hired to help with processing of samples and recording data.

The analyses will include high-pressure liquid chromatography (HPLC) for analyzing sugars and acids in juice and cider. We will also measure levels of tannins and other polyphenols, which provide the bitterness and astringency that is often considered a distinguishing characteristic of high quality cider, and we will measure ammonia content and primary amino acid content which are important determinants of the potential vigor of fermentation and the subsequent byproducts of fermentation. The distinguishing feature of our juice analysis will be the use of Stir Bar Sorptive Extraction (SBSE), a relatively new technology that allows for measurement of several potential cider flavor and aroma compounds in unfermented juice. Many of these flavor and aroma compounds are bound to sugars in unfermented juice and normally have to be tested with fully fermented beverages. SBSE is well suited to our study because it will allow us to test a large number of apple varieties in small quantities, without the need for doing labor-intensive micro-fermentations that require substantial supply costs. SBSE has been applied to the wine and beer industries, and this would be the first time it would be applied to cider. Further use of this juice and cider testing will be described as it applies to each relevant activity described below.

### *3.1.2. Calibrating Juice and Cider Testing to Align with Consumer and Industry Preferences*

Before we can prioritize the flavors, aromas, mouthfeel, and other cider characteristics that we are looking for in the juice and cider tests, we need to know what it is that consumers and industry professionals prefer to drink. To do this, we will conduct a series of focus group tasting panels where participants will be asked to rate perceived intensity and perceived desirability of multiple attributes of several ciders that have already been chemically profiled. Twenty different ciders will be fermented in year 1 for the focus group tastings, and the process will be

repeated in year 2 for verification of findings. Through this process, we will identify what we are looking for in the variety tests.

This work will be led by Dr. Julie Dawson, Assistant Professor of Horticulture at the University of Wisconsin. Dr. Dawson brings extensive experience in participatory plant breeding. The focus group tastings will build on her previous work conducting tasting events with chefs and consumers to identify preferred flavors in vegetables that were then tied to chemical compositions in the food that could be identified for plant breeding purposes. The research associate working with Dr. Steele will also support this work with Dr. Dawson.

### *3.1.3. Identifying Priority Cider Apple Varieties in the Seed Savers Exchange Collection*

The Seed Savers Exchange orchard collection contains over 1000 historical varieties of apples, including at least 200 varieties known for being cider apples. These include classic French and English cider apples as well as remnant American cider apples that were not entirely lost to history. In order to prioritize promising cider apples from the collection, we will first conduct preliminary juice tests on all of the known cider apple varieties that are fruiting. We will then narrow this field to varieties that fit the consumer and industry preferences identified through focus group research. Within this narrower pool, we will then monitor the trees in years 2 and 3 for vigor, relative yield, growth form, and incidence of pests and disease. In years 2 and 3 we will also conduct larger fermentations for additional analysis on the prioritized trees. All of the cider attributes and horticultural attributes recorded for each tree will then be scored, weighted, and averaged to provide a final ranking for each tree from the collection.

Work at Seed Savers Exchange will be led by Dan Bussey. Mr. Bussey is a nationally recognized apple historian, recently featured in the New York Times for his work on “The Illustrated History of the Apple in North America,” and he is the orchard manager at Seed Savers Exchange. He will be responsible for identifying the trees within the orchard that will be used for testing, and he will coordinate harvesting, packaging, and delivering of fruit to the University of Wisconsin. Mr. Bussey will also assist with monitoring performance of the trees identified through the project. A part time, seasonal orchard assistant will also be hired to help with harvest of apples for the study.

### *3.1.4. Identifying Priority Cider Apple Varieties in the University of Minnesota Apple Breeding Program*

The University of Minnesota apple-breeding program has over 15,000 apple seedlings, each of which will produce its own unique fruit. Three to four thousand varieties fruit each year, and undesirable trees are discarded while promising ones are selected and cloned for further testing. The orchard currently has approximately 200 selected varieties. This project will leverage the University of Minnesota breeding program trees in an effort to look explicitly for new, North American cider apple varieties.

The Co-Principal Investigator at the University of Minnesota is Dr. James Luby, professor of horticulture. Dr. Luby is an accomplished fruit breeder, including releasing the highly popular Honeycrisp apple as well as the wine grapes La Crescent, Frontenac Gris, and Marquette, which

have helped vineyards in the upper Midwest capture greater consumer interest. Dr. Luby will be assisted by researcher John Tillman who has been working in the breeding program for nearly 4 years.

The University of Minnesota team will be responsible for identifying trees for testing based on basic criteria of tree health, fruit appearance, and tasting data, and they will then harvest, package, label, and deliver the fruit to the University of Wisconsin for juice testing. Any trees that have highly rated juice qualities (based on criteria from the focus group tastings described earlier and the results of juice tests) will then be monitored by the University of Minnesota team through collection of data on tree performance, including vigor, relative yield, growth form, and incidence of pest damage or disease. Through this process, we will seek to identify high performing trees with exceptional juice qualities, and any that we find will be selected and replicated for additional testing and possible future release.

### *3.1.5. Initiating Grower-Led Field Trials with Cider Apple Varieties and Facilitating Grower-to-Grower Learning*

The identification of high performing tree varieties that show exceptional cider qualities will not automatically lead to growers planting these trees, and it does not guarantee that the trees will be a good fit for individual growers. Many growers trust what they learn through their own experiences or what they learn from the experiences of fellow growers, and the fact that a tree performs well at the Seed Savers Exchange orchard does not guarantee that it will perform well elsewhere. Under this activity, we will therefore directly involve growers in the experimentation and variety selection process in the real world contexts of their own orchards.

Participating growers will be provided with planting materials for cider apple varieties that they are not already growing. They will be allowed to select varieties that they would like to experiment with based on their own criteria, thus mirroring the natural processes of grower variety selection. We anticipate that growers will prioritize several of the varieties that rank highest in our tests from Seed Savers Exchange, but we will not mandate that these varieties be selected. Growers will be asked to monitor the performance of the trees they plant through the project, and their findings will be shared through the project website and through information-sharing sessions at project field days. Growers who are already growing cider apple varieties will also be invited to participate in the information-sharing sessions in order to pass on lessons they have learned. Through this process we will catalyze greater experimentation and grower-to-grower learning that will lead to faster identification and adoption of optimal cider apple varieties. Assessing the types of apples that growers choose and why they choose them will inform the types of varieties that the project should prioritize.

This portion of the project will be led by Dr. Herdie Baisden. Dr. Baisden is a retired organizational psychologist turned hard cider entrepreneur. He and his wife own and manage Maiden Rock Winery and Cidery, a leading craft cider business in Wisconsin since 2008. He formerly directed the Wisconsin Apple Growers Association and the Wisconsin Winery Association. In leading this portion of the project, Dr. Baisden will raise awareness about the opportunity for grower participation, collect applications for the program, evaluate applications

based on clearly defined evaluation criteria, make recommendations for orchards to be chosen as participants in the program, provide consultation to growers, follow up with growers to monitor their progress, conduct and host information-sharing workshops, evaluate the success of the program, and report on project results.

### *3.1.6. Assessing how Apple Growing Conditions Affect Cider Qualities*

Factors other than varietal selection also impact juice qualities of apples, but these factors are not well understood. To understand how plant nutrition and growing conditions affect cider apple qualities, we will conduct an experiment on 12 orchards in Iowa, Wisconsin, and Minnesota. In each of the orchards, soil temperature, soil moisture, leaf moisture, and precipitation will be monitored. Soil samples and leaf tissue samples will also be collected to measure levels of available nutrients. Two apple varieties (Cortland and Jonagold, due to availability on all of the orchards) will be harvested and sent to the University of Wisconsin for juice and cider testing. Data will then be statistically analyzed to look at correlations between specific growing conditions or available nutrients and the resulting juice properties of the apples. This study will give a preliminary indication of which growing factors are most important in determining cider qualities of apples, and it will lead to a series of hypothesis for additional study in this wide-open field of research.

The work will be led by Dr. Diana Cochran, Assistant Professor of Horticulture at Iowa State University. Dr. Cochran is the Viticulture Specialist for Iowa State University, and her research has focused on physiological reactions of plants to environmental stresses. A postdoctoral student will be hired to conduct the research under Dr. Cochran.

### *3.1.7. Evaluating Constraints and Opportunities in the Midwest Cider Value Chain*

We will conduct in-depth, semi-structured interviews with key stakeholders in the Midwest cider value chain, including different kinds of growers, cider makers large and small, apple wholesalers, tree nursery managers, beverage distributors, and retailers. The interviews will provide deeper context for understanding real life constraints and opportunities that individuals in the cider industry are faced with. A minimum of 20 interviews will be conducted in year 1 and an additional 20 interviews will be conducted in year 2 using theoretical sampling methods based in grounded theory (Charmaz, 2003). Resulting research publications will highlight illustrative case studies that demonstrate common themes and principles that the interview process uncovers. Findings will also inform a Midwest Cider Development Network formed by the project to sustain efforts to advance the regional cider industry (the Midwest Cider Development Network is described in more detail in the Outreach section of the proposal).

Dr. Michael Bell, Director of the Center for Integrated Agricultural Systems (CIAS) will oversee the value chain research. Dr. Bell has led similar work in the emerging hazelnut value chain on a Specialty Crop Research Initiative grant, and he brings extensive experience in qualitative research methods, including authoring a textbook on the subject (Orne and Bell, 2015). Matthew Raboin, an Outreach Specialist with CIAS, will conduct the interviews and analysis. Mr. Raboin is an apple grower and award winning cider maker with over 10 years of experience

in agricultural research and project management, including conducting value chain analyses as an Agricultural Development Officer with the United States Agency for International Development.

### 3.2. Timeline

#### Year 1:

- *August 2016*: Project launch meeting – all project partners will meet to discuss project plans and project implementation. Additional project team meetings will be scheduled to coincide with other events or will be held by teleconference for travel cost savings. Meetings will be held quarterly and as needed to ensure coordinated efforts.
- *August 2016*: Begin design of project website.
- *September 2016 – November 2016*: Harvest of apples at University of Minnesota and Seed Savers Exchange and lab analysis at University of Wisconsin.
- *December 2016*: Begin interviews for constraints and opportunities assessment of the cider value chain.
- *January 2017 – March 2017*: Conduct focus group cider tasting and analyze data from the cider tastings to calibrate priorities in juice testing results.
- *January 2017 – April 2017*: Disseminate information about grower-led cider variety experimentation and invite year 1 applications. Review applications, select growers, order planting materials, and initiate trials.
- *February 2017 – May 2017*: Set up field trials for assessing the influence of apple growing conditions on cider qualities.
- *April 2017 – May 2017*: Complete ranking of apples based on results from focus group tastings and juice tests. Upload results to website.
- *May 2017 – October 2017*: Collect year 1 data from field trials for assessing the influence of apple growing conditions on cider qualities.
- *June 2017*: First in-person meeting of the Midwest Cider Development Network.

#### Year 2:

- *August 2017*: Collect data on tree performance for prioritized cider varieties at University of Minnesota and Seed Savers Exchange. Collect preliminary grower input from year 1 trials. Upload all results to website.
- *September 2017 – November 2017*: Harvest of apples at University of Minnesota, Seed Savers Exchange, and field trial locations, with lab analysis at University of Wisconsin.
- *January 2017 – February 2017*: Present preliminary findings at regional fruit and vegetable conferences and at national Cider Conference.
- *January 2018 – March 2018*: Conduct second round of focus group cider tastings and analyze data from the cider to re-calibrate priorities in juice testing results.
- *January 2018 – April 2018*: Disseminate information about grower-led cider variety experimentation and invite year 2 applications. Review applications, select growers, order planting materials, and initiate trials.

- *April 2018 – May 2018:* Revise ranking of apples based on results from focus group tastings and juice tests. Upload results to website.
- *May 2018 – October 2018:* Collect year 2 data from field trials for assessing the influence of apple growing conditions on cider qualities.
- *June 2018:* Finalize constraints and opportunities assessment of the cider value chain
- *June 2018:* Second in-person meeting of the Midwest Cider Development Network
- *July 2018:* Conduct field days and information-sharing sessions.

Year 3:

- *August 2018:* Collect data on tree performance for prioritized cider varieties at University of Minnesota and Seed Savers Exchange. Collect preliminary grower input from year 1 and 2 trials. Upload all results to website.
- *September 2018 – November 2018:* Harvest of apples at University of Minnesota, Seed Savers Exchange, and field trial locations, with lab analysis at University of Wisconsin.
- *October 2018 – March 2019:* Analysis of results from field trials for assessing the influence of apple growing conditions on cider qualities.
- *January 2019 – February 2019:* Present findings at regional fruit and vegetable conferences and at national Cider Conference.
- *January 2019 – April 2019:* Disseminate information about grower-led cider variety experimentation and invite year 3 applications. Review applications, select growers, order planting materials, and initiate trials.
- *April 2019 – May 2019:* Revise ranking of apples based on year 3 juice tests. Upload results to website.
- *June 2018:* Third in-person meeting of the Midwest Cider Development Network
- *July 2018:* Conduct field days and information-sharing sessions.
- *May 2019 – August 2019:* Compile all monitoring and evaluation data, conduct end-of-project survey, and complete final project report.

#### **4. Potential Impact**

If the cider industry continues to grow at the pace it is expected to (Euromonitor International, 2014), it will go from over a \$1 billion industry today to over a \$3 billion industry by the end of the project period. Our research will help to shift this growth towards greater benefits for the US apple industry and US apple growers. Sustained and robust growth in quality wine and craft beer sales over recent decades has shown that craft beverage consumers are willing to pay more for a quality product. Our research will give growers and cider makers the information they need to produce the quality products that will earn them greater returns on their investments.

Through direct outreach events in Wisconsin, Minnesota, Iowa, and Michigan, we plan to reach over 500 individuals and provide improved information about cider apple production. Through presentations of our findings at national conferences we expect to reach an additional 200 thought leaders in the apple growing and cider making industries, and through publications and online outreach we aim to reach an additional 20,000 individuals across the country. With the



current lack of available research in cider apple production, the results of our study will become a leading source of information that growers and cider makers will have to refer to when planning new investments or exploring new marketing options.

Empowered with information about variety selection, how to grow cider apple trees, and how the cider market works, growers will be more likely to plant marketable cider varieties that perform well and produce the quality products that cider makers desire. This will lead to increased profitability and less lost investments in unproductive or undesirable varieties or practices. Even if just one grower chooses a productive apple variety that will earn \$0.40 per pound instead of \$0.20 per pound on a small 10 acre planting, this would lead to over \$1 million increase in income over the productive life of the trees for that single grower. The strong grower involvement that our project entails, combined with wide reaching outreach efforts, will ensure that a minimum target of 300 growers will make these types of more informed decisions such that the project investments in research will recover their value many times over.

In addition to these economic impacts, advancing the cider industry has the potential to lead to environmental and social impacts. Growing apples for cider offers growers an opportunity to reduce reliance on pesticides and fungicides due to the fact that cider apples do not lose market value for simple cosmetic issues the way that eating apples do. This is an economic benefit for growers as they save costs on these inputs, and it is also an environmental benefit as reduced pesticide and fungicide use can have positive implications for pollinator habitat, soil health, and groundwater quality. Similarly, reviving artisanal cider offers the social benefits of enriching consumer experiences and enhancing community connections to local orchards and locally produced beverages that are part of our national heritage.

## **5. Expected Measurable Outcomes**

The economic, environmental and social impacts described in the previous section are long term, and most are likely to occur after the project (largely due to the fact that trees planted during the project period will likely not bear fruit until after the project is over). We will therefore measure three intermediate outcomes covering the availability, dissemination, and application of new knowledge about cider apple production generated by the project. Each of the outcomes is listed below along with verifiable indicators for each outcome as well as targets and means of data collection for each indicator:

### Outcome 1. Increased *availability* of new knowledge and innovations for cider apple production

- *Indicator 1.1.* Number of historical cider apple varieties tested and described in detail for cider properties and horticultural performance (Target: 200)  
Means of verification: Simple numerical count
- *Indicator 1.2.* Number of new cider apple varieties identified and selected for replication through the University of Minnesota apple breeding program (Target: 20)  
Means of verification: Simple numerical count
- *Indicator 1.3.* Number of peer reviewed publications in food science, horticultural science, social science, and economics related to cider production, produced by the project (Target: 8)

Means of verification: Simple numerical count

- *Indicator 1.4.* Number of extension and outreach publications in food science, horticultural science, social science, and economics related to cider production, produced by the project (Target: 11)

Means of verification: Simple numerical count

#### Outcome 2. Increased *dissemination* of knowledge of cider apple production

- *Indicator 2.1.* Number of individuals with increased knowledge about cider apple production, varietal selection, horticultural practices, or market opportunities because of the project, disaggregated by:

- *Indicator 2.1.1.* Individuals reached through online outreach (Target: 20,000)

Means of verification: Measured as number of individual visitors to the project website, using Google Analytics

- *Indicator 2.1.2.* Individuals reached through in-person field days, workshops and presentations (Target: 700)

Means of verification: Measured through participant lists at field days and presentations

- *Indicator 2.1.3.* Individuals participating in grower-led trials (Target: 60)

Means of verification: Based on project records from grower-led trials

#### Outcome 3. Increased *application* of new knowledge or innovations in cider apple production

- *Indicator 3.1.* Number of individuals *applying* new knowledge or innovations in cider apple production because of the project (Target: 300)

Means of verification: To be based on end-of-project surveys of participants in outreach events and participants in grower-led trials (Note that this measurement and target does not include larger numbers of individuals reached through online outreach who may also be applying new knowledge generated by the project)

Monitoring and evaluation efforts will be led by Matthew Raboin, Outreach Specialist with CIAS, under the supervision of Dr. Michael Bell (mentioned in Section 3.1.7.). Mr. Raboin is aptly qualified to lead monitoring and evaluation efforts as he has had extensive training and was responsible for leading monitoring and evaluation for a \$50 million annual portfolio at USAID, including designing a Performance Monitoring and Evaluation Plan, conducting data quality assessments, and compiling indicator data from multiple project partners for reporting to Congress. Mr. Raboin will collect participant information at outreach events, collect participant feedback from outreach events, share participant feedback with the project team to enhance programming efforts, monitor website use through Google Analytics, administer an end-of-project survey to participants from outreach events, and compile a final project report.

## **6. Project Deliverables**

The project will produce a series of deliverables ranging from an interactive website and multiple publications to new variety selections and the establishment of grower-led field trials. Each of these deliverables is described in more detail below.

6.1. *The Project Website* - A project website will be developed to serve as a hub for information sharing. The website will include the following:

- *A database of all tested apple varieties* – The database will include photos of each apple and results from juice and cider tests as well as data from monitoring the horticultural performance of each variety. Each apple variety will be given a weighted ranking, and users of the website will also be allowed to provide their own ranking that will influence the overall score for each apple variety. Grower comments or notes on individual varieties will be encouraged. Links to information about how the database was developed and how focus group tasting data was utilized will also be included.
- *A structured forum for grower information sharing* – This forum will include data gathered from growers participating in grower-led trials. Their notes on each variety will be hyperlinked to those apples in the cider apple variety database, and comments between growers will be encouraged.
- *Project publications* – Links to all project publications, presentations and outreach materials will be provided on the website.
- *Additional resources* – The website will link to other useful sources of information for cider apple growers and cider makers. It will also contain a calendar of events and regular project-related updates.

6.2. *New Varietal Selections* – A deliverable of the project will be identification and selection of promising seedlings in the University of Minnesota apple breeding program, including grafting and planting duplicates of these promising seedlings for longer term evaluation and possible future release for any varieties that prove to be of exceptional quality.

6.3. *Farmer-led Variety Trials* – Another deliverable of the project will be the establishment of small-scale cider apple variety trials at a minimum of 60 orchards through the grower-led experimentation described previously. These trials and the network of growers who are managing them will provide a strong platform for possible future research.

6.4. *Peer-reviewed Publications* – Members of the project team will publish a minimum of 9 peer-reviewed journal articles, including the following:

- 1 article discussing the process and protocol for identifying priority cider apple seedlings in a large apple breeding program
- 3 articles describing how different factors such as available nutrients, soil conditions, and environmental conditions affect the cider properties of apples
- 1 article describing the process of integrating focus group tasting results into the prioritization of juice qualities of apples
- 1 article analyzing the results of the focus group tastings
- 1 article evaluating the effectiveness of a facilitated grower-to-grower learning process in leading to selection of apple varieties with higher desirability
- 1 article comprised of comparative case studies illustrating constraints and opportunities in the cider value chain

6.5. *Outreach Publications* – Members of the project team will produce a minimum of 11 extension and outreach publications, including the following:

- 1 shortened, printable PDF version of the cider apple database
- 1 research brief highlighting the most promising cider apple varieties identified in the Seed Savers Exchange collection
- 1 research brief explaining the process and findings in identification of possible cider apple varieties in the University of Minnesota apple breeding program
- 1 summary of findings from the grower-led variety trials
- 3 case study research briefs highlighting cider-related businesses that provide illustrative lessons about the industry
- 1 research brief sharing the results of the focus group cider tastings
- 3 research briefs explaining how cider apples could be grown differently than eating apples, based on results from research assessing the influence of growing conditions on cider qualities

6.6. *Presentations* – Members of the project team will deliver a minimum of 17 presentations of findings from the research, including the following:

- 6 presentations at regional fruit and vegetable conferences
- 6 presentations for University seminars or community events
- 4 presentations at the United States Cider Conference
- 1 presentation at the American Society of Horticultural Science

## **7. Outreach Plan**

Strong outreach is integrated throughout our project. All members of the project team, including all sub-contract partners, will be involved in producing outreach materials and in planning and delivering outreach events. Matthew Raboin, CIAS Outreach Specialist, and Nicholas Smith, University of Wisconsin Wine and Cider Outreach Specialist, will be responsible for leading and coordinating outreach efforts. Ruth McNair, CIAS Communications Specialist, will publicize all outreach events, lead the design and editing of outreach materials, draft press releases, and support website design efforts. Specific outreach efforts include:

*7.1. Online Outreach* - The project website, to be designed by Matthew Raboin with support from Ruth McNair, will house the living database of cider apple varieties, a forum for grower-to-grower information sharing, and a clearinghouse for all project publications, presentations, and related resources. This will be a living website and online tool that can continue to be updated by users beyond the completion of the project. Long term maintenance of the website will be handled by Matthew Raboin as a private grower and cider-maker so that other growers can continue to add information as trees from grower-led trials begin to bear fruit.

*7.2. In-Person Outreach* – We will conduct 7 field days in Wisconsin, Minnesota, Iowa, and Michigan in order to share research results. Each field day will be hosted by a grower or cider maker so that participants will have an opportunity to see and hear firsthand about another cider-related business. Herdie Baisden of Maiden Rock Winery and Cider will also host 3

information-sharing workshops for growers to discuss lessons learned in cider apple production from the grower-led field trials and from their own experiences. Field days and workshops will also include guest speakers who bring unique and applicable perspectives and insights.

*7.3. In the Press* – Many of the results of the research will be of interest to the general public. The search for new and historic apple varieties and the re-emergence of a national beverage provide a compelling narrative platform, and raising awareness about our work will peak consumer interest in cider and help advance the cider industry. In order to share our story, we will draft press releases to publicize project events and research findings. Ruth McNair, CIAS Communications Specialist, will lead this work, drawing from her 18 years of experience communicating agricultural science to the public.

*7.4. Participant “In-reach”* – Through the participatory nature of multiple research activities, the project provides “in-reach” for growers and other stakeholders in the industry. The focus group tasting panels give participants the opportunity to define what the research team should be looking for. Moreover, the grower-led trials give growers the opportunity to lead a component of the research. The trials themselves will last beyond the end of the project, as will the platform for sharing information among growers. Lastly, the project provides in-reach through the Midwest Cider Development Network described below.

*7.5. Midwest Cider Development Network* – Using the results of the constraints and opportunities assessment of the cider value chain as a starting point for discussion, the project will form a “Midwest Cider Development Network.” This group of relevant stakeholders in the cider community would have the following objectives:

- Acting as a project advisory committee, including providing iterative feedback for the project team to refine priorities and methodologies
- Ensuring that project findings lead to longer term results – for example, identifying a long-term plan to ensure that the grower-led trials remain active and that information sharing continues beyond the life of the project
- Planning for additional collaborative projects, including identifying strategic priorities for advancing the regional cider industry and exploring broader partnership opportunities

The group would meet once per year in person, and additional teleconference meetings would be scheduled as needed. Matthew Raboin, CIAS Outreach Specialist, would coordinate and facilitate the meetings. Several stakeholders have already expressed interest in participating in the Midwest Cider Development Network. These individuals include:

- Deirdre Birmingham, CEO and Orchard Manager at The Cider Farm in Mineral Point, WI
- Chris Sandwick, Vice President of BelleHarvest Sales Inc, the Midwest’s largest fruit marketing company, located in Belding, MI
- Joseph Baird, Founder of Mershons Cider in Stoughton, WI
- Harry Hoch, Co-Owner of Hoch Orchard and Wyndfall Cider in LaCrescent, MN
- Jim Lindeman, Co-Owner of The Cider House of Wisconsin, in McFarland, WI
- Nikki Rothwell, Co-Owner of Tandem Ciders in Suttons Bay, MI and Extension Fruit Specialist for Michigan State University.

Together the group would ensure that project findings lead to long-term impacts.

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# Full Project Budget

## Year 1

### Personnel

Name and Title	Base Salary	%FTE	Funding Request
Matthew Raboin, Outreach Specialist	45000	50	22500
Nicholas Smith, Wine and Cider Outreach Specialist	49500	25	12375
Ruth McNair, Communications Specialist	58346	5	2917
Research Associate	38000	100	38000
<b>Year 1 Personnel Total</b>			<b>75792</b>

### Fringe

Name and Title	Fringe Rate	Salary Request (from Personnel)	Funding Request
Matthew Raboin, Research Specialist	37	22500	8325
Nicholas Smith, Wine and Cider Outreach Specialist	37	12375	4579
Ruth McNair, Communications Specialist	37	2917	1079
Research Associate	23.9	38000	9082
<b>Year 1 Fringe Total</b>			<b>23065</b>

<b>Year 1 Personnel and Fringe Total</b>	<b>98857</b>
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### Travel

#### Mileage

Trip	Travelers	Number of Trips	Average Miles	Mileage Rate	Mileage Request
To project team meeting (core project team)	6	1	400	0.575	1380



To "Midwest Cider Development Network" meeting (network members)	12	1	500	0.575	3450
For interviews in value chain analysis	1	20	200	0.575	2300

### Lodging and M&IE

Trip	Travelers	Number of Trips with overnight stay	Length of Stay (Days)	Lodging Rate	M&IE Rate	Lodging and M&IE Request
To project team meeting (core project team members)	6	1	2	105	59	1968
To "Midwest Cider Development Network" meeting (network members)	12	1	2	105	59	2145
For interviews in value chain analysis	1	10	1	105	59	1640

<b>Year 1 Travel Total</b>	<b>12883</b>
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### Special Purpose Equipment

Item	Cost
Stir Bar Sorptive Extraction (SBSE) Unit	93662

<b>Year 1 Special Purpose Equipment Total</b>	<b>93662</b>
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### Supplies

Item	Quantity	Unit Price	Funding Request
Small fruit press	1	300	300
20L bladder press	1	750	750
Juice Extractor	1	2800	2800
Apple Crusher	1	1400	1400
Micro fermentation lids	40	100	4000
Micro fermentation jars	40	10	400

Yeast	2	50	100
Nutrient	1	50	50
Alkaline Cleaner	1	50	50
Acid Sanitizer	1	50	50
Bottles, case	20	10	200
Corks, 500 count bags	1	50	50
Vials	3	500	1500
HPLC Columns	1	1250	1250
Caps	1	250	250
Filters	1	700	700
Ammonia enzyme assay kit	2	400	800
Primary Amino Acid Kit	2	400	800
Standards for enzyme assays	2	70	140
Helium Gas	1	600	600
Standards for HPLC	10	40	400
Coravin	1	350	350
Coravin Capsules	1	150	150
Handheld Densitometer	1	1200	1200
Small tasting glasses	24	2	48
Reams of printing paper	4	25	100
Ink cartridges	4	25	100
Rootstock	1250	3	3750
Scionwood	1250	5	6250

<b>Year 1 Supplies Total</b>			<b>28538</b>
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### Contracts/Consultants

Organization/Individual	Funding Request	
University of Minnesota	9240	See Contractor Budget and Justification
Iowa State University	116684	See Contractor Budget and Justification
Seed Savers Exchange	7823	See Contractor Budget and Justification
Herdie Baisden - Project Consultant	7754	See Contractor Budget and Justification

<b>Year 1 Contracts/Consultants Total</b>	<b>141501</b>
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### Other Direct Costs

Item	Number	Rate	Budget Request
Website theme purchase	1	100	100
Website plugin purchase	1	100	100
Internet hosting	1	100	100
Honorarium payments for participants in focus group tasting	80	50	4000
<b>Total Other Direct Costs</b>			<b>4300</b>

### Year 1 Summary Budget

Category	Request
Personnel	75792
Fringe	23064.75
Travel	12883
Equipment	93662
Supplies	28538
Contracts/Consultants	141501
Other Direct Costs	4300
<b>Year 1 Total Direct Costs</b>	<b>379741</b>

Indirect Costs (8% of Total Costs  
or 8.688% of Direct Costs

32992

<b>Year 1 Total Budget Request</b>	<b>412733</b>
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# Year 2

## Personnel

Name and Title	Base Salary	%FTE	Funding Request
Matthew Raboin, Outreach Specialist	45000	50	22500
Nicholas Smith, Wine and Cider Outreach Specialist	49500	25	12375
Ruth McNair, Communications Specialist	58346	5	2917
Research Associate	38000	100	38000
<b>Year 2 Personnel Total</b>			<b>75792</b>

## Fringe

Name and Title	Fringe Rate	Salary Request (from Personnel)	Funding Request
Matthew Raboin, Research Specialist	37	22500	8325
Nicholas Smith, Wine and Cider Outreach Specialist	37	12375	4579
Ruth McNair, Communications Specialist	37	2917	1079
Research Associate	23.9	38000	9082
<b>Year 2 Fringe Total</b>			<b>23065</b>

<b>Year 2 Personnel and Fringe Total</b>	<b>98857</b>
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## Travel

### Mileage

Trip	Travelers	Number of Trips	Average Miles	Mileage Rate	Mileage Request
To present at project field days in Wisconsin, Minnesota, and Iowa	6	3	400	0.575	4140

To "Midwest Cider Development Network" meeting (network members)	12	1	500	0.575	3450
For interviews in value chain analysis	1	20	200	0.575	2300

### Flights

Trip	Travelers	Number of Trips	Flight Cost	Funding Request
To Present at Cider Conference in Portland, Oregon		2	500	1000

### Lodging and M&IE

Trip	Travelers	Number of Trips with overnight stay	Length of Stay (Days)	Lodging Rate	M&IE Rate	Lodging and M&IE Request
To present at project field days in Wisconsin, Minnesota, and Iowa	6	3	2	105	59	5904
To "Midwest Cider Development Network" meeting (network members)	12	1	2	105	59	2145
For interviews in value chain analysis	1	10	1	105	59	1640
Stay in Portland, Oregon for Cider Conference	2	1	4	151	64	1720

### Year 2 Travel Total

**22299**

### Supplies

Item	Quantity	Unit Price	Funding Request
Yeast	2	50	100
Nutrient	1	50	50
Alkaline Cleaner	1	50	50
Acid Sanitizer	1	50	50
Bottles, case	20	10	200

Corks, 500 count bags	1	50	50
HPLC Columns	1	1250	1250
Vials	1	500	500
Caps	1	250	250
Filters	1	700	700
Ammonia enzyme assay kit	2	400	800
Primary Amino Acid Kit	2	400	800
Standards for enzyme assays	2	70	140
Standards for HPLC	10	40	400
Reams of printing paper	4	25	100
Ink cartridges	4	25	100
Rootstock	2500	3	7500
Scionwood	2500	5	12500
<b>Year 2 Supplies Total</b>			<b>25540</b>

### Contracts/Consultants

Organization/Individual	Funding Request	
University of Minnesota	8710	See Contractor Budget and Justification
Iowa State University	98978	See Contractor Budget and Justification
Seed Savers Exchange	7639	See Contractor Budget and Justification
Herdie Baisden - Project Consultant	7754	See Contractor Budget and Justification
<b>Total Contracts/Consultants</b>	<b>123081</b>	

### Other Direct Costs

Item	Number	Rate	Budget Request
Honorarium payments for participants in focus group tasting	80	50	4000
Field day use of space, chairs, and audiovisual	3	500	1500
<b>Year 2 Other Direct Costs Total</b>			<b>5500</b>

## Year 2 Summary Budget

Category	Request
Personnel	75792
Fringe	23065
Travel	22299
Equipment	0
Supplies	25540
Contracts/Consultants	123081
Other Direct Costs	5500
<b>Year 2 Total Direct Costs</b>	<b>275277</b>

Indirect Costs (8% of Total Costs  
or 8.688% of Direct Costs) 23916

<b>Year 2 Total Budget</b>	
<b>Request</b>	<b>299193</b>

# Year 3

## Personnel

Name and Title	Base Salary	%FTE	Funding Request
Matthew Raboin, Outreach Specialist	45000	50	22500
Nicholas Smith, Wine and Cider Outreach Specialist	49500	25	12375
Ruth McNair, Communications Specialist	58346	5	2917
Research Associate	38000	100	38000
<b>Year 3 Personnel Total</b>			<b>75792</b>

## Fringe

Name and Title	Fringe Rate	Salary Request (from Personnel)	Funding Request
Matthew Raboin, Research Specialist	37	22500	8325
Nicholas Smith, Wine and Cider Outreach Specialist	37	12375	4579
Ruth McNair, Communications Specialist	37	2917	1079
Research Associate	23.9	38000	9082
<b>Year 3 Fringe Total</b>			<b>23065</b>

<b>Year 3 Personnel and Fringe Total</b>	<b>98857</b>
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## Travel

### Mileage

Trip	Travelers	Number of Trips	Average Miles	Mileage Rate	Mileage Request
To present at project field days in Wisconsin, Minnesota, and Iowa	6	3	400	0.575	4140
To present at field day in Michigan	2	1	900	0.575	1035



To "Midwest Cider Development Network" meeting (network members)	12	1	500	0.575	3450
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### Flights

Trip	Travelers	Number of Trips	Flight Cost	Funding Request	
To Present at Cider Conference in Portland, Oregon		2	1	500	1000

### Lodging and M&IE

Trip	Travelers	Number of Trips with overnight stay	Length of Stay (Days)	Lodging Rate	M&IE Rate	Logding and M&IE Request
To present at project field days in Wisconsin, Minnesota, and Iowa	6	3	2	105	59	5904
To "Midwest Cider Development Network" meeting (network members)	12	1	2	105	59	2145
To present at field day in Michigan	2	1	2	105	59	656
Stay in Portland, Oregon for Cider Conference	2	1	4	151	64	1720

### Year 3 Travel

<b>Total</b>						<b>20050</b>
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### Supplies

Item	Quantity	Unit Price	Funding Request
Yeast	2	50	100
Nutrient	1	50	50
Alkaline Cleaner	1	50	50
Acid Sanitizer	1	50	50
Bottles, case	20	10	200
Corks, 500 count bags	1	50	50
HPLC Columns	1	1250	1250

Vials	1	500	500
Caps	1	250	250
Filters	1	700	700
Ammonia enzyme assay kit	2	400	800
Primary Amino Acid Kit	2	400	800
Standards for enzyme assays	2	70	140
Standards for HPLC	10	40	400
Reams of printing paper	4	25	100
Ink cartridges	4	25	100
Rootstock	3750	3	11250
Scionwood	3750	5	18750

<b>Year 3 Supplies Total</b>			<b>35540</b>
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### Contracts/Consultants

Organization/Individual	Funding Request	
University of Minnesota	8835	See Contractor Budget and Justification
Iowa State University	68636	See Contractor Budget and Justification
Seed Savers Exchange	7639	See Contractor Budget and Justification
Herdie Baisden - Project Consultant	8508	See Contractor Budget and Justification
<b>Total Contracts/Consultants</b>	<b>93618</b>	

### Other Direct Costs

Item	Number	Rate	Budget Request
Field day use of space, chairs, and audiovisual	4	500	2000
<b>Year 3 Other Direct Costs Total</b>			<b>2000</b>

### Year 3 Summary Budget

Category	Request
Personnel	75792
Fringe	23065
Travel	20050
Equipment	0
Supplies	35540
Contracts/Consultants	93618
Other Direct Costs	2000
<b>Year 3 Total Direct Costs</b>	<b>250065</b>

Indirect Costs (8% of Total Costs  
or 8.688% of Direct Costs) 21726

<b>Year 3 Total Budget Request</b>	<b>271791</b>
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# Total Project Budget (Years 1-3)

## Summary

Category	Year 1	Year 2	Year 3	Total
Personnel	75792	75792	75792	227376
Fringe	23065	23065	23065	69195
Personnel and Fringe Total	98857	98857	98857	296571
Travel	12883	22299	20050	55232
Special Purpose Equipment	93662	0	0	93662
Supplies	28538	25540	35540	89618
Contracts/Consultants	141501	123081	93618	358200
Other Direct Costs	4300	5500	2000	11800
<b>Total Direct Costs</b>	<b>379741</b>	<b>275277</b>	<b>250065</b>	<b>905083</b>
Indirect Costs (8% of Total Costs or 8.688% of Total Direct Costs)	32992	23916	21726	78634
<b>Total Budget Request</b>	<b>412733</b>	<b>299193</b>	<b>271791</b>	<b>983717</b>

# Budget Narrative

## Personnel

*Matthew Raboin* – Mr. Raboin is an award-winning cider maker with an MSc in Agroecology and 10 years of experience in agricultural research and project management. He managed projects ranging from \$100,000 to \$15 million as an Agricultural Development Officer with the United States Agency for International development where he also led value chain studies, cost benefit analyses, and monitoring and evaluation efforts. He currently works as an Outreach Specialist with the University of Wisconsin Center for Integrated Agricultural Systems, and he and his wife own and manage a cider orchard. For this project, Mr. Raboin will work under Dr. Bell to conduct the Constraints and Opportunities Analysis of the Cider Value Chain, and he will also act as coordinator of the “Midwest Cider Development Network,” organizing and facilitating group meetings and teleconferences. Drawing from his monitoring and evaluation experience, he will also be responsible for leading data collection for expected measurable outcomes of the project, including monitoring website activity, collecting participant surveys at outreach events, sharing participant feedback with the rest of the project team to improve performance, conducting an end-of-project survey, and compiling a final project report to be reviewed and approved by all members of the project team. Mr. Raboin will also work with Nicholas Smith and Ruth McNair to coordinate outreach events, and he will lead design and maintenance of the project website. The project request includes 50% FTE of Mr. Raboin’s base salary of \$45,000 for the three years of the project.

*Nicholas Smith* - Nicolas Smith brings 10 years of experience in the fermented beverage industry, working in research and as an applied chemist in commercial wineries. His previous research focused on selecting priority wine grapes for the Upper Midwest based on flavor analyses. He currently works as the Wine and Cider Outreach Specialist for the University of Wisconsin, working with producers to improve product quality. For this project, Mr. Smith will conduct all fruit, juice, and cider testing and write up subsequent analyses and cider profiles, working under Dr. Steele. Mr. Smith will also coordinate planning and delivery of outreach events and will write up research briefs as well as scientific papers based on the results of his analyses. The project request includes 25% FTE of Mr. Smith’s base salary of \$49,500 for the three years of the project.

*Ruth McNair* – Ruth McNair is a Communications Specialist at the Center for Integrated Agricultural Systems. She brings over 18 years of experience in editing and graphic design to communicate research results to the public. Mrs. McNair will support the project through design and editing of research briefs, assistance with website design, publicizing project-related events and findings, drafting and disseminating press releases, and support with planning and execution of outreach events. The funding request includes 5% FTE of Mrs. McNair’s base salary of \$58,346 for the three years of the project.

*Research Associate* – A Research Associate will be hired through a competitive process, seeking individuals with proven experience in food science, social science, and related research as well as additional background or skills related to the needs of the position. The Research Associate will work in Dr. Steele’s lab with Nicholas Smith to assist with juice testing, cider analysis, and compilation of the cider apple database. He or she will also work under Dr. Julie Dawson to conduct the focus group tasting events and analysis. The Research Associate will additionally help other team members as needed to support the project and will participate in planning and delivery of outreach events. This will be a full time position at a base salary of \$38,000.

## **Fringe**

Fringe rates were based on UW standard rates. Fringe rates for Academic Staff (Matthew Raboin, Nicholas Smith, and Ruth McNair) are 37%. The fringe rate for the Research Associate is 23.9%.

## **Travel**

*Team meetings* – An in-person team meeting will be held at the outset of the project in order to formalize project plans. For cost-saving purposes, additional team meetings will be conducted through teleconferencing based out of the Center for Integrated Agricultural Systems. These meetings will be held quarterly and as needed for planning specific activities. When possible, meetings will be planned to coincide with other project events to save on travel costs. The first team meeting will be held in Madison, WI with Diana Cochrane and a Postdoc from Iowa State, Jim Luby and Jack Tillman from the University of Minnesota, Dan Bussey from Seed Savers Exchange, and Herdie Baisden from Maiden Rock Winery and Cidery. The budget includes average mileage costs of 400 miles per participant at \$0.575 per mile, plus two nights in Madison at \$105 for lodging and \$59 for meals and incidental expenses (M&IE).

*Midwest Cider Development Network Meetings* – In person meetings will take place once per year for members of the Midwest Cider Development Network that will be formed through the project. This network will offer opportunities for long term strategic planning and for coordination and collaboration of efforts among key stakeholders in the Midwest cider community so that we can collectively advance the industry. In addition to in-person meetings, additional collaboration will be achieved through a forum on the project website or by teleconference, particularly when undertaking specific collaborative activities. The budget includes travel for 12 group members with an average of 500 miles per participant at \$0.575, plus two overnights at the meeting location with \$105 for lodging and \$59 for M&IE for each year of the project.

*Presenting at Field Days in Wisconsin, Minnesota, and Iowa* – In years 2 and 3 we will conduct one project field day in each state where we will present results and findings, conduct information-sharing sessions with growers, and invite additional guest speakers with relevant experience or research results to share. The budget includes travel for 6 members of the project team to attend each of these field days, with an average trip

distance of 400 miles at \$0.575 per mile, plus two overnights at the field day location with \$105 for lodging and \$59 for M&IE.

*Presenting at Field Days in Michigan* – In year 3 of the project, we will also conduct a field day in Michigan to support the needs of the large number of growers and cider makers in the state. The budget includes travel for two members of the project team to Michigan for a distance of 900 miles at \$0.575, plus two overnights at the field day location with \$105 for lodging and \$59 for M&IE.

*Presenting at National Cider Conference* – The budget includes travel for 2 members of the project team to present at the National Cider Conference (likely held in Portland, OR) in years 2 and 3, with a flight cost of \$500/trip and four overnights for each individual at \$151 with \$64 for M&IE.

### **Special Purpose Equipment**

*Stir Bar Sorptive Extraction (SBSE) Unit* – The budget includes the cost of purchasing and installing an SBSE unit, including all necessary components. The alternative method for assessing flavor and aroma components of wine and cider (called solid phase micro-extraction) requires an already fermented product. With many of the potential aroma compounds in unfermented apple juice being bound to other compounds, they are not readily measured with this traditional technology. In recent years, this new technology, Stir Bar Sorptive Extraction (SBSE), also known as Twister, has been increasingly applied to the identification of flavor and aroma compounds in wine and beer. It is approximately 1000 times more sensitive than previous technologies and would be ideally suited for flavor and aroma identification of apple juice. In other words, the advantage to this technology is that it will allow us to test a very large number of different apple varieties using only a small amount of unfermented juice from each variety. Since many of the trees we are testing are still young, they will only produce a small amount of fruit. SBSE technology will allow us to still test these apple varieties. Further, it will drastically reduce labor time and supplies costs by allowing us to test each variety without fermenting it first. The SBSE unit will be purchased in year 1 at a cost of \$93,662 based on a quote from GERSTEL Inc.

### **Supplies**

Several supplies will be needed for the juice and cider testing and analysis. These include:

Apple processing supplies:

- Apple press for pressing small quantities of juice from apple samples (\$300)
- Apple press for pressing intermediate (10 to 20L) lots juice (\$750)
- A juice extractor - this tool allows for the quick extraction of juice from apple samples. The juicing of apples is a significant bottleneck in the sampling process,

and this tool will allow us to sample a large number of apple varieties without significant labor costs (\$2,800)

- Apple crusher - for processing apples for use in 10L and greater fermentations. Apples need to be crushed prior to pressing to extract juice (\$1400)

Fermentation, bottling, and cleaning supplies:

- 40 specially designed fermenter lids for micro-ferments. These lids prevent oxidation during micro-scale ferments. They further allow for aseptic sampling of small ferments (\$100 each)
- 1 Liter screw top jars (X40) for use with the specialized chamber lids (\$10 each)
- Yeast for cider fermentations (2 packages per year at \$50 per package)
- Nutrient for cider fermentations (1 package per year at \$50 per package)
- Alkaline cleaner for cleaning fermentation and crushing equipment (1 container per year at \$50 per container)
- Sanitizer for fermentation and crushing equipment (1 container per year at \$50 per container)
- Bottles for bottling finished cider (20 cases at \$10 per case each year)
- Corks for bottling finished cider (1 500 count bag per year at \$50 per bag)

Analytical supplies:

- High-pressure liquid chromatography (HPLC) columns for analyzing sugar and acids of apple cider (1 per year at \$1250)
- Case of vials for HPLC samples (three in year 1 and 1 each in years two and three at \$500)
- Caps for HPLC Vials for HPLC analysis (1 package per year at \$250)
- Syringe filters for sample preparation for HPLC and Gas Chromatography (GC) (1 package per year at \$700)
- Ammonia enzyme assay kit for measuring ammonia content in apple juice (2 per year at \$400)
- Primary amino acid kit for measuring primary amino acid content in apple juice (2 per year at \$400)
- Standards for Ammonia and Primary Amino Acid assays (2 containers per year at \$70)
- Helium gas for operating GC for analyzing aromas in cider (1 at \$600)
- Sugar, acid, and aroma standards for HPLC and GC (10 per year at \$40)
- Coravin sampling tool - this tool is for removing small quantities from bottled ciders. It allows us to sample and analyze bottled cider, without completely uncorking the cider (1 at \$350)
- Coravin argon capsules for Coravin sampling tool. The headspace in the cider bottle is displaced with argon, preserving the cider (1 package at \$150)
- Densitometer - allows for the monitoring of fermentation on small ferments. Traditional fermentation monitoring techniques use a hydrometer, which requires a significant volume. This device provides specific gravity readings using a very small amount of product (1 at \$1200)



- Tasting glasses for focus group tasting events – for the tasting focus groups, ciders will be poured in small, clear, curved glasses that allow for viewing the cider and that capture aroma compounds in the headspace under the curvature (24 at \$2)

The other main supply costs will be for the grower-led trials. These costs include:

- Scionwood – Scionwood, also commonly called scions, are small cuttings from the most recent year’s growth on a tree (essentially twigs at the end of branches). When grafted to rootstock and planted, the resulting tree will be the same variety and will produce the same fruit as the tree from which the scion was cut. To incentivize grower-led experimentation and initiate grower-led trials with new cider apple varieties, the project will cover the costs of scionwood for cider apple varieties that growers are not already growing (see the project narrative Section 3.1.5. for more details). The project will incrementally increase the size of this program element each year because growers will have more project-generated information to draw from each year when choosing which varieties to plant. In year 1, the project will purchase 1250 sticks of scionwood (at \$5). Year 2 will go up to 2500 scions, and year 3 will include 3750. Growers will choose the varieties for purchase.
- Rootstock – Rootstock is the rooted portion of a plant onto which scionwood is grafted. Rootstock for the project will be purchased in quantities matching the quantities of scionwood (1250, 2500, and 3750 for each year respectively at \$3 each). The type of rootstock plays a significant role in determining the relative size and vigor as well as other characteristics of the resulting tree, and growers will be given choices as to which type of rootstock they use.

Lastly, costs for printing supplies include 4 reams of paper per year at \$25 each and four ink cartridges per year at \$25 each.

## **Contracts/Consultants**

In order to leverage the comparative strengths of different institutions and individuals, the project contains the following four sub-contracts:

- *University of Minnesota* – With Jim Luby, Professor of Horticulture as Co-PI, this sub-contract includes identification, collection, and shipment of apples from the University of Minnesota germplasm for testing and analysis at the University of Wisconsin. Seedlings identified as promising for cider production will be selected and cloned for further testing. The University of Minnesota will also provide monitoring data on vigor, relative yield, growth form, and incidence of pests and disease on varieties that are identified as promising for cider. They will also participate in project outreach activities. Total costs for this sub-contract are \$26,785. (See the sub-contract budget and budget justification for details).
- *Seed Savers Exchange* – With Dan Bussey as Co-PI, Seed Savers Exchange will be responsible for identification, collection, and shipment of apples from their

collection for testing at the University of Wisconsin. They will also support monitoring of vigor, relative yield, growth form, and incidence of pests and disease on varieties that are identified as promising for cider. They will also support and participate in project outreach activities. Total direct costs for this sub-contract are \$37,454 (See the sub-contract budget and budget justification for details).

- *Iowa State University* – With Diana Cochran, Professor of Horticulture as the Co-PI, this sub-contract includes research to assess how growing conditions and plant nutrition affect the juice qualities of apples. Work will include collecting data on soil and plant nutrients, monitoring temperature and precipitation, and collecting fruit for analysis of cider qualities. A postdoctoral student will manage the research and analysis under Dr. Cochran, and both will engage in project outreach activities. Total costs for this sub-contract are \$284,298. (See the sub-contract budget and budget justification for details).
- *Project Consultant Herdie Baisden* – Dr. Herdie Baisden is an organizational psychologist by training, but his current passion is advancing the regional cider industry, including owning and managing Maiden Rock Apples and Maiden Rock Winery and Cidery. With his experience as a grower and reputation as a pioneering leader in the cider industry as well as his knowledge of human and organizational learning, Herdie is uniquely qualified to lead the grower trials that are part of this research project. His work will include raising awareness about the grower-led cider apple experimentation, collecting applications for the program, evaluating applications based on clearly defined evaluation criteria, making recommendations for orchards to be chosen as participants in the program, following up with growers to monitor their progress, conducting and hosting information-sharing workshops, evaluating the success of the program, and reporting on project results. Total direct costs for this sub-contract are \$24,016. (See the sub-contract budget and budget justification for details).

With these four subcontracts combined, total direct costs for contracts/consultants are \$141,501 in year 1, \$123,081 in year 2, \$93,618 in year 3, and \$358,200 in total.

### **Other Direct Costs**

*Focus Group Tastings* – Focus group tastings will help us determine what it is that the market is looking for. Participant responses will be used to identify specific flavors, aromas, levels of tannins, and other attributes that different types of participants find appealing, and these findings will be cross-referenced with the levels of flavor, aroma, and tannic compounds that we find through chemical analysis. In other words, this qualitative research component will act as a compass and guide for the more quantitative analysis of cider. Participants will be asked to taste and provide a series of ratings and descriptions for samples of different types of cider over a period of 3-4 hours. There will be 80 participants in year 1 and 80 participants in year 2, and each participant will be paid a \$50 honorarium for their participation.

*Field day costs* – Each field day includes costs for use of space, chairs, and audiovisual equipment. Three field days are included in year 2, and 4 field days are included in year 3 at a cost of \$500 per event.

*Website* – The budget includes costs for a pre-designed website theme (\$100 in year 1), website hosting fees (\$100 in year 1), and a high quality website database plugin (\$100 in year 1).

### **Indirect Costs**

Indirect costs were calculated as 8 percent of the total budget or 8.688% of total direct costs.

# Iowa State University Sub-Contract Budget

	Year 1	Year 2	Year 3	Total
<b>Salary</b>				
Postdoc	21000	43600	45300	109900
Fringe (33%)	6930	14388	14949	36267
	<u>27930</u>	<u>57988</u>	<u>60249</u>	<u>146167</u>
<b>Travel</b>				
Site Visits				
Iowa orchards	5247	5247.30	0.00	10494.60
Minnesota orchards	6206	6206.40	0.00	12412.80
Wisconsin orchards	9263	9262.50	0.00	18525.00
Conference trip				
Postdoc to travel to ASHS	0	0	1396	1396
Fruit samples to Madison	355.675	355.675	0	711.35
	<u>\$21,072</u>	<u>\$21,072</u>	<u>\$1,396</u>	<u>\$43,540</u>
<b>Materials and supplies</b>				
Data Loggers				
Iowa orchards	15220	0	0	15220
Minnesota orchards	15220	0	0	15220
Wisconsin orchards	15220	0	0	15220
Soil Samples				
Iowa orchards	1200	1200	0	2400
Minnesota orchards	1200	1200	0	2400
Wisconsin orchards	1200	1200	0	2400
Leaf Samples				
Iowa orchards	2800	2800	0	5600
Minnesota orchards	2800	2800	0	5600
Wisconsin orchards	2800	2800	0	5600
Soil and Tissue supplies	200	0	0	200
Moisture Meter	487	0	0	487

	58347	12000	0	0	70347
Publication	0	0	1500		1500
	0	0	1500		1500
Total	Year 1 \$107,349	Year 2 \$91,060	Year 3 \$63,145		\$261,554

<b>Direct</b>	<b>\$261,554</b>
<b>Indirect</b>	<b>\$22,744</b>
<b>Total</b>	<b>\$284,298</b>

## **Iowa State University Sub-Contract Narrative**

### **Personnel - \$146,167**

#### **Senior Personnel:**

No funds requested for senior personnel

#### **Other Personnel:**

Postdoctoral Student – Salary requested for 2.5 years for a postdoctoral research associate at full time for years 6 months in year 1 and 12 months in year 2 and 3. The Postdoc will be responsible for evaluating cider varieties, collecting soil, tissue, and fruit samples at commercial orchards (Year 1 and 2) and all data analysis (Year 3).

Salary - \$109,900

- Year 1 – \$21,000 (February 1, 2017 to July 31, 2017)
- Year 2 – \$43,600 (August 1, 2017 to July 31, 2018)
- Year 3 – \$45,300 (August 1, 2018 to August 30, 2019)

Clerical – none

Other – none

Fringe Benefits – \$36,267

Rate at 33%

### **Travel - \$43,540**

Domestic – \$43,539.76 – Travel requested to evaluate cider varieties and collect soil, nutrient, and fruit samples (Years 1 and 2). Bi-monthly trips will be made across Iowa, Minnesota, and Wisconsin from May to October. Costs are estimated at \$0.575 per mile and all travel starts and ends in Ames, IA. Mileage was estimated based on general locations of commercial orchards around Minneapolis, MN and Madison, WI. Iowa – 397 RT miles to reach 4 locations [(397 miles × 0.575 per mile + 1 hotel night @ \$129 per night + \$80 per diem) × 12 trips = \$5,247.30 per year]; Minnesota – 536 RT miles to reach 4 locations [(536 miles × 0.575 per mile + 1 hotel night @ 129 per night + \$80 per diem) × 12 trips per year = \$6,206.40 per year]; Wisconsin - 685 RT miles to reach 4 locations [685 miles × 0.575 per mile + 2 hotel nights @ 129 per night + \$120 per diem) × 12 trips per year = \$9,262.50 per year]. In year 3, Postdoc will present research data at the American Society for Horticultural Science [flight \$600, hotel (\$149 per night x 4 nights), and meals (\$40 per day x 5 days = \$200) = \$1,396.00].

Year 1– \$21,071.88

- Collect samples from 12 commercial orchards across Iowa, Minnesota, and Wisconsin (\$20,716.20)
- Travel to Madison, WI to drop off fruit samples (\$355.68)

Year 2 - \$21,071.88

- Collect samples from 12 commercial orchards across Iowa, Minnesota, and Wisconsin (\$20,716.20)
- Travel to Madison, WI to drop off fruit samples (\$355.68)

Year 3 - \$1,396

- Postdoctoral student to present data at the American Society for Horticultural Science Annual Conference (\$1,396)

### **Supplies - \$70,347**

Materials and Supplies – \$70,347 - These costs are requested to cover materials and supplies to collect data from commercial plantings; and for soil and tissue analysis in Year 1 – 2, of two cultivars located at 4 sites per state (Iowa, Minnesota, and Wisconsin). Soil samples estimated at \$3600 per year (3 states x 4 locations x 1 sample date x 2 cultivars x 10 replications x \$15 per sample x 2 years = \$7,200), plant tissue samples estimated at \$8,400 per year (3 states x 4 locations x 1 sample date x 2 cultivars x 10 replications x \$35 per sample x 2 years = \$16,800), and soil sampling supplies at \$200 (Year 1; bags, probe, buckets, etc.). Costs include data loggers and sensors for determining climate x nutrient interactions (Decagon). One Decagon moisture meter (\$487 one for entire project) and three decagon EM50 data loggers (\$476 each) will be used per site (3 states x 4 locations x 3 per site = \$17,136) with climate sensors (VP-4 air temp/relative humidity/barometer, ECRN rain gauge, and pyranometer @ \$825 x 3 states x 4 locations = \$9,900), leaf wetness sensors (\$119 each x 3 states x 4 locations x 4 per location = \$5,712), and soil moisture sensors (GS3 \$269 each x 3 states x 4 locations x 4 per location = \$12,912) to collect climate data.

Materials and Supplies - \$70,347

Year 1 – \$58,347

- Lab samples – soil fertility test in each plot, leaf analysis, and fruit quality analysis. (\$12,00)
- Soil and nutrient sampling supplies (\$200)
- Data loggers and sensors (soil moisture sensors, leaf wetness sensors, air temperature, relative humidity, rain gauge, moisture meter, and data loggers) (\$46,147)

Year 2 – \$12,000

- Lab samples – soil fertility test in each plot, leaf analysis, and apple fruit quality analysis. (\$12,000)

### **Other Direct Costs - \$1,500**

#### Publication Costs

These costs are requested to help to defray publication costs of scientific articles in various peer-reviewed journals and Extension publications as a result of this research.

- Year 1 – none
- Year 2 – none

- Year 3 – \$1,500 (Peer-reviewed publications)

**Direct Costs - \$261,554**

Year 1 – \$107,349

Year 2 – \$91,060

Year 3 – \$63,145

**Total Costs - \$284,298**

Direct Costs + Indirect Costs (8% of total direct + indirect costs)



# University of Minnesota Sub-Contract Budget

ITEM			Sponsor	Sponsor	Sponsor	Total	Justification
			- Yr 1	- Yr 2	- Yr 3	Projects	
			<b>Sponsor</b>	<b>Sponsor</b>	<b>Sponsor</b>	<b>TOTAL</b>	
			<b>Funding</b>	<b>Funding</b>	<b>Funding</b>	<b>PROJECT</b>	
						<b>BUDGET</b>	
<b>Personnel</b>							
	<u>Salary</u>						
700500	Salary - Civil Service Bargaining Unit		2,207	2,251	2,296	6,754	Tillman @ 5.0%
700510	Salary - Labor Represented					0	
700530	Salary - Temp/Casual Employee		2,640	2,693	2,747	8,080	Seasonal Workers: 16 hrs/wk x 11 wks x \$15/hr
<b>Total Salary</b>			<b>4,847</b>	<b>4,944</b>	<b>5,043</b>	<b>14,834</b>	
	<u>Fringe</u>						
710500	Fringe - Civil Service	27.40%	605	617	629	1,851	
710510	Fringe - Labor Represented	27.40%	0	0	0	0	
710530	Fringe - Temp/Casual Employee	7.90%	209	213	217	639	
<b>Total Fringe</b>			<b>814</b>	<b>830</b>	<b>846</b>	<b>2,490</b>	
<b>Total Personnel</b>			<b>5,661</b>	<b>5,774</b>	<b>5,889</b>	<b>17,324</b>	
<b>Travel</b>							
720600	Domestic Travel Outside MN		490	490	490	1,470	Truck or Vant Rental for \$49/day per round trip to Madison x 5 trips
720600	Domestic Travel Outside MN		1,750	1,750	1,750	5,250	625 miles round trip @ \$0.56/mile per year x 5 trips/year
<b>Total Travel</b>			<b>2,240</b>	<b>2,240</b>	<b>2,240</b>	<b>6,720</b>	
<b>Supplies</b>							
720200	Field Supplies		600			600	
<b>Total Supplies</b>			<b>600</b>	<b>0</b>	<b>0</b>	<b>600</b>	
<b>TOTAL DIRECT COSTS</b>			<b>8,501</b>	<b>8,014</b>	<b>8,129</b>	<b>24,644</b>	
810500	F&A @ 8.0% TFF	8.688%	739	696	706	2,141	
<b>TOTAL COSTS</b>			<b>9,240</b>	<b>8,710</b>	<b>8,835</b>	<b>26,785</b>	

# University of Minnesota Sub-Contract Budget Justification

## Budget Justification

### Total Request \$26,785

Total Direct Cost Request: \$24,644

Total Indirect Cost Request (F&A @8.0%TFF): \$2,141

### Personnel \$17,324

Researcher John Tillman \$8,605

Researcher Tillman will participate at 5% of his appointment in planning and harvest, and packing of fruit, collecting observational data on tree traits, and supervising a seasonal employee assigned to the project. Luby, Tillman or seasonal employee will transport fruit from the Twin Cities to Madison. He will also assist in data analysis and outreach activities as appropriate. Salary + fringe is estimated below with 2% escalator per year.

Year 1 \$2207+605

Year 2 \$2251+617

Year 3 \$2296+629

Seasonal employee \$8,719

The seasonal employee in each of the three years will assist with harvest packing and transport of fruit at 2 days per week for 11 weeks starting @ \$15/hour (salary + fringe) in year 1 with 2% escalator per year.

Year 1 \$2640+209

Year 2 \$2693+213

Year 3 \$2747+217

### Travel \$6720

\$2240 per year in each of 3 years to deliver fruit 5 times per year to UW-Madison labs.

Estimated cost per round trip is \$448 based on UMN Fleet rental rates for pickup truck/van:

2 days rental of vehicle for \$49/day per round trip to Madison is \$98/round trip

+

625miles per round trip from UMN Fleet to HRC to Madison to UMN fleet @ \$0.56 per mile = \$350

### Supplies \$600

Year 1 \$600 to purchase materials to pack and ship apple fruits (mesh produce bags, cardboard bushel boxes and shipping tape). These materials would be used in Years 1-3.

### Total Direct Cost \$24,644

### Indirect Costs \$2,141

The IDC is 8.0% of the total federal funds.

# Seed Savers Exchange Sub-Contract Budget

## Year 1

### Personnel

Name and Title	Base Salary	%FTE	Funding Request
Dan Bussey, Orchard Manager and Project Key Person	40000	10	4000
Name and Title	Hourly Rate	Number of Hours	Funding Request
Project Assistant	14	100	1400
<b>Personnel Total</b>			<b>5400</b>

### Fringe

Name and Title	Fringe Rate	Salary Request (from Personnel)	Funding Request
Dan Bussey, Orchard Manager and Project Key Person	15.15	4000	606
<b>Fringe Total</b>			<b>606</b>

<b>Personnel and Fringe Total</b>	<b>6006</b>
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### Travel

#### Mileage

Trip	Travelers	Number of Trips	Average Miles	Mileage Rate	Mileage Request
Delivery of apples to UW Fermentation Science Lab	1	5	304	0.56	852

#### Meals

Trip	Travelers	Number of Trips	M&IE Rate	Logging and M&IE Request
During trips to deliver apples to UW Fermentation Science Lab	1	5	10	50

<b>Travel Total</b>	<b>902</b>
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## Supplies

Item	Quantity	Unit Price	Funding Request
1/2 bushel boxes	80	2	160
Fruit picking bags	2	65	130
<b>Supplies Total</b>			<b>290</b>

## Year 1 Summary Budget

Category	Request
Personnel	5400
Fringe	606
Travel	902
Supplies	290
<b>Year 1 Total Direct Costs</b>	<b>7198</b>

Indirect Costs (8% of Total Costs  
or 8.688% of Direct Costs) 625

<b>Year 1 Total Budget Request</b>	<b>7823</b>
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## Year 2 (Seed Savers Exchange)

### Personnel

Name and Title	Base Salary	%FTE	Funding Request
Dan Bussey, Orchard Manager and Project Key Person	40000	10	4000
Name and Title	Hourly Rate	Number of Hours	Funding Request
Project Assistant	14	100	1400
<b>Personnel Total</b>			<b>5400</b>

### Fringe

Name and Title	Fringe Rate	Salary Request (from Personnel)	Funding Request
Dan Bussey, Orchard Manager and Project Key Person	15.15	4000	606
<b>Fringe Total</b>			<b>606</b>

<b>Personnel and Fringe Total</b>	<b>6006</b>
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### Travel

#### Mileage

Trip	Travelers	Number of Trips	Average Miles	Mileage Rate	Mileage Request
Delivery of apples to UW Fermentation Science Lab	1	5	304	0.56	852

#### Meals

Trip	Travelers	Number of Trips	M&IE Rate	Logging and M&IE Request
During trips to deliver apples to UW Fermentation Science Lab	1	5	10	50

<b>Travel Total</b>	<b>902</b>
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## Supplies

Item	Quantity	Unit Price	Funding Request
1 bushel boxes	40	3	120
<b>Supplies Total</b>			<b>120</b>

## Year 2 Summary

### Budget

Category	Request
Personnel	5400
Fringe	606
Travel	902
Supplies	120
<b>Year 1 Total Direct Costs</b>	<b>7028</b>

Indirect Costs (8% of Total Costs  
or 8.688% of Direct Costs

611

<b>Year 2 Total Budget Request</b>	<b>7639</b>
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## Year 3 (Seed Savers Exchange)

### Personnel

Name and Title	Base Salary	%FTE	Funding Request
Dan Bussey, Orchard Manager and Project Key Person	40000	10	4000
Name and Title	Hourly Rate	Number of Hours	Funding Request
Project Assistant	14	100	1400
<b>Personnel Total</b>			<b>5400</b>

### Fringe

Name and Title	Fringe Rate	Salary Request (from Personnel)	Funding Request
Dan Bussey, Orchard Manager and Project Key Person	15.15	4000	606
<b>Fringe Total</b>			<b>606</b>

<b>Personnel and Fringe Total</b>	<b>6006</b>
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### Travel

#### Mileage

Trip	Travelers	Number of Trips	Average Miles	Mileage Rate	Mileage Request
Delivery of apples to UW Fermentation Science Lab	1	5	304	0.56	852

#### Meals

Trip	Travelers	Number of Trips	M&IE Rate	Logging and M&IE Request
During trips to deliver apples to UW Fermentation Science Lab	1	5	10	50

<b>Travel Total</b>	<b>902</b>
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## Supplies

Item	Quantity	Unit Price	Funding Request
1 bushel boxes	40	3	120
<b>Supplies Total</b>			<b>120</b>

## Year 3 Summary

### Budget

Category	Request
Personnel	5400
Fringe	606
Travel	902
Supplies	120
<b>Year 3 Total Direct Costs</b>	<b>7028</b>

Indirect Costs (8% of Total Costs

or 8.688% of Direct Costs 611

<b>Year 3 Total Budget Request</b>	<b>7639</b>
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## Seed Savers Exchange Cumulative Budget

	Year 1	Year 2	Year 3	Total
<b>Personnel</b>				
Co-PI Dan Bussey (10%)	4000	4000	4000	12000
Project Assistant	1400	1400	1400	4200
<b>Personnel Total</b>	5400	5400	5400	16200
<b>Fringe</b>				
Co-PI Dan Bussey (15.15%)	606	606	606	1818
<b>Fringe Total</b>	606	606	606	1818
<b>Total Personnel and Fringe</b>	6006	6006	6006	18018
<b>Travel</b>				
Delivery of Apples to UW Fermentation Science Lab	852	852	852	2556
Per Diem	50	50	50	150
<b>Total Travel</b>	902	902	902	2706
<b>Supplies</b>				
½ bushel boxes	160	0	0	160
Bushel boxes	0	120	120	240
Fruit picking bags	130	0	0	130
<b>Total Supplies</b>	290	120	120	530
<b>Total Seed Savers Exchange Budget</b>				
<b>Total Direct Costs</b>	7198	7028	7028	21254
<b>Indirect Costs</b>	625	611	611	1847
<b>Total Budget</b>	7823	7639	7639	23101

# Seed Savers Exchange Budget Justification

## Personnel

Dan Bussey – Dan Bussey is a nationally recognized apple historian and is the Orchard Manager for the Seed Savers Exchange collection. Dan will contribute 10% time in each of the three project years. Dan will support the project through identifying trees and apple varieties in the Seed Savers Exchange collection that will be used for testing. He will provide historical descriptions of each variety and will coordinate harvest and delivery of those apples to the University of Wisconsin fermentation science lab. Dan will also support project outreach, planning and participating in project-related outreach events. Dan's base salary is \$40,000, so 10% time is \$4,000 per year for a total of \$12,000.

Project Assistant – A part-time Project Assistant will be hired to support the work. The Project Assistant's primary role will be picking, packing, and delivering apples, under Dan Bussey's supervision. At \$14 per hour for 100 hours per year, this yields \$1400 per year for a total of \$4200.

## Fringe

Insurance, FICA, and benefits for Dan Bussey total 15.15% of his annual salary. At a 10% effort, this yields \$606 per year and a total of \$1818.

## Travel

Seed Savers Exchange will deliver apples to the University of Wisconsin fermentation science lab 5 times per year. Round trip travel is 304 miles. At \$0.56 per mile, this yields \$852 per year for a total of \$2556.

A lunch per diem rate of \$10 for each delivery of apples will be included, for a total of \$50 per year and \$150 for the full budget.

## Supplies

Eighty ½-bushel boxes will be purchased in year one of the project at \$2 per box for a total of \$160.

Forty 1-bushel boxes will be purchased in year 2 and year 3 at \$3 per box for a total of \$120 per year and \$240 in sum.

Two fruit-picking bags will be purchased in year 1 of the project at a cost of \$65 each for a total of \$130.

# Project Consultant Budget

## Personnel

	Number of Hours	Hourly Rate	Budget Request
Herdie Baisden - Project Consultant	120	40	4800
<b>Total Personnel</b>			<b>4800</b>

## Travel

### Mileage

	Number of Trips	Distance	Mileage Rate	Budget Request
To Regional Fruit and Vegetable Growers Conference in St Paul Minnesota to disseminate information about the program	1	120	0.56	67
Picking up guest speaker at Minneapolis airport	1	120	0.56	67

### Lodging and M&IE

	Number of Nights	Lodging Rate	M&IE Rate	Budget Request
At Regional Fruit and Vegetable Conference Guest speaker (for information-sharing workshop) lodging near Stockholm Wisconsin	2	105	59	328
	3	105	59	492

### Flights

	Number of Flights	Cost	Budget Request
For guest speaker travel from New York to Minneapolis	1	600	600
<b>Total Travel</b>			<b>1554</b>

## Other Direct Costs

	Budget Request
Honorarium for Guest Speaker	400
Use of workshop space, chairs, and audiovisual	1000
<b>Total Other Direct Costs</b>	<b>1400</b>
<b>Year 1 Budget Total</b>	<b>7754</b>

## Budget Year 2

### Personnel

	Number of Hours	Hourly Rate	Budget Request
Herdie Baisden - Project Consultant	120	40	4800
<b>Total Personnel</b>			<b>4800</b>

### Travel

#### Mileage

	Number of Trips	Distance	Mileage Rate	Budget Request
To Regional Fruit and Vegetable Growers Conference in St Paul Minnesota to disseminate information about the program	1	120	0.56	67
Picking up guest speaker at Minneapolis airport	1	120	0.56	67

#### Lodging and M&IE

	Number of Nights	Lodging Rate	M&IE Rate	Budget Request
At Regional Fruit and Vegetable Conference	2	105	59	328
Guest speaker (for information-sharing workshop) lodging near Stockholm Wisconsin	3	105	59	492

59

## Flights

	Number of Flights	Cost	Budget Request
For guest speaker travel from Portland to Minneapolis	1	600	600
<b>Total Travel</b>			<b>1554</b>

## Other Direct Costs

	Budget Request
Honorarium for guest speaker	400
Use of workshop space, chairs, and audiovisual	1000
<b>Total Other Direct Costs</b>	<b>1400</b>

**Year 2 Budget Total** 7754

## Budget Year 3

### Personnel

	Number of Hours	Hourly Rate	Budget Request
Herdie Baisden - Project Consultant	120	40	4800
<b>Total Personnel</b>			<b>4800</b>

### Travel

#### Mileage

	Number of Trips	Distance	Mileage Rate	Budget Request
To Regional Fruit and Vegetable Growers Conference in St Paul Minnesota to disseminate information about the program	1	120	0.56	67
Picking up guest speaker at Minneapolis airport	1	120	0.56	67

60

### Lodging and M&IE

	Number of Nights	Lodging Rate	M&IE Rate	Budget Request
At Regional Fruit and Vegetable Conference	2	105	59	328
Guest speaker (for information-sharing workshop) lodging near Stockholm Wisconsin	4	105	59	646

### Flights

	Number of Flights	Cost	Budget Request
For guest speaker travel from New York to Minneapolis	1	1200	1200
<b>Total Travel</b>			<b>2308</b>

### Other Direct Costs

	Budget Request
Honorarium for guest speaker	400
Use of workshop space, chairs, and audiovisual	1000
<b>Total Other Direct Costs</b>	<b>1400</b>

**Year 1 Budget Total** 8508

### Cumulative Budget

	Year 1	Year 2	Year 3	Total
Personnel	4800	4800	4800	14400
Travel	1554	1554	2308	5416
Other Direct Costs	1400	1400	1400	4200
<b>Total</b>	<b>7754</b>	<b>7754</b>	<b>8508</b>	<b>24016</b>

## **Herdie Baisden – Project Consultant**

### **Budget Narrative**

#### Personnel

Herdie E. Baisden, Ph.D. is a retired organizational psychologist who has found a second career as an entrepreneur and thought leader in the regional cider industry. Herdie and his partner Carol Wiersma founded several businesses in Stockholm, Wisconsin, including The Good Apple in 2000 and Maiden Rock Apples in 2003. His current venture, Maiden Rock Winery & Cidery, was launched in 2008 and is on-track to become one of the leading premium craft cider producers in Wisconsin and Minnesota. Herdie has served on the boards as a director and officer of the Wisconsin Apple Growers Association and the Wisconsin Winery Association. He is one of the founding members of the Badger State Winery Cooperative and the Great River Road Wine Trail. He currently serves as Program Manager for a Specialty Crop Block Grant awarded to the Wisconsin Apple Growers Association: "Growing Markets for Wisconsin Apple Growers with Fresh and Hard Cider". Under the Specialty Crop Block Grant project, Herdie has led workshops and delivered presentations on the production and marketing of Wisconsin craft cider.

With his experience as a grower and a pioneering leader in the cider industry as well as his knowledge of human and organizational learning, Herdie is uniquely qualified to lead the grower trials that are part of this research project.

Herdie Baisden will contribute 120 hours per year to the project at a rate of \$40/hour for a yearly total of \$4,800 and a project total of \$14,400. This work will include raising awareness about the cider apple cost share program, collecting applications for the program, evaluating applications based on clearly defined evaluation criteria, making recommendations for orchards to be chosen as participants in the program, following up with growers to monitor their progress, conducting and hosting information-sharing workshops, evaluating the success of the program, and reporting on project results.

#### Travel

Travel costs include yearly trips to the Regional Fruit and Vegetable Conference in St. Paul, Minnesota to share information about the cost share program (120 miles round trip at \$0.56/mile, 2 nights lodging at \$105/night, and two days M&IE at \$59/day). Travel also includes picking up a guest speaker for project workshops at the airport in Minneapolis (120 miles round trip at \$0.56). Lastly, travel includes flights for guest speakers arriving from New York, Portland, and London in years 1, 2, and 3 respectively at costs of \$600, \$600, and \$1200. The total travel budget is therefore \$5416.

#### Other Direct Costs

Each year for the information-sharing workshop, a guest speaker will be invited from another cider-growing region to share their perspectives with regional growers. Prospective speakers include Judith Moloney of West County Cider in New York, Kevin Zielinski of EZ Orchards in Oregon, and John Worle of John Worle Cider Apple and Perry Pear Trees, a noted cider tree nursery in the UK. Each guest speaker will be paid an honorarium of \$400.

The cost of using workshop space, chairs, and audiovisual equipment will be \$1000 per year. The total for other direct costs is therefore \$4200.



# QUOTATION



Date: 12/8/2015  
 Quote #: **Q0044925**  
 W11WI

Customer: **Nicholas Smith**  
**University of Wisconsin**  
**221 Babcock Hall**  
**MADISON, WI 53706**

Phone: 608-890-3397  
 Fax:  
 Email: nsmith35@wisc.edu

GERSTEL, Inc.  
 701 Digital Drive, Suite J  
 Linthicum, MD 21090

Phone: (410) 247-5885  
 Fax: (443) 709-0305

E-mail: sales@gerstelus.com  
 Web: www.gerstelus.com

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ITEM NO	QTY	DESCRIPTION	US\$ UNIT PRICE	US\$ AMOUNT
<p>This quotation is designed to provide an approximate cost for the purpose of establishing a budget for future purchase. This quote does not include any discounts that may be available at time of purchase.</p>				
1	1	<b>GER BOM MTDU S2010</b> GERSTEL Manual TDU Bundle for Shimadzu 2010 GC Includes: -CIS 6C with electronic pneumatic module -TDU -LN2 cooling for CIS 6C -UPC cooling for TDU -Cooling option mounting kit -Start up kit	50,361.30	50,361.30
2	1	<b>GER 013277-381-00</b> Mounting kit for up to 2 UPC peltier cooling modules on a Shimadzu 2010 GC	342.10	342.10
3	1	<b>GER 014049-781-00</b> TDU mounting kit for Shimadzu 2010 GC	1,032.90	1,032.90
4	1	<b>GER 010526-001-00</b> MPS 2 Conversion Kit Upgrades CTC CombiPAL to GERSTEL MPS 2 For Obsolete CTC Autosamplers  Includes: Maestro software license for MPS 2 Universal liquid syringe holder with 2 x 10 uL syringes Universal headspace syringe holder with 2 x 2.5 mL syringes MPS 2 Firmware update Labels  ***CONVERSION MUST BE APPROVED BY SERVICE DEPARTMENT. GERSTEL WARRANTY ONLY COVERS GERSTEL PARTS***	6,873.90	6,873.90
5	1	<b>GER 015121-000-00</b> GERSTEL Automatic Tube Exchange (ATEX) Option for	8,303.90	8,303.90

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Customer: **Nicholas Smith**  
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ITEM NO	QTY	DESCRIPTION	US\$ UNIT PRICE	US\$ AMOUNT
		GERSTEL MPS 2 Includes: -Tube automation adapter for MPS 2 -98 position ATEX desorption liner rack -GERSTEL adjustable desorption liner rack holder -100 ATEX desorption liners -100 ATEX desorption liner transport adapters  ***REQUIRES A GERSTEL TDU SYSTEM with MPS***		
6	1	<b>GER 012892-200-02</b> GERSTEL Tube Conditioner TC 2 Allows conditioning of 10 TDS tubes, 10 TDU tubes (with adapters 014496-010-00- not included) or 40 Twisters at one time. Operating temperature, 50 - 350°C, Includes C200 controller.	10,120.00	10,120.00
7	1	<b>GER 014496-010-00</b> Adapters that allow TDU tubes to be conditioned using the TC 2, Package of 10  ***NOT COMPATIBLE WITH TC 1 SN <7672***	590.00	590.00
8	1	<b>GER 011178-000-GI</b> GERSTEL Twister License  License to purchase GERSTEL Twisters  If purchased separately, a full credit toward a GERSTEL system for the analysis of Twisters will apply. Offer good for 6 months from date of purchase.	3,664.10	3,664.10
9	1	<b>GER 017753-000-02</b> Twister 20 position magnetic stirrer (no heating)	2,075.70	2,075.70
10	1	<b>GER 012930-015-00</b> 15 position Twister tube storage rack. Provides sealed storage for Twisters in TDU tubes.	530.20	530.20
11	1	<b>GER 016904-001-00</b> GERSTEL Twister® EG-Silicone with 32µL phase volume,	670.73	670.73

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 WI1WI

Customer: **Nicholas Smith**  
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ITEM NO	QTY	DESCRIPTION	US\$ UNIT PRICE	US\$ AMOUNT
		10 mm length, Package of 10.		
		Available to GERSTEL Twister License holders only. License verification is required upon receipt of order.		
12	1	<b>GER 019184-002-00</b> GERSTEL Twicester Holder for Twisters, Package of 1 Allows up to 4 Twisters to be used for sampling in a single 10/20 mL vial by magnetically holding up to three Twisters in place on the inside wall of the vial.	49.50	49.50
13	1	<b>GER GT 1000-ST2</b> Attendance in any GERSTEL training course offered in Baltimore. This course is not application specific and addresses the full range of the system's capabilities.  Course is offered at GERSTEL's Applications Laboratory in Baltimore, MD. Price covers tuition and course materials for 1 student. Course descriptions and schedule are available on the GERSTEL website: <a href="http://www.gerstelus.com">www.gerstelus.com</a>  Hotel cost while in Baltimore, transportation to and from Baltimore and other living expenses are not included and are the responsibility of the attendee.	1,650.00	1,650.00
14	1	<b>GER GI GC KIT</b> GC Installation Kit Required with CIS, TDS and TDU installations  Includes: -S/SL inlet adapter -Connectors and tubing -LN2 adapter -Performance check out standard -Service and support policy	385.00	385.00
15	1	<b>GER GS 1600-03</b> Installation	6,352.50	6,352.50
16	1	<b>GER GS 1900-02</b>	660.00	660.00

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ITEM NO	QTY	DESCRIPTION	US\$ UNIT PRICE	US\$ AMOUNT
		Shipping		
<b>TOTAL QUOTE</b>				<b>\$93,661.83</b>

**Vitae**  
**James Steele**

Professor  
Department of Food Science  
University of Wisconsin

TEL: (608) 262-5960 FAX: (608) 262-6872

E-mail: jlsteele@wisc.edu

**Education:**

1982	BS	Major: Microbiology	University of Minnesota
1985	MS	Major: Food Science	University of Minnesota
1989	PhD	Major: Genetics	University of Minnesota
		Minor: Biochemistry	

**Positions held:**

1/89-6/94	Assistant Professor. University of Wisconsin-Madison, Department of Food Science
12/90-present	Trainer. University of Wisconsin-Madison, Department of Bacteriology
7/94-6/99	Associate Professor. University of Wisconsin-Madison, Department of Food Science
7/98-6/01	Chair. University of Wisconsin-Madison, Department of Food Science
7/99-present	Professor. University of Wisconsin-Madison, Department of Food Science

**Refereed Publication List (last 3 years):**

- Oberg, T.S., R.E. Ward, J.L. Steele, and J.R. Broadbent. 2012. Identification of plasmalogens in the cytoplasmic membrane of *Bifidobacterium animalis* subsp. *lactis*. *Appl. Environ. Microbiol.* 78:880-884.
- Tan, W.S., M.F. Budinich, R. Ward, J.R. Broadbent, and J.L. Steele. 2012. Optimal growth of *Lactobacillus casei* in a Cheddar cheese ripening model system requires exogenous fatty acids. *J. Dairy Sci.* 95:1680-1689.
- Broadbent, J.R., E.C. Neeno-Eckwall, B. Stahl, K. Tandee, H. Cai, W. Morovic, P. Horvath, J. Heidenreich, R. Barrangou, N.T. Perna and J.L. Steele. 2012. Characterization of the *Lactobacillus casei* supragenome and its role in evolution and lifestyle adaptation. *BMC Genomics* 13:533.
- Steele, J., J. Broadbent, and J. Kok. 2013. Perspectives on the contribution of lactic acid bacteria to cheese flavor development. *Curr. Opin. Biotechnol.* 24:135-141.
- Broadbent, J., J. Hughes, D. Welker, T. Thomas, and J. Steele. 2013. Complete genome sequence for *Lactobacillus helveticus* CNRZ 32, a commercial cheese starter and cheese flavor adjunct. *Genome Announcements* 1:e00590-13.
- Broadbent, J., C. Brighton, D. McMahon, N. Farkye, M. Johnson, and J. Steele. 2013. Microbiology of Cheddar cheese made with different fat contents using a *Lactococcus lactis* single-strain starter. *J. Dairy Sci.* 96:4212-4222.
- Oberg, T., R.W. Ward, J.L. Steele, and J.R. Broadbent. 2013. Genetic and physiological responses of *Bifidobacterium animalis* ssp. *lactis* to hydrogen peroxide stress. *J. Bacteriol.* 195:3743-3751.
- Heneghan, A.F., J.F. Pierre, K. Tandee, D. Shanmuganayagam, X. Wang, J.D. Reed, J.L. Steele, and K.A. Kudsk. 2013. Parenteral nutrition decreases paneth cell function and intestinal bactericidal activity while increasing susceptibility to bacterial enteroinvasion. *JPEN J. Parenter. Enteral. Nutr.* DOI: 10.1177/0148607113497514
- Broadbent, J.R., T.S. Oberg, J. E. Hughes, R.E. Ward, D.L. Welker and J.L. Steele. 2014. Influence of polysorbate 80 and cyclopropane fatty acid synthase activity on lactic acid

production by *Lactobacillus casei* ATCC 334 at low pH. J. Ind. Microbiol. Biotechnol. 41:545-553.

- Cooney, M., J. Steele, H. Steinberg, and A. Talaat. 2014. A Murine oral model for *Mycobacterium avium* subsp. *paratuberculosis* infection and immunomodulation with *Lactobacillus casei* ATCC 334. Front. Cell. Infect. Microbiol. 4: doi:10.3389/fcimb.2014.00011
- McMahon, D., C. Oberg, M.A. Drake, N. Farkye, L. Moyes, M. Arnold, B. Ganesan, J. Steele, and J. Broadbent. 2014. Impact of sodium, potassium, magnesium, and calcium salt cations on pH, proteolysis, organic acids, and microbial populations during storage of full fat Cheddar cheese. J. Dairy Sci. 97:4780-4798.
- Porcellato, D., C. Brighton, D. J. McMahon, C.J. Oberg, M. Lefevre, J. R. Broadbent, and J. L. Steele. 2014. Application of ARISA to assess the influence of salt content and cation type on microbiological diversity of Cheddar cheese. Lett. Appl. Micro. 59:207-216.
- Vinay Lara, E., J.J. Hamilton, J.R. Broadbent, J.L. Reed, and J.L. Steele. 2014. Genome –scale reconstruction of metabolic networks for two *Lactobacillus casei* strains: ATCC334 and 12A. PLoS ONE 9(11): e110785
- Oh, J.-H., E. Vinay-Lara, R. McMinn Jr., K.A. Glass, M.E. Johnson, and J.L. Steele. 2014. Evaluation of compositional factors of low-sodium Cheddar cheeses on the growth of pathogens in a model system. J. Dairy Sci. 97:6671-6679.
- Welker, D.L., J.E. Hughes, J.L. Steele, and J.R. Broadbent. 2014. High efficiency electroporation of *Lactobacillus casei*. FEMS Microbiol. Lett. 362:1-6

### **Synergistic Activities**

**Instruction (Past 5 years):** Introduction to the Science and Technology of Food". Lead instructor for FS550, senior level course entitled "Fermented Foods and Beverages", this course integrates microbial physiology, food science, and engineering principles. Students are from Departments of Biochemistry, Biological Systems Engineering, Chemical and Biological Engineering, Food Science and Microbiology. Co-Instructor for FS551, entitled "Fermented Foods and Beverages Laboratory" teams of engineers, biologists and food scientists develop and manufacture beers on a 40 L pilot brewery.

**Undergraduate Advising:** Academic advisor for approximately 25 food science undergraduate students, providing coursework and career advising.

**Badger Brewing Association:** Faculty advisor to the Badger Brewing Association, a student organization with more than 150 members that provides its members practical professional experiences in the art, science and business of brewing beer.

**Invited Symposium Presentations (Past 5 years):** Presentations: 2013 American Society of Microbiology Annual Meeting; 2013 American Dairy Science Annual Meeting; 2013 Institute for Food Technology Annual Meeting; 2012 International Dairy Federation Symposium on Cheese Ripening; 2011 International Conference on Functional Dairy Foods; 2010 American Dairy Science Annual Meeting; 2010 American Society of Microbiology Annual Meeting.

### **GRADUATE STUDENTS and POSTDOCTORAL ADVISEES**

Current Graduate Students: 8

Total Graduate Students Graduated: 34

Current Postdoctoral Scholars: 1

Total Career Postdoctoral Scholars: 6

## Julie C. Dawson

### EDUCATION

Ph.D. Crop Science,  
2008 Washington State University,  
NSF Graduate Research Fellow

Bachelor of Science in Plant Science,  
2003 Cornell University,  
Magna Cum Laude

### EMPLOYMENT

**Current Position: Assistant Professor, Department of Horticulture, Faculty Trainer, Graduate Field of Plant Breeding and Plant Genetics, University of Wisconsin-Madison. July 2013-Present.**

Postdoctoral Researcher Cornell University, Department of Plant Breeding and Genetics, Small Grains Breeding Program. March 2011-July 2013.

Postdoctoral Researcher INRA UMR de Génétique Végétale, Equipe Diversité, Evolution et Adaptation des Populations (National Agricultural Research Institute Plant Genetics Research Unit, Diversity, Evolution and Adaptation of Populations group). Ferme du Moulon, Gif sur Yvette, France, September 2008 - February 2011.

Graduate Research Assistant, Dr. Stephen Jones, Winter Wheat Breeding and Genetics Program, Department of Crop and Soil Sciences, Washington State University (WSU), Aug 2004-2008

Policy Intern, Sustainable Agriculture Coalition, Washington DC, Jan-June 2004

Science Policy Intern, American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, Washington, DC, Sept-Nov 2003

Undergraduate Research Assistant, Dr. Margaret E. Smith, Department of Plant Breeding, Cornell University, June 2001- Aug 2003

Assistant for the Public Seed Initiative, Dr. Molly Jahn, Cornell University, Department of Plant Breeding/ NOFA-NY, May- Aug 2002

Research Assistant, Tim Porch, PhD candidate with Dr. Molly Jahn, Cornell University, Department of Plant Breeding, Sept 1995- Dec. 1999

### Selected Presentations

Dawson, J.C. 2015. Participatory plant breeding for urban food systems. Invited presentation. Ecological Society of America Annual Meeting, Aug. 12<sup>th</sup>, Baltimore, MD.

Dawson, J.C. 2015. Participatory plant breeding and the effects of on-farm conservation and selection on diversity and adaptation. Invited presentation. American Phytopathological Society Meeting, Aug 2<sup>nd</sup>, Pasadena, CA

Dawson, J.C. 2015. Breeding for Flavor and Quality through Participatory Research. Invited presentation. University of Minnesota Dupont-Pioneer Plant Sciences Symposium. March 27, St. Paul, MN.

Healy, G.K., Theisen, T., Reese, M., Cotter, N. and Dawson, J.C., 2015. Variety trials for direct market quality and flavor. Organic Agriculture Research Symposium. LaCrosse, WI, Feb 25-26, 2015. *Presented by Kitt Healy, advisee*

Dawson, J.C. 2015. Breeding for flavor in vegetables. Plant breeding for the People workshop *and* History of IPR for plant varieties. Seeds and Breeds workshop. Organicology, Portland, OR, Feb 5-7.

Dawson, J.C. 2014. On-farm conservation of genetic diversity and organic plant breeding. 7th Organic Seed Growers Conference: Innovation in the Field. Jan 31-Feb 1, 2014, Corvallis OR.

Dawson, J.C. 2014. Understanding Nutrient Use Efficiency for Organic Plant Breeding. 7th Organic Seed Growers Conference: Innovation in the Field. Jan 31-Feb 1, 2014, Corvallis OR.

Dawson, J.C. 2013. The use of classical selection and genetic tools in plant breeding for complex environments. Invited presentation at the PASA Farming for the Future conference, Feb 7, PA.

Dawson, J.C., Baker, B., Benscher, D., Davis, M., Dyck, E., Kutka, F., Perry, R., Robertson, R., Roth, G., Russell, J., Zwinger, S., and Sorrells, M.E. 2013. High value grains for the Northeast food system. Invited presentation at the NOFA NY conference, 24-27 Jan 2013, Saratoga Springs, NY.

Dawson, J.C., 2012. Collaborative plant breeding: on-farm selection and conservation of agricultural biodiversity. Invited presentation at the Biodynamic Farming and Gardening Association conference, Nov 14-18 2012, Madison, WI.

Dawson, J.C., Berthelot, J.-F., Mercier, F., DeKochko, P., Thomas, M., Riviere, P., Galic, N., Pin, S., Serpolay, E., Giuliano, S., Chable, V. and Goldringer, I. 2010. Participatory plant breeding for local crop adaptation and maintenance of genetic diversity. Invited presentation to the National Institute of Food and Agriculture, United States Department of Agriculture, 5 January 2011, Washington, DC.

Dawson, J.C., Mercier, F., Berthelot, J.-F., DeKochko, P., Riviere, P., Thomas, M., Galic, N., Pin, S.,

Serpolay, E., and Goldringer, I. 2010. On-farm conservation and farmer selection as a strategy for varietal development in organic agricultural systems. Presented at the 2nd conference of the Eucarpia section on Organic and Low-Input Agriculture, "Breeding for Resilience: a strategy for organic and low-input farming systems?" 1-3 December 2010, Paris, France.

Dawson, J.C., Berthelot, J.-F., Mercier, F., DeKochko, Patrick, Galic, N., Thomas, M., Riviere, P., Pin, S., Serpolay, E., Schermann, N., Giuliano, S., Chable, V. and Goldringer, I. 2010. Participatory plant breeding for local crop adaptation and maintenance of genetic diversity. Invited presentation at the International ASA-CSSA-SSSA meetings, Symposium on Participatory Plant Breeding, 31 October 2010, Long Beach CA.

#### **Publications in the last 4 years**

- Rivière, P., **Dawson, J.C.**, Goldringer, I., David, O. 2014. Hierarchical Bayesian modeling for flexible experiments in decentralized participatory plant breeding. *Crop Science* 55: 1-15.
- Dawson, J.C.**, Endelman, J., Crossa, J., Poland, J., Dreisigacker, S., Manes, Y., Sorrells, M., and Jannink, J.L. 2013. The use of unbalanced historical data for genomic selection in an international wheat breeding program. *Field Crops Research*. 154 (2013) 12–22.
- Rivière, P., Goldringer, I., Berthelot, J.-F., Galic, N., Jouanne-Pin, S., DeKochko, P. and **Dawson, J.C.** 2013. Response to farmer mass selection in early generation progeny of bread wheat landrace crosses. *Renewable Agriculture and Food Systems* 30: 190-201. doi:10.1017/S1742170513000343
- Dawson, J.C.**, Serpolay, E., Giuliano, S., Galic, N., Schermann, N., Berthelot, J.-F., Chesneau, V., Ferté, H., Mercier, F., Osman, A., Pino, S., and Goldringer, I. 2013 Phenotypic diversity and evolution of farmer varieties of bread wheat on organic farms in Europe. *Genetic Resources and Crop Evolution*. 60: 145-163 doi: 10.1007/s10722-012-9822-x
- Dawson, J.C.**, Serpolay, E., Giuliano, S., Galic, N., Schermann, N., Chable, V., and Goldringer, I. 2012 Multi-trait evolution of farmer varieties of bread wheat after cultivation in contrasting organic farming systems in Europe. *Genetica* 140: 1-17. doi: 10.1007/s10709-012-9646-9
- Dawson, J.C.**, Rivière, P., Berthelot, J.-F., Mercier, F., De Kochko, P., Galic, N., Jouanne-Pin, S., Serpolay, E., Thomas, M., Giuliano, S. and Goldringer, I. 2011. Collaborative plant breeding for organic agricultural systems in developed countries. *Sustainability* 3: 1206-1223 doi:10.3390/su3081206
- Dawson, J.C.** and Goldringer, I. 2012. Breeding for genetically diverse populations: variety mixtures and evolutionary populations. Invited chapter in: *Organic Crop Breeding*. Edith T. Lammerts van Bueren, and James R. Myers, Eds. Wiley-Blackwell, Hoboken, NY, USA. Available on Request
- Poland, J., Endelman, J., **Dawson, J.C.**, Rutkoski, J., Wu, S., Manes, Y., Dreisigacker, S., Crossa, J., Sanchez-Villeda, H., Sorrells, M., and Jannink, J.L. 2012. Genomic Selection in Wheat Breeding using Genotyping-by-Sequencing. *The Plant Genome* 5:103-113 doi:10.3835/plantgenome2012.06.0006
- Thomas, M., Demeulenaere, E., **Dawson, J.C.**, Khan, A.R., Galic, N., Jouanne-Pin, S., Remoue, C., Bonneuil, C., Goldringer, I. 2012. On-farm dynamic management of genetic diversity: the impact of seed diffusions and seed saving practices on a population-variety of bread wheat. *Evolutionary Applications* 5:779-795 doi: 10.1111/j.1752-4571.2012.00257.x
- Dawson, J.C.**, Murphy, K.M., Huggins, D.R. and Jones, S.S. 2011. Comparison of winter wheat genotypes selected under different nitrogen regimes for traits related to nitrogen use in an organic system. *Organic Agriculture* 1(2): 65-80. doi: 10.1007/s13165-011-0006-3.
- Serpolay, E., Schermann, N., **Dawson, J.C.**, Lammerts van Bueren, E.T. Goldringer, I. and Chable, V. 2011. Phenotypic evolution of different spinach varieties grown and selected under organic conditions. *Sustainability* 3: 1616-1636
- Serpolay, E., **Dawson, J.C.**, Chable, V., Lammerts Van Bueren, E.T., Osman, A., Pino, S., Silveri, D. and Goldringer, I. 2011. Diversity of different farmer and modern wheat varieties cultivated in contrasting organic farming conditions in western Europe and implications for European seed and variety legislation. *Organic Agriculture*, 1, 127-145 doi: 10.1007/s13165-011-0011-6.
- Enjalbert, J, **Dawson, J.C.**, Paillard, S., Rhoné, B., Rousselle, Y., Thomas, M., and Goldringer, I. 2011. Dynamic management of crop diversity: from an experimental approach to on-farm conservation. *Comptes Rendus de l'Academie des Sciences: Biologies* 334: 458-468.
- Thomas, M., **Dawson, J.C.**, Goldringer, I. and Bonneuil, C. 2011. Seed exchanges, a key to analyze crop diversity dynamics in farmer-led on-farm conservation. *Genetic Resources and Crop Evolution*, 58(3): 321-338.
- Glenna, L., Jussaume, R. and **Dawson, J.C.** 2011. How Farmers Matter in Shaping Agricultural Technologies: Social and Structural Characteristics of Wheat Growers and Wheat Varieties. *Agriculture and Human Values*, 28(2): 213-224. doi: 10.1007/s10460-010-9275-9.



# Michael Mayerfeld Bell

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## EDUCATION

- Ph.D. 1992. Yale University (Sociology/Environmental Studies)
- M.Phil. 1989. Yale University (Sociology/Environmental Studies)
- M.F.S. 1982. Yale University (Forest Science)
- B.A. 1980. Wesleyan University (Earth Science)

## CURRENT EMPLOYMENT

- Vilas Distinguished Achievement Professor**, Department of Community and Environmental Sociology, University of Wisconsin-Madison
- Director**, Center for Integrated Agricultural Systems, University of Wisconsin-Madison
- Faculty Affiliate**, Nelson Institute for Environmental Studies, Agroecology Program, and Religious Studies Program, University of Wisconsin-Madison

## PRINCIPLE AWARDS

### Excellence in Rural Research

Two papers chosen by the *Journal of Rural Studies*, 2009.

### Outstanding Academic Title

Awarded by the American Library Association for *Farming for Us All*, January, 2006.

### Best Book Award

Sociology of Culture Section of the American Sociological Association, for *Childerley: Nature and Morality in a Country Village*, 1995, (co-winner).

### American Library Association Round Table Award

American Library Association, for *The Face of Connecticut: People, Geology, and the Land*, 1986.

## GRADUATE STUDENT TRAINING

- PhD Advisees* (24, 5 current)
- Masters Advisees* (20, 2 current)

## PRINCIPLE CURRENT SERVICE ACTIVITIES

- Associate editor, *International Journal of Agricultural Sustainability*.
- Member, Madison Food Policy Council.

## PUBLICATIONS (SINCE 2010)

### Recent Books

- Bell, Michael M. and Loka Ashwood. 2016. *An Invitation to Environmental Sociology*. 5th edition. Thousand Oaks, CA: Pine Forge Press (Sage). Previous English editions in 1998, 2004, 2009, and 2012. Chinese edition published in 2010 by Peking University Press.
- Orne, Jason and Michael M. Bell. 2015. *An Invitation to Qualitative Fieldwork*. New York and London: Routledge.
- Bell, Michael M. 2012. *An Invitation to Environmental Sociology*. 4th edition. Thousand Oaks, CA: Pine Forge Press (Sage).
- Bell, Michael M, with Andrew Abbott, Judith Blau, Diana Crane, Stacy Holman Jones, Shamus Kahn, Vanina Leschziner, John Levi Martin, Christopher McRae, Marc Steinberg, and John Chappell Stowe. 2011. *The Strange Music of Social Life: A Dialogue on Dialogic Sociology*. Ann Goetting, ed. Philadelphia: Temple University Press.

### Recent Journal Articles and Book Chapters

- Keller, Julie, Sarah Lloyd, and Michael M. Bell. (Forthcoming). "Creating and Consuming the Heartland: Symbolic Boundaries in Representations of Femininity and Rurality in U.S. Magazines." *Journal of Rural Studies*.

- Liu, John Chung-En and Michael M. Bell. (Forthcoming.) "Environmental Sociology." Chapter in *Cambridge Handbook of Sociology*, Kathleen Korgen, ed. Cambridge, England: Cambridge University Press.
- Ashwood, Loka and Michael M. Bell (Forthcoming). "The Rural-Agriculture Power Play," in *International Handbook of Rural Studies*, Lynda Cheshire, Mark Shucksmith & David L. Brown, eds. New York and London: Routledge.
- Lyon, Alexandra, Erin Silva, Jared Zystro, and Michael Bell. 2015. "Seed and Plant Breeding for Wisconsin's Organic Vegetable Sector: Understanding Farmers' Needs and Practices." *Agroecology and Sustainable Food Systems* 39:601-624.
- Jackson, Randall D., Lawrence G. Oates, Walter H. Schacht, Terry J. Klopfenstein, Daniel J. Undersander, Matthew A. Greenquist, Michael M. Bell and Claudio Gratton. 2015. "Nitrous Oxide Emissions from Cool-Season Pastures under Managed Grazing." *Nutrient Cycling in Agroecosystems*. Published on-line Feb 21, 2015.
- Legun, Katharine A. and Michael M. Bell. 2015. "The Environment," pp. 367-393 in *Investigating Social Problems*, A. Javier Travino, ed. Los Angeles and London: Sage. (Bell listed as first author due to publisher's error.)
- Ashwood, Loka, Noelle Harden, Michael M. Bell, and William Bland. 2014. "Linked and Situated: Grounded Knowledge." *Rural Sociology*. 79(4): 427-452.
- Keller, Julie C. and Michael M. Bell. 2014. "Rolling in the Hay: The Rural as Sexual Space" pp. 506-522 in *Rural America in a Globalizing World: Problems and Prospects for the 2010s*, Elizabeth Ransom, Conner Bailey, and Leif Jensen, eds. Morgantown, West Virginia: West Virginia University Press.
- Harden, Noelle M., Loka L. Ashwood, William L. Bland, and Michael M. Bell. 2013. "For the Public Good: Weaving a Multifunctional Landscape in the Corn Belt." *Agriculture and Human Values*. 30(4): 525-537.
- Vatovec, Christine, Laura Senier, and Michael M. Bell. 2013. "An Ecological Perspective of Medical Care: Environmental, Occupational, and Public Health Impacts of Medical Supply and Pharmaceutical Chains." *Ecohealth*. 10(3): 257-267.
- Vatovec, Christine, Laura Senier, and Michael M. Bell. 2013. "The Ecology of Dying: Commodity Chains, Governance, and the Medicalization of End-Of-Life Care." Pp. 195-215 in *Ecological Health: Society, Ecology and Health*, Maya K. Gislason, ed. *Advances in Medical Sociology*, volume 15.
- Ubert, Emanuel and Michael M. Bell. 2013. "Welcome to the Consumption Line: Sustainability, Social Organization, and the Wage-Price Gap." In *Innovations in Sustainable Consumption: New Economics, Socio-technical Transitions, and Social Practices*, Maurie J. Cohen, Halina Szejnwald Brown and Philip J. Vergragt, eds. Cheltenham, UK and Northampton, USA: Edward Elgar.
- Bell, Michael M. and Pierre M. Stassart. 2011. "Toward Pagan Agroecology." *Journal of Rural Studies* 27(4): 348-349.
- Lyon, Alexandra, Michael M. Bell, Claudio Gratton, and Randall D. Jackson. 2011. "Farming without a Recipe: Wisconsin Graziers and New Directions for Agricultural Science." *Journal of Rural Studies* 27(4): 384-393.
- Stiles, Kaelyn, Ozlem Altiok, and Michael M. Bell. 2011. "The Ghosts of Taste: Food and the Cultural Politics of Authenticity." *Agriculture and Human Values*. 28(2): 225-236.
- Oates, L. Gary, David J. Undersander, Michael M. Bell, Claudio C. Gratton, Randall D. Jackson. 2011. "Management-Intensive Rotational Grazing Promotes Forage Production and Quality of Subhumid Cool-Season Pastures." *Crop Science*. 51(2): 892-901.
- Lyon, Alexandra, Michael M. Bell, Nora Swan Croll, Randall Jackson, and Claudio Gratton. 2010. "Maculate Conceptions: Power, Process, and Creativity in Participatory Research." *Rural Sociology* 75(4): 538-559.
- Pretty, Jules, William J. Sutherland, Jacqueline Ashby, David Baulcombe, Michael Bell, Jeffrey Bentley, and 49 others. 2010. "The Top 100 Questions of Importance in the Future of Global Agriculture." *International Journal of Agricultural Sustainability* 8(4): 219-236.
- Bell, Michael M. and Giorgio Osti. 2010. "Mobilities and Ruralities: An Introduction." *Sociologia Ruralis* 50(3):200-204.
- Bell, Michael M., Sarah Lloyd, and Christine Vatovec. 2010. "Activating the Countryside: Rural Power, the Power of the Rural, and the Making of Rural Politics." *Sociologia Ruralis* 50(3):205-224.
- Brewster, Bradley H. and Michael M. Bell. 2010. "The Environmental Goffman: Toward an Environmental Sociology of Everyday Life." *Society and Natural Resources*. 23(1):1-13.

## JAMES JOSEPH LUBY

### Education History:

Undergraduate B.S. with Highest Distinction - Agronomy, 1978, Purdue University  
Graduate Ph.D. - Plant Breeding, 1982, University of Minnesota

### Professional Positions:

1994-present Professor, Department of Horticultural Science, University of Minnesota  
1987-94 Associate Professor, Department of Horticultural Science, Univ. of Minnesota  
1982-87 Assistant Professor, Department of Horticultural Science, Univ. of Minnesota

### Awards:

Amer. Soc. for Hort. Sci. Career Award for Outstanding Researcher, 2014  
Amer. Pomological Soc. Wilder Medal for outstanding contributions to fruit breeding, 2008  
Amer. Soc. for Hort. Sci. Outstanding Cultivar Award for Honeycrisp apple, 2007  
Fellow of the Amer. Soc. for Horticultural Science, 2002

### Teaching Activities:

Hort 8022/8900 Breeding Asexually Propagated Crops, 1983, 1985, 1989, 2008.  
Hort 3003/5003 Plant Genetics and Improvement, 4 cr., 1992-1998.  
Hort 4401 Plant Breeding and Genetics 4 cr., 2000-2004  
Hort 5031 Viticulture and Fruit Production, 3 cr., 2003 - 2013  
Hort 1031 Vines and Wines: Intro to Viticulture and Enology, 3 cr. 2005-present

**Graduate Advising:** Ph.D.- 10 students completed, 2 current; M.S. – 11 students completed, 0 current

### Cultivars Introduced:

Northblue blueberry (1983)	Chippewa blueberry (1996)	Itasca™ (MNUS 138) strawberry (2006)
Northsky blueberry (1983)	Frontenac grape (1996)	Marquette grape (2006)
Northcountry blueberry (1986)	Winona™ (MNUS 210) strawberry (1997)	Wildung apple (2006)
Alderman plum (1986)	Minnewashta apple (1998)	Minneiska apple (2007)
Redwing raspberry (1987)	Mesabi™ (MNUS 248) strawberry (1999)	Frostbite (MN 447) apple (2008)
Summercrisp pear (1987)	La Crescent grape (2002)	Superior blueberry (2009)
Nordic raspberry (1988)	Frontenac gris grape (2003)	MNPink1 blueberry (2013)
St. Cloud blueberry (1990)		MN55 apple (2013)
Honeycrisp apple (1991)		MinnB42 apple (2013)
Polaris blueberry (1996)		

### Recent Scientific Publications and Reviews

Castro, P., J.M. Bushakra, P. Stewart, C.K. Weebadde, D. Wang, J.F. Hancock, C.E. Finn, J.J. Luby, K.S. Lewers. 2015. Genetic mapping of day-neutrality in cultivated strawberry. *Molecular Breeding*. 35: DOI 10.1007/s11032-015-0250-4.

Yue, C., Gallardo, R.K., Luby, J., Rihn, A., McFerson, J., McCracken, V., Oraguzie, N., Weebadde, C., Sebolt, A., and A. Iezzoni. 2014. An Investigation of United States tart and sweet cherry fruit producers trait prioritization—evidence from audience surveys. *HortScience* 49:931-947.

Clark, M.D., V.G.M. Bus, J.J. Luby, J.M. Bradeen. 2014. Characterization of the defense response to *Venturia inaequalis* in ‘Honeycrisp’ apple, its ancestors, and progeny. *Euro. J. Plant Pathology*. *Eur J Plant Path.* DOI 10.1007/s10658-014-0444-3

Clark, M.D., C.A. Schmitz, U.R. Rosyara, J.J. Luby, J.M. Bradeen. 2014. A consensus ‘Honeycrisp’ apple (*Malus × domestica*) genetic linkage map from three full-sib progeny populations. *Tree Genetics & Genomes* 10:627-639.

Yue, C., R.K. Gallardo, J. Luby, A. Rihn, J.R. McFerson, V. McCracken, V. Whitaker, C. Finn, J. Hancock, C. Weebadde, A. Sebolt, A. Iezzoni. 2014. An investigation of United States strawberry producers trait prioritization – evidence from audience surveys. *HortScience*. 49:188-193.

Kantar, M.B., K. Betts, J-M.S. Michno, J.J. Luby, B.S. Hulke, R.M. Stupar, and D.L. 2014. Wyse. Evaluating an interspecific *Helianthus annuus* x *Helianthus tuberosus* population for use in a perennial sunflower breeding program. Submitted to *Agriculture*. *Field Crops Research* 155:254-264.

# Daniel Bussey

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Orchard Manager and Apple Historian, Seed Savers Exchange  
Home Address: 545 South St., P.O. Box 52, Ridgeway, IA 52165-0052  
Work Address: 3094 North Winn Rd., Decorah, IA 52101

Work #: 563 387 5681  
Cell #: 608 751 2546  
Email: dan@seedsavers.org

**Objective: Management, preservation and improvement of apple varieties in the SSE historic orchard under organic culture. Apple historian for the collection as well as all varieties grown in the U.S. since 1623.**

## **Education**

1972: graduate of Edgerton Senior High  
1973: attended University of Wisconsin, Madison, undergraduate.  
1998: University of Wisconsin-Madison College of Agriculture and Life Sciences, short course: Apple Management, Biology of the Crop and It's Pests  
2013: Cornell University, short course: Cider and Perry Production: Building Expertise.

## **Awards, Fellowships, Grants**

Garfield Farm Museum: Apple Stewardship Award, 2012  
Dane County Economic Development Grant: Apple cider pasteurization project, 2009

## **Positions Held**

1973—2011: Employed by Bussey Dishwasher Service: Service Tech, 1973-1989, owner 1989-2011  
1978—2012: Owner and operator: Albion Prairie Cyder Orchard and Mill (commercial orchard and cider producer, custom cider production for area commercial orchards)  
200-2002: Board member, Wisconsin Apple Growers Association, President-2002.  
Various Civic groups, Edgerton, WI including Edgerton Rotary Club (president 2009), Edgerton Optimist Club (president 2005)  
Board Member: Edgerton Chamber of Commerce, Edgerton Community Fund  
Board Member, Secretary and founding member of Green-Rock Audubon Society, 1995-2005

## **Publications**

2013: "In Search of Lost Limbertwigs", SSE Farm Companion  
2016 (pub. date): "The Illustrated History of the Apple in North America", Jakkaw press,.  
Contributor to: RAFT, Renewing America's Food Traditions: Saving and Savoring the Continent's Most Endangered Foods"  
Various articles: Seed Savers Exchange, North American Fruit Explorers, Heritage Seed Programme (Canada).

## **Conference Presentations**

Apple Summit,: Madison, WI 2010, Chicago 2010, USDA Special Collections Library, 2011  
Keynote Speaker: Trees Forever, Ames Iowa 2015, Council of Botanic and Horticultural Libraries, Decorah, IA 2015.

## **Licenses Held:**

Commercial Restricted Pesticides Applicator / Commercial Food Processor License

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**Outreach Education:**

Fruit Grafting clinics: Garfield Farm Museum 1985-present, Seed Savers Exchange, 2002 to present.

Cider making: Seed Savers Exchange summer conferences. 2013-2015

**Publications by Others, Mentioned in:**

“An Apple a Day for 27 Years” -New York Times, October 23, 2014

‘Edible Memory’ - University of Chicago Press, 2015 by Jennifer Jordan

‘In Winter’s Kitchen’ - Milkweed Editions, 2015, by Beth Dooley

**Public Interviews With:**

2014: “Science Friday”, November. National Public Radio

2014 : “The Takeaway” December , Public Radio International

## Diana Renae Cochran

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125 Horticulture Hall  
Ames, IA 50011

Office: 515.294.0035  
E-mail: dianac@iastate.edu

### EDUCATION:

Ph.D., Agricultural Science, Mississippi State University, Starkville, MS  
Concentration: Environmental Stress Physiology in Ornamentals

M.S., Horticulture, Auburn University, Auburn, AL  
Concentration: Chemical and Non-chemical Weed Control in Nursery Production

B.S., Horticulture, Auburn University, Auburn, AL  
Concentration: Landscape Design

### EXPERIENCE:

Assistant Professor	Iowa State University	2014 to present
Postdoctoral Research Assoc.	University of Tennessee	2012 - 2014
Graduate Research Assist.	Mississippi State University	2009 - 2012
Research Assist.	University of Wyoming	2008 - 2009
Instructor	Auburn University	2007 - 2008
Graduate Research Assist.	Auburn University	2005 - 2007

### PROFESSIONAL ACTIVITIES:

American Society of Horticultural Science, Collegiate Activities Committee, Fruit Publication Award Committee, and Member  
Midwest Fruit Working Group, Member  
American Pomological Society, Member  
Hop Growers of America, Member

### COLLABORATORS

Auburn University, Charles H. Gilliam; Longwood Gardens, Brian W. Trader; Marrone Bio Innovations, Tim Johnson, Guy Wilson; University of Tennessee, Amy Fulcher, Frank Hale, Alan Windham, and Brian Lieb; Iowa State University, Gail Nonnecke, Joe Hannan, Murli Dharmadhikari, Lester Wilson; Texas A&M, Mengmeng Gu

### GRANTS AND FUNDING RECEIVED:

Cochran, D.R. 2015. Pre-emergent herbicide crop safety trial. Interregional Research Project (IR-4). Awarded \$5,000.00.

Cochran, D.R. 2015. Ornamental grass herbicide crop safety trial. Interregional Research Project (IR-4). Awarded \$9,000.00

Fulcher, A., D. Cochran, and B. Leib. 2014. Mitigating Risk from Changing Irrigation Water Resources and Regulations. Southern Risk Management Education Center. \$36,118.

## Biographical Sketch

Cochran, D.R., A. Fulcher, F. Hale, and A. Windham. 2013. Mitigating risk with systems-based pest management for Tennessee nursery owners, producers, and Hispanic work force. Southern Risk Management Education Center. Awarded \$38,971.

Cochran, D.R. and B W. Trader. 2009. Regalia as a Crop Protectant: Evaluating Cold, Heat, and Drought Tolerance. Marrone Bio Innovations. Awarded \$15,000.

Cochran, D.R. and B.W. Trader. 2009. Pageant as a Crop Protectant: Evaluating Cold, Heat, and Drought Tolerance. BASF Ornamental Research. Awarded \$6,000.

Gilliam, C.H. and D.R. Cochran. 2006. Pre-emergent herbicide use in propagation of *Loropetalum chinense* 'Ruby'. Center for Applied Nursery Research Grant. Awarded \$1,500.

### **HONORS AND AWARDS:**

Vivian Munday Young Horticulture Professional Work Scholarship

- International Plant Propagators Society of America Southern Region Travel Grant

American Society of Horticultural Science Southern Region 2012

- 1<sup>st</sup> Place PhD Student Competition

American Society of Horticultural Science Southern Region 2011

- 1<sup>st</sup> Place PhD Student Competition

Southern Nursery Association 2011

- 2<sup>nd</sup> Place PhD Student Competition

International Plant Propagators Society of America Southern Region 2007

- 2<sup>nd</sup> Place MS Student Competition

Alabama Nurserymen and Landscape Association 2007

- Student Scholarship

International Plant Propagators Society of America Southern Region 2006

- 2<sup>nd</sup> Place MS Student Competition

### **PUBLICATIONS:**

#### Refereed

Fulcher, A., D.R. Cochran, and A.K. Koeser. 2015. An introduction to the impact of utilizing alternative containers in ornamental crop production systems. *HortTechnology* 25:6-7.

Brumfield, R., A.J. DeVincentis, X. Wang, R.T. Fernandez, S. Nambuthiri, R.L. Geneve, A.K. Koeser, G. Bi, T. Li, Y. Sun, G. Niu, D. Cochran, and A. Fulcher. 2015. Economics of utilizing biodegradable containers in ornamental crop production systems. *HortTechnology* 25:17-25.

Wang, X., R.T. Fernandez, B.M. Cregg, R. Auras, A. Fulcher, D.R. Cochran, G. Niu, Y. Sun, G. Bi, S. Nambuthiri, and R.L. Geneve. 2015. Multi-state evaluation of plant growth and water use in plastic and alternative nursery containers. *HortTechnology* 25:42-49.

## Biographical Sketch

- Cochran, D.R., R.L. Harkess, P.R. Knight, M. Tomaso-Peterson, E.K. Blythe, and C.H. Gilliam. 2014. Evaluation of a commercial extract of giant knotweed extract on drought tolerance of *impatiens*. *HortScience* 49:1034-1040.
- Cochran, D.R., A. Fulcher and G. Bi. 2013. Efficacy of dikegulac sodium applied to pruned and unpruned 'Limelight' hydrangea grown at two locations in the southeastern U.S. *HortTechnology*. 23:836-842.
- Cochran, D.R. and A. Fulcher. 2013. Type and rate of plant growth regulator influences vegetative, floral growth and quality of hydrangea. *HortTechnology* 23:306-311.
- Cochran, D.R., C.H. Gilliam, G. Wehtje, G.R. Fain, R.D. Wright, and C.R. Boyer. 2009. Herbicide efficacy in alternative substrates for container-grown nursery crops. *J. Environ. Hort.* 28:19-26.
- Cochran, D.R., C.H. Gilliam, D.J. Eakes, G.R. Wehtje, P.R. Knight, and J. Olive. 2009. Mulch depth affects weed germination. *J. Environ. Hort.* 27:85-90.
- Cochran, D.R., C.H. Gilliam, D.J. Eakes, G.R. Wehtje, and P.R. Knight. 2008. Herbicide use in propagation of *Loropetalum chinense* 'Ruby'. *J. Environ. Hort.* 26:139-143.
- Select Proceedings
- Cochran, D.R., R.L. Harkess, P.R. Knight, E.K. Blythe, M. Tomaso-Peterson, and C.H. Gilliam. *Submitted*. Evaluation of chilling injury to strawberry plants following application of an organic fungicide. *HortScience* xx.
- Cochran, D.R. and A. Fulcher. 2013. Development of a cost-effective automated oxygenated irrigation system. *Proc Southern Nurs. Res. Conf.* 58:73-78.
- Wilson, S.E., D.R. Cochran, and A. Fulcher. 2013. Container-grown lavender affected by oxygenated irrigation water. *HortScience* 48:S424.
- Cochran, D.R., R.L. Harkess, P.R. Knight, E.K. Blythe, M. Tomaso-Peterson and C.H. Gilliam. 2012. Antitranspirant effects on water use efficiency of *Impatiens*. *Comb. Proc. Int. Plant Prop. Soc.* 62:423-428.
- Cochran, D.R., R.L. Harkess, P.R. Knight, M. Tomaso-Peterson, E.K. Blythe, C.H. Gilliam, and M. Gu. 2012. Evaluating the effect of selected fungicides on drought tolerance in tomatoes. *HortScience* 47:S20. Abstr.
- Cochran, D.R. and M. Gu. 2010. Effect of coffee grounds on seed germination. *Comb. Proc. Int. Plant Prop. Soc.* 60:596 – 601.



## **Herdie Eldred Baisden**

Maiden Rock Apples, Winery & Cidery  
W12266 King Lane  
PO Box 34  
Stockholm, WI 54769  
(715) 448-3502

### **Summary of Professional Experience**

Owner/Founder of Maiden Rock Apples, Winery & Cidery :

- Established orchard with focus on retail sales and agritourism.
- Developed winery & cidery with intent to use apples from our orchard and produce English style ciders.
- Serving as Program Manager for FY14 Specialty Crop Grant-Farm Bill Contract Number 14-018 “Growing Markets for Wisconsin Apple Growers for Fresh and Hard Cider”.
- Served on the Boards of the Wisconsin Apple Growers and the Wisconsin Winery Association.

Organizational psychologist with a track record of demonstrated success in:

- Working with a broad client base, from small to Fortune 50 companies.
- Consulting with organizations on selection, promotion, and development decisions and systems.
- Assessing and developing executives, managers, and key contributors.
- Designing and delivering customized training programs.
- Designing and facilitating meetings, planning, and team building sessions.
- Designing and implementing organizational interventions.
- Managing large scale projects and service delivery.

### **Education**

**Doctor of Philosophy,**  
1980, University of Minnesota

**Bachelor of Science,**  
1970, Rollins College, Cum Laude

### **Professional Affiliation**

United States Association of Cider Makers  
Wisconsin Apple Growers Association  
Wisconsin Winery Association  
Minnesota Apple Growers Association

## **Experience/Achievements**

### **Executive and Management Assessment**

- Designed and implemented a comprehensive executive assessment program to support culture change and succession planning efforts in one of the world's largest organizations.
- Provided individual assessment of executives, managers, and key contributors for screening, selection, promotion, career planning, high potential identification, problem diagnosis, and development.
- Conducted assessment centers for managers and executives to identify their long-term potential and develop their managerial skills.

### **Executive and Management Development**

- Orchestrated a leading edge management development center program which provided powerful developmental feedback and supported developmental planning for hundreds of managers from across the U.S.
- Designed and implemented individual coaching, training and counseling programs for executives and managers of Fortune 500 and other companies which strengthened performance and helped high potential people become top-notch leaders.
- Conducted intensive leadership development program which helped leaders assimilate constructive feedback and set goals for continued development.

### **Organizational Development**

- Provided process consultation to manage factors which inhibited group performance and to define and implement processes which maximized efficiency.
- Designed team building experiences which addressed the specific needs of various groups.
- Conducted instrument-based assessment and on-site evaluation of organizational issues which supported business initiatives such as continuous improvement and empowerment.

## **Training**

- Used an experiential learning model in designing and implementing numerous seminars, workshops, lectures, and other training experiences which fostered active participation and skill-building for executives, managers, professionals, hourly employees, students, and the general public.
- Consulted with a major training and development firm on human resource product development.
- Worked closely with a Fortune 50 company to design an international training program which integrated the organization's leadership principles, company policy, core values, and best management practices.

## **Project Management**

- Managed consulting service delivery and business planning and development of a key office of a large consulting firm.
- Developed, enhanced and delivered management development centers at a high level of quality and client satisfaction.
- Managed large scale projects including selecting, training, developing and coordinating staffing and implementation of programs nation-wide.

## **History**

2008 to Present	<b>Co-Owner &amp; Managing Director</b> Maiden Rock Winery & Cidery
2000 to Present	<b>Co-Owner &amp; Orchardist</b> Maiden Rock Apples
2009 to Present	<b>On-Call Consulting</b> Korn Ferry International
1993 to 2009	<b>Senior Vice President and General Manager</b> Personnel Decisions International
1992 to 1993	<b>Director, Management Development Centers</b> Personnel Decisions International, Minneapolis

1988 to 1992                    **Manager, Management Development**  
Personnel Decisions International, Minneapolis

1985 to 1988                    **Senior Consulting Psychologist**  
Personnel Decisions International, Minneapolis

1976 to 1985                    **Executive Director**  
Rational Life Center, Minneapolis

1980 to 1981                    **Staff Psychologist**  
Hennepin County Home School, Glen Lake, MN

1974-1979                        **Director of Clinical and Community Services**  
St. Joseph's Home for Children, Minneapolis

1965 to 1970                    **Supervisor, Technical Editor, Technical Writer**  
Bendix Corporation, Kennedy Space Center

## **Teaching**

Alfred Adler Institute  
Augsburg College  
Canada College  
Macalester College  
Mankato State University  
George Mason University  
St. Mary's College Graduate Program  
The Fielding Institute  
St. Olaf College  
University of Maryland  
University of Minnesota  
University of Wisconsin

## **Recent Publications/Presentations**

Baisden, H.E. (1992). *Assessing and developing black managers in the United States*.  
Paper presented at the Twentieth International Congress on the Assessment Center  
Method, Williamsburg, VA.

Baisden, H.E. (in press). Enhancing executive performance. *HR Horizons*, accepted for  
publication in the January 1994 issue.

Baisden, H.E., Lewis, D.M., Hazucha, J.F., & Schnieder, R.J. (1991). *Developing Successful  
Black Managers*. Paper presented at the 99th annual convention of the American  
Psychological Association, San Francisco, CA.

# Matthew L. Raboin

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3120 County Road K, Barneveld, WI 53507 • Phone: 608-630-7458 • Email: [mattriboin@hotmail.com](mailto:mattriboin@hotmail.com)

## Education

**Master of Science – Agroecology** (2007 – 2010) University of Wisconsin – Madison

**Bachelor of Arts – Visual Arts, Creative Writing Minor** (1997 – 2002) University of Wisconsin - La Crosse

## Positions Held

**Research/Outreach Specialist** (August 2014 – Present)

University of Wisconsin - Center for Integrated Agricultural Systems (CIAS)

- Created GIS maps of perennial crops in Wisconsin based on census information
- Designed the Wisconsin School for Beginning Dairy and Livestock Farmers website: [wsbdf.wisc.edu](http://wsbdf.wisc.edu)
- Drafted and submitted grants to fund research and outreach efforts and currently administering a successful grant on advancing the regional hard cider industry

**Owner/Manager** (November 2013 – Present)

Bantum Fruit Farm

- Planted over 500 fruit trees including apples, pears, cherries, plums, and apricots
- Drafted a business plan for a value-added company for marketing the fruit when the trees are mature

**Agricultural Development Officer** (March 2011 – June 2014)

United States Agency for International Development (USAID)

- Led project design efforts in agriculture, fisheries and forestry under a \$50 million annual budget
- Developed scopes of work for contracts and grants and chaired technical review panels that selected organizations to be funded for agricultural development
- Liaised with the Government of Malawi, other donors, non-government organizations, and the private sector to develop frameworks for coordination, collaboration, and heightened development impact
- Monitored, evaluated, and reported results to Congress and other stakeholders following rigorous data quality standards
- Planned and coordinated public events (project launches, workshops, seminars etc.) each of which included most or all of the following responsibilities: public speaking, interactions with the press, drafting of press releases, ensuring proper USAID branding, managing event logistics, and coordination with a range of public and private sector stakeholders

**Agronomy Research Technician** (January 2010 – February 2011)

University of Wisconsin Department of Agronomy

- Collected, processed, and managed data in agronomic research projects; analyzed soil samples within bioenergy cropping systems and measured weed emergence and root biomass in managed grazing systems

**Researcher** (September 2007 – August 2010)

Global Environmental Facility (GEF) Páramo Andino Project and University of Wisconsin

- Investigated the role of planted forests in rural communities of the Peruvian highlands to inform land use planning strategies for the GEF Páramo Andino Project
- Conducted rapid rural appraisal, economic surveys, semi-structured interviews, and focus group discussions
- Used qualitative methods for interpreting interviews; created a micro-economic model of costs and benefits from survey results; and statistically interpreted the environmental data
- Reported findings to the international directive committee of the GEF Paramo Andino Project and presented results to institutions in Peru and internationally

## Grants, Contracts and Projects Managed

- Cultivating Successful Wine and Cider-making Enterprises in the North Central Region. \$10,000. Drafted grant application and administering grant through the University of Wisconsin (present)
- Fisheries Integration of Society and Habitats (FISH). \$15 million. Drafted Request for Applications and served as Activity Manager during project initiation. USAID/Malawi 2013-2014.
- Biodiversity Projects Evaluation. \$200,000. Drafted Scope of Work and served as Contracting Officer's Representative, managing and overseeing the evaluation. USAID/Malawi. 2013.
- Malawi Climate Change Vulnerability Assessment. \$900,000. Served as Activity Manager, directing and overseeing the assessment. USAID/Malawi. 2012 – 2013.
- Cultivating New Frontiers in Agriculture (CNFA) Farmer to Farmer program. \$240,000. Served as Activity Manager for the Malawi branch of the Southern Africa Farmer to Farmer program. USAID/Malawi. 2012 – 2014.
- Friends of AIDS Support Trust (FAST) Women's Empowerment Project. \$200,000. Served as Agreement Officer's Representative, managing and overseeing the grant. USAID/Malawi. 2012 – 2013.
- Global Environmental Facility Páramo Andino Project Research Grant. \$10,000. Drafted grant application and served as Principle Investigator through the University of Wisconsin. 2009 – 2010.
- Latin American, Caribbean, and Iberian Studies Program Research Grant. \$3,000. Drafted grant application and served as Principle Investigator through the University of Wisconsin. 2008.
- President's Emergency Plan for AIDS Relief (PEPFAR) Project Grant. \$1,000. Drafted and implemented grant through US Peace Corps – Tanzania. 2005 – 2006.
- USAID Small Project Assistance Grants. \$550 and \$450 for a water catchment project and a tree-planting project implemented through US Peace Corps – Tanzania. 2004 – 2005.

## Selected Publications

USAID. 2013. Malawi Biodiversity Projects Evaluation. (Managed the contract and oversaw the evaluation) available at <https://dec.usaid.gov/dec/home/Default.aspx>

USAID. 2013. Malawi Climate Change Vulnerability Assessment. (Managed the contract and oversaw the assessment) available at <https://dec.usaid.gov/dec/home/Default.aspx>

Raboin, Matthew and Joshua Posner. 2012. "Pine or Pasture? The Costs and Benefits of Land Use Change in the Peruvian Andes." *Mountain Research and Development*. 32(2):158-168.  
<http://www.bioone.org/doi/pdf/10.1659/MRD-JOURNAL-D-10-00099.1>

Orne, Jason and Micheal Mayerfeld Bell (with illustrations by Matthew Raboin). 2015. An Invitation to Qualitative Field Work. Taylor and Francis.

Bell, Michael Mayerfeld and Loka Ashwood (with illustrations by Matthew Raboin and Matthew Robinson). 2015. An Invitation to Environmental Sociology. SAGE Publications.

# Nicholas Smith

221 Babcock Hall  
1605 Linden Drive, Madison WI, 53706  
(651) 592-7332 NSmith35@wisc.edu

## Education

### **The University of Minnesota, St. Paul Minnesota**

Department of Food Science and Nutrition  
Master of Science, Food Science

### **The University of Minnesota, Minneapolis Minnesota**

The Carlson School of Management  
Bachelor of Science in Business, Finance and Marketing

## Experience

### **The University of Wisconsin, Madison**

Associate Outreach Specialist

Madison, WI

April 2015 to Present

- Implements outreach programs for wine and cider producers in Wisconsin
- Establishes microbial and chemical analytical methods for analysis of grapes, hops, apples, wine, beer, and cider quality.
- Meets with state industry organizations and members to identify top quality issues.
- Works with state industry groups to plan conferences and workshops.

### **Four Daughters Vineyard and Winery, Loon Juice Hard Cider**

Winemaker and Cider Maker

Spring Valley, MN

August 2014 to April 2015

- Analyzes, adjusts, inoculates, ferments, filters, and packages Loon Juice Honeycrisp Hard Cider.
- Manages and builds SOP's for production of cider and wine.
- Coordinates and develops new product concepts for Loon Juice Hard Cider.

### **University of Minnesota, Department of Horticultural Sciences**

Assistant Scientist

Chaska, MN

2006 to 2014

- Developed fermentation procedures for cold climate wine production. These procedures reduce production time while maintaining product quality.
- Implemented sensory analysis methods to evaluate wine experiments.
- Trained and supervised non-technical team members to operate analytical equipment.
- Presented technical talks at industry meetings and poster for research conference.
- Developed and implemented educational programs for local winemakers to decrease incidences of faulty wine.
- Collaborated with suppliers of fermentation products to develop treatments that decrease acidity in wine made from high acid grapes
- Maintained analytical equipment and optimized laboratory SOP's.

### **Beringer Vineyards**

Wine Chemist

St. Helena, CA

April 2006 – November 2006

- Responsible for performing analysis including stability, acidity, spectrophotometry, atomic absorption, residual sugar, ethanol, and nitrogen.
- Approved bottling line operations. Ensured that bottled wine met product specifications.

**Ste. Michelle Wine Estates**

Winemaking Intern

Hopland, CA

August 2005-April 2006

- Performed cellar and laboratory operations at a 4,500 ton facility of both red and white varieties.
- Responsibilities included oak cellar operations involving filling, emptying, aroma/fault testing, cleaning of barrels and Chardonnay barrel fermentations.

**Certifications** Certified Beer Server, Cicerone Certification Program



# John Tillman

1263 Hubbard Avenue, Saint Paul, MN 55104  
Phone: 651-334-2907 E-Mail: till0068@umn.edu

## Current Position

### Researcher 1

February 2012 – Present

#### University of Minnesota Fruit Breeding Program

Manage the daily workings of ongoing breeding research projects, organizing and supervising laboratory and field employees, fruit evaluation, crossing, planting, harvesting, sample collection and preparation for phenotypic and genotypic analysis, maintaining apple scab cultures and conducting scab evaluations, data collection, entry and analysis, management of field maps and breeding program database.

## Past Experience

### Research Assistant

May 2012 - February 2013

#### Horticulture Dept./U. of Minn.

Assisting with apple harvest, labeling, evaluation, processing of apple samples in the laboratory, data entry, and titration of juice samples. Maintaining both the Trial and Display Gardens and the Edible Display Garden, assisting in asexual propagation of *Prunus* cultivars and related data collection.

### Organic Chemistry Tutor/Research Assistant

January 2007 – June 2008

#### Chemistry Dept./U. of Minn.

Personalized instruction in organic chemistry and organic laboratory technique. Grading and correction of organic chemistry exams. Organic synthesis with an emphasis on heterocycles

### Staff Sergeant

June 2003 – June 2011

#### United States Army Reserve

- Dec. 2008 – Apr. 2010: *Operations NCOIC*; 847<sup>th</sup> HRC, JBB, Iraq  
Oversee daily operations, training, reporting, and readiness for 168 Soldiers at 14 forward operating bases in northern Iraq.
- Feb. 2005 – Dec. 2008: *First Cook*; 847<sup>th</sup> PSB, Ft. Snelling, MN Supervise all cooking and feeding operations, administration duties and mentoring of soldiers.
- Dec. 2003 – Feb. 2005: *Coalition Forces Land Component Command Liaison Officer*; 377<sup>th</sup> TSC, Camp Doha, Kuwait - Security and accountability control at the Kuwait City International Airport.

## Education

### Bachelors of Science, Biology

June 2012

#### University of Minnesota – College of Biological Sciences

## Skills

Fruit juice analytical chemistry, DNA extraction, Multiplexed PCR, Agarose gel electrophoresis, KASP genotyping, PAGE, Southern blot. T-budding, chip-budding, bench grafting, stem cutting rooting, trellising and pruning.

# Ruth McNair

UW-Madison Center for Integrated Agricultural Systems

1535 Observatory Drive • Madison, WI 53706 • 608-265-6479 • ramcnair@wisc.edu

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## Key qualifications

- Eighteen years of experience in editing and graphic design to communicate research results to the public
- Education and experience in planning, including data collection, analysis and reporting
- Time management, customer relations and computer skills
- Knowledge of and experience in agriculture

## Professional positions

### Senior Editor, UW-Madison Center for Integrated Agricultural Systems, 1997 to present

Edit and design reports and other publications related to sustainable agriculture; maintain CIAS mailing list databases; write CIAS email updates; develop CIAS donor fundraising materials; make arrangements for printing publications; take photographs; assist with CIAS website. Co-authored four CIAS publications.

### Business Manager, *Graze* magazine, No Bull Press, Belleville, 2000 to present

Manage business operations of national ag publication including circulation, bookkeeping, advertising and website.

### Administrator, the Dane Fund (now Forward Community Investments), Madison, 1996 to 1998

### Associate Planner, Mid-America Planning Services, Madison, 1991 to 1993 and 1988 to 1989

### Facilities Planning Specialist, UW-Madison Office of Space Management, 1989 to 1991

## Education

**M.Sc.** University of Wisconsin-Madison, Urban and Regional Planning, 1988

**B.S.** University of Wisconsin-Madison, Geography, 1986

**Other training:** Continuing studies classes in Illustrator, Quark, InDesign, HTML, photography, and publication design; courses in accounting, including governmental accounting

**Technical skills:** Microsoft Word, Excel, Access, Power Point; Adobe InDesign, Acrobat, Photoshop, Illustrator; WordPress

**Honors:** Outstanding student award, American Institute of Certified Planners; Student Planner Award, Wisconsin Chapter of the American Planning Association; Vilas Graduate Fellowship; UW WARF Fellowship

## Other activities

Co-owner of farm, Brooklyn, 1991 to present. Experience raising sheep and beef, and contract grazing dairy heifers.

Grace UMC, Belleville, Welcoming Committee, 2010-present; Education Committee, 1997-2006

Town of Oregon Plan Commission, Dane County, 1992-1997

*References available upon request.*



OFFICE OF RESEARCH AND SPONSORED PROGRAMS

**UW Reference #:** MSN193408

**Sponsor:** DATCP Prime: USDA AMS

**PI:** James Steele

**Title:** Crafting Value: Research for Apple Growers Entering the Cider Industry

**Total Budget:** Direct Costs:\$905,083 Indirect Costs:\$78,634 (8%) Total Costs:\$983,717

The proposal and budget referenced above have been administratively approved on behalf of the Board of Regents of the University of Wisconsin System and is submitted for your consideration. Please keep our office advised as developments occur with regard to this application.

All costs cited conform to established institutional policies and procedures. Our DHHS Negotiated Rate Agreement can be found at <http://www.rsp.wisc.edu/rates/rates.pdf>. Website: <http://www.rsp.wisc.edu/>

A final agreement is contingent upon the successful negotiation of terms and conditions acceptable to the University of Wisconsin-Madison.

We ask that you use the University's above-referenced number in any future correspondence. Questions regarding administrative matters should be directed to Vincent Borleske, Preaward Manager at (608) 890-3180 or [vincent.borleske@wisc.edu](mailto:vincent.borleske@wisc.edu). Questions regarding the technical nature of this application should be directed to the project's Principal Investigator.

Approved:

Vincent Borleske, Preaward Manager  
College of Agricultural & Life Sciences

12/15/2015

Date

# IOWA STATE UNIVERSITY

O F S C I E N C E A N D T E C H N O L O G Y

Office of Sponsored  
Programs Administration

1138 Pearson Hall

Ames, Iowa 50011-2207

Phone: 515 294-5225

Fax: 515 294-8000

December 11, 2015

University of Wisconsin-Madison  
Attn: Vincent Borleske  
1450 Linden Drive  
Madison, WI 53706

Proposal Title: Crafting Value: Research for Apple Growers Entering the Cider Industry  
Period of Performance: August 1, 2016 to July 31, 2019  
Requested Amount: \$ 284,298  
Cost Sharing Amount: \$ 0

Dear Mr. Borleske:

On behalf of Iowa State University and Diana Cochran, I am pleased to endorse the enclosed application for funding. It has been reviewed and approved by the appropriate programmatic and administrative personnel at Iowa State University. If the proposal is selected for funding, Iowa State University is committed to fulfilling all commitments made in the grant application.

Iowa State University certifies it is in compliance with 42 CFR Part 50 SubPart F. Iowa State University will comply with its policy relating to the disclosure of Significant Financial Interests and will report all identified Financial Conflicts of Interest to the awarding entity.

Sincerely,



Deborah J. Moses  
Pre-Award Administrator  
[grants@iastate.edu](mailto:grants@iastate.edu)

# UNIVERSITY OF MINNESOTA

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*Twin Cities Campus*

*Sponsored Projects Administration*

*450 McNamara Alumni Center  
200 Oak Street S.E.  
Minneapolis, MN 55455  
Office: 612-624-5599  
Fax: 612-624-4843*

December 7, 2015

Matthew Raboin  
Outreach Specialist  
University of Wisconsin Center for Integrated Agricultural Systems (CIAS)  
E: raboin@wisc.edu  
P: 608-630-7458

RE: Proposal Title: Crafting Value: Research for Apple Growers Entering the Cider Industry  
University of Minnesota DUNS: 555917996

Mr. Raboin,

A proposal for the above referenced project in the amount of \$26,785 is hereby submitted on behalf of James Luby in the Department of Horticultural Science.

This application has been administratively approved on behalf of the Board of Regents. Questions concerning programmatic aspects of the project should be directed to the Principal Investigator. Those having to do with contract and budgetary matters should be directed to Rylee Pelzer at 612-624-2086 or by e-mail at rcchrist@umn.edu in the Office of Sponsored Projects Administration.

Sincerely,



Andrea Marshall  
Principal Grant Administrator  
Sponsored Projects Administration

Attachments



December 7, 2015

To the Wisconsin State Department of Agriculture,

Seed Savers Exchange (SSE) is excited to work with partners at University of Wisconsin, as well as orchardists and breeders to address the unique challenges cider apple growers and cider producer's face in our region.

SSE is uniquely qualified to support the *Crafting Value* project by supplying apples for assessment of cider properties from our collection of over 1,000 historic apple varieties – a collection that has been designed to emphasize varieties with a history of utilization in the Midwest during a time period (pre-1950) when cider making was commonplace. Thus, it is an ideal resource in the search for apple varieties that are both suitable for hard cider production and hardy in the Midwest.

SSE will provide technical support in identifying and providing historical descriptions of apple varieties to be tested from our orchard collection. Over 3 years, we will provide samples from up to 160 varieties, which we will harvest, package, and deliver to the University of Wisconsin Fermentation Science Lab. This work will be coordinated by Dan Bussey, the orchard manager at SSE. He will also work with project collaborators to facilitate monitoring of select varieties and to provide historical information about varieties. He will also support the project by working collaboratively with project team members to plan, participate in, and present at project outreach events.

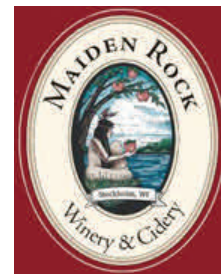
Lastly, Seed Savers Exchange will provide access and assistance for University of Wisconsin partners to monitor the horticultural characteristics – including hardiness, productivity, and disease resistance – of promising varieties in order to advance the burgeoning craft cider industry.

Sincerely,

John Torgrimson, Executive Director

Seed Savers Exchange  
3094 N. Winn Rd.  
Decorah, IA

Office phone: 563-387-5631  
john@seedsavers.org



15 December 2015

Juli Speck, Program Manager  
Specialty Crop Block Grant Program  
WI Department of Agriculture Trade & Consumer Protection  
Madison, WI 53708

Dear Juli:

This letter is written in support of the University of Wisconsin Center for Integrated Agricultural Systems (CIAS) multistate grant proposal titled, **“Crafting Value: Research for Apple Growers Entering the Cider Industry.”**

The exponential growth in the hard cider industry across the country creates a unique opportunity for agriculture in Wisconsin, Minnesota, Iowa and other states in the Upper Midwest. Yet, in face of this high and growing demand, the specialized varieties of apples that are specific to this industry are in short supply. More research and cultivation of cider apples is greatly needed.

We are acutely aware of this need, because my wife Carol Wiersma and I are owners and operators of Maiden Rock Apples, an orchard we established in 2000 where we grow over 50 varieties of apples, including 20 varieties of specialized cider apples. In 2008, we founded Maiden Rock Winery & Cidery, a business that is on-track to become one of the leading regional premium craft hard cider producers in Wisconsin and Minnesota. However, we are currently unable to produce or purchase at any price the quantity of cider apples we need to achieve our production goals.

I am currently Program Manager for FY14 Specialty Crop Grant-Farm Bill Contract Number 14-018.: “Growing Markets for Wisconsin Apple Growers for Fresh and Hard Cider.” This project is designed to conduct preliminary cider apple research, to educate growers about hard cider apple varieties and cultivation, and to enhance consumer awareness of Wisconsin-produced ciders. The project has drawn great interest from growers around the region, and we are excited that the proposed project builds on lessons learned from the Specialty Crop Block Grant and expands it to neighboring states, drawing on their unique

## **Maiden Rock Winery & Cidery**

W12266 King Lane ■ PO Box 34 ■ Stockholm, WI 54769 ■ Phone: 715-448-3502 ■ Fax: 715-448-4446 ■ E-mail: [info@maidenrockwinerycidery.com](mailto:info@maidenrockwinerycidery.com)

*Presenting a unique collection of premium hard ciders and fruit wines, handcrafted from fresh local fruit, flavored by Wisconsin. Along Wisconsin's Great River Road.*

resources and expertise.

For the project being proposed, I would lead the grower trials component. This work would include raising awareness about the cider apple cost-share program, collecting applications for the program, evaluating applications based on clearly defined evaluation criteria, making recommendations for orchards to be chosen as participants in the program, providing consultation to growers, following up with growers to monitor their progress, conducting and hosting information-sharing workshops, evaluating the success of the program, and reporting on project results.

I am totally committed to the proposed project; and I strongly encourage the reviewers to select this project for funding to provide more site-specific and cultivar-specific information for existing and future apple growers in Wisconsin, Minnesota, Iowa and other states in the Upper Midwest.

Sincerely,

***Herdie E. Baisden***

*Owner/Managing Director/Director of Product Development & Marketing*

[<mailto:herdie@maidenrockwinerycidery.com>](mailto:herdie@maidenrockwinerycidery.com)

W12266 King Lane  
Stockholm, WI 54769  
Mobile (612) 618-0512  
Tel (715) 448-3502  
Fax (715) 448-4446

**MAIDEN ROCK WINERY & CIDERY** – *Presenting a unique collection of premium hard ciders and fruit wines, hand-crafted from fresh local fruit, flavored by Wisconsin. \*\*\*\*\**







# Wisconsin Apple Growers Association

211 Canal Road ♦ Waterloo, WI 53594 ♦ 920/478-4277

Fax – 920/478-9586 ♦ E-Mail - office@waga.org

December 10, 2015

Juli Speck

Grants Manager

Wisconsin Department of Agriculture Trade and Consumer Protection

2811 Agriculture Drive

Madison, WI 53718

Dear Juli:

The Wisconsin Apple Growers Association (WAGA) is in support of the project titled “Crafting Value: Research for Apple Growers Entering the Cider Industry.” Growing market trends in hard cider have captured the interest of growers in Wisconsin, and just in the last few years we have seen new cider businesses starting up all around the state. Unfortunately, growers and entrepreneurs have limited information to draw from in planning for a profitable cider business. This research project will provide growers with answers they need.

In particular, we are excited about the cross-state collaboration in this project. By bringing in the unique resources and expertise of our neighboring states, we can build on each other’s strengths and work collaboratively towards common objectives. Likewise, we appreciate that the project has strong grower involvement and a strong grower-led component. Involving growers in the research process gives the project a much greater likelihood of leading to long-term, sustainable impacts.

The project advances WAGA’s purpose of uniting commercial growers in common pursuits, providing consumer education, and supporting research and market development. If the project is funded, we will look forward to the project team presenting at our annual Wisconsin Fresh Fruit and Vegetable Conference, and we would invite contributions to our Fresh Magazine to share findings with our 175 members as well as other growers and stakeholders in the apple industry.

Sincerely,

Anna Maenner

Executive Director

Wisconsin Apple Growers Association

December 6<sup>th</sup>, 2015

Juli Speck  
Grants Manager  
Wisconsin Department of Agriculture Trade and Consumer Protection  
2811 Agriculture Drive  
Madison, WI 53718

Dear Juli Speck,

The Great Lakes Cider and Perry Association (GLCPA) was formed to showcase and promote fermented apple and pear beverages and to help educate consumers and producers about them. We believe that the best cider comes from the best cider apples, grown in the right conditions. For the cider industry to continue to grow, thrive, and provide new opportunities in the region, growers would benefit from better information about what to grow and how to grow it in order to produce a high quality product. The project titled "Crafting Value: Research for Apple Growers Entering the Cider Industry" would provide new insights into these questions.

GLCPA is excited about the exploration of historic apple varieties as well as the possibilities of discovering new cider apple varieties that this project entails. We have over 60 commercial members, and many of them would prefer to buy more cider-specific apple varieties, if they were more readily available. In other words, there is a ready market for the findings of this research.

We also believe that the grower-led trials and economic analysis that are part of this project will ensure that the research remains grounded in real life, helping growers orient their investments towards profitable undertakings. If the project is funded, we would look forward to seeing the results and sharing them with our members.

Sincerely,



Gary Awdey  
President, Great Lakes Cider and Perry Association

December 13<sup>th</sup>, 2015

Juli Speck  
Grants Manager  
Wisconsin Department of Agriculture Trade and Consumer Protection  
2811 Agriculture Drive  
Madison, WI 53718

Dear Ms. Speck:

This letter is written to support the project entitled *Crafting Value: Research for Apple Growers Entering the Cider Industry*. As a small apple grower and co-owner of Tandem Ciders in Suttons Bay, Michigan, there are many challenges that growers and cider makers face in the emerging cider industry, and cider apple varieties are one area where we need more research. I also work as an Extension Specialist with Michigan State University, and I have many requests about apple variety information for cider production. I have also conducted some of the first cider apple research in the region where we evaluated apple variety suitability for northwest Michigan. We have learned much from these trials, but the list of unanswered questions and untested apple varieties is still long. As the cider industry continues to grow, we need more varietal research to ensure we are providing the quality and quantity of apples to support this growing industry.



**MSU EXTENSION**

NW Michigan Horticultural  
Research Center  
6686 S. Center Highway  
Traverse City, MI 49684

231-946-1510

Fax: 231-946-1404

email: [nwmihort@msu.edu](mailto:nwmihort@msu.edu)

website:

<http://agbioresearch.msu.edu>

/nwmihort

This project would address apple variety information that could immediately be put to use by growers and cider makers. Michigan is home to over 1,500 apple growers and 55 cider producers, and both parties need more information about varieties specifically grown for cider. I am interested in this proposal as it has potential to rediscover historical cider apple varieties and/or develop new cider apple varieties at the University of Minnesota. I also appreciate that the project involves grower-led experimentation, and it would be a terrific addition to a proposal we are submitting to USDA's Specialty Crop Research Initiative (SCRI).

If the project were funded, I look forward to sharing findings with my colleagues, participating in project field days here in Michigan, and working more collaboratively with others through the Midwest Cider Development Network. I support this proposal, and please contact me with further questions.

Sincerely,

Dr. Nikki Rothwell  
Co-Owner, Tandem Ciders  
Extension Specialist, Michigan State University

## **Areas Affected**

The project will be directly implemented in the states of Wisconsin, Minnesota, and Iowa. On the ground outreach activities will also include the state of Michigan. Results will be relevant nationally, and online outreach and presentations at national conferences will target a broad, national audience.

## Identifying Economically Resilient Small City Downtowns

November 23, 2015

**PI:** Kennedy, Z. (University of Illinois)

**Co-PIs:** Haines, A. (University of Wisconsin) and Schwartau, B. (University of Minnesota)

**Award:** \$6,000

**Project Abstract:** This project will help community economic development educators in the North Central Region provide local economic development and business leaders with information to support their improvement of the health, vitality and resiliency of their downtown districts. Building upon previous work, including a literature review of successful downtown indicators, this project will create a website featuring a searchable database (with perhaps 250 community entries) of successful downtowns enabling users to identify “peer comparison” communities. The idea being that a community can gain insight and learn from the successes of other similar communities. The website will feature best practices related to: creating entrepreneurial communities, planning & zoning, business development and redevelopment, data driven decision-making, and developing partnerships with the private sector.

## Local Government Fiscal Stress and Innovative Response Strategies

November 23, 2015

**PI:** Das, B. (Iowa State University)

**Co-PIs:** Leatherman, J. (Kansas State University), Stallman, J. (University of Missouri), Maher, C. (University of Nebraska), Skidmore, M. and Scorsone, E. (Michigan State University) and Bressers, B. (Miller School of Journalism)

**Award:** \$20,353

**Project Abstract:** Local governments provide vital public services affecting individual quality of life and creating economic opportunity. But, the task of maintaining local public services is becoming more challenging. With reduced levels of support from higher levels of government, local governments will have to find solutions to tackle budgetary challenges at the local level. Although we are slowly recovering from the recent “Great Recession,” the rise of public sentiment antithetical to taxation and government expenditure is overwhelming many states. Further, many state policies exacerbate local fiscal conditions. As local governments adjust to the ‘new normal,’ innovative response strategies are being employed to maintain local government services. These ‘innovations’ offer a glimpse into what the future potentially holds for local governments.

The goal of this study is to enhance county government fiscal management capacity within a context of general fiscal austerity. We propose an integrated research/Extension initiative to gain a better understanding of state-local intergovernmental fiscal relations and innovative county government response strategies. Conducting semi-structured interviews of state counties’ association Executive Directors. We will pay particular attention to implications for smaller rural counties and seek examples of innovative response strategies. We will develop two white papers. The first will report the current state of county government fiscal condition and include case studies of innovative response strategies for use by local elected and appointed officials, extension educators and other stakeholder groups. The second paper will offer a nuanced review of state policies that both exacerbate or alleviate local government fiscal stress.



# Fiscal Stress after the Great Recession: A Study of Rural Counties in the U.S.

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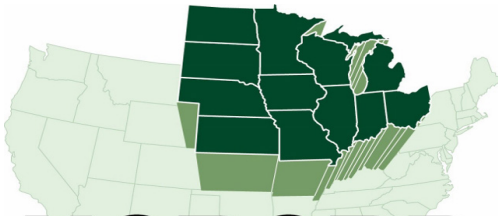
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August 2016



# NCRCRD

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This material is based on work supported by annual base funding through the National Institute of Food and Agriculture, U.S. Department of Agriculture. Any opinions, findings, conclusions or recommendations expressed in this publication are those of the authors and do not necessarily reflect the view of the U.S. Department of Agriculture or other funders.

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## Executive Summary

The Great Recession of 2008-2009 may have fundamentally altered state-county fiscal relations. The relationship is driven by weak revenue growth at the state and local level, coupled with political efforts to restrain fiscal behavior via tax and expenditure limits.

The recession appears to have resulted in a “reset” in the fiscal relations between states and county governments wherein many long-standing aid and revenue-sharing programs were either eliminated or curtailed. Many states now employ a much more targeted and limited approach to their local financial assistance. The result is chronic fiscal stress for both rural and urban counties in many states.

In a survey of county government representatives across the nation, it was reported that during the recession, many states sharply curtailed local government aid and shared revenue in response to lower state tax collections, essentially shifting service responsibilities to the local level. With the subsequent sluggish economic recovery that has not generated growth in state tax collections<sup>1</sup>, many states have exacerbated county fiscal stress by failing to restore financial aids to pre-recession levels, maintaining local service responsibilities at the county level without accompanying fiscal support, and adding to the roster of county government fiscal revenue/expenditure constraints.

The main objective of this study was to improve understanding of how rural counties across the nation are dealing with fiscal stress. Further, the study delved into state and local government relationship dynamics over the past several years and examined how that contributes to or alleviates some of the financial challenges experienced by counties in general and by rural counties in particular. A two-part survey, both online and by telephone, was conducted targeting the executive directors of state county associations. Acknowledging their fundamental advocacy role, the executive directors are uniquely situated to possess a broad understanding of member-county challenges. With a response rate of 54 percent, combining both parts of the survey, the sample was representative of all regions. Approximately 62 percent of all counties in the nation are represented in the findings.

Based on the online survey findings, the overall economic recovery in rural counties across the nation appears to be slow. Most of the respondent’s point to continued difficulty managing budgets in the post-recession period. The broad findings suggest varying degrees of economic recovery in different parts of the nation. Areas that have had faster economic recovery have been better able to move forward in dealing with fiscal challenges and those areas with slow recovery continue to experience fiscal challenges. Overall, six years after the recession officially ended, its effects are still being felt in many rural counties, further exacerbated by tax and expenditure limitations imposed by respective states.

The interviews reveal myriad issues considered critical and affecting local fiscal conditions, many of which cut across state boundaries. Similarly, every state had unique issues that influenced the fiscal standing of rural counties.

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<sup>1</sup> [http://www.rockinst.org/pdf/government\\_finance/state\\_revenue\\_report/2017-06-13-srr\\_107.pdf](http://www.rockinst.org/pdf/government_finance/state_revenue_report/2017-06-13-srr_107.pdf)

### *Rural County Challenges*

The greatest overall need that exists in rural areas is the lack of economic opportunity leading to population loss and a declining local tax base to support local public finances.

In several states, executive directors reported population migration that has created problems. Associated with the population loss and aging of the population base is a growing leadership crisis where replacements for the leadership and volunteers needed to keep rural communities vital and functioning is minimal. A small population that does not possess a wide range of skills makes economic growth difficult.

On the other hand, rapid in-migration to amenity-rich areas was overwhelming the inadequate or nonexistent infrastructure and public services. Several executive directors cited the environmental consequences of population growth.

There are growing needs related to infrastructure. Out-migration from some rural areas has left aging infrastructure and an insufficient population and tax base to support the infrastructure. This includes roads and bridges, water and wastewater, and schools. There are insufficient local resources to deal with the scale of the needs, state aid is deficient, and there is not sufficient authority and flexibility to respond independently.

Several trends are occurring that are creating greater levels of local need. Several executive directors cited their states' choices to forego expanding Medicaid funding leading to growing local health and human service's needs. The need for health and mental health services was growing faster than state and federal assistance. Many rural hospitals are no longer financially viable without public subsidy. Similarly, mental health reform keeps individuals in their communities rather than state facilities. In these instances, greater need for services is arising at the local level, and the states are helping too little or not at all.

Finally, two service areas frequently identified as challenging for rural areas were education and policing. Maintaining the local school system has challenged many rural communities and in some states, the county funds schools. Buildings, equipment, and technology were antiquated and there was insufficient local capacity to upgrade or improve. Law enforcement needs were also extensive. Movement toward community-based service and treatment was cited in relation to prison-sentencing reform that will keep more offenders in the community. In addition the opioid crisis challenges both law enforcement and the local health system.

### *State Policy Challenges*

There seems often to be a fundamental disconnect between state legislators and local officials. From the county perspective, state legislators often do not understand the needs that exist at the local level and do not trust county officials to behave in fiscally responsible ways.

States impose various forms of tax and expenditure limitations that constrain local choices and options. While these controls take many forms, they are almost uniformly viewed as impinging on local control and constraining local autonomy and choice. For their part, county officials are aware of anti-tax sentiments, but are willing to explain to their voters the needs that exist and do

what they feel may be necessary. Mostly, they want greater flexibility and choice because they recognize the diversity among counties in each state.

County officials generally seek a greater level of autonomy in managing local affairs. They often chafe at what they perceive as mandates that constrain choices or compel action. Many county officials believe the best solutions to community problems are found at the local level rather than mandated or constrained from a state capitol.

Many executive directors reported that state legislatures had issued mandates with new local service responsibilities without providing additional financial assistance. Similarly, some states withdrew assistance or service provision, effectively transferring responsibility to local government. Within the context of overarching tax and expenditure limitations, this forced reduction of other services or left other needs unmet. Executive Directors also talked about long-standing mandates, such as the requirement to fund court operations. One large case can put a substantial and unanticipated financial burden on a county. Other examples of unfunded mandates included extra pay for first responders, and requirements to participate in specific insurance and pension programs.

#### *Some Help for Rural Counties*

Largely, the executive directors felt that states have done very little in recent years to help the counties. There have been some modest enhancements of various types of revenues, e.g. gas tax, motor vehicle registration fees, or severance taxes, but nothing near meeting the needs of counties. States have done several one-time initiatives to help with road and bridge or emergency dispatch services, but have offered no enduring aid programs. Any significant local government assistance programs cited reflected actions taken many years before. For some states, state aid to counties beyond roads and bridges is limited.

A number of the executive directors interviewed reported that states replaced shared revenue aid programs with one-time funding programs. For example, states may have replaced ongoing road and bridge aid with money available by application and distributed by prioritizing greatest need or impact, revolving loan funds, or other mechanisms for infrastructure, including broadband and options for decreasing congestion in urban areas. Several executive directors cited states adding more funding for drug treatment and funding for schools for specific purposes.

A number of states have used lower oil and gas prices to increase gas taxes, and have shared some of the revenue with local governments. A handful of states implemented policies to help rural counties with transportation funding, economic development assistance, and some aid. In oil-rich states, several have expanded state funding assistance for services. This was particularly true in states where communities had experienced very rapid growth, outpacing the local capacity to meet law enforcement and social service needs.

#### *How Counties are Coping with the New Normal*

Executive directors were hard-pressed to cite examples of local government innovation. Most frequently cited was a trend toward regionalization, formal consolidation, or informal cooperation. In the realm of regionalization, several mentioned mental health and chemical dependency. Other examples included economic development, regional public health, and

regional jail facilities. In terms of consolidation/cooperation, several mentioned combined emergency dispatch services, and solid waste management. Some executive directors also mentioned counties and cities sharing costs for select services rather than duplicating them or contracting with each other for services. Some counties have reorganized and streamlined offices and services to save money. These 'innovations' offer a glimpse into what the future potentially holds for local governments, especially in rural America.



## Introduction

Local governments, both at the municipal and county level, provide vital public services affecting citizens' quality of life and creating an environment for economic opportunity. The task of maintaining and improving local public services is, however, becoming difficult and will be challenging for the foreseeable future. A confluence of factors has given rise to these challenges. First, local governments have been hard hit by the financial crisis and the Great Recession. These have hindered their ability to generate sufficient revenues to provide basic services and support economic development efforts, which are crucial to the well-being of both farm and non-farm rural families. Local governments also face increased demands based on external circumstances such as terrorism, security, natural disasters, state mandates, and citizens' increasing expectations due to rising income<sup>2</sup>. Moving forward, growth in service demands combined with demands for fiscal austerity will place local governments in difficult fiscal situations and warrant creative solutions to address the challenges.

Over the period 2009-2012, the economic environment was characterized by slow growth, high rates of unemployment, widespread government revenue shortfalls, and increasing global competition (Schizer, 2012). In addition to problems intrinsic to challenging economic conditions, since the late 1970s there have been organized political interest groups intent on constraining taxation and government initiative (*ibid.*). Today, 46 of the 50 states have some form of tax and/or expenditure limitation on local governments and more than half of the states have limited their own fiscal behavior (Amiel et al, 2009). All of this gives rise to conditions of "fiscal stress" (U.S. Congressional Budget Office (CBO); 2010, Stenberg, 2011; Scorsone and Plerhoples, 2010; Skidmore and Scorsone, 2011).

Recognition that local governments periodically experience fiscal stress is not new. Most research focuses on cities. We draw on the literature of both cities and counties and apply it to counties. Efforts have been made to measure and monitor municipal fiscal stress dating to the U.S. Advisory Commission on Intergovernmental Relations (ACIR, 1973). Since that time, there have been multiple fiscal indicator systems developed (Groves and Valente, 1994; Brown 1993, 1996; Kloha et al, 2005). Despite these efforts, relatively few units of local government systematically monitor fiscal conditions. Further, there is little empirical evidence of which indicators are most useful in prescribing an appropriate response to fiscal stress (Maher and Deller, 2007; Dougherty et al, 2000; Scorsone and Plerhoples, 2010). There is even less empirical evidence of the efficacy of any of the plethora of expenditure reduction or revenue enhancement strategies available to local governments.

In addition, there are studies that suggest the fundamental structure of the economy may have changed, and that the tax and/or expenditure system no longer fits the current economy (Jones et al, 1997; LaPlante and Honadle 2011). An example is the combination of demographic and economic changes that have transformed the retail sector. Many rural areas have lost retail

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<sup>2</sup> Public goods and services are what economists label normal goods. As incomes rise, people consume more of some types of goods (normal goods) and less of others (inferior goods). The increase may be slower or faster than the rate of increase in income. The bottom line is that as incomes increase people want more and better quality public services.

establishments due to lower family incomes, population loss, and competition from retailers in larger towns and from the Internet, leading to declining sales tax collections. In addition, retail is an inherently volatile source of tax revenue. For smaller rural counties in states where sales taxes are now an important part of county budgets this trend can make a difficult fiscal position even worse.

The primary motivation for this research was to understand the fiscal implications of economic changes for county government finances, and to identify the resulting response strategies being employed. Mohr et al (2010) along with Maher and Deller (2012) found there is a large body of research on the fiscal conditions of large cities, often drawing on international or national city/county management association surveys (e.g., Pagano et al, 2012; Maher and Sohl, 2013). They suggested several limitations of the existing research. First, the research lacks the history of the service provision, so that both new and existing modes of service provision are attributed to the circumstances that prompted the research. Second, many surveys use a yes/no response that does not allow for gradations of delivery, such as contracting for construction, but with maintenance by the local government. Further contracting with for-profit, non-profit and other governments often is not distinguished. Third, many of the surveys do not include communities of less than 10,000. Maher and Deller (2013) also found that smaller, more rural local governments are at a comparative disadvantage due to the very nature of scale restrictions and distance. Given the circumstances, understanding small rural counties therefore becomes very critical for their long-term viability and the quality of life of their citizens.

Another source of data often used by researchers is the Census of Governments, from which data on counties can be extracted. Even then, it has been observed that the quality of the data varies across states depending on whether the data are extracted from standardized reports by local governments to the state, or, in the absence of such, by questionnaires sent to local governments. The reporting and auditing requirements for local governments vary greatly across the U.S. with very weak or non-existent standards in some states (Cox and Swenson, 2006).

The alternative is to survey local governments, including small counties or municipalities, to discover how local officials assess their fiscal condition and their adaptive strategies. Girth et al. (2012) found that outsourcing by U.S. local governments was crucially affected by the local competition, or the lack of it, among contractors. Smaller local governments had fewer contracting options and often used intergovernmental contracts instead. There are also more narrowly focused surveys. For example, Afonso (2013) surveyed county governments in California and Georgia and found that they were more likely to reduce expenditures than to increase taxes in response to the recent recession. Hildreth and Miller (2002) show how the local economy affects the affordability of local public debt.

Skidmore and Scorsone (2011) examined the causes and responses to fiscal stress for cities in Michigan. They found that the fall in property values was a major contributor to stress and cities commonly responded by cutting expenditures on general government, public works, parks and recreation, and particularly capital expenditures. Two studies in Wisconsin, one on cities and villages (Maher and Deller, 2011) and the other on counties (Maher and Deller, 2013) found that “subjective” self-reported fiscal health does not correspond to the “objective” standard financial metrics. The authors suggested this apparent disconnect may be that: (1) local officials were

acting politically in stating their fiscal condition to the researchers, (2) the standard financial metrics fell short and needed to be refined, or (3) local officials were disconnected from their true fiscal condition. If the latter is true, then their strategies to address fiscal difficulties will be misplaced and the need for more focused educational programming becomes evident. The authors noted there was a need for research that delves more deeply into the basis upon which local officials develop their understanding of fiscal conditions. This research addresses several of the limitations and questions raised by the previous research and expands the existing work on small rural governments by conducting a survey that focuses on counties, especially in the rural areas across the nation.

While local governments will be dealing with fiscal challenges for the foreseeable future, our goal is not only to draw attention to these challenges but also to find areas of innovation that have helped address the challenges by sustaining and enhancing local government fiscal management capacity. Over the past 15 years, as economic hardships have occurred more frequently and with increasing severity, some local governments have responded to the 'new normal' by taking measures that are sometimes 'out of the box.' For example, Maywood, California has outsourced all of its city functions. Hall County, Georgia is considering merging city and county police departments. Deltona, Florida has outsourced public safety. Bedford County, Virginia is considering accepting private funds to build a skate park. A New York group is considering merging three counties (Stenberg, 2011). From these examples, it is evident that local governments are beginning to 'innovate' to provide uninterrupted services in the 'new normal' scenario.

## **Objectives of the Study**

The broad goal of this study is to enhance understanding of county government fiscal management and changes in state-local government relations within a context of general fiscal austerity. The study is an integrated research/extension initiative to gain a better understanding of state-local intergovernmental fiscal relations and innovative county government response strategies.

The specific objectives of the study are:

- 1) Enhance understanding of the current level of county fiscal stress;
- 2) Identify innovative local response strategies that have been implemented; and
- 3) Conduct a national comparative analysis of state policies influencing state-local intergovernmental fiscal relations.

To address the specific objectives, the study involved a two-part survey of state county association Executive Directors (EDs). Particular attention was given to collect data, both quantitative and qualitative, to assess the implications for smaller rural counties by including questions specifically about rural counties.

This study will contribute to the scholarly literature and extension educational programming. This whitepaper reports the current state of county government fiscal condition and includes a brief description of strategies to address some of the issues for use by local elected and appointed officials, extension educators, and other stakeholder groups. This whitepaper also provides a compendium of state policies influencing local government public finances and an assessment of policies that seem to help or hurt local government fiscal wellbeing.

## Methodology

The study relied on a two-part survey to generate both quantitative and qualitative data. The first part of the survey was an online survey that was conducted between January and April, 2016. The survey was targeted at 48 Executive Directors (EDs) of the State Counties' Associations. The survey was emailed to them in January, 2016 and remained active online until the end of April. Repeated reminders, both, via email and by post were sent to the executive directors encouraging them to complete the survey. While the online survey was accessed thirty-three times, some respondents completed only portions of the survey while some responded twice. For those that responded twice, the later of the attempts was included in the final data set. Overall, eighteen EDs completed the survey.

Following administration of the online survey, invitations were sent to the EDs to participate in telephone interviews. Interviews were conducted between approximately February and June, 2016. Multiple attempts were made to secure cooperation. In total, 16 interviews were conducted, about a 33% response rate. Responses were likely suppressed due to ongoing state legislative activity. In most cases, the respondent was the executive director, but in a few cases, discussion was turned over to an association research director or legislative liaison. Responses were received from ED in of all U.S. Census Bureau Regions and Divisions of the United States.

Researchers asked each respondent five standard questions (see Appendix). Follow up questions were asked to enhance understanding of the circumstance and to ensure accuracy. Interviews ranged from about 20 minutes to well over an hour.

The counties' associations are fundamentally advocacy organizations, representing members' interests before the state legislatures. It should not be surprising, therefore, that the EDs of these associations expressed a sometimes-critical view of state/local fiscal relations. In exploring the topic of state-county fiscal relations, we are able to present only one side of the story. While association EDs can reasonably be assumed to know their members collective perceptions, there is no corresponding state legislative entity to represent the state-local fiscal perspective in reverse. Thus, the story of this research is one-sided. Never the less, we believe it is an important story to tell, and would hope it facilitates discussion that can lead to a more productive and amicable relationship between counties and state legislatures

For the two-part survey, the study used a standard interview format with:

- Online survey:
  - questions related to the relative level of fiscal stress among rural counties;
- A telephone survey with open-ended questions about
  - state policies and state/local fiscal relations that help or hurt county fiscal conditions (these questions were not specific to rural counties);
  - the top issues facing rural counties; and
  - innovative responses strategies employed by rural counties.

See the appendix for the content of both parts of the survey.

## Findings

This section presents findings of the two parts of the survey that were separately conducted. Table 1 illustrates the representation of the responding EDs in the four Census Regions within U.S. and the rural-urban characteristics of the states represented.

	West	Midwest	South	Northeast
Number of respondents (online)	7	5	4	2
Number of respondents (interviews)	4	6	7	3
Number of respondents - overall	7	9	7	4
Median percent population in rural areas of responding states (2010)	19	27.6	29.4	30.5
Median percentage change in rural population of responding states (2000-2010)	-2.92%	-3.40%	-4.66%	-1.07%

Table 1. Basic information related to the states represented in the survey.

As illustrated in Table 1, EDs from 18 states participated in the online survey, a 36 percent participation rate. Seven EDs were from the Western Census Region, five EDs were from the Midwest, four EDs from the South and two EDs from the Northeast. For the direct interview portion of the survey, there were four EDs from the West, six EDs from Midwest, seven EDs from South and three EDs from the Northeast a 40 percent participation rate. Overall, EDs representing 27 states responded to at least one or both parts of the survey, a 54 percent response rate. The 27 EDs that responded represented 1,979 counties, approximately 63 percent of all counties in the nation. In addition, a comparison of the rural-urban population split among the participating state EDs indicates that the states from the Northeast with 30.5 percent had a relatively higher level of its population in rural areas, followed by the South with 29.4, Midwest with 27.6 and the West with 19 percent. The change in rural population represented by the median percentage change for the participating EDs, by region, was highest in South, where the rural population declined by 4.6 percent. In the Midwest, the decline was 3.4 percent, in West, it was 2.92 percent, and the lowest change was in Northeast where the rural population decline of participating states was 1.07 percent.

### Online Survey Findings

#### *Respondent Characteristics*

Based on the responses, it is evident that the respondents, the Executive Directors of each of their states' counties' associations, have served for a reasonably long period, with a median of 10 years. We assume that having served for approximately 10 years, they have a good understanding of the workings of county government, issues that are important, challenges they face and how they have responded to periods of economic hardship.

#### *Financial Needs of Rural Counties*

The Great Recession of 2007-09 was the most severe economic slowdown recorded since the Great Depression of the 1930s. The severity of the recession can be gauged from the fact that, at

its peak, the national economy was losing an average of about 500,000-600,000 jobs per month. The unemployment rate was close to nine percent. The motivation of the survey questions was to assess the severity of the impact the recession on the rural county financial situation. As illustrated in Figure 1, 14 of the 18 EDs that responded indicated that in the time following the recession, counties were significantly or somewhat less able to meet their financial needs compared to the pre-recession period. While this seems to be a bit surprising given that the survey was conducted almost six years after the recession officially ended, it is consistent with other studies that point to a slow recovery in rural areas (NACO, 2017) compared to urban centers where the economies either have recovered or surpassed pre-recession levels.

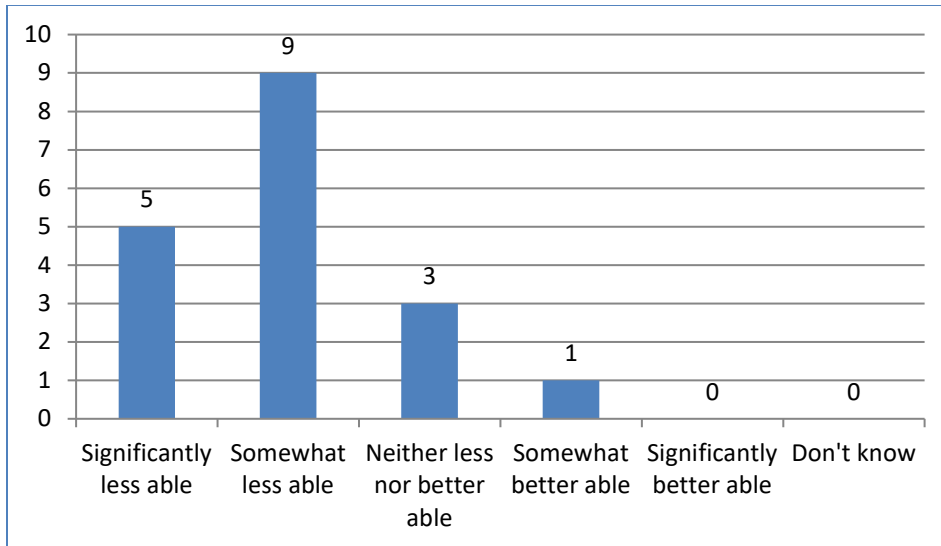


Figure 1. Financial needs of rural counties, comparing pre- and post-recession

In an effort to identify key themes from the online survey, the following section combines responses from two broad sets of survey questions, as well as two independent questions (Questions 3,4,5,6 in part 1 of the survey, see appendix). The first broad question relates to the changes that rural counties made after the recession ended in 2010, and the second question relates to the anticipated actions of rural counties in the immediate future (2017-2019). The third question relates to planning for unassigned fund balances. The fourth question relates to the liquidity of rural counties.

The responses are summarized into the following broad areas:

- Revenues
- Intergovernmental relations
- Long-term investments and debt
- Community needs
- Managing spending
- Fund balance planning and liquidity

**Revenues**

Figure 2 illustrates the responses relating to property tax revenue in the post-recession. It is well documented that local governments, especially counties, rely heavily on property tax as a source of revenue. In many states, it is the only major source of revenue for which local governments have some autonomy in setting a rate based on local needs, preferences and willingness to pay. Survey responses were mixed. The EDs in eight states witnessed increases in property tax revenue and 10 state EDs observed no change or a marginal decline following the recession. The lingering effects of the housing crisis, during which the foreclosure rates spiked, is among the factors that likely caused a decline in property tax revenue. For many communities, the economic recovery also provided a boost to their housing market with appreciation in home values that likely contributed to the increasing revenues. It is not known, however, whether the increases led to property tax revenues exceeding pre-recession levels.

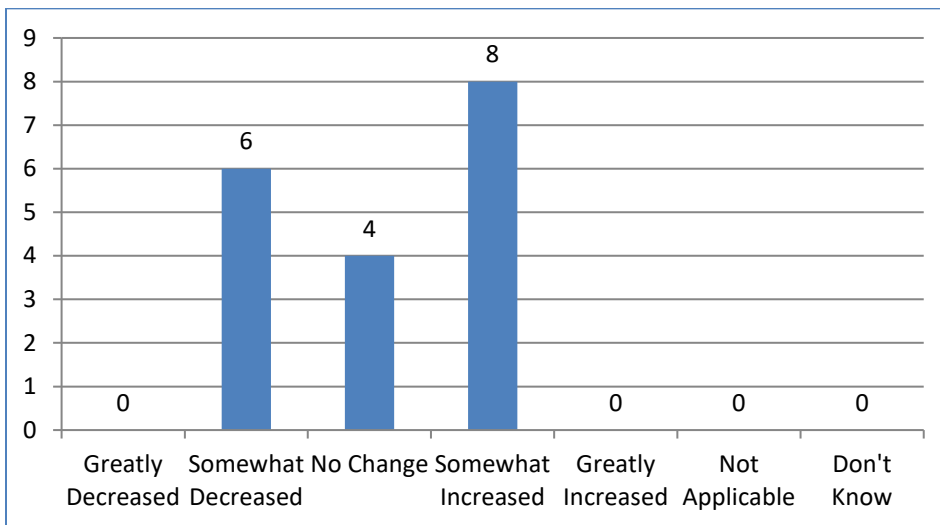


Figure 2. Property tax revenue in the post-recession

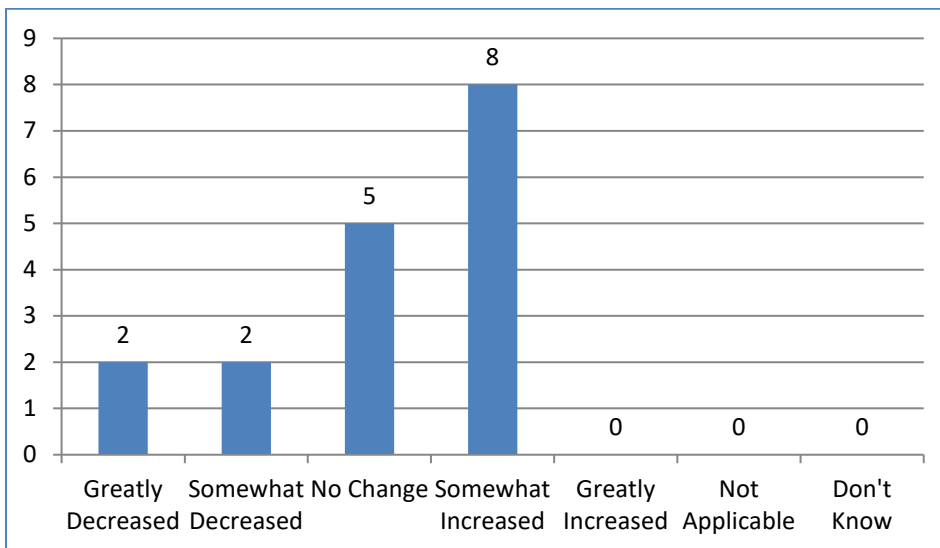


Figure 3. Fees for services, licenses, transfers, etc. in the post-recession



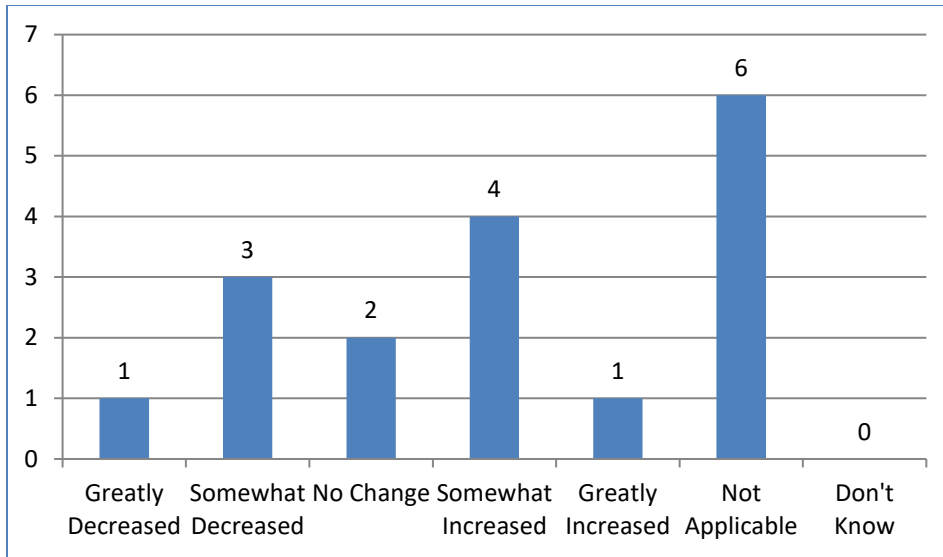


Figure 4. Sales tax revenue in the post-recession

Figures 3 and 4 illustrate responses relating to user fees and licenses and sales tax revenues for county governments. Besides property tax, local governments rely on fees and charges, and sales taxes as additional sources of revenue. However, some states do not have a sales tax, or have a sales tax only on certain purchases, with exemptions for items like food and clothing. Given the variation between states, it is not surprising that six of the 18 EDs responded ‘not applicable’ when referencing the sales tax. However, for those that did, five EDs reported having higher levels of sales tax revenue and four EDs reported a decline in sales tax revenue. This is consistent with other revenue categories and points at uneven economic recovery in rural counties across the nation. It is pertinent to add that Internet sales are increasingly affecting local government tax revenues. While a number of states have established mechanisms to track and tax transactions taking place within their jurisdiction, many sales tax dollars continue to be lost due to the online sales. Similarly, eight EDs reported that user fees and charges increased, five others reported that it remained stable four reported a decline in user fees and charges. The increase in user fees could be due to local governments substituting fees and charges for declining property tax, sales tax and intergovernmental transfers. User fees are a revenue source local governments have some flexibility to adjust to address budgetary shortfalls. However, depending on the type of user charge, there may be restrictions in the ways the revenue can be used.

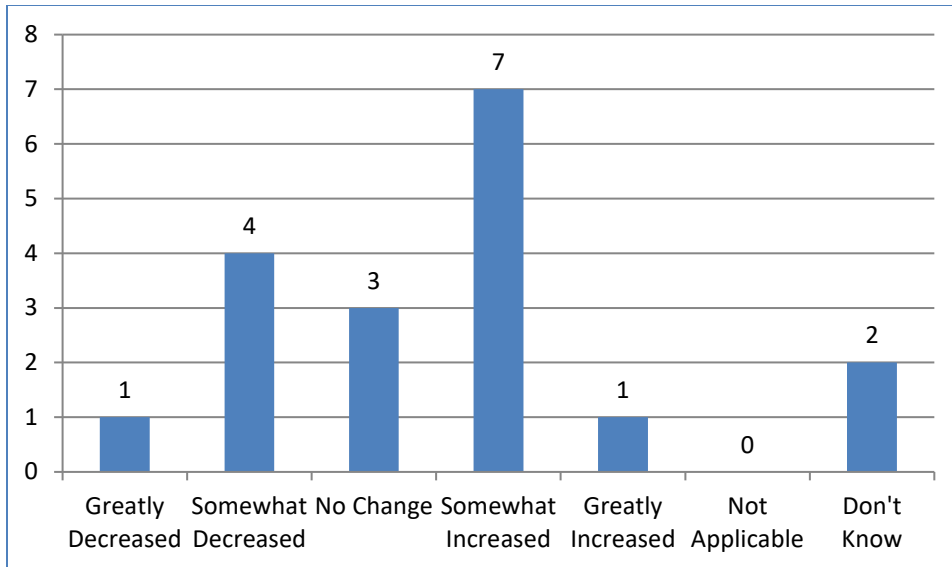


Figure 5. Tax delinquencies in the post-recession

Tax delinquencies refer to the failure of an individual or business entity to pay their taxes, usually the property tax. Following the recession, tax delinquencies were evenly divided with half of the responding EDs seeing increases and the rest witnessing a decline. This again points to the uneven economic recovery. If tax delinquencies increase significantly, it could affect a county's revenue in a significant way. A small number of tax delinquencies are inevitable because they stem from variety of reasons that might be unique to individuals and business entity. It is not surprising that half of the EDs reported increases in tax delinquencies as the impact of the housing crisis varied among states.

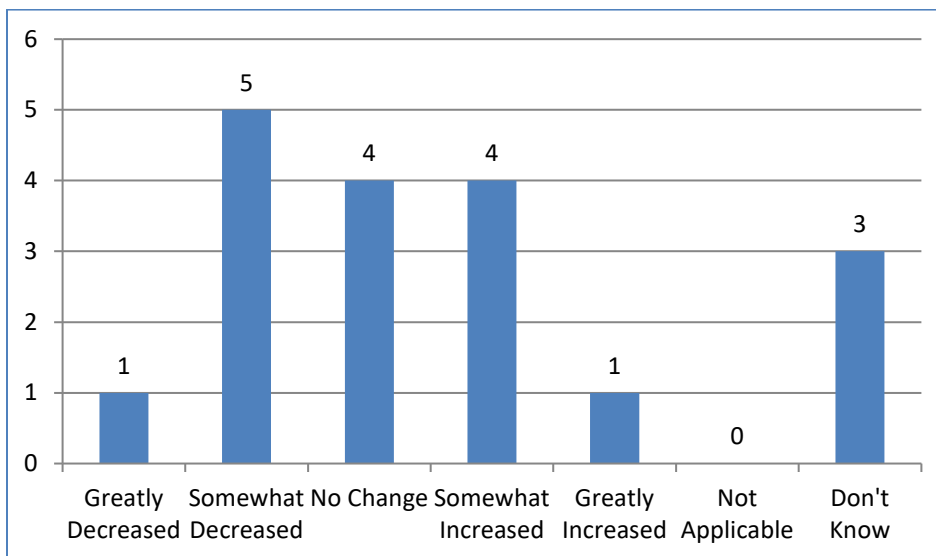


Figure 6. Home foreclosures in the post-recession

Counties rely heavily on property taxes as a source of revenue with residential properties contributing most to this source. Beginning with the financial crisis and the housing market

collapse of 2008-09, both rural and urban communities experienced shortfalls in property tax revenue. That caused a great deal of fiscal stress during the economic slowdown and the period immediately following it. As illustrated in Figure 6, in the years the economy has slowly recovered, the housing situation has improved. Ten EDs witnessed decline in home foreclosures in their respective states.

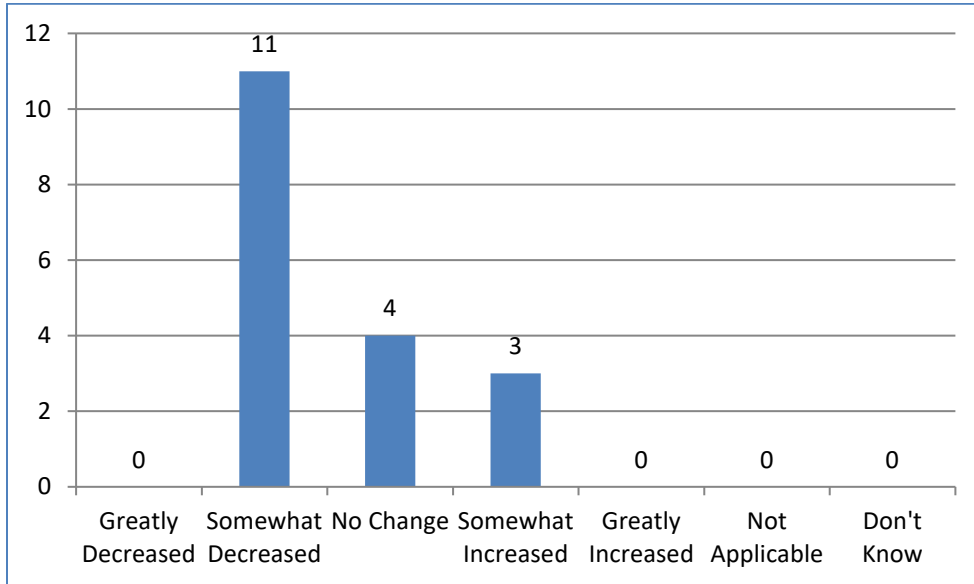


Figure 7. Population change in the post-recession

Local government finances are closely tied to demographic conditions and changes. Based on the population mix relating to age and race, household income levels, and commuting patterns of residents, demographic characteristics are shown to impact city and county tax base significantly. The focus of the study is on rural counties and the survey findings are consistent with the trends observed in many rural areas that continue to experience slow but steady population decline. With 15 EDs reporting either a decline or no change, it is apparent that the level of fiscal stress in many rural regions is being exacerbated by depopulation. It should be acknowledged, however, that there also are many rural regions across the nation that are experiencing population growth.

Figures 8-11 summarizes the responses about how rural counties might respond to a host of variables related to their revenues in the immediate future.

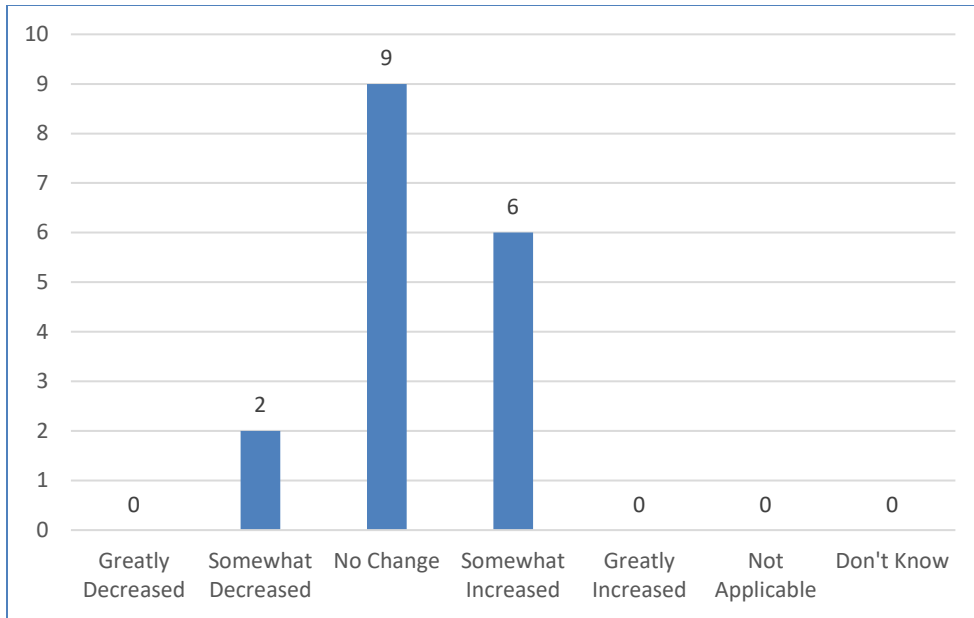


Figure 8. Anticipated property tax rates during 2017 and beyond

Property tax is the largest source of revenue for a majority of rural counties. While six EDs expected property tax rates to increase, the majority of the EDs reported that the property tax rate would remain steady. Another aspect of property tax revenue relates to the changes in methods used in valuing different property classes and the various state-mandated laws that constrain changes in valuation. One significant trend potentially affecting property tax revenues is the ‘dark store’ strategy being proposed or implemented in several states. This lowers the value of commercial property for tax calculation purposes (Farmer, 2016). With modest increases in home values, stable property tax rates will generate additional revenue. That may explain responses about no change in future property tax rates.

While the majority of EDs anticipate property tax rates will remain stable, there is a large group that expect an increase. Some increase in property taxes might be expected because many counties continue to experience lower levels of state and federal funding coupled with a general increase in state-mandated spending. Given the reliance on property tax as a source of revenue and variation in property valuation growth, increasing the tax rate seems the logical step. In addition, with economic conditions slowly improving, many county governments are undertaking capital improvements that require increases in property tax rates to pay off debt over the long-term.

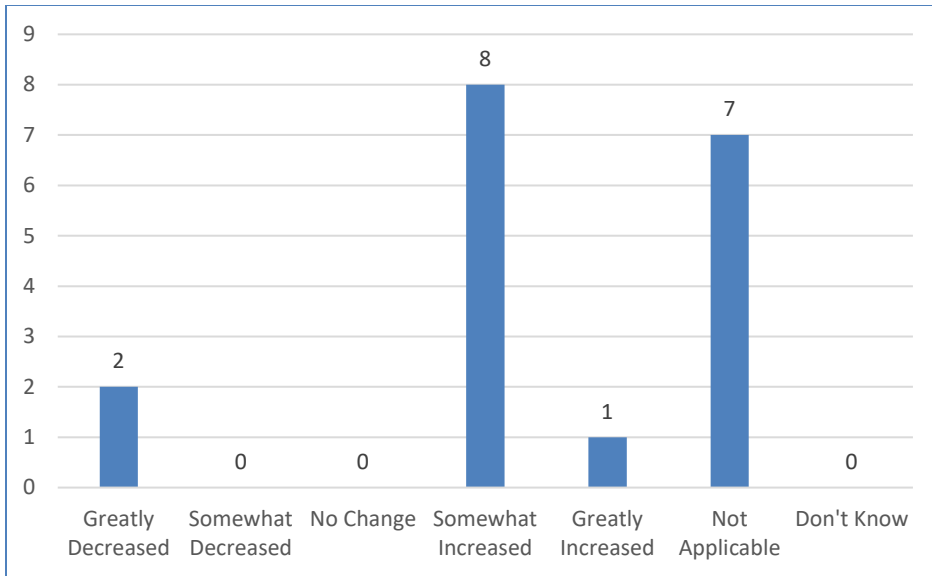


Figure 9. Anticipated sales tax rates during 2017 and beyond

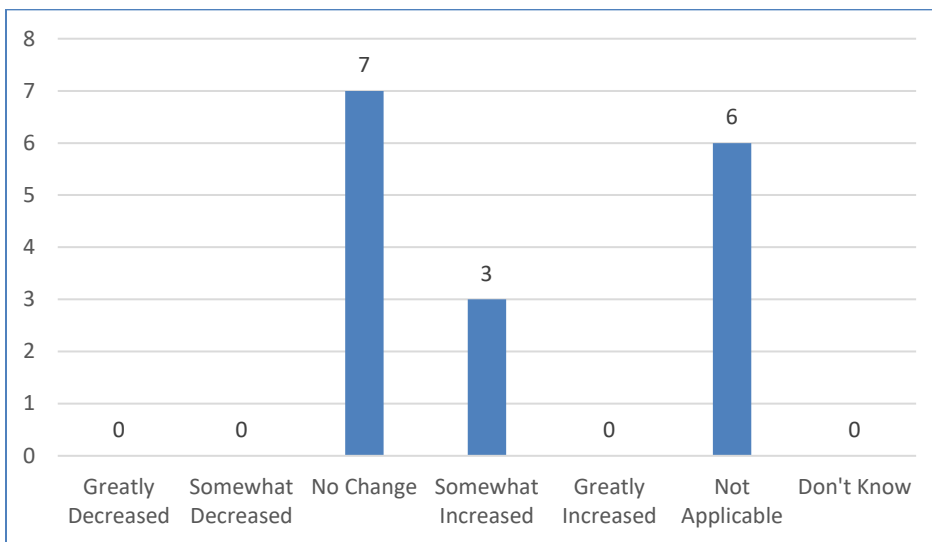


Figure 10. Anticipated new sales or use taxes during 2017 and beyond

Figures 9 and 10 illustrate the anticipated changes to sales tax rates and use taxes. A “use tax is a sales tax paid for purchases made outside one's state of residence on taxable items that will be used, stored or consumed in one's state of residence and on which no tax was collected in the state of purchase. If the purchase would have been taxed had it been made in the purchaser's state of residence, then use tax is due. The use tax rate is the same as the resident's local sales tax rate, which includes both state and local sales taxes. A resident who does not pay use tax may be subject to interest and penalties”(Fontenelli, 2017).

Just like the property tax rate, county governments expect sales and use tax rates to increase in the near future. With the limited options the county governments have to raise revenues, a

marginal increase in sales and use tax rates could generate revenues to help fill revenue a shortfall, especially at a time when consumer spending is strong.

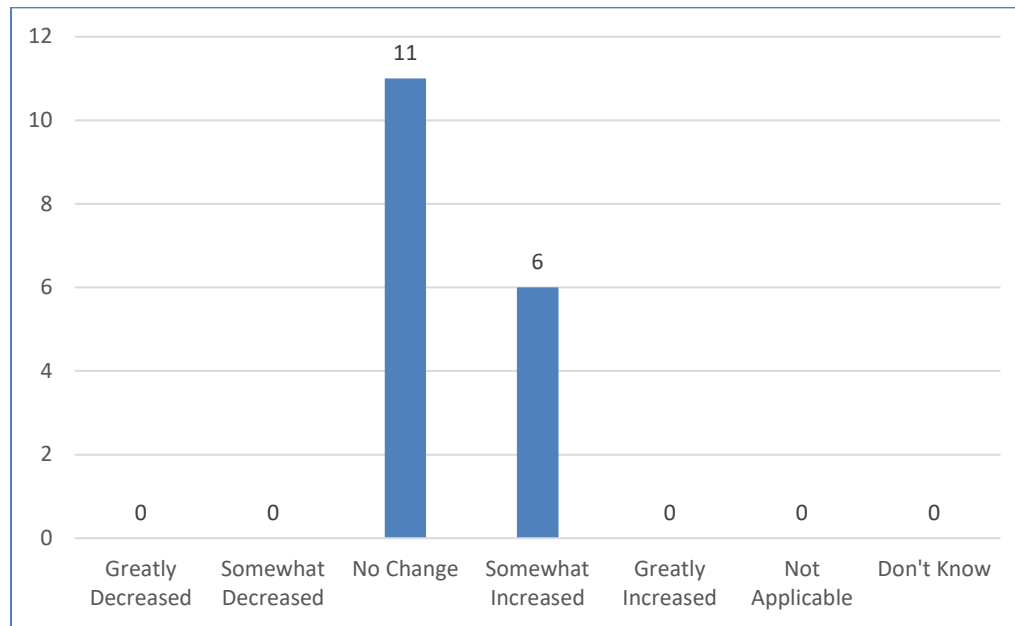


Figure 11. Anticipated charges for fees, licenses during 2017 and beyond

On the sales and other taxes, half of the EDs did not anticipate increases. A number of states do not have sales tax, which explains their responses. For those states that do have sales tax, 11 EDs indicated no change in sales tax rates. Given that sales tax is an elastic revenue, increasing and declining with periodic economic cycles, an increase in sales tax rates seems like a logical step for counties experiencing fiscal challenges. The period of recovery following a recession is expected to be one where sales tax rates as well as increased levels of consumer expenditure increase revenues for county governments.

As in the case of sales tax rates, periods of economic decline are characterized by a decline in user fees and licenses and during a phase of recovery and a robust economy, user fees and charges are expected to increase.

### ***Inter-governmental relations***

The principle of fiscal federalism allows various governmental functions to be divided among federal, state and local levels. This requires coordination and resource sharing between the different levels of government. That typically involves the transfer of funds between the federal government and states, between states and local governments, and between local governments. While some fund transfers are mandatory and are offered as aid, other transfers are in the form of competitive grants. Clearly, economic cycles have an impact on the scale of these transfers. Several funding formulae that rely on population size also affect the rural areas negatively compared to their urban counterparts since population decline in rural areas is more prevalent. In addition, legislative changes at the state level on cost sharing also affects the flow of funds and affects state-local fiscal relations.

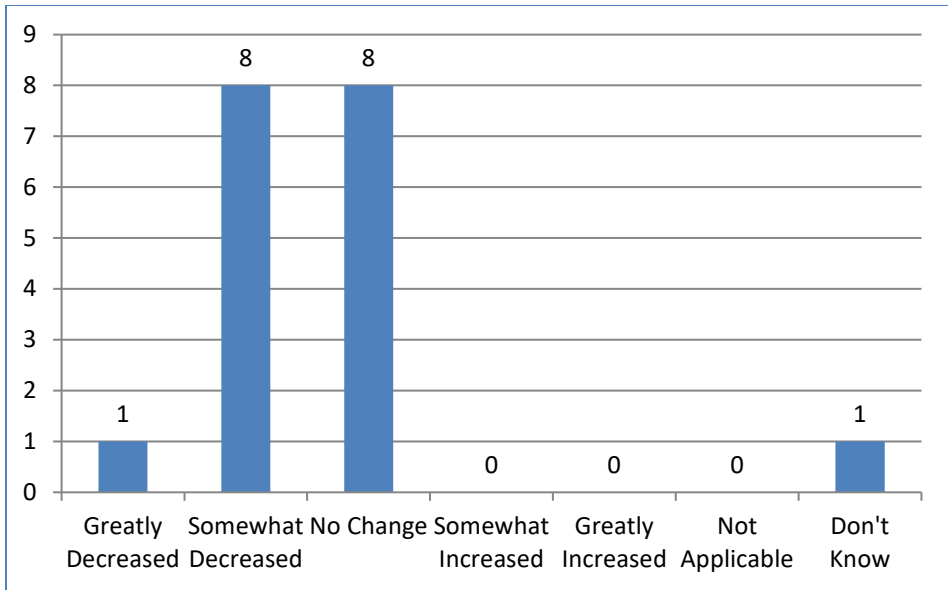


Figure 12. Federal aid in the post-recession

Federal aid (Figure 12) refers to intergovernmental money transfers in the form of grants or loans that local governments receive to make improvements to capital assets such as roads and bridges. With federal government itself dealing with a slow economic recovery, it is not surprising that not one state reported an increase in federal aid. All reported no change or a decline in intergovernmental money transfers. This is significant because needs related to infrastructure in rural communities continue to grow, and frequently require federal and/or state assistance to make these investments. These directly affect the quality of life that people experience.

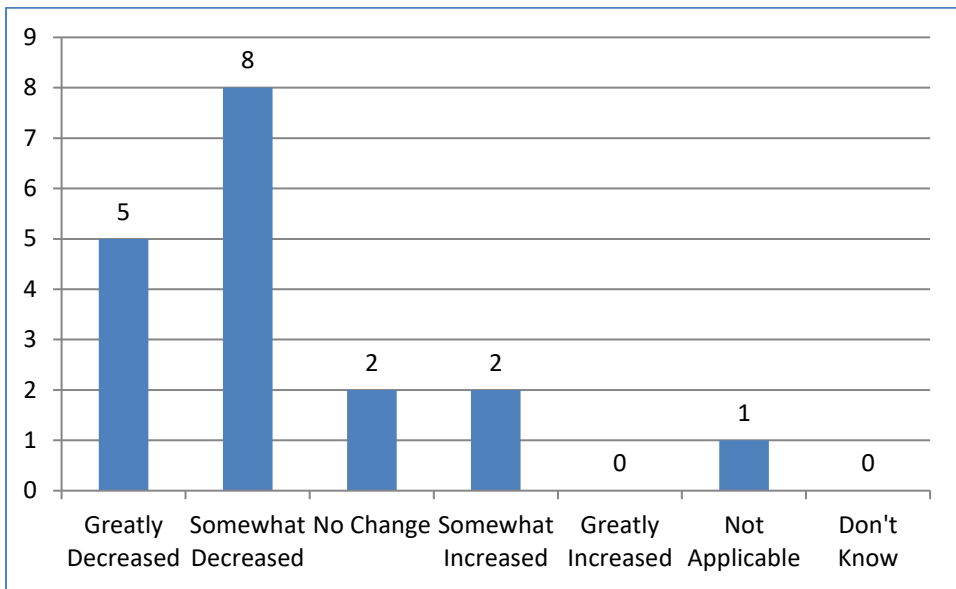


Figure 13. State aid in the post-recession

State aid refers to monies received by counties from their respective states. The majority of EDs that responded point to marginal or large declines (Figure 13). Only two EDs reported a small

increase in state aid. While there has been an improvement in the national economy, it is apparent from the survey responses that those might be concentrated in urban areas. This once again points at a slow economic recovery in many states and especially in rural areas throughout the nation. It is significant to mention that the aid received from the state governments declined by a greater degree compared to federal aid.

***Long-term investments and Debt***

Much of the growth and progress the United States achieved over the last century was made possible due to its strong and reliable public infrastructure. Commonly referred to by the general public as public goods, the private sector has no incentive to invest in them. It is usually the governments’ responsibility to make investments to maintain as well as create new public infrastructure. Public investments in assets, which includes highways, roads, bridges, public schools and higher education institutions, water and sewer systems, ports, railways, airports etc., allowed the market economy to thrive, creating wealth, opportunity, prosperity and improving quality of life of residents. It now is becoming more apparent that public infrastructure is aging and there is a growing need for major investments to rehabilitate existing infrastructure and create new assets. One of the key aspects of public infrastructure is not just the capacity it provides to local governments to facilitate the provision of essential services to residents but also the critical role it plays in assisting private farm and non-farm businesses to carry out their production and distribution activities. This translates into forward and backward economic linkages that, through a cascading effect, positively contribute to the national, state and local economies. In addition to these direct benefits, expenditures made toward periodic maintenance, rehabilitation and replacement of existing public assets help the economy by way of supporting a number of jobs.

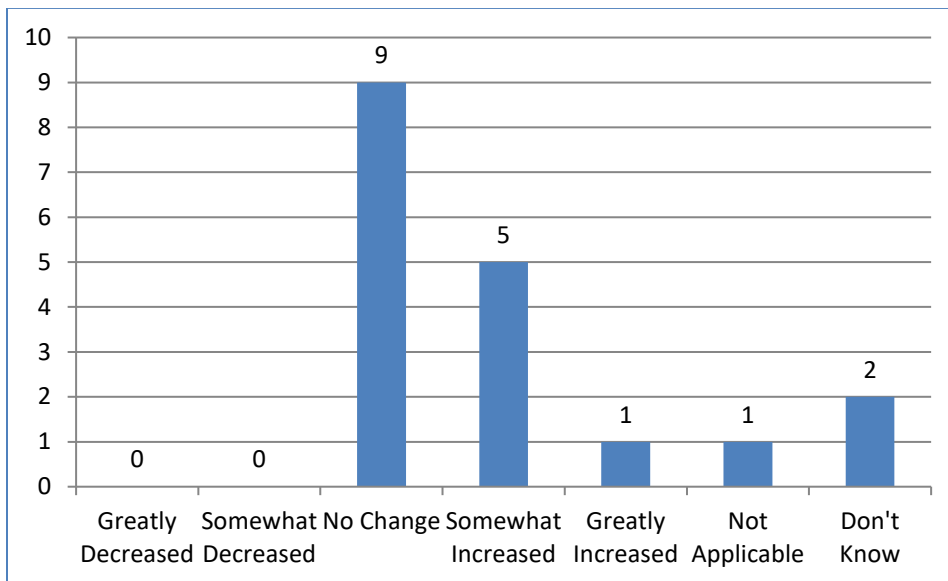


Figure 14. Debt in the post-recession

Local government debt usually refers to borrowing through municipal bonds that are repaid over a specified period with interest. Given that there is uneven economic recovery between states, it is not surprising that more than half of the EDs responded ‘no change’ in debt compared to the



pre-recession period (Figure 14). However, it is also apparent that in some parts of the country, counties are making long-term investments on community assets.

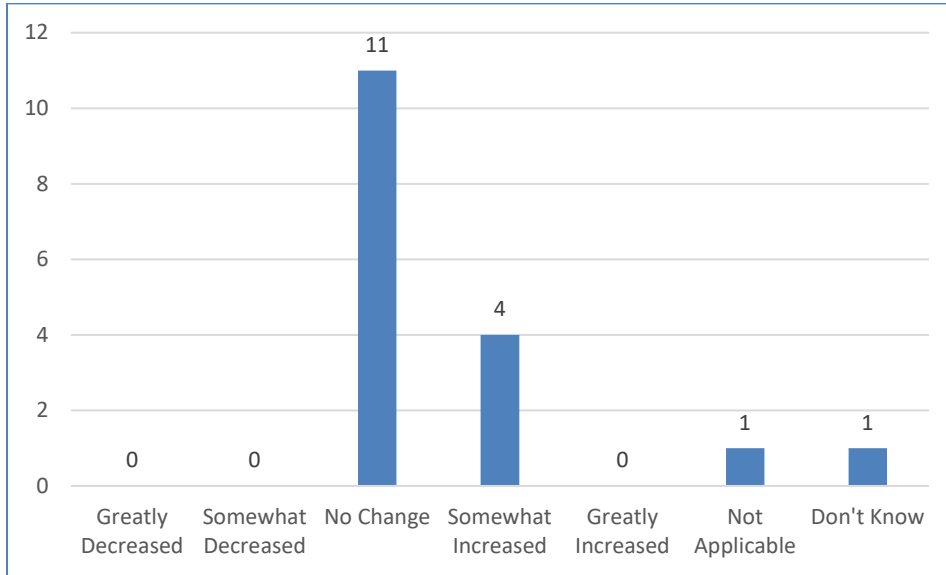


Figure 15. Anticipated amount of debt in the post-recession

With the uncertainty that prevailed in the economy after the recession officially ended, most county governments, especially those in rural areas, did not take on additional debt to fund capital projects. A small number of the responding EDs, however, point at marginal increases in borrowing (Figure 15). This trend may be due to the slow pace of economic recovery in rural parts of the nation as well as uncertainty about the future that led to most rural counties to defer any major investments.

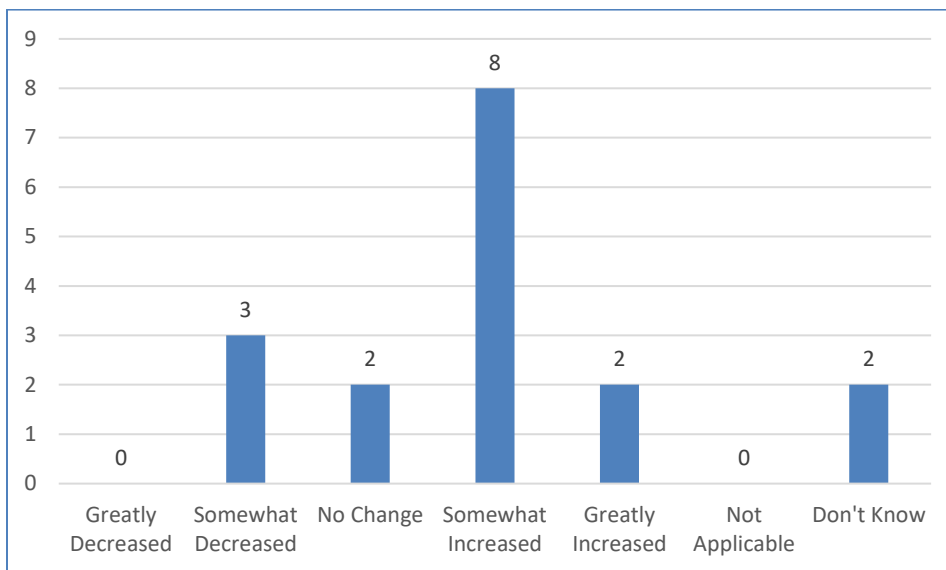


Figure 16. Anticipated actual infrastructure spending revenue in the post-recession

Driven partially by the funds made available through the American Recovery and Reinvestment Act, also referred to as the stimulus package, the federal government provided grants to state and local governments to invest in major transportation and other physical infrastructure to increase the flow of money within the economy as well as to rebuild crumbling infrastructure. Approximately \$250 billion was spent during 2009-2012. Survey respondents point at this, with a majority of EDs reporting an increase in capital spending.

Overall, based on findings of the survey, rural counties made investments in capital projects and large portions of the finding came in the form of aid rather than borrowing from the capital market.

**Community Needs**

The questions relating to perceived community needs and how they are being met are intended to help understand the gap between perceived needs in rural counties and the ability to fulfill them. The questions relating to need focus on public safety, infrastructure, human services and general government operations, all of which have a bearing on economic opportunity and the quality of life in rural communities.

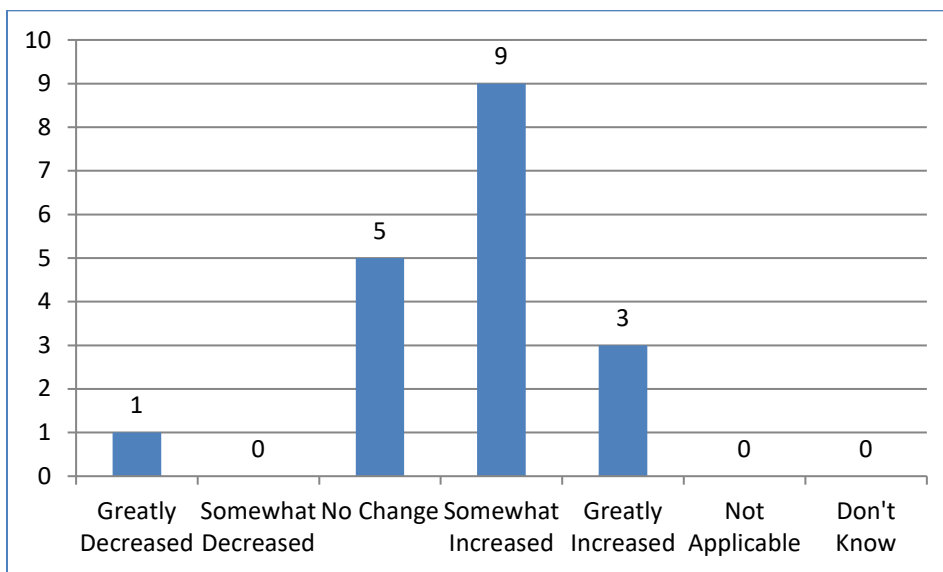


Figure 17. Public safety needs revenue in the post-recession

Broadly, public safety expenditures relate to spending on law enforcement operations, emergency management, jail, flood control, fire, animal control and other related services. While law enforcement typically accounts for most of the expenditures, other have occasional spikes due to natural disasters or major capital outlays. Twelve of the 17 EDs that responded reported either a somewhat or a great increase in public safety spending since 2010 (Figure 17). Given the varied and unique circumstances that dictate the level of spending, it is challenging to pinpoint to any specific set of factors that have contributed toward an increase in public safety spending in rural counties.

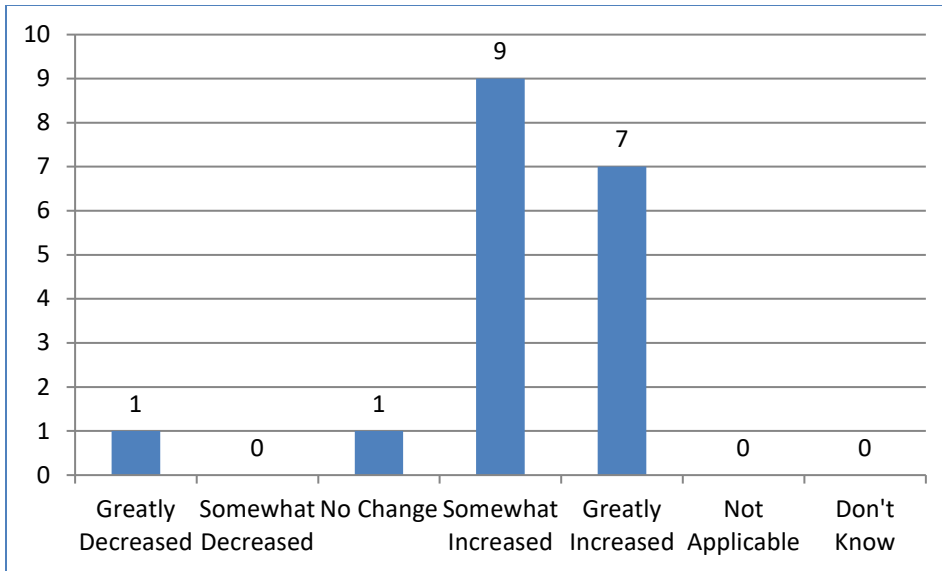


Figure 18. Infrastructure needs in the post-recession

Infrastructure refers to the built environment that includes roads, bridges, public buildings, and water and sewer systems. It is known that given the age of infrastructure in the nation, in both rural and urban communities, there is a great need for investments to upgrade, replace and create new infrastructure. As is illustrated in Table 18, with 16 EDs responding to greater infrastructure needs, this aligns with the general narrative on the need for greater public investments.

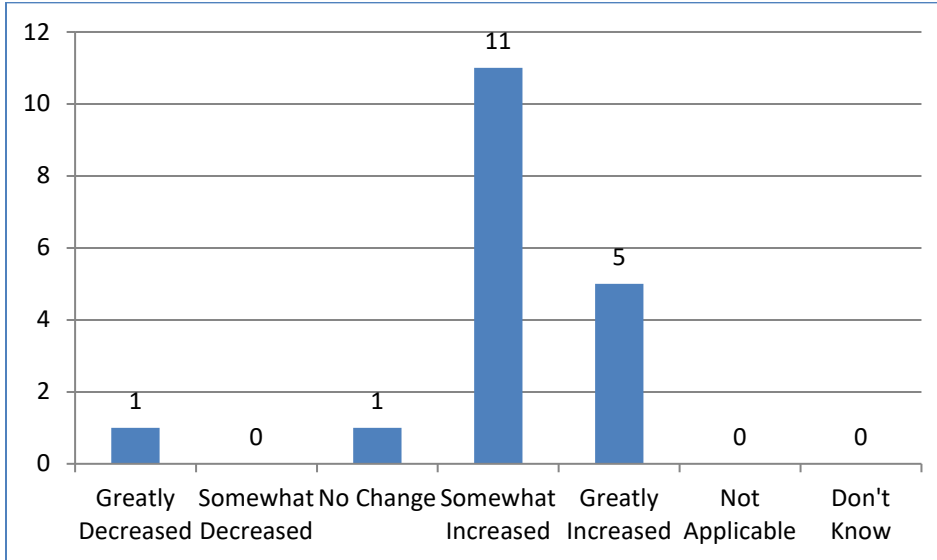


Figure 19. Human service needs in the post-recession

Overall, human services at the county level include services for aging, children and youth, substance abuse, early intervention, juvenile justice, mental health, mental retardation, nursing homes, adult services and veteran affairs. Beginning prior to the onset of the economic recession and continuing through it and the subsequent recovery, rural communities were hit hard by high unemployment rates that increased the need for human services. In addition, the period also

witnessed the drawdown of U.S. military from Iraq and Afghanistan and increased the need for different types of human services (Figure 19).

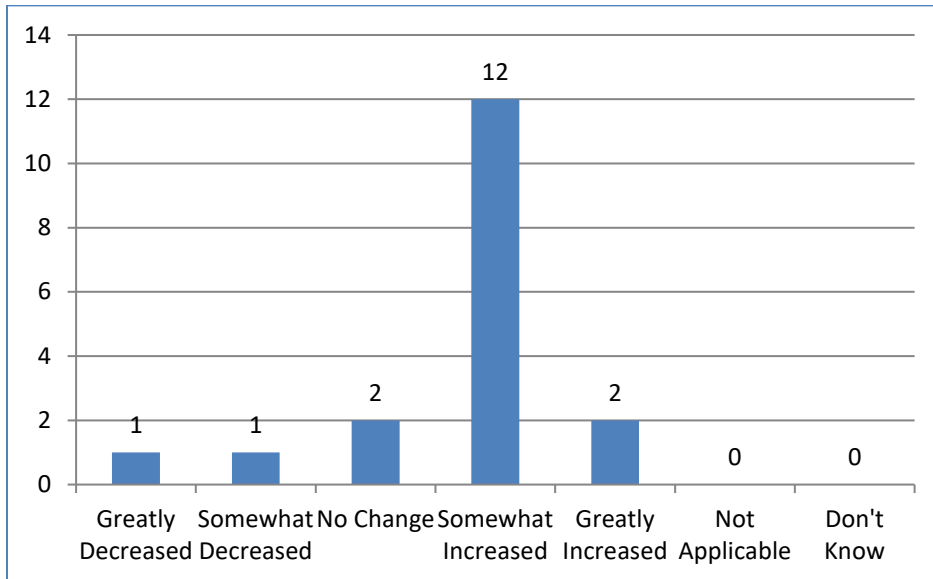


Figure 20. General government operations needs in the post-recession

General government operations refer to the day-to-day workings of county governments. As the economic recession officially ended, counties and states continue to experience a surge in demand for various types of services that residents need. As a result, majority of the EDs that responded observed a general increase for government operation needs (Figure 20). This is consistent with the general increase in demand for services anticipated in the near future (Figure 21)

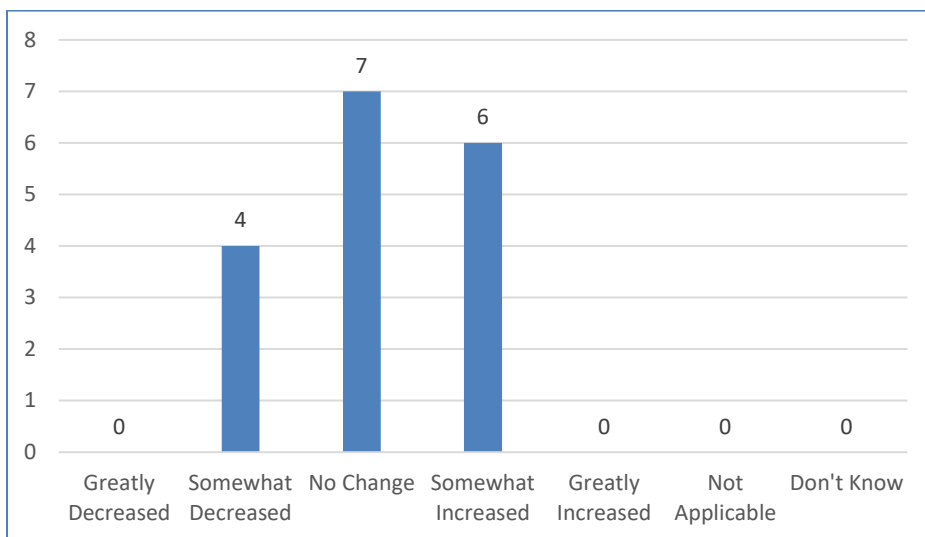


Figure 21. Anticipated amount of services provided in the post-recession

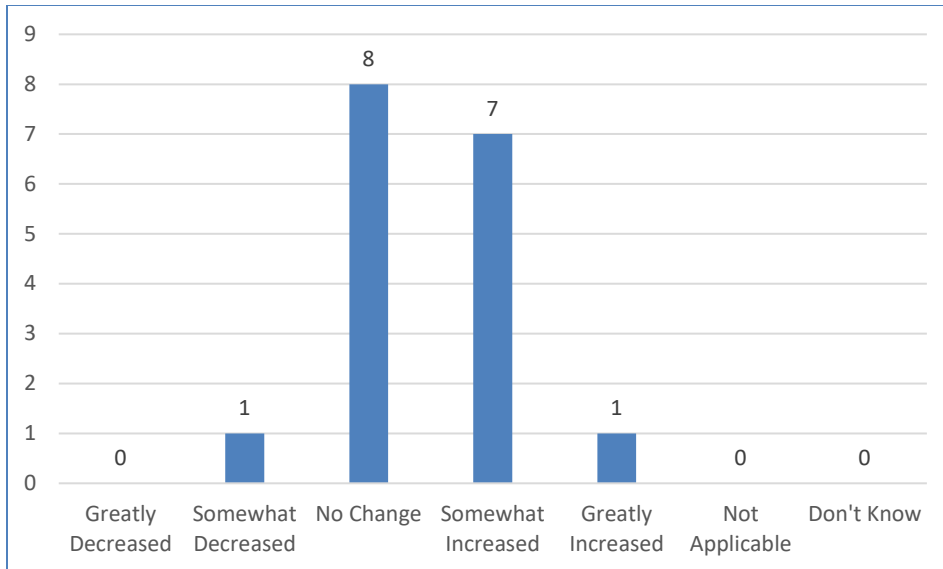


Figure 22. Anticipated actual public safety spending in the post-recession

Public safety usually refers to law enforcement, but also includes fire, animal control, emergency medical services and emergency management. While it is difficult to pinpoint exact reasons that led to increases in public safety spending, a few circumstances likely contributed (Figure 22). Law enforcement, especially in those states plagued with the surge in drug addiction, had a greater role to play. In addition, high unemployment rates in rural areas may have contributed to higher levels of crime. Of course, other local and unique factors may have also contributed as well.

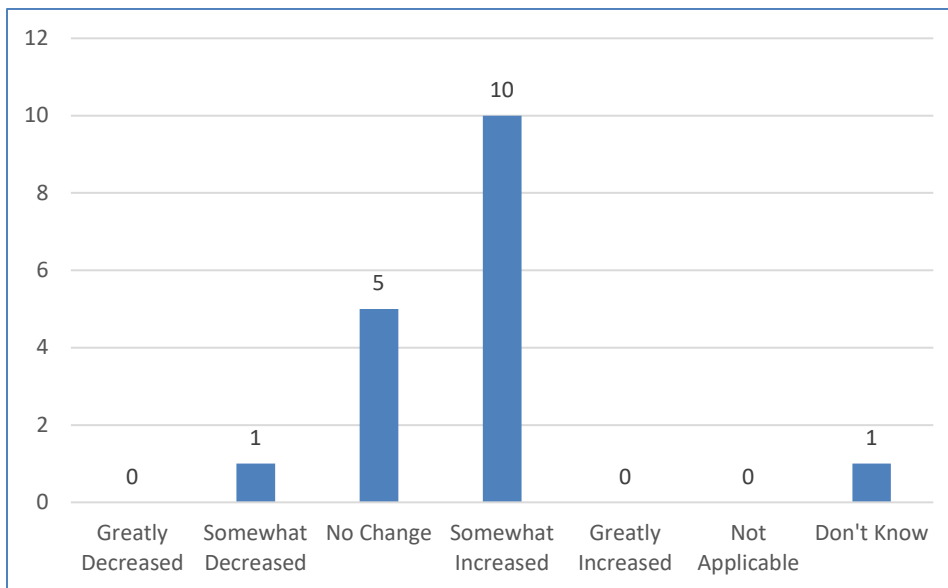


Figure 23. Anticipated actual general government operations spending in the post-recession

In ten states, EDs reported government operation spending increases (Figure 23). Five EDs reported no change and one ED reported a marginal decline. In a post-recession recovery, there

tends to be a spike in the demand for services from government (Schalitzer et al, 2012). These increased demands may appear due to several types of changes in the economy including employment, housing, healthcare and several other key sectors in a community. Given the magnitude of the last recession, it is likely more states experienced a backlog of pent-up demand for their services.

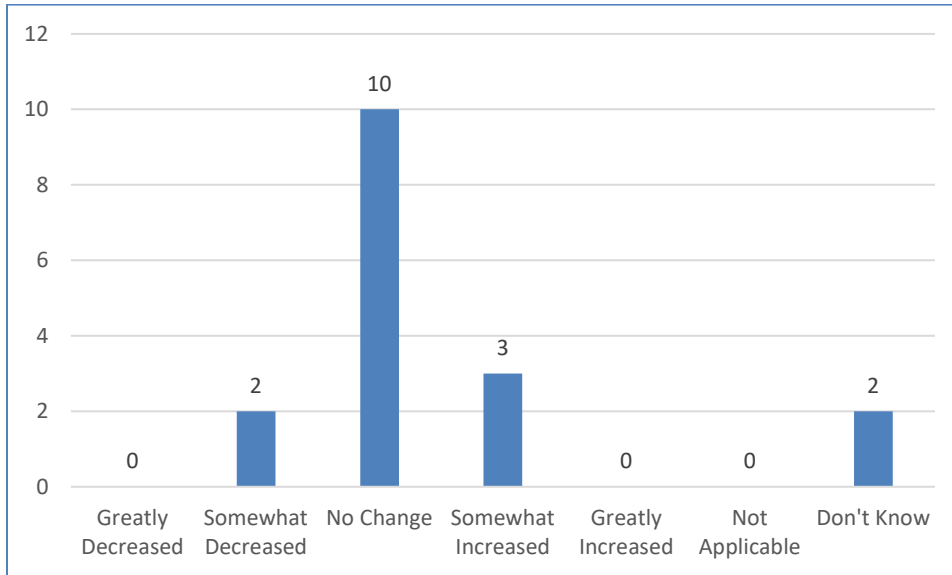


Figure 24. Anticipated economic development related spending in the post-recession

It is not surprising that economic development related expenditures either remained flat or declined in the period after the recession (Figure 24). Given the very high level of unemployment that existed in many states, especially in rural communities, there were few economic opportunities and little capacity for new investment. Three EDs, however, indicated that the level of spending in this category increased marginally.

### ***Managing spending***

Major concerns at every level of government include the relative level of spending, providing the best possible service at lowest possible cost, ensuring those who need services can access them, and that the appropriate mix and level of services . While all of these are subject to debate, there is consensus that managing expenditures effectively is a core goal.

One of the main aspects of the economic recovery since the recession officially ended is the decline in government jobs, especially at the local level. In the private sector, the new jobs created now exceed the total number of jobs lost because of the recession. Meanwhile, local governments have witnessed a net reduction in jobs. The survey findings are in line with this overall trend. The majority of the EDs reported either a decline or no change (Figure 25). A common practice in response to budgetary shortfalls is to freeze employee (National League of Cities, 2016). The findings of the survey point at a similar trend with 10 EDs reporting a marginal decline in county government jobs while six reported stable employment numbers. Only two EDs reported having witnessed new hiring during the post-recession phase.

Also, as time has progressed, more states have elected officials who believe in reducing government spending which also contributed to the slow growth in local government jobs, even though the population in some counties and demand for services continue to increase. In addition to reducing employment, wages may also be decreased by hiring different types of employees. The EDs report a variety of wage changes. Several report wage decreases. The majority did not observe wage changes and only 7 EDs report some wage increase in their states. This variation again suggests unevenness in the economic recovery across the country (Figure 26).

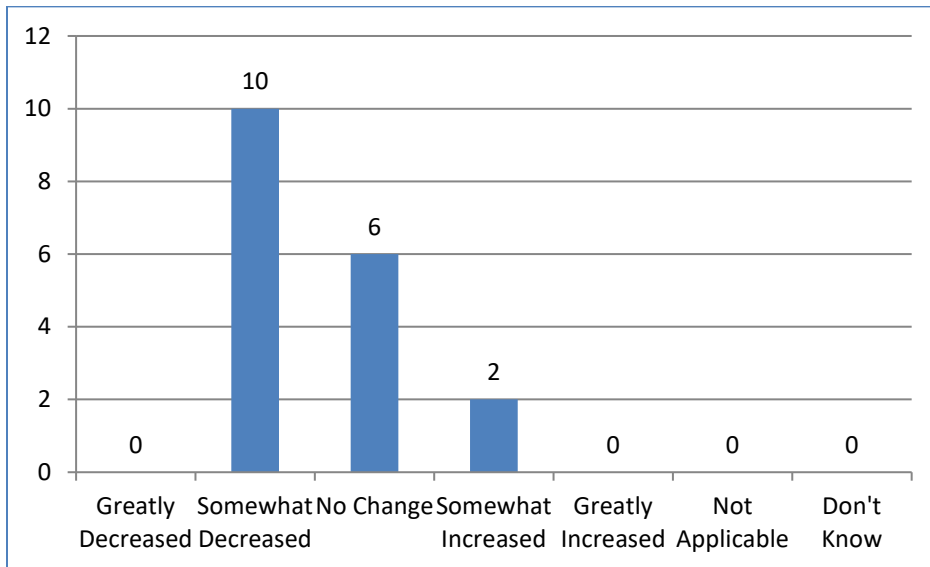


Figure 25. County government employment changes in the post-recession

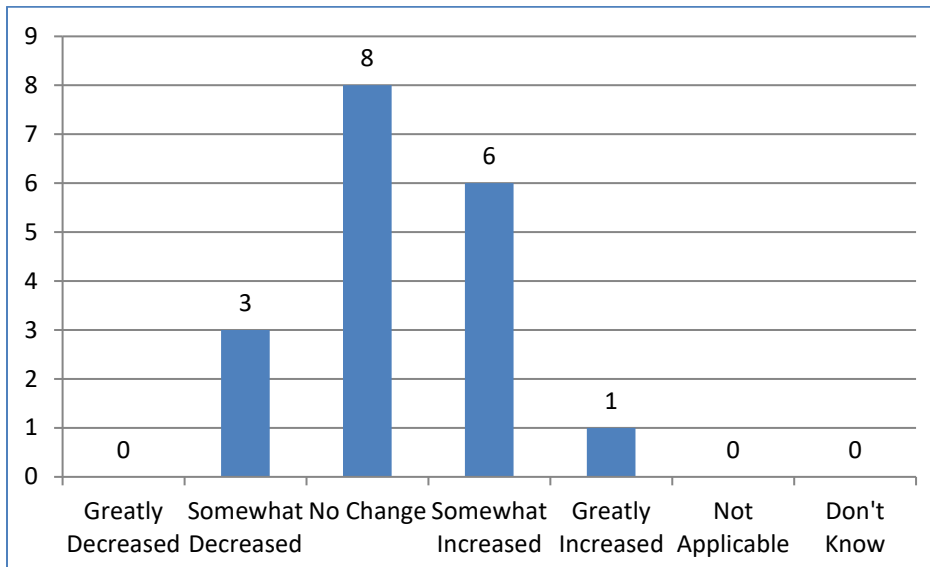


Figure 26. Wage rate changes in the post-recession phase

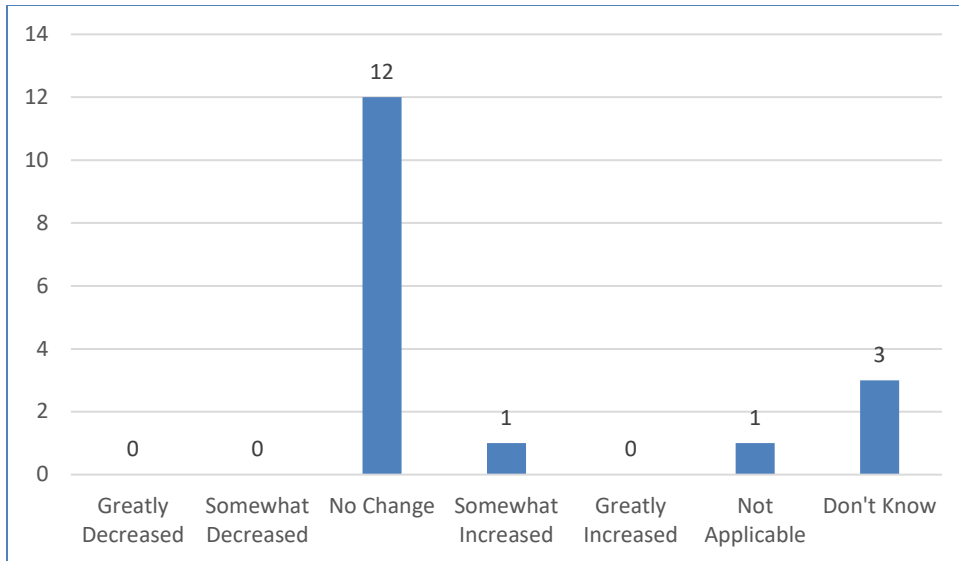


Figure 27. Anticipated level of sale of public assets in the post-recession

Public assets refer to those assets owned by federal, state or local governments. This may include buildings, land, and equipment. The assets or property that the government owns could be acquired either through normal purchase or by way of other means such as seizure due to non-payment of taxes etc. Usually, government property is exempt from taxes. In general the EDs did not expect an increase in the sale of public assets, which would be a way to increase short-run revenues (Figure 27).

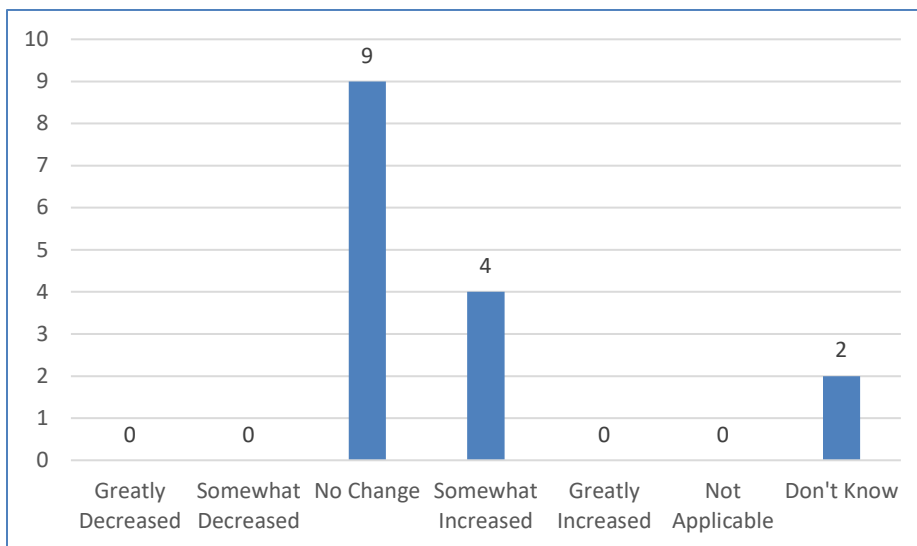


Figure 28. Anticipated level of privatizing or contracting of services in the post-recession

In an effort to make services more efficient and deal with the growing burden of revenue-expenditure mismatch, contracting of services may be an alternative. Examples include emergency services, construction projects, road and bridge maintenance, waste disposal, etc. In



some areas the EDs expected there may be a small increase in contracting (Figure 28).

Figures 29-31 illustrate the growth in cost of employing the local government workforce. This includes wages, health benefits for current employees and retired employees as well pensions for retired employees

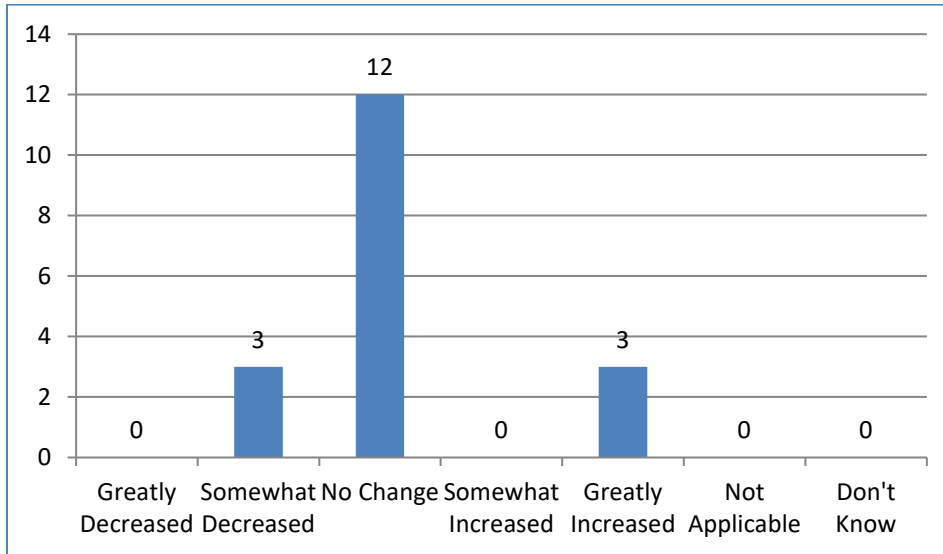


Figure 29. Funding of pensions in the post-recession

Pension obligations for retired employees have been under increasing scrutiny. Many states and municipalities have fallen short of fully funding retirement programs. As more employees retire, there is concern that maintaining a sustainable pension plan might get more challenging. Based on the findings, it is a positive sign that 15 EDs indicated there has been either no change or an increase in pension funding. Three EDs reported a decline in funding pensions and other retiree obligations (Figure 29).

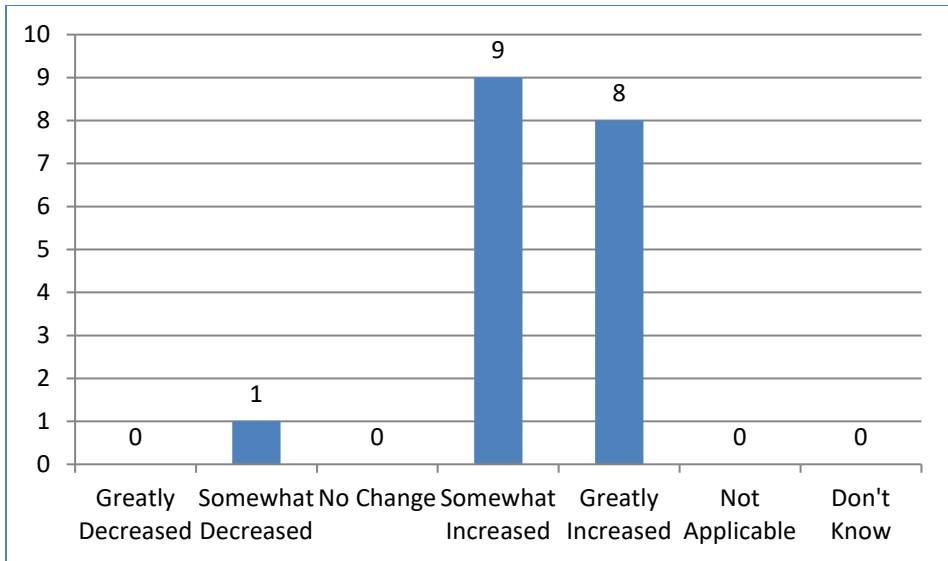


Figure 30. Employee benefit costs in the post-recession

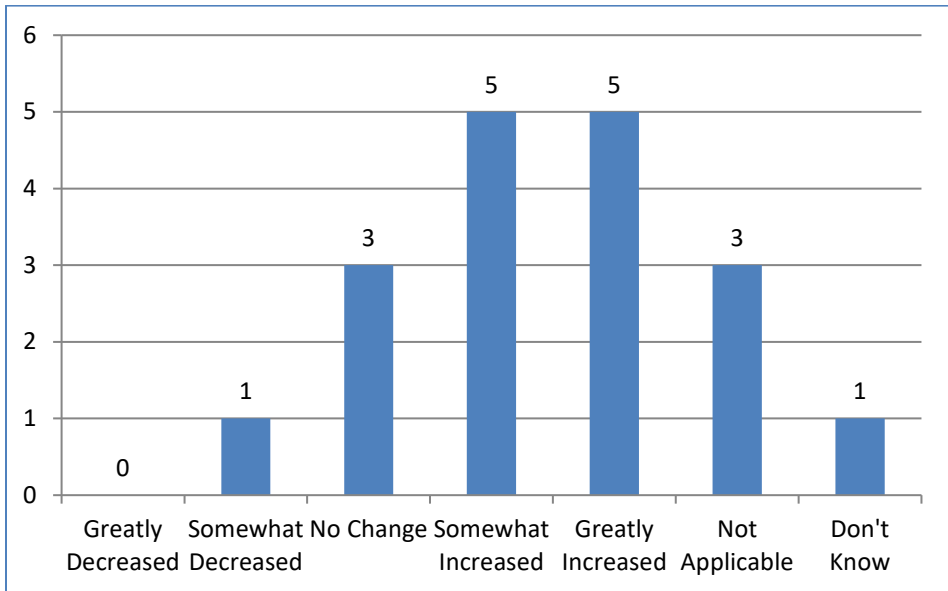


Figure 31. Retired employees' health benefits in the post-recession

Across most of the states, it is apparent that local governments have experienced a marginal to large increase in retiree health benefit costs (Figure 30). The increase is higher for current employees in comparison to the retired employees (Figure 31).

Figures 32-36 illustrate areas where county governments expect to see increases or decline in services and associated expenses. Almost half of the respondents expect the level of human services (Figure 32) to increase in the next several years. The rest half expect no change and two EDs anticipate a decline in human service spending.

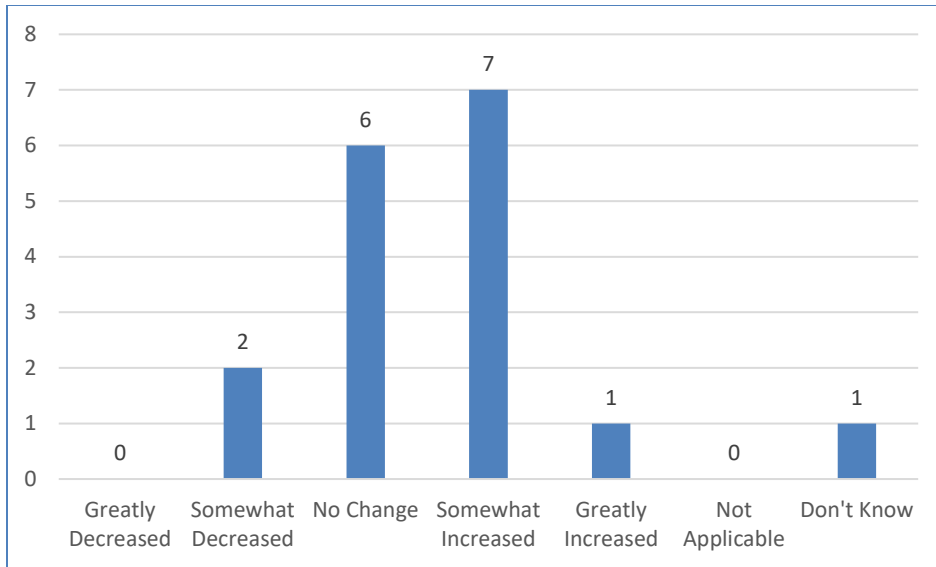


Figure 32. Anticipated actual human services spending in the post-recession

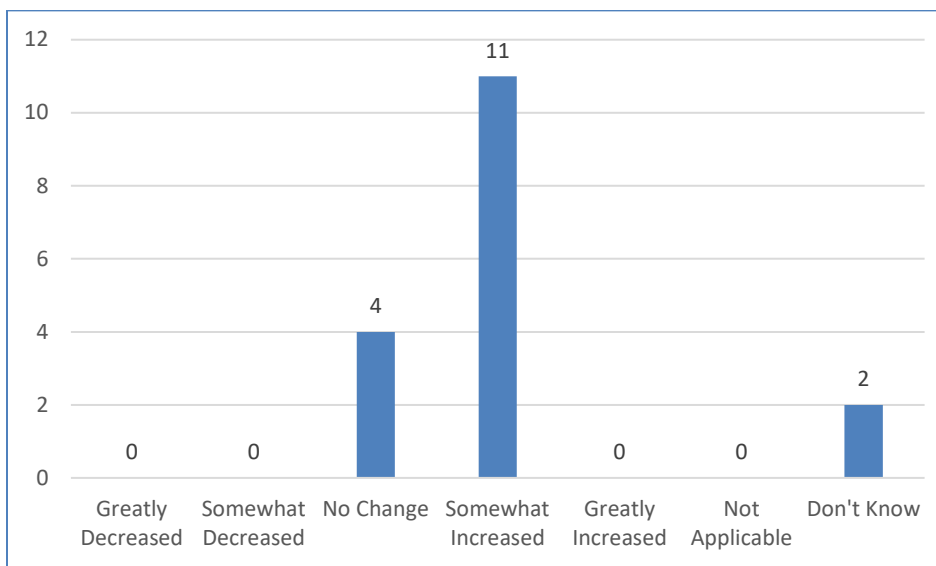


Figure 33. Anticipated inter-local cost-sharing with other governments in the post-recession

In an effort to reduce administrative costs and keep providing services, a number of local governments enter into cost-sharing arrangements with other local governments. This is especially true in the case of small and rural communities. A majority of EDs responded that they anticipate that trend to increase in the near future (Figure 33).

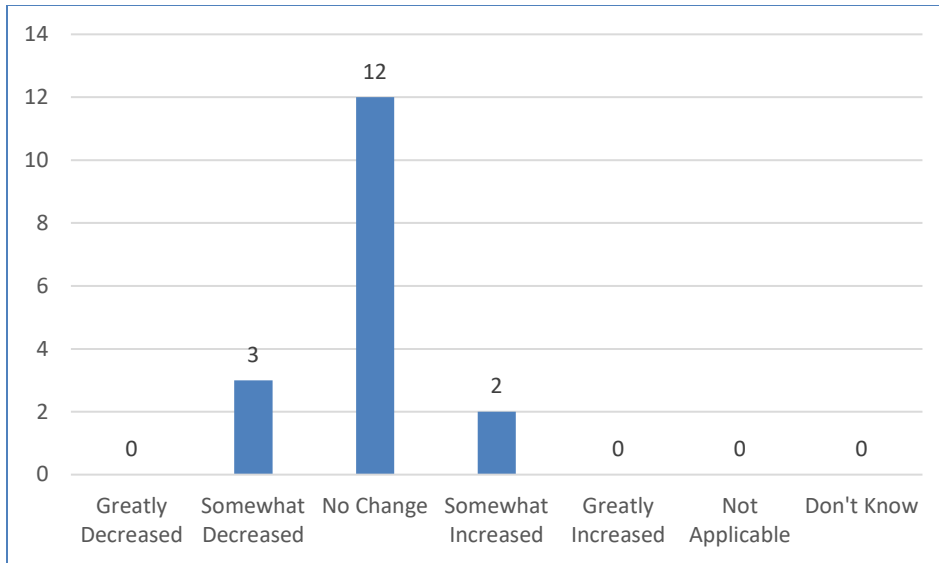


Figure 34. Anticipated workforce hiring decisions in the post-recession

Within a slow economic growth and population decline environment, most EDs anticipate no new hiring and maintaining current levels of staffing (Figure 34). This is a trend observed nationwide in earlier studies (National League of Cities, 2016). Given budgetary pressures, hiring freezes are a more acceptable and relatively milder strategy. While not keeping up with staff as demand for services grow could become problematic, it is widely accepted as an effective strategy to reduce short-term spending. On the contrary, as illustrated in Figure 35, about half of the responding EDs believe that there will be no changes in staff or a marginal increase in layoffs. In a similar vein, several EDs are expecting new hiring to fill positions if economic conditions improve and county governments have the resources available. As Figure 36 illustrates, there is a need for new staffing and given the opportunity, counties would rather hire. However, more than half of the EDs responded that there was not a need for more hiring.

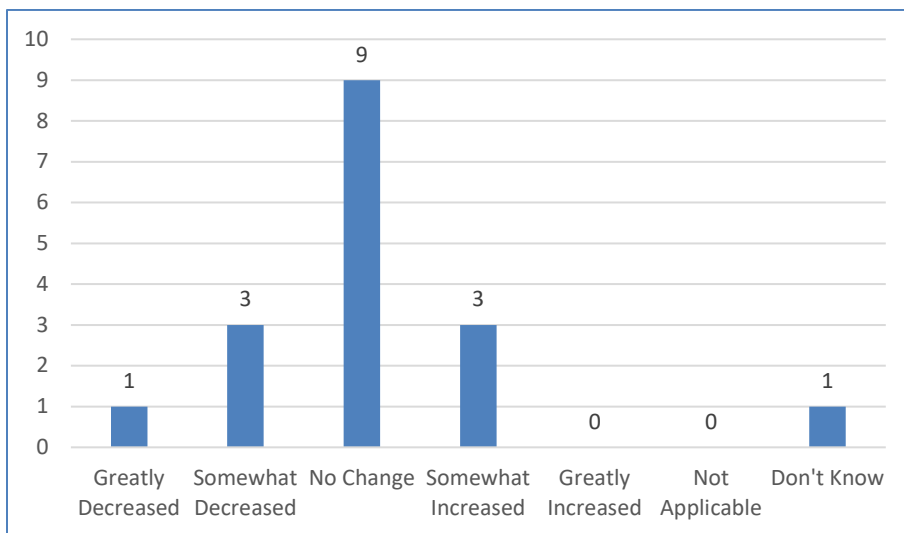


Figure 35. Anticipated employee layoffs in the post-recession

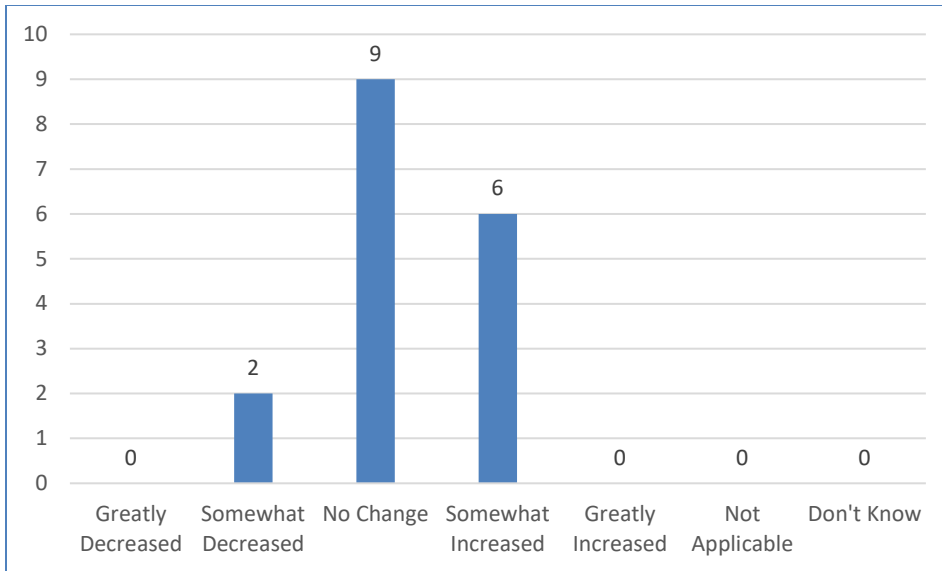


Figure 36. Anticipated filling of vacant positions in county governments in the post-recession

Figures 37-40 illustrate how EDs expect county governments' wages and benefits to change in the near future. Given the long period of recession and the slow recovery, more than half of the EDs anticipate increases in employee wages in the near future. Fewer EDs expect wages to remain the same and two EDs indicated that wages might decline. With rising healthcare costs, county governments expect to transfer some of that cost to their employees, meaning that the share of the total premium and co-pays for health related visits will increase. This is true not just of counties but for almost all levels of governments across the nation (NCSL, 2017). Figure 38 illustrates that the majority of the EDs that responded anticipate a small to large health insurance-related cost-transfer to government employees.

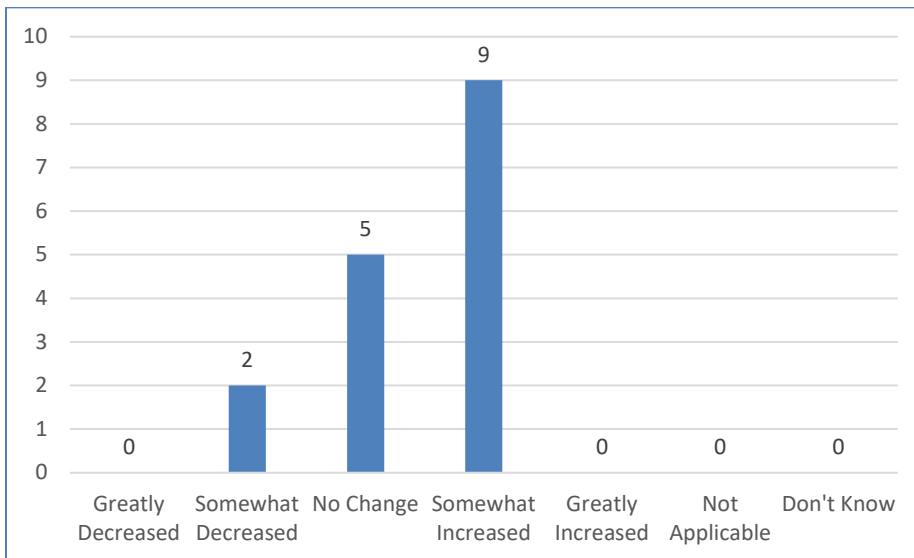


Figure 37. Anticipated employee wages in the post-recession

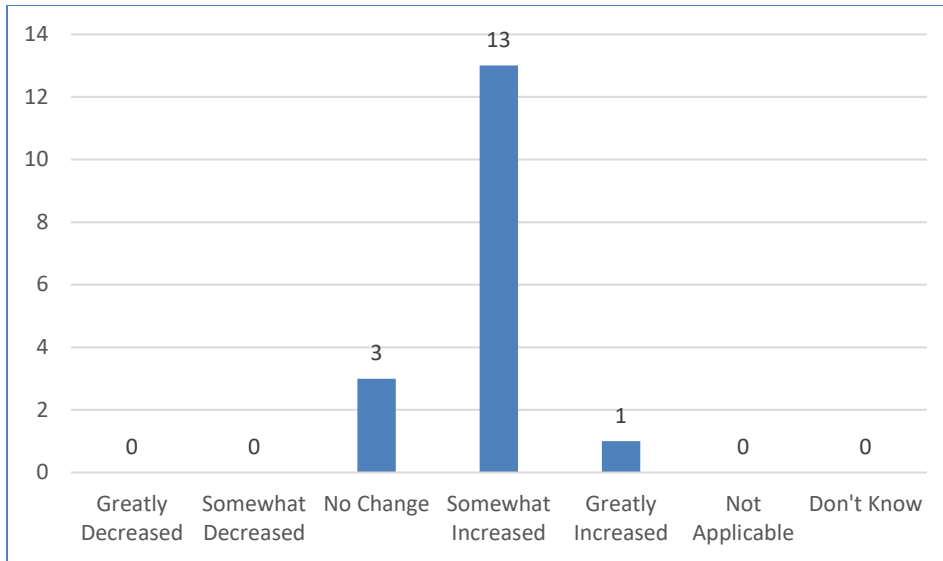


Figure 38. Anticipated employee share of healthcare premiums and co-pays in the post-recession

In comparison, fewer EDs actually expect that retiree’s share of health insurance premiums, deductibles and co-pays will likely increase in the near future. As figure 39 illustrates, more than half of the responding EDs share this sentiment and four EDs expect no changes.

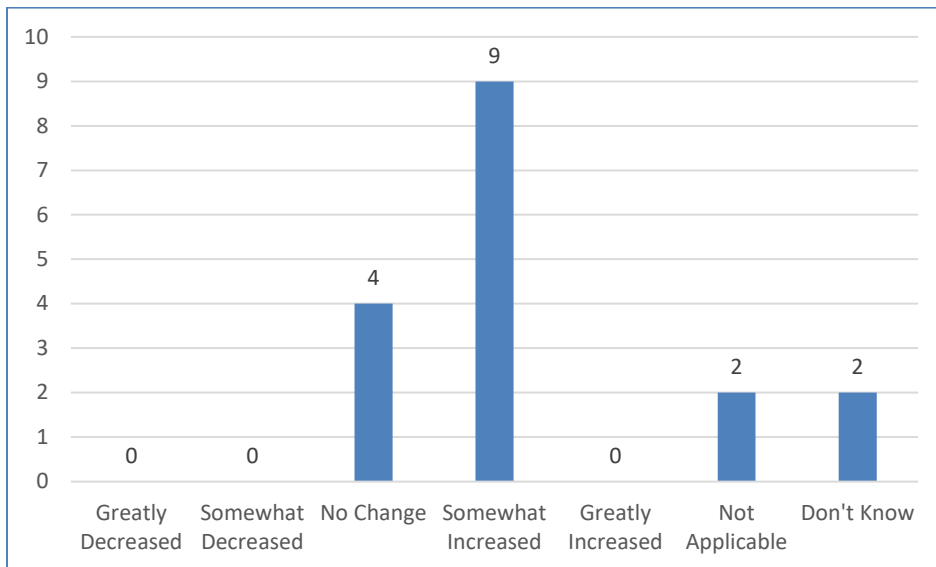


Figure 39. Anticipated retiree share of healthcare premiums and co-pays benefits in the post-recession

As illustrated in Figure 40, more than half of the EDs do not expect an increase in employees’ share of retirement funding and six EDs expect that there will be a marginal increase.

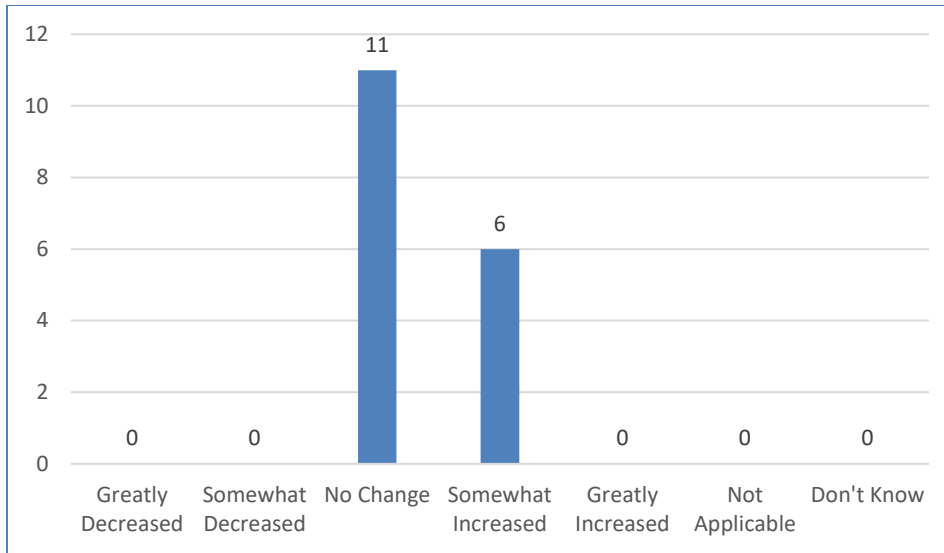


Figure 40. Anticipated employee share of contributions in retirement funds in the post-recession

***Fund balance planning and liquidity***

Ending fund balance refers to the ending balance (revenues over expenditures) of both the governmental and proprietary accounts. Government Accounting Standards Board 54<sup>3</sup> identifies the following types of ending balance: non-spendable, restricted, committed, assigned, and unassigned. A local government should have a positive fund balance and sufficient monies in the unassigned category to ensure that it is able to draw from this account in the event of a situation that warrants added expenditures.

Tables 41 and 42 illustrate the size (relative to expenditures) and expected reliance on ending fund balances of counties during the period following the recession. Interesting, a majority of the responding EDs anticipate county governments to rely more on general fund balance (Figure 41), despite the nation’s recovery from the recession. Further, six EDs indicated that there would be no change in the reliance of county governments on unrestricted and restricted fund balances.

<sup>3</sup> <http://www.gasb.org/st/summary/gstsm54.html>

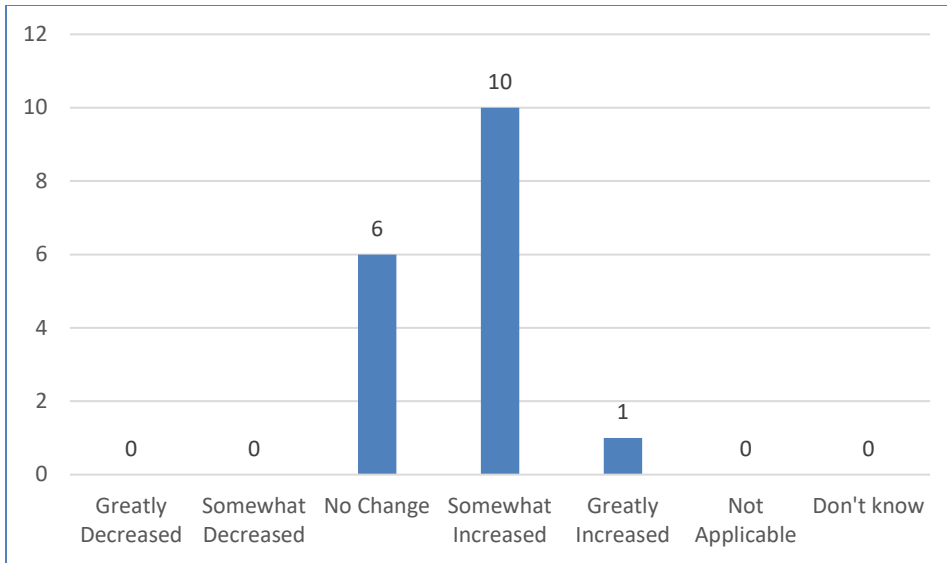


Figure 41. Anticipated reliance on general fund balance in the post-recession

***Unreserved/unassigned general fund balance as a percentage of general fund expenditures***

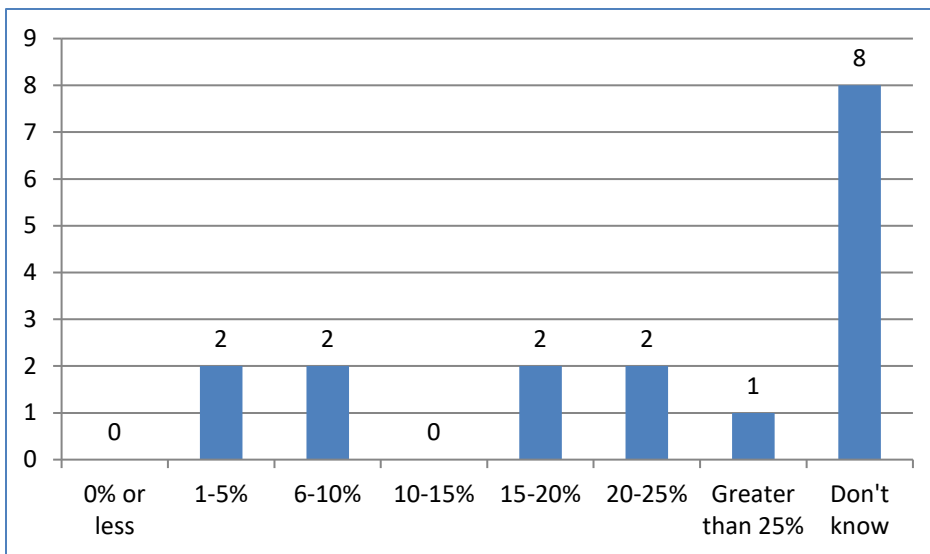


Figure 42. Unassigned fund balances in the post-recession

Ending fund balance refers to the ending balance (revenues over expenditures) of both the governmental and proprietary accounts. Governmental Accounting Standards Board ((GASB) 54, 2017) identifies the following types of ending balance: non-spendable, restricted, committed, assigned, and unassigned. A local government should have a positive fund balance and sufficient monies in the unassigned category to ensure that it is able to draw from this account in the event of a situation that warrants added expenditures. A decline in unassigned fund balances as a percentage of operating revenues over time suggests the government is less able to withstand financial emergencies. Based on the responses (Figure 42), a number of EDs are unaware of the exact state of rural counties in relation to their unassigned fund balances. Nine EDs responded



that the county governments did set aside a percentage, ranging from 1%- more than 25% in the unassigned fund.

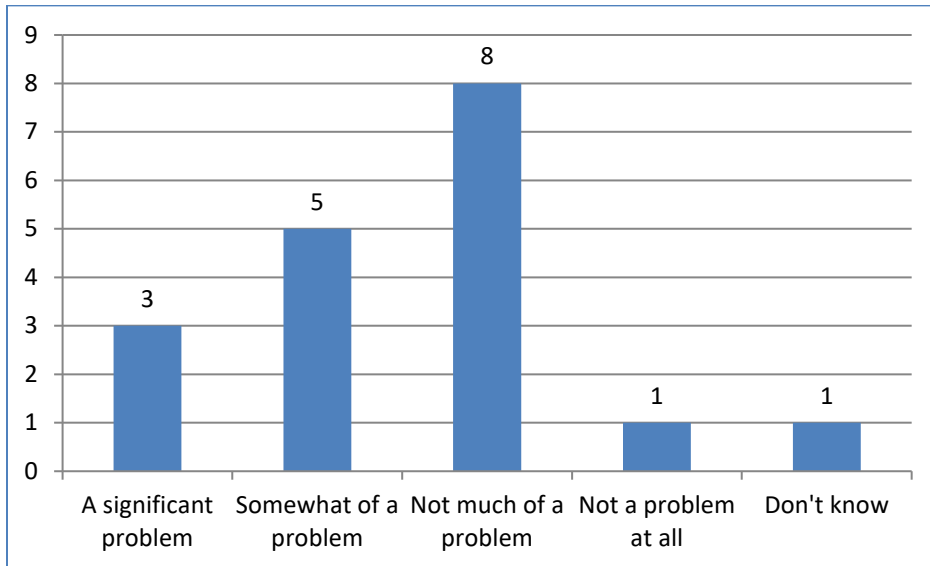


Figure 43. Cash Flow of rural counties in the post-recession

In simple terms, cash flow refers to in inflow and outflow of dollars, into the government accounts from the various revenue generating services and out of it in the form of payments for various types of inputs and wages that allow it to provide different types of public and semi-public services. It is a sign of good fiscal health and as illustrated in figure 43, in the post-recession, half of the EDs reported that as not much of a problem. However, the rest of the responding EDs suggested it was either somewhat or a significant problem.

### *Extent of Recovery since last recession*

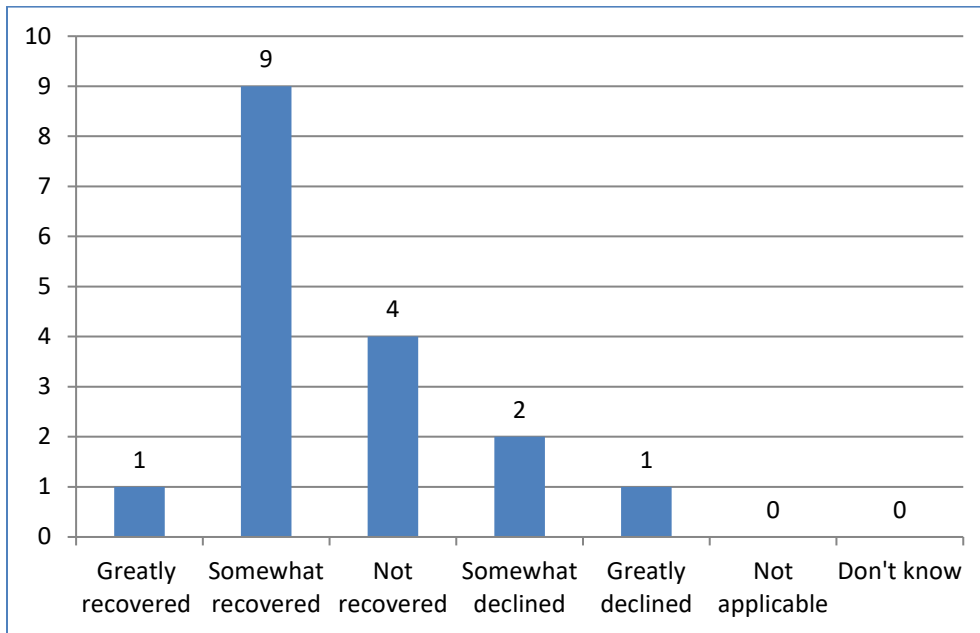


Figure 44. Economic recovery of rural counties in the post-recession

With the recession officially ending in 2010, the survey was conducted almost 5 years later. The responses suggest that the economic recovery has been sporadic with 10 of the 18 EDs reporting general improvement in the economic environment (Figure 44). Three EDs reported having their economies somewhat or greatly diminished. The recovery was partially dictated by the economic sectors that were prominent in various regions across U.S. Regions that rely on production-oriented industries likely experienced much slower recovery compared to regions where service related businesses dominate. Given the variance in economic structure among states, a more robust conclusion about the factors driving recovery would require additional data.

## ***Highlights of Survey Interviews***

*Thinking about state-local government fiscal relations, what do you think are the most important state policies that have negatively impacted county government fiscal conditions?*

In response to this question, researchers noted an overall uniformity across states, with many EDs identifying the same or very similar concerns, especially in relation to the notion of local control and unfunded mandates.

At the same time, there was considerable within-state variation, frequently along the lines of rural versus urban concerns, sometimes described as “red” versus “blue” legislative perspectives. Given these generalizations, there were a number of state-local fiscal policies the EDs identified as problematic.

### ***Disconnect***

There seems often to be a fundamental disconnect between state legislators and local officials. From the county perspective, state legislators often do not understand the needs that exist at the local level and do not trust local legislators to behave in fiscally responsible ways. Because of this, states impose various forms of tax and expenditure limitations that constrain local choice and options. For their part, local officials are simultaneously afraid of their anti-tax local constituents, and/or willing to explain to their voters the needs that exist and do what they feel may be necessary. Mostly, they want greater flexibility and choice.

### **Residual Economic Effects**

There may be a residual effect dating back to the Great Recession. States often took drastic measures in response to their own budget shortfall. This frequently came in the form of dramatic cuts in state aids and/or pushing many unfunded mandates onto counties. Now that the economy is in recovery, states have not made the counties whole, with many aid programs gone or sharply reduced from previous levels. States seem to continue to abdicate what had formerly been their responsibility, often forcing counties to fill the gap. Yet, states insist on constraining local government capacity to respond.

### **Local Control**

Local officials generally seek a greater level of autonomy in managing local affairs. They often chafe at what they perceive as mandates that may constrain choices or compel action. Many local officials believe the best solutions to community problems are found at the local level rather than dictated from a state capitol.

### **Tax and Expenditure Limitations**

Closely related to the issue of local control, local officials similarly object to the various tax and expenditure limitations many states impose. While these controls take many forms, they are almost uniformly disparaged as impinging on local control and constraining local autonomy and choice.

### **Unfunded Mandates**

Many EDs reported that state legislatures had issued edicts mandating new local service responsibilities without providing any additional financial assistance. Similarly, some states withdrew assistance or service provision, effectively transferring responsibility to local government. Within the context of overarching tax and expenditure limitations, this forced reduction of other services or left other needs unmet.

### **Eroding Tax Base**

State legislatures have been exempting an ever-increasing number of tax classes that are important sources of local government revenue. They have exempted entirely or deferred taxation on multiple classes of real property from the property tax roles in the name of economic development or energy production. They have exempted classes of purchases and activities from sales taxes. They have modified fees associated with real estate transactions. Industry sectors and individual businesses seek tax breaks each legislative session with a resulting erosion of the already-limited tax base available to counties.<sup>4</sup>

### **Natural Resource Dependence**

Counties in mineral-rich states have generally done well in recent years. In these states, however, there is some anxiety about the recent drop in demand for oil production, which is affecting state and local revenues. A similar concern is expressed in coal-producing regions, particularly in the eastern U.S.

### **Conversely, what do you think are the most important state policies that have positively impacted county government fiscal conditions?**

Policies positively affecting local fiscal conditions tended to be idiosyncratic and state-specific. While the complaints tended to be much more general in nature, actions on the positive side of the ledger were much more dispersed.

Largely, the EDs felt that states have done very little in recent years to help the counties. There have been some modest enhancements of various types of revenues, e.g. gas tax, motor vehicle registration fees, or severance taxes, but nothing coming near the needs counties have. States have done several one-time initiatives to help with road and bridge or emergency dispatch, but have offered no enduring aid programs. Any significant local government assistance programs cited reflected actions taken many years before.

### **Targeted Aids**

Several states have provided additional assistance to local governments in targeted ways. Examples included transportation, emergency dispatch, and road and bridge funding. In several instances, states enhanced their own fiscal position with the intention of offering additional services providing indirect benefits to counties.

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<sup>4</sup> It should be noted that while local governments may decry state legislatures' exemption of tax base, they will themselves give away tax base in the name of local economic development.

### **One-time Funds**

A number of the EDs interviewed reported that states had replaced shared revenue aid programs with one-time funding programs. For example, states may have replaced ongoing road and bridge aid with a pot of money available by application and distributed prioritizing greatest need or impact.

### **Gas Tax Increases**

A number of states have used lower oil and gas prices to increase gas taxes modestly, sharing some of the revenue with local governments.

### **Energy States**

A handful of states implemented policies to help rural counties with transportation funding, economic development assistance and some aid. In oil-rich states, several have expanded state funding assistance for services. This was particularly true in states where communities had experienced very rapid growth, outpacing the local capacity to meet law enforcement and social service needs.

**Over the past 1-2 years, have there been any significant changes in state aids to county governments? If so, what areas of county government operations do these impact?**

### **Mostly Cuts**

In the majority of interviews, EDs were critical of their state legislatures, citing cuts in transportation funding, public health and mental health funding, education, and pension obligations. Most repeated many of the examples cited in Question #8. Other state directors cited the reduction, elimination, or the total absence of state aid.

Rarely, states have approved new local option revenue sources, but frequently require public approval. Many local officials are loathe to face constituents with new funding requests especially in difficult economic times for their citizens.

**What do you consider to be the top 3 issues facing rural counties in your state now? Describe.**

### **Economic Opportunity**

The greatest overall need that exists in rural areas is the lack of economic opportunity leading to population loss and a declining local tax base to support local public finances. Associated with the population loss and aging of the population base is a growing leadership crisis where there just is not the replacement for the leadership and volunteers needed to keep rural communities vital and functioning.

### **Infrastructure**

There are growing needs related to infrastructure. This includes roads & bridges, water and wastewater, and schools. There simply are not sufficient local resources to deal with the scale of the needs, state aid is deficient, and there is not sufficient authority and flexibility to respond independently.

### **Population Movement**

In several states, EDs reported the population migration had created problems. Out-migration from some rural areas has left aging infrastructure and an insufficient population base. Rapid in-migration to amenity-rich areas was overwhelming inadequate or nonexistent infrastructure and public services. Several EDs cited the environmental consequences of population growth.

### **Service Reorganization**

Several trends are occurring that are creating greater levels of local need. Several EDs cited their states' choice to forego expanding Medicaid funding leading to growing local health and human service's needs. Similarly, mental health reform keeps individuals in their communities rather than state facilities. In these instances, greater need for services is arising at the local level, and the states are helping too little or not at all. Law enforcement needs were also cited. Movement toward community-based service and treatment was cited in relation to prison-sentencing reform that will keep more offenders in the community.

### **Health and Education**

Two service areas frequently identified as challenging for rural areas were health and education. The need for health and mental health services was growing faster than state and federal assistance. Many rural hospitals are no longer financially viable without public subsidy.

Maintaining the local school system also has challenged many rural communities. Buildings, equipment and technology were antiquated and there was insufficient local capacity to upgrade or improve.

**Based on your knowledge about how rural counties in your state have responded to fiscal stress they may have experienced in recent history, can you think of instances where county officials have responded with creative approaches to partially or completely mitigate the impacts? If so, can you identify which counties and describe the actions they have taken or the programs they have put in place. We may contact them to get additional details.**

EDs were hard-pressed to cite many examples of local government innovation. Most frequently cited was a trend toward regionalization, formal consolidation, or informal cooperation. In the realm of regionalization, several mentioned mental health. Other examples included economic development, regional public health, and regional jail facilities. In terms of consolidation/cooperation, several mentioned combined emergency dispatch services, and solid waste management.

## Conclusions

The survey helped reveal how the Executive Directors of state county associations observe rural county officials responding to the financial challenges in the period following the Great Recession in 2007-08, and how they perceive their current fiscal situation. In addition, the study focused on how county officials, especially in rural areas, anticipate dealing with their fiscal situation in the immediate future (2017 and beyond). The survey provided an understanding of the issues and circumstances facing different states, and how county officials are dealing with revenue generation, revenue-sharing, tax and expenditure limitations, as well as and innovative approaches to dealing with fiscal challenges.

With a response rate of 36 percent, six broad themes are evident from the findings of the quantitative survey – revenue trends, intergovernmental fiscal relations, community needs, long-term investments and debt, public employee wages and benefits, fund balance situation, and liquidity situation of counties. Findings reveal that county revenues were impacted in two distinct ways – some states increased while others stayed the same or declined, likely based on how each area recovered from the recession. This was the case with property tax, sales tax, and user fees. In addition, select drivers of revenue changes like population growth, tax delinquencies and home foreclosures also showed various trends. In terms of the expectation for the immediate future, most state EDs expect either no change or some increase in property tax rates. About half of the EDs, those in states that have a sales tax in place, expect an increase in sales tax rates. More states do not anticipate changes to user fees and charges while fewer states expect marginal increases.

In terms of federal aid to states, half of the responding EDs expect no change while the rest anticipate a decrease in aid from the federal government. Almost all the EDs reported that state aids declined marginally or greatly. In the post-recession, about half of the responding EDs did not report counties securing any additional debt while six EDs saw increase in borrowing. Similarly, a number of EDs reported increases in infrastructure spending which are typically funded through external borrowing.

In the post-recession era, community needs in public safety, infrastructure, human services, and general government operations were reported to have increased. Consistent with that, actual spending in public safety and general government operations also increased. Economic development spending, however, remained flat according to most of the responding EDs.

In an effort to control spending, counties in a few states privatized or contracted services. More than half of the responding EDs witnessed reduction in the numbers of county employees. Several reported stable levels of employment and only two EDs reported rural counties hiring additional employees. Seven EDs witnessed increases in wage rates while eleven EDs reported no change or marginal decline in wage rates. Pension and other retirement obligations increased in three states, declined in three states and remained the same in the majority of the states. In almost all the states that responded, the cost of health benefits increased marginally or greatly. Half of the responding EDs witnessed actual increases in human services expenditures and half reported no change or marginal declines. Cost-sharing between county governments was prevalent in eleven states indicating that as an effective way of reducing administrative and

service delivery costs. A majority of state EDs reported county hiring freezes but few counties shed existing employees. Employee shares of premiums and co-pays for health insurance increased in most of the states. In retirement contributions, more EDs reported no change and in six states, there was an increase.

The ending fund balance for counties in the post-recession improved in ten states and remained the same in six states. In almost an identical trend, the reliance on these 'rainy day' funds also increased and remained the same in similar number of counties. While half of the responding EDs reported cash flow as either somewhat or a significant problem, the rest reported it as not much or not at all a problem.

On the broad question of the extent of economic recovery, ten state EDs responded having somewhat or greatly recovered. The rest were split between having not recovered or somewhat or greatly declined. This is in line with some of the findings from another study that was conducted about the same time by the National Association of Counties (NACO, 2016). While it is apparent that the recession played a significant role in rural counties' financial condition, it is also apparent, based on the interviews that political dynamics at the state level often aggravated the situation. For instance, several states have been unable to approve budget. This had practical consequences for local governments who were already faced with challenging fiscal conditions. Further, mandating tax and spending limitations also made it extremely difficult for counties to deal with the difficult fiscal situation (Stallman et al., 2017). While there was generally broad consensus on the need for making investments in infrastructure improvements, how that would be funded did not find the same level of agreement at the state and local level. Cost-sharing was also another aspect that impacted state and local government relations. In many states there were concerns that the state government was either not compensating counties adequately for carrying out the state functions or in some instances was forcing counties to bear the cost of state-level services of which they were not direct beneficiaries.

Unfunded mandates were observed to be a problem as it relates to state and local government relations. The growing disconnect between state and local officials as it relates to understanding the needs at the local level was identified as contributing to the counties' fiscal challenges. In addition, states, by exempting sectors from taxation, while aimed at economic development, were eroding the tax base of county governments. On a positive note, some states reported that by allowing for additional revenues via gas tax, motor vehicle registration fees and severance taxes, counties had benefitted. Some states also had benefitted counties by way of one-time funds or targeted aid programs offered by states in specific sectors.

Most respondents identified state aid funding cuts triggered by the great recession as having a lasting impact on counties, especially in rural areas. Providing economic opportunities to its residents, maintaining existing infrastructure dealing with depopulation, health and education funding and different types of service reorganization in terms of how it is funded or organized for delivery.



## **Recommendations Relating to Local Fiscal Policy**

Local financial management is becoming increasingly complex. The responsibilities of local governments continue to grow, while public service expectations remain high. This challenges governments to raise sufficient revenues while controlling their expenditures.

### **Revenues**

Four major revenue sources are within local control: property taxes, sales taxes, user fees, and intergovernmental transfers and aids. Each presents its own challenges.

County governments remain highly dependent on property taxes as a revenue source. But, increasing public dissatisfaction with the property tax is forcing counties to find other ways to fund local services.

Imposing or increasing a local sales tax is often greeted with opposition from citizens and the local business community based on fears that it may adversely affect retail competitiveness. Combining the sales tax with efforts to foster a healthy environment for business activity may reduce opposition and benefit county revenue by boosting both retail sales and sales tax revenues.

While their use is still somewhat limited, user fees are becoming an increasingly important revenue source for some counties. As user fees apply to only the beneficiaries of a service, they can be a fair and efficient way to finance public services. Of course, there must always be a distinction between services subject to user fees and those that should be available to all citizens regardless of their ability to pay.

Many intergovernmental transfers and aids are formula-based, but others rely on local initiative. Grant funds are often available from the state and federal government for communities that go through an application process. Such applications, however, typically require a serious commitment of local resources and, if successful, provide funding for only a limited period of time. Many rural counties may not have the personnel and other resources to complete the application process.

Generally, a local government should use a revenue mix that provides adequate, stable funding without placing an unfair burden on any particular group. There is no universally optimal mix, however. It depends on local needs, preferences, and resources. The following should be considered when evaluating local revenue sources:

**Adequacy:** Is the revenue source regular, reliable, and not susceptible to economic change?

**Adaptability:** Can rates be easily adjusted to meet changing needs and avoid shortfalls?

**Administrative ease and economy:** Is it simple and inexpensive to administer?

**Economic effects:** How does it affect local resource use and growth?

**Social acceptability:** How do citizens and businesses perceive the tax?

**Fairness:** Does it treat people uniformly and conform to social definitions of fairness, such as ability-to-pay? Do those who benefit the most pay the most?

## **Expenditures**

Controlling expenditures is also an important component of local fiscal policy, as it helps keep taxes low. It should, however, be done with the level of service local government wants to provide in mind. Performance standards provide a means for local governments to ensure that a given level of expenditure is accomplishing their goals. Several strategies for controlling local expenditures are outlined below.

Cutting spending is, perhaps, one of the more obvious means of controlling expenditures. It is often very difficult, however, because it generally means reducing or eliminating services for certain constituents and inevitably affects local government employees. Some options include:

- Cutting programs across-the-board;
- Cutting programs selectively;
- Subcontracting operations, services, and programs;
- Offering early retirement;
- Reducing work hours, Redefining departments and jobs; and
- Increasing worker productivity through training and technology

The above list does not imply that all of the options are equal in their outcomes. Counties, at times, attempt to reduce current spending by delaying infrastructure maintenance. This method generally proves ineffective, however, as rebuilding or replacing infrastructure is typically far more costly in the long-term than regular maintenance.

Changing the way services are provided is another means of controlling local expenditures. Privatizing services may make sense, but should be done only after careful study. Other alternatives include: public-private partnerships, collaborating with other units of local government, consolidating, and using local volunteers. While these strategies can be effective in certain circumstances, they require careful planning and feasibility analysis.

Long-term planning during budgeting can also help local governments control their expenditures. Planning means anticipating future needs, the timing of expenditures, and the total cost of projects and is particularly important for new development and capital expenditures. A capital improvements plan is useful to anticipate the order, timing, and financing of capital expenditures.

Effectively using debt is another strategy for controlling local government expenditures. Governments use debt primarily for long-term infrastructure investment. This amortizes costs over the life of the investment, reducing the immediate financial burden and allowing future beneficiaries to pay their share. Debt should never be used to reduce current property taxes. Financial advisors are available to assist local governments in their use of debt.

## **Fiscal Management**

To be effective, fiscal management must be a regular part of local government operations. Tracking monthly revenues and expenditures is vital. Regular monitoring and immediate action throughout the year will reduce budgetary stress. Investing idle funds where they yield the greatest return is appropriate as long as the investments are safe and funds available when needed. Fiscal impact studies can help avoid unexpected costs. These studies anticipate all costs (direct and indirect) associated with a project. Perhaps most importantly, policymakers should regularly and formally discuss fiscal issues, evaluate current policy, and consider policy alternatives. A proactive, long-term approach helps to ensure quality services, low taxes, and fiscal stability for current and future generations.

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## Appendix

### Two-part survey used for the study

A team of researchers from several Midwestern public universities (Iowa, Kansas, Michigan, Missouri, and Nebraska) is conducting a national survey of the Executive Directors of all NACo-affiliated state Counties' Associations to better understand the issue of fiscal stress being experienced by county governments across the nation. The objectives of the study are to:

- (1) enhance understanding of the current state of county fiscal conditions and any fiscal stress that may exist;
- (2) identify innovative local response strategies to fiscal challenges;
- (3) better understand state policies influencing state-local inter-governmental fiscal relations;
- (4) create state-policy data variables that may be useful for public finance research;

As the Executive Director of your state Counties Association, we believe you are uniquely qualified to represent the perspectives of the counties in your state. Individual responses collected through this survey will be confidential.

This research study has been reviewed by the Institutional Review Board at Iowa State University. For research-related questions or concerns regarding subjects' rights, you can contact the University's Compliance Coordinator, at [redacted] or email [redacted]. Your decision whether or not to participate will not affect your current or future relations with Iowa State University or any other agency of the state. If you decide to participate, you are free to refuse to answer any of the questions. You can withdraw at any time without your relations with the university being affected. You can contact Biswa Das, the Principal Investigator by phone (515) 509-9603, or email [bdas@iastate.edu](mailto:bdas@iastate.edu) if you have any questions about the survey or how the results will be utilized.

The survey will be done in two parts. The first part which will be an online survey consists of questions that have objective responses. We will be sending an email with the link to the website where you will be undertaking the online portion of the survey. The online portion of the survey will take approximately 20 minutes of your time for which we would like to thank you.

For the second part, the survey will consist of open ended questions. We are sending this questionnaire in advance so you can see the questions that will be asked and can reflect on the situation in your state's counties. We will be making a telephone call that will be scheduled with you ahead of time. The telephone part of the survey will be for approximately 15-20 minutes.

## Part I. Understanding Fiscal Stress in Rural Counties

1. For how long have you held the position of Executive Director of your state county association?

\_\_\_\_\_ Years

The USDA Economic Research Service defines ‘rural’ to mean counties that have a population less than 50,000. These are the counties we would like you to reference as you answer these questions.

2. Thinking about the financial needs of rural counties in your state following the last big recession, would you say that they have been less able or better able to meet their financial needs?

### Check One

- \_\_\_\_\_ Significantly Less Able  
\_\_\_\_\_ Somewhat Less Able  
\_\_\_\_\_ Neither Less nor Better Able  
\_\_\_\_\_ Somewhat Better Able  
\_\_\_\_\_ Significantly Better Able  
\_\_\_\_\_ Don't Know

3. Based on your understanding of the rural counties in your state, please consider the ways the following county government characteristics have changed following the last big recession. Indicate whether — in your opinion — there has been a decrease, an increase, or no change during the past few years.

For each item, please assign a score using the following scale:

- 1 = Greatly Decreased  
2 = Somewhat Decreased  
3 = No Change  
4 = Somewhat Increased  
5 = Greatly Increased  
6 = Not Applicable  
7 = Don't Know

### Score

- \_\_\_\_\_ Revenue from property taxes  
\_\_\_\_\_ Revenue from fees for services, licenses, transfers, etc.  
\_\_\_\_\_ Revenues from sales tax  
\_\_\_\_\_ Amount of debt  
\_\_\_\_\_ Ability to repay debt  
\_\_\_\_\_ Amount of federal aid  
\_\_\_\_\_ Amount of state aid



- \_\_\_\_\_ Tax delinquencies
- \_\_\_\_\_ Home foreclosures
- \_\_\_\_\_ Population
- \_\_\_\_\_ Public safety needs
- \_\_\_\_\_ Infrastructure needs
- \_\_\_\_\_ Human service needs
- \_\_\_\_\_ General government operations needs
- \_\_\_\_\_ Number of employees that work for county governments
- \_\_\_\_\_ Pay rates for employee wages and salaries
- \_\_\_\_\_ Properly funding pensions and other retiree obligations
- \_\_\_\_\_ Cost of current employee health benefits
- \_\_\_\_\_ Cost of retired employee health benefits

4. Comparing the period following the last big recession to the next fiscal year, please indicate which actions rural counties are most likely to take.

For each item, please assign a score using the following scale:

- 1 = Greatly Decrease
- 2 = Somewhat Decrease
- 3 = No Change
- 4 = Somewhat Increase
- 5 = Greatly Increase
- 6 = Not Applicable
- 7 = Don't Know

**Score**

- \_\_\_\_\_ Property tax rates
- \_\_\_\_\_ Sales tax rates
- \_\_\_\_\_ New sales or use taxes
- \_\_\_\_\_ Charges for fees, licenses, etc.
- \_\_\_\_\_ Reliance on general fund balance
- \_\_\_\_\_ Reliance on “rainy day” funds
- \_\_\_\_\_ Amount of services provided
- \_\_\_\_\_ Actual public safety spending
- \_\_\_\_\_ Actual infrastructure spending
- \_\_\_\_\_ Actual human services spending
- \_\_\_\_\_ Actual general government operations spending
- \_\_\_\_\_ Funding for economic development programs
- \_\_\_\_\_ Amount of debt
- \_\_\_\_\_ Sale of public assets (i.e., parks, buildings, etc.)
- \_\_\_\_\_ Privatizing or contracting out of services
- \_\_\_\_\_ Number and/or scope of inter-local agreements or other cost-sharing plans with other governments
- \_\_\_\_\_ Workforce hiring
- \_\_\_\_\_ Workforce layoffs
- \_\_\_\_\_ Not filling vacant positions

- Employee pay rates
- Employees' share of premiums, deductibles, and/or co-pays on health insurance
- Employees' share of contributions to retirement funds
- Retirees' share of premiums, deductibles, and/or co-pays on health insurance

5. Different local jurisdictions manage their unreserved/unassigned general fund balances in different ways depending on their specific circumstances. Despite these differences, we're interested in understanding the overall changes in these balances over time. Approximately what was the rural counties' unreserved/unassigned general fund balance as a percentage of general fund expenditures at the end of its last fiscal year?

**Check One**

- 0% or less
- 1-05%
- 06-10%
- 10-15%
- 15-20%
- 20-25%
- Greater than 25%
- Don't Know

6. In your opinion, is your states' rural counties' cash flow and their ability to pay bills in a timely manner a

A significant problem   Somewhat of a problem   Not much of a problem   Not a problem at all   Don't Know

7. Overall, based on your understanding of the rural counties in your state, how would you characterize the extent to which they have recovered from the last recession?

Please assign a score using the following scale:

- 1 = Greatly recovered
- 2 = Somewhat recovered
- 3 = Not recovered
- 4 = Somewhat declined
- 5 = Greatly declined
- 6 = Not Applicable
- 7 = Don't Know

## **Part II. State Policies and State/Local Fiscal Relations (open ended)**

8. Thinking about state-local government fiscal relations, what do you think are the most important state policies that have negatively impacted county government fiscal conditions? Please name the policy and describe its impact. Please indicate how significant it is/will be in affecting local governments' fiscal condition.
9. Conversely, what do you think are the most important state policies that have positively impacted county government fiscal conditions? Please name the policy and describe its impact. Please indicate how significant it is/will be in affecting local governments' fiscal condition.
10. Over the past 1-2 years, have there been any significant changes in state aids to county governments? If so, what areas of county government operations do these impact?
11. What do you consider to be the top 3 issues facing rural counties in your state now? Describe.
12. Based on your knowledge about how rural counties in your state have responded to fiscal stress they may have experienced in recent history, can you think of instances where county officials have responded with creative approaches to partially or completely mitigate the impacts? If so, can you identify which counties and describe the actions they have taken or the programs they have put in place. We may contact them to get additional details.

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## Exploring Programming Opportunities That Help Create Resilient Small City Downtowns

November 23, 2015

**PI:** Martin, K. (University of Wisconsin)

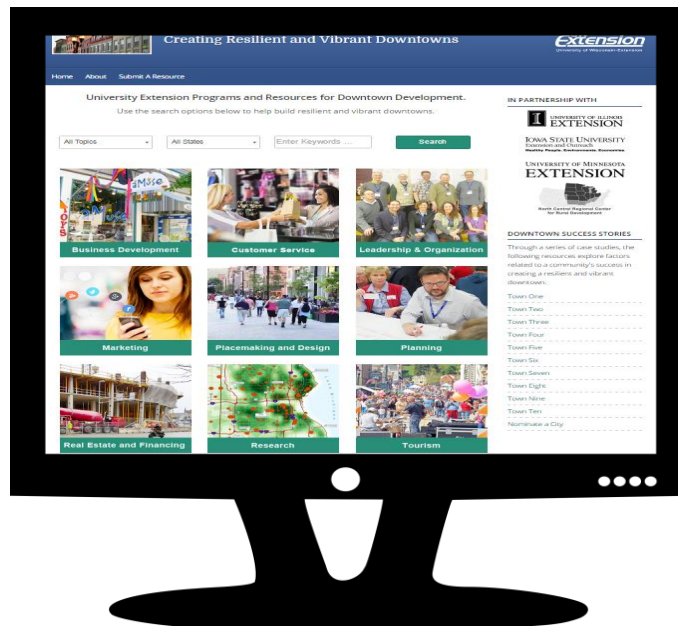
**Co-PIs:** Wise, G. & Ryan, B. (University of Wisconsin), Borich, T. (Iowa State University) and Pesch, R. (University of Minnesota)

**Award:** \$17,736

**Project Abstract:** Downtowns in many small cities and rural communities have struggled for decades with declining commercial activity. Retail choices have changed and there are fewer businesses and reasons to shop downtown. Downtowns have been bypassed and replaced by commercial development on the periphery of town. Businesses down the market is changing and the business acumen of owners and operators is too, the building and streetscapes are deteriorating, and fewer people are discovering our downtowns.

In *Downtown Success Indicators*, Edwards, et al identified ten scales that measure healthy downtowns, including housing, traffic generators, multi-functionality, and other attributes. This proposal offers a multi-attribute approach to building up these success indicators. This proposal will encourage multi-state collaboration to examine collaborative downtown revitalization programming opportunities. It addresses our community vitality challenge and specifically supports the entrepreneurial communities priority area.

We plan to bring together extension leaders and educators to understand current downtown revitalization programming, leading to discussions on how our states can leverage each other's strengths, and may lead to the development of a multi-state educational program. In the long term, this project's impact will be to positively influence economic conditions of downtowns and quality of life in rural areas of the North Central region.



# An Inventory of Extension Programs to Help Create Resilient Small City Downtowns

NCRCRD 2015-16 Small Grants Program  
Final Report  
August 31, 2016

Prepared by:  
Bill Ryan (Co-Principal Investigator) and Emily Lutz (Project Assistant),  
University of Wisconsin-Extension in collaboration with the project study team.



**NCRCRD**  
North Central Regional Center  
for Rural Development

## Contents

- **Purpose**
- **Our Team's Approach**
- **Web-Based Inventory of Extension Programs and Resources**
- **What We've Learned about Extension's Role in Downtown Revitalization**
- **Next Steps: Connecting Downtown Revitalization Programming Nationally**
- **Acknowledgements**

## Purpose

The NCRCRD Directors have challenged us to reinvent community vitality programming across our program areas and our states. This project responds to that challenge by focusing on the breadth of Extension education related to downtown revitalization in small cities and villages.

Downtown districts continue the difficult transition from their earlier roles as retail centers. For many communities, this transition has been characterized by a disregard of market changes, failed attempts to revitalize Main Street, or simply the intentional pursuit of edge-of-town development.

Despite many reasons for difficulty, downtowns remain important to community development. First, downtown represents a community's "sense of place," the uniqueness that defines the character and authenticity of a place. Second, downtown represents the "central place," the location most convenient to where people live. Finally, the visible health of a downtown is a symbol of economic wellbeing in a community. People's first impressions of a community are often shaped by what they see downtown.

Today, many "resilient" downtowns are working to become diversified, multiuse centers that include housing, work space, the arts, restaurants and entertainment, services, and niche retail. This requires strengthening business activity, attracting new uses for buildings, and making sure downtown enhances local quality of life. With research-based education and guidance, communities can pursue initiatives that will lead to resilient downtowns able to endure future challenges.

The purpose of our work has been to bring together community economic development educators to examine current downtown revitalization programming in the region and nation. This knowledge has led to synthesizing the strengths of each of our states and increasing their capacity. The intent has been to set the stage for the development of multistate educational programs and resources. In the long term, this project is expected to influence economic conditions of downtowns and quality of life in communities throughout the North Central Region.



## Our Team's Approach

This project has engaged a study team of ten educators from Iowa, Minnesota, and Wisconsin to explore Extension's rolls in creating resilient downtowns. The team members were selected in each state based on their varying interests and programming related to downtown revitalization.

To launch the project, the team met in Dubuque, Iowa in October 2015 to share their state's Extension work in downtown revitalization. The meeting also included presentations from the Iowa Main Street organization and a private consultant to learn about external perceptions of Extension work in this discipline.

David Ivan (Michigan State University Extension) presented his research as a foundation for discussion of Extension programming to create resilient small city downtowns. Dave provided an example of exceptional community development programming related to downtown development. The meeting ended with a work plan that would lead to the development of a comprehensive online inventory of Extension programs and educational resources related to downtown development.

After our first meeting, the team was divided up and assigned separate tasks. Bimonthly web conferences were held to update each other on progress and for planning the next steps. One team focused on the layout and content of the website. We eventually decided to utilize a University of Wisconsin – Extension web development specialist to design and construct the website.

Another team set out to research the different programs and resources throughout the country. Research was conducted by visiting Extension webpages and searching for revitalization programs. This has included contacting state Extension directors directly for their input.

With the inventory under development, the team reviewed and refined the list of programs and resources to make sure they were directly relevant to downtown development. They were then sorted among nine topics.

# Web-Based Inventory of Extension Programs and Resources

A web-based inventory of Extension programs and resources related to downtown revitalization has been developed for use by educators and by downtown professionals. The website has been launched and is searchable by topic, state or keyword. This website was designed to be user friendly and easily navigable (image follows).

<http://fyi.uwex.edu/resilientdowntowns/>

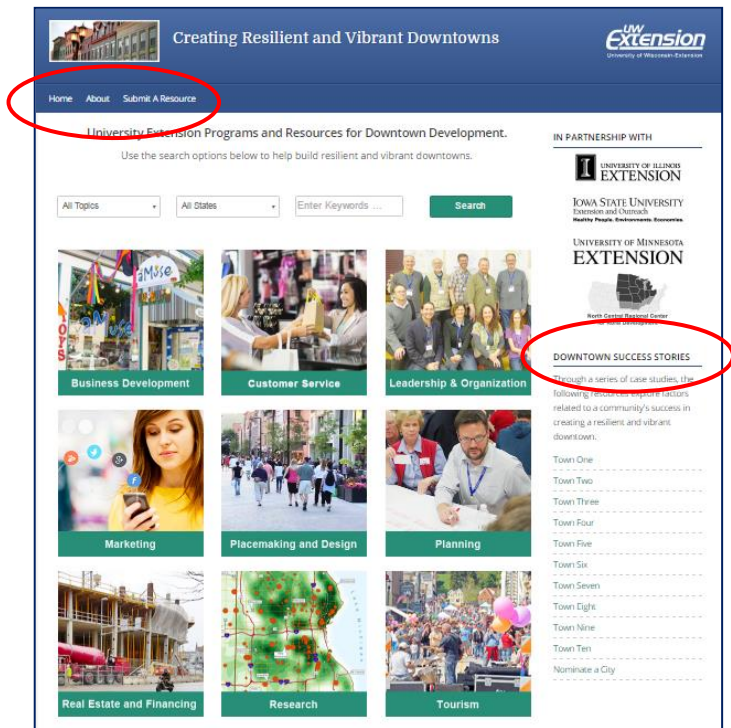
In addition, space has been reserved on this website for a parallel project also funded through NCRCD. This project will include ten case studies of resilient and vibrant downtowns in the Upper Midwest.

## Home Page

The Menu on the top of the website directs the user to the HOME page, ABOUT page and a SUBMIT a program/resource page.

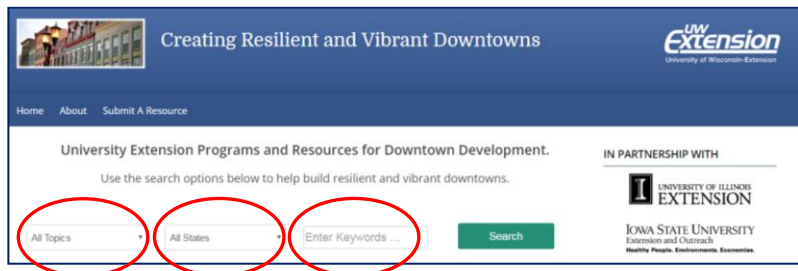
A sidebar provides examples of downtown success stories throughout the Midwest. These success stories illustrate various practices employed to create resilient and vibrant downtowns and are being developed by separate NCRCD team.

The middle of the home page has programs and resources segmented into nine categories of topics that are relevant to downtown development. These include business development, customer service, leadership and organization, marketing, place-making and design, planning, real estate and financing, research, and tourism. These topics make up the grid on the front page represented by a picture. When you click on one of the topics, you are directed to a page that includes a category description.

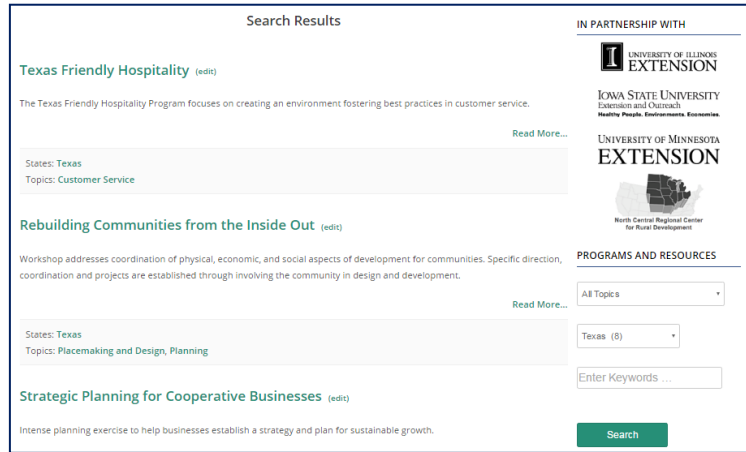


## Searching for Programs and Resources

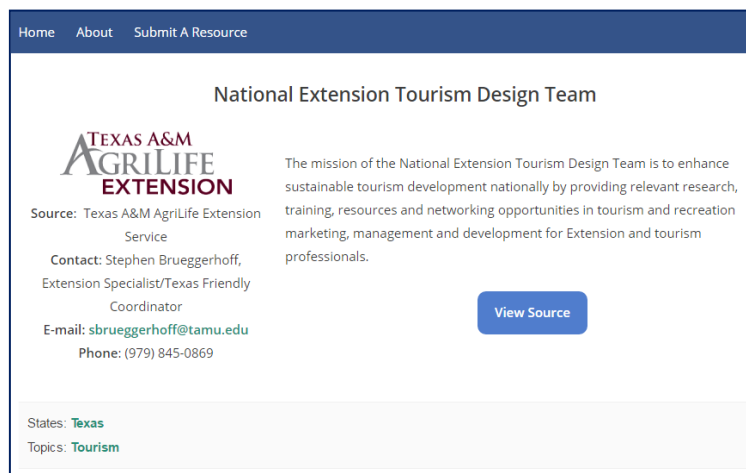
There are three ways to search for a program or resource: by category, by state, and by keyword.



The image to the right shows the search results page for Texas' programs and resources. The viewer can see the name as well as a small description. Once the viewer comes across a program or resource that seems relevant to their research, they can click on the title, or the 'Read More' button for more information.



The full description of a resource is also pictured to the right. On the top center is the name of the resource. The left of the page features the Extension logo as well as contact information for the resource. A more detailed description can be found next to the contact information.

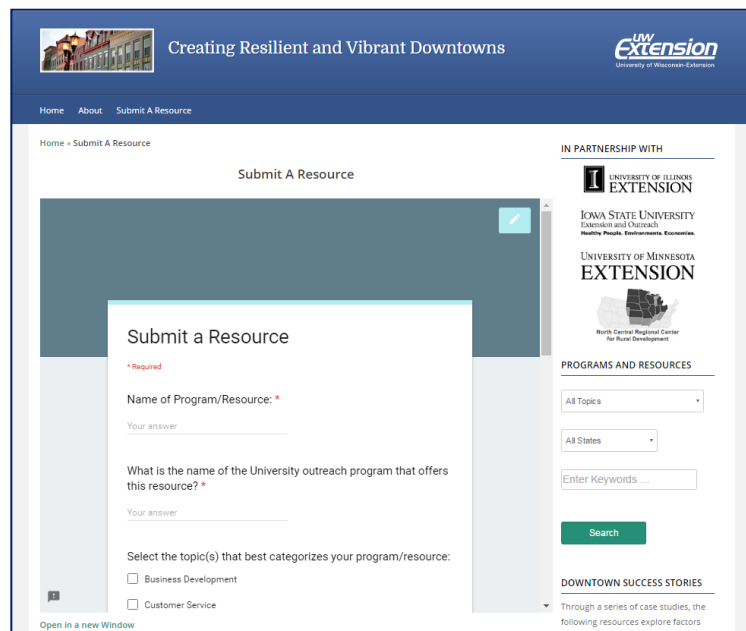


Additionally, the bottom of the page has the different tags associated with the program or resource. If someone was interested in learning more about tourism and was curious about other resources related to tourism, then they would only need to click on the topic word at the bottom of the screen.

Lastly, the 'View Source' button directs the user to the webpage associated with the resource, or the pdf we have on file.

### Submitting a Program or Resource for Inclusion in the Website

Extension educators around the country are encouraged to add their programs if not already listed. The website allows one to submit their own program or resource. The link to this is in the header of the webpage and directs them to a survey where they can fill in the necessary information to have their work presented on the website.



## What We've Learned about Extension's Role

Extension offers objective, research-based programs and resources that contribute to the creation of vibrant and resilient downtowns in small cities and towns. These programs and resources typically complement technical services offered by state agencies/Main street programs, private consultants and other organizations. While programs and resources continue to be added to this inventory, a few observations are apparent:

- While only a few states have programs specific to downtown revitalization, over half of the 50 states offer programs that are transferable to this specific area of study.
- Extension provides depth in certain areas that may not be offered by other organizations such as state Main Street programs.
- Extension work is often related to business development, planning and research.
- Extension work typically does not include a comprehensive downtown development curriculum such as the "Main Street Four-Point Approach."
- Many Extension programs are customizable depending on the needs of the community.
- Some programs are unique to each state and may not be transferable to other states due to data availability and other factors.
- The Midwest appears to have the largest concentration of Extension resources and programs that support downtown development.

## **Next Steps: Connecting Downtown Revitalization Programming Nationally**

This project has been a catalyst for new programming ideas for educators in the three participating states. It has also received enthusiastic response from Extension educators in many states. To maintain the momentum, the following “next steps” are recommended:

- Continue adding programs and resources to the inventory and maintaining the website.
- Add case studies from the parallel NCRCRD project on resilient and vibrant downtowns in the Upper Midwest.
- Promote the website to potential Extension users. Present the inventory on a NCRCRD webinar and at CDS and NACDEP conferences.
- Promote the website to external users through the USDA Rural Information Center, National Main Street Center, and other channels.
- Explore other avenues for connecting programs and resources such as e-Xtension.
- Consider expansion of the website to include an easy-to-use forum for educators interested in interacting with each other.
- Related to the above, consider adding to the website a place where program and research gaps can be explored as a starting point for new research initiatives.
- Pursue opportunities to develop multistate programs and resources within the NCRCRD region.
- Monitor usage of the site.

## Acknowledgements:



The North Central Regional Center for Rural Development (NCRCRD) is one of four regional centers in the United States that work to improve the quality of life in rural communities. With funding from the USDA National Institute of Food and Agriculture and land-grant universities in our 12-states region the NCRCRD helps Extension professionals, researchers and other partners address issues that affect rural areas across the region. This project was funded through the NCRCRD 2015-16 Small Grants Program.

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September 1, 2016

## Innovative Practices for Community Supported Ventures

November 23, 2015

**PI:** Ivan, D. (Michigan State University)

**Co-PIs:** Wise, G. (University of Wisconsin) and Walzer, N. (Northern Illinois University)

**Award:** \$24,172

**Project Abstract:** Methods of financing local businesses have changed in recent years with an increased willingness of residents in small communities to invest in local business ventures with the expectation that some of their returns will be in the form of services from that business. These alternative financing methods are not well understood by local practitioners yet. This project will identify best practices, isolate key factors associated with success, and then seek additional support to prepare materials that Extension personnel and other outreach organizations can work to help practitioners implement successful practices in their communities.



# Emergence and Growth of Community Supported Enterprises

Norman Walzer and Jessica Sandoval

in consultation with

David Ivan, Michigan State University and  
Greg Wise, University of Wisconsin-Extension

The North Central Regional Center for Rural Development provided financial support for this project.  
The Illinois Institute for Rural Affairs at Western Illinois University provided financial support for printing.



Published by:

Center for Governmental Studies, 148 N. Third Street, DeKalb, IL 60115 and is available at: CGS.NIU.edu. The findings and conclusions presented in this report are those of the NIU project team alone and do not necessarily reflect the views, opinions, or policies of the officers and/or trustees of Northern Illinois University.

The Illinois Institute for Rural Affairs located at Western Illinois University provided funding to print this report. It also is available at: [IIRA.org](http://IIRA.org).

First printing: September 2016.

# Emergence and Growth of Community Supported Enterprises

Norman Walzer and Jessica Sandoval\*

in consultation with

David Ivan, Michigan State University  
and  
Greg Wise, University of Wisconsin-Extension

The North Central Regional Center for Rural Development provided financial support for this project.

\*The authors are Senior Research Scholar and Research Assistant, respectively, in the Center for Governmental Studies at Northern Illinois University. Lauri Alpern, Open Door Advisers, Inc. provided guidance and prepared materials for the sections on social enterprises.



## Acknowledgements

There is growing interest in finding ways to finance and support local businesses, especially in rural areas facing long-term population and economic declines. Residents have pooled funds and invested in grocery stores, restaurants, book stores, and other establishments considered essential to the prosperity of their communities. Crowdfunding platforms added a new dimension by facilitating a process that provide interested residents with relatively easy access to make small investments in local projects perceived as especially important.

Efforts to organize and finance area businesses with local groups are known as community supported enterprises or businesses. This report focuses mainly on CSEs with a social purpose but they also operate a business with a profit motive rather than being strictly social enterprises financed with donations.

The analyses in this report, sponsored by the North Central Regional Center for Rural Development (NCRCRD) at Michigan State University, are a collaborative effort by the Center for Governmental Studies (CGS) at Northern Illinois University (NIU), Michigan State-Extension, and University of Wisconsin-Extension. The intent is to provide potential users such as Extension personnel and other groups with an overview of CSEs, how they are organized, and their potential local contributions. The project is based on internet searches, phone interviews, and personal visits to many successful CSEs. The field is changing so quickly that many specifics will become dated quickly but the organizational structure and operations will be useful to other groups considering similar efforts.

A project of this size also required major assistance from people involved with CSEs on a daily basis. The project involved many interviews in the field to understand the workings of CSEs. Paul Bruhn, Preservation Trust of Vermont, and Will Keyser, Venture Founders, LLC provided valuable guidance in interpreting CSE efforts in Vermont and prepared copy used in this report. Many other local CSE managers and personnel provided detailed explanations during interviews about their ventures. This report could not have been completed without their support which is gratefully acknowledged.

The NCRCRD support for the project is greatly appreciated. Likewise, the collaborative efforts of David Ivan, Michigan State, and Greg Wise, University of Wisconsin-Extension were essential to completing the project on schedule. Lauri Alpern, Open Door Advisers, helped formulate and clarify differences between CSEs and Social Enterprises. Finally, efforts by Mel Henriksen and Janiece Bollie, CGS, to prepare the copy for publication are greatly appreciated.

Community supported businesses will grow in importance as residents engage more in financing local businesses perceived as vital to the community. Our hope is that the information in this report will help advance these efforts.

Norman Walzer  
Project Director

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## Executive Summary

Local public officials and community leaders, in searching for ways to help revitalize their economies especially in the post-recession years, are working with business leaders in a variety of new ways. While low-cost loans and other financial inducements continue, in some communities, local groups have also organized residents to raise funds that then are invested directly in business ventures called Community Supported Enterprises (CSEs).

CSEs, or local residents investing in businesses, are not entirely new but the motivation for some of these efforts changed after the recession and are now driven by a perceived need to start, or retain, an essential business at risk of closing. One of the more popular businesses to retain, especially in small communities, is a grocery store and residents have used innovative approaches in their efforts. Other types of stores such as restaurants and bookstores contribute directly to local quality of life and have also been created and financed using CSE approaches.

The current research project examines issues driving the increased use of CSE methods of financing and how they are changing with innovative approaches aimed at organizing local residents. The various ways that have been used to start CSEs are described followed by brief discussions of CSEs selected for the uniqueness of their purpose and approach. Since literally hundreds of CSEs of different types exist and a complete list is not available, this group is neither inclusive nor representative of all CSEs in the U.S. Instead, they show the broad range of practices that have been used based, in some cases, on information gathered from the internet, phone interviews, and/or on-site interviews with CSEs to learn about motivations for organizing, involvement by key individuals, and outcomes. Efforts to obtain more detailed information about other CSEs is on-going. The main purpose of this project is to help economic development practitioners, such as university Extension personnel, learn ways to work with community leaders and business entrepreneurs in revitalization efforts and to understand resources available for these initiatives.

### Defining a CSE

Community Supported Enterprises are difficult to define precisely due to their diverse purposes and approaches, but a common characteristic is direct community support and involvement. In some instances, CSEs were organized mainly to meet a social need or purpose with little, if any, attention to selling a product although they have a management structure that ensures they can continue. Often, they are funded by direct contributions or donations from residents in the community with no expectations of financial remuneration. In this project, these entities are labeled as *Social Enterprises*.

Other CSEs operate much closer to a traditional business model. They may even have operated as a business in the past and are now being reorganized as a CSE in order to raise additional capital or financing. These operations are called *Community Supported Businesses* (CSB) in this project and they represent a different approach from Social Enterprises or general community support for a private business. The CSB approach has community investors who may, or may not, be directly involved in managing the business venture. However, the business usually sells a product or provides a service to residents. In some instances, a private business is converted to a CSB in an effort to retain it in the community and in several cases documented in this report the CSB was then sold to private owners.

CSEs can be organized and financed in many ways, depending on local conditions and opportunities including ownership and leverage models. Sample CSEs were selected partly to illustrate these differences. Some of the distinctions and arrangements for financing CSEs are described in more detail during the discussions.

## **Financing CSEs**

Financing CSEs involves many approaches ranging from donations to crowdfunding approaches as are briefly described later. Crowdfunding is a method of raising capital through the collective effort of friends, family, customers, and individual investors. This approach taps into the collective efforts of a large pool of individuals—primarily online via social media and crowdfunding platforms—and leverages their networks for greater reach and exposure.<sup>1</sup> Subscriptions similar to a Community Supported Agriculture approach are common and can provide a more stable market for some business ventures. Investors receive part of the return in either discounts or in services provided. The success of these approaches depends on unique local circumstances in which the business venture starts. The variety of approaches used in CSEs (described as Hybrids in this study) make it difficult to distinguish them from more common business models. Traditional businesses sometimes engage customers in determining future production by having them join as members with the right to vote on future products. These approaches are not considered CSEs in this project.

The increased use of crowdfunding techniques to finance both Social Enterprises and business ventures further blurred the distinctions between CSEs and CSBs and also increased local opportunities for residents to be involved in starting a business. Communities now offer ways in which residents can make donations or invest in local projects using the internet which greatly increases access to capital. Investors in the CSEs studied in this project typically did not expect a

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<sup>1</sup> <https://www.fundable.com/learn/resources/guides/crowdfunding-guide/what-is-crowdfunding>.

financial return; instead, they were motivated by the contributions the business venture could make to the betterment of the community.

States have been active in creating legislation that allows greater use of crowdfunding techniques and investments by residents. The state of Vermont has led these efforts in the past using a liberal approach and thus has a large number of CSEs in operation. A brief comparison of state legislation illustrates the importance of economic climate in which the CSEs are started.

## **What Have We Learned?**

A review of the literature and the sample of CSEs in this project suggests several important findings to consider in using CSE types of approaches in local development.

- First, establishment or documentation of the need for a Community Supported Enterprise is important to build and sustain local interest and support. This is key to maintaining on-going efforts after the initial excitement has subsided.
- Second, a suitable organizational structure whether cooperative, LLC, or sole proprietorship is key to the ultimate success of the venture. Above all, the CSE will face the same market tests as any other small business and, in some instances, even more so because the initial stimulus was that a previous business failed or closed.
- Third, an entrepreneurial local champion or spark plug with previous related experience was especially important in several instances. If this person is not available, then access to specialized expertise in the community can substitute but this driving force is essential.
- Fourth, the economic climate in which a CSE is launched is critical, especially when part of the motivation is to bring back an important social institution such as a restaurant where people congregated. Declines in population or economic status may create a situation where the CSE was seen as a last resort. Those situations place additional pressures on CSEs which are more likely to succeed when they are part of a community-wide economic development strategy.

Community Supported Enterprises, for reasons discussed in this report, will increase in use as crowdfunding platforms and other legal, organizational, and financing mechanisms emerge. Residents are often interested in engaging in local community development initiatives and CSEs represent a direct and relatively low cost way to be involved. The experiences with CSEs have been varied with some doing well and others going out of business. The information provided in this research should help inform community groups and development practitioners about past experiences with CSEs and options available.



## Emergence and Growth of Community Supported Enterprises

Rural<sup>2</sup> areas, especially in the Midwest, have experienced stagnant economies and in many cases have not regained their previous population highs. These trends have pressured community leaders to look for other ways to stimulate and finance business investment in downtowns and other areas. Even though many retail stores and establishments are still profitable in some small cases, the young adults, who might be prospective owners, have left the area for higher education and better employment opportunities. Likewise, the return on equity on businesses in rural areas may not compete effectively in the capital market for new investment. Thus, small stores such as restaurants and grocery stores that for many years have been mainstays in the community are closing due to pending retirements with no successors, shrinking markets, and lack of investment capital.

While some store closings reflect a natural evolution in overall economic change, they can nevertheless have significant negative impacts on the viability of these small communities in the future as the populations continue to age in place. Especially important are establishments that can contribute significantly to the local social capital and add to the quality of life.

In recent years, especially following the Great Recession, there also have been significant efforts to explore new avenues for financing local businesses with locally generated funds. These activities are common in both rural and metro areas, taking many specific formats including various types of crowdfunding. Yet, perhaps what distinguishes these new approaches is the direct participation by residents in both the financing and management aspects of the business venture or enterprise.

Another innovative aspect has been that sometimes investors are repaid through goods and services received as well as financial returns. Many, if not most, of these businesses offer products and services in the community such as food, dining, entertainment, or other essential local services which raises residents' interest in retaining them. Thus, residents see the investment as a double-bottom line including financial and a social purpose—to build social capital and add to the future viability of the community

These types of activities are sometimes called “Community Supported Enterprises” or Community Supported Businesses when private services and financial return are especially high priorities. They differ from strictly Social Enterprises designed to accomplish a community

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<sup>2</sup> In this report, the terms rural and non-metropolitan are used interchangeably recognizing that each has a specific technical designation.

development purpose (Cameron, 2010) and which may be financed through philanthropic support, individual donations, Community Development Financing Institutions (CDFI) or other resources oriented toward direct community benefit. The growth of crowdfunding platforms, offers new opportunities to fund the launch and scale of CSEs as local development tools initiatives to engage residents in the project whether it is a business venture or a public service organization.

Community Supported Enterprises are used more and more by local groups interested in bolstering their local community economies. In some cases, the difficulties in attracting external capital investment in stores and other establishments have forced development groups to look within the community for financing. Some of these community supported and financed initiatives have succeeded while others did not survive for a variety of reasons. It is still too early in the process to determine overall success rates for these types of ventures and, in fact, the success ultimately depends on local economic conditions and sustained community support.

This report briefly describes CSE efforts and tries to discern important elements involved in launching CSEs. It also examines alternative methods of starting these ventures including legal structure, financing arrangements, distribution of profits, and management approaches. The CSEs are classified into types to illustrate differences in motivations and purpose. Then, more detailed case studies of CSEs, some successful and some not, are described to identify issues and concerns that can arise with this economic development approach. Given that many of these enterprises are relatively new, insufficient information is available to predict their future and the CSE sector is still taking shape. While CSEs exist in both metro and rural areas (Peredo & Chrisman, 2006), the motivations and purposes can differ along with some of the structural arrangements. Nevertheless, what is learned in each setting can contribute to the overall effectiveness of this approach.

Discussions in this report focus mainly on experiences in small and mid-size communities with only limited references to CSEs in large cities. The analyses are intended to help community leaders understand the potential impact of various CSE types as well as examples to explore further as they implement this approach in their community. Following is a discussion of recent trends in rural areas to show the environment and motivations for CSEs and CSBs as an economic development response.

## **Population Declines**

Population migration from rural to urban areas as high school graduates leave for higher education and then pursue more lucrative careers in larger areas helps account for the downward economic spiral facing many small towns. Rural areas have long been marketed as sources of high quality and dependable, but less expensive, labor. The response has been a growing disparity between wages in metro and non-metro areas making it more difficult for college graduates to return to rural areas with fewer employment opportunities that meet their expectations.

Consolidation of agriculture and declines in related businesses also reduced job opportunities for residents in rural communities. Residents now travel to regional centers not only for employment but also to shop, obtain health care, and other important services previously available in small towns. The outcome has been a continued shrinking of the economic base and populations in small rural communities, except possibly retirement counties or those adjacent to growing areas. This trend is likely to continue as opportunities to buy online with products delivered directly to homes continue to expand. These purchasing options will be especially attractive to elderly residents which have been a growing part of the customer base. (Cromartie, 2015; Joo, 2011).

In many cases, small towns have become bedroom communities for regional centers. (Egerstorm, 2011). Similarly, the rate of business startups is less in rural than in metro areas increasing the average age of business owners, many of whom are nearing retirement age (Cromartie, 2015; Sternberg, 2009). The fact that young family members moved away many years ago, makes transition of even successful business to the next generation more difficult. Especially troublesome for small towns is when businesses that provide essential services close. The trend is for a smaller number of basic items to be provided in convenience stores with residents making most of their purchases in larger centers. That situation will become more difficult in the future with growth in the less mobile older generation in these areas.

At the same time, increased concerns about access to healthy food options provide opportunities for business development in small communities that offer a high quality of life. The growing localization movement (Shuman, 2013; Cortese, 2011), especially in specialized food production, created major markets for food growers and producers to set up distribution systems. On a local scale, Farmers' Markets exist in many communities, especially those in areas farther away from larger centers, to provide access to high quality fresh food and to help local producers increase their incomes. An estimated 23.5 million Americans live in areas where residents do not have access to healthy, affordable food options (Cargill, 2015). Local movements address this

issue with residents trying to support local enterprises understanding the importance of retaining resources and spending within the community, some of which involve CSEs.

## **Slow Business Startups**

Competition from both stores in larger cities and Internet providers reduced or eliminated markets for traditional local on-site businesses especially in smaller towns. While small business startups, especially in the tech sector are common in some areas, one outcome has been a lower overall rate of startups in rural areas although in some instances the long-term retention rates of small businesses may be higher in rural areas (Sternberg, 2009; Joo, 2011). Firms and individuals also seem to be more risk averse. Workers are less likely to switch jobs or move and businesses maintain higher cash positions (Hathaway & Litan, 2014). Small business owner optimism declined during the recession but has steadily increased since 2010 showing that the outlook for the business environment is slowly regaining popularity though still below earlier times (Wells Fargo, 2015).

Several reasons explain the downward trend in business startups. One is a lack of personal savings and the saving rate has declined alongside startup rates. Another common funding source for entrepreneurs includes family and acquaintances which were adversely affected by similar trends helping to explain why more entrepreneurs ask local communities for help in financing. In a recent Gallup business survey, 77% of small businesses say that personal savings are a primary source for startup funding, with loans as the second most common source (Ryan, 2014).

Tighter credit availability for small business owners also plays a role in this decline. Banks have been less willing to lend to individuals, especially in shrinking markets, due to the risks involved. Business startups need high collateral which may include the value of their homes. The declines in market value of houses, along with the drop in the stock market values during the recession years, reduced the assets of potential entrepreneurs. Since the real estate crash, banks also have resisted making loans to purchase land or more speculative projects (Rodkin, 2015).

At the same time, there is a growing understanding that local groups with the potential as entrepreneurs in rural areas may have been overlooked in the past (Walzer & Blanke, 2013). These groups include young females interested in working from their homes, pre-retirees planning for a future in their communities, farmers managing small acreages, unemployed, and recent migrants to the communities. These groups represent potential local investors when financing is available.

Thus, the changing economic environment, especially in the post-recession years, has disadvantaged small towns and rural areas not only in business starts but also in retaining the

current businesses. This situation created a stimulus for starting and financing businesses in new ways--in this case with more direct local involvement. In many ways, this environment conforms to a broader movement that involves buying local, identifying producers, and focusing on more creative businesses, all of which seem to appeal to the younger generations such as Millennial cohort (Markley, Lyons, & Macke, 2015). Combined with the growth in internet sales, faster delivery systems, and an emphasis on unique products, these trends may offer new opportunities for rural revitalization in areas with innovative financing.

On a broader scale, methods of financing small business have changed in recent years and, with the growth of crowdfunding, local investment approaches are likely to be more important financing options. These efforts are reinforced by stock market advances that helped potential investors rebuild wealth that had been lost. Likewise, older wealthier residents may find local investments that add value to the quality of life in their home communities more important in the years ahead and encourage them to make relatively small financial investments with the expectation of improvements in their community. The CSE movement can provide those opportunities.

### **Local Food Movements and Initiatives**

The growth in interest in both CSEs and crowdfunding has been further prompted by an interest in patronizing local establishments rather than purchasing from large chains or trucking products over longer distances. The localization movement is a worldwide initiative to move away from “a global system of exploitation and pollution towards an economically sound system of human and ecological well-being” (Norberg-Hodge & Jain, 2013). According to this view, the current economic system has created a disconnect between people and nature so an increased need is felt to produce and buy locally in order to keep cash flow within the community (Cortese, 2011; Shuman, 2013).

Consumers are urged to eat, shop, and invest locally and to think less about competition and more about collaboration to ensure local economic well-being. The growth of large cities and regional centers attracted businesses and workers from surrounding small towns, as previously described, and created economic discord in rural areas. Due to these and other factors, main street preservation and revitalization programs were started across the country to stimulate the development and growth of smaller and rural communities through business enhancement and community engagement efforts. Key among these efforts has been buy-local and know your producer programs.

Main streets (downtown areas) are significant business and community centers in much of rural America. The movement to support local, rather than large, retailers gained considerable attention in recent years with new approaches, especially with healthy eating initiatives, to link food growers with community supported ventures such as Farmers' Markets and food hubs as examples. In some respects, a new business culture has arisen designed to support and retain local establishments which conforms to the CSE movement. The local food movement in the U.S. and in other countries offers major advantages for small towns. It also offers opportunities to promote local development using CSEs because it expands opportunities for locally-raised items to access larger markets either locally or in larger cities.

Community Supported Agriculture (CSA) helps local farmers by bridging the gap between local consumers and the availability of locally-grown or produced items. CSA helped replace the anonymity of grocery stores with personal connections between people and their food (Everson, 2014). The CSAs boost the success and support for local food producers by having members (consumers) subscribe and pay to receive produce prior to a harvest. The initial capital finances producers through the growing season and reduces their financial pressures. The closer relationship between grower and consumer allows consumers to depend on higher quality products because of the proximity to their source. The products are fresher, travel relatively short distances, and are available locally. Equally important, the money spent is retained in the local area. According to 2012 data, more than 12,000 farms used CSA marketing methods with at least one in each state (USDA-NASS, 2014).

Vermont has led other states in the local food movement and its small towns have had significant success with promoting a local food economy using both CSAgriculture and Community Supported Enterprises. In one example, the town of Hardwick, VT, (pop. 3,010 in 2010) underwent an economic transformation through the creation of a local food economy that has received national attention (Hewitt, 2010). New and expanded agricultural-related businesses brought nearly 100 jobs to the town and designed food systems based on empowerment, independence, and sustainability. A significant contributor to their success was a determination and organized approach in creating an economically sound environment for businesses involved with the local food movement ranging from organic seeds to food processing-distribution. Previous legislation had set the stage to endorse small business, agriculture, and economic development. The successful local food economy created an environment of local support that, in turn, stimulated towns to provide an atmosphere for other Community Supported Enterprises, some of which are also related to food.

Food related enterprises are an attractive and relatively common approach used in CSEs for several reasons. First, access to food is needed everywhere and the growth in retail chains threatened retail outlets in small towns as well as neighborhoods in large cities. The result has been areas designated as food deserts where residents have limited access to healthy and affordable food which attracted considerable national attention to the issue and encouraged state and local actions.

Second, the growing interest in healthy lifestyles especially among younger generations brought major attention to the fact that the many miles traveled between production and markets reduce the quality of the food available which led to increased emphasis on finding ways to grow foods economically and closer to consumption. An estimated 23.5 million Americans live in these types of areas (Cargill, 2015). This attention increased the economic potential of rural areas where the food is grown by creating opportunities for new businesses in the food industry.

In response, communities, large and small, initiated movements to adopt new methods of food distribution. As an example, the Westwood neighborhood near Denver, CO, formed a local nonprofit, *Re:Vision*, in 2007 that has since created a backyard gardening program--one of the largest of its kind in the country (Cargill, 2015). Recently, they used Kickstarter, a rewards-based crowdfunding platform, along with other financing methods, to launch the Westwood Food Co-op, a community-owned store, to address the food desert in their neighborhood.

Rural areas also have many examples of store closings that reduce the supply of essential goods and services, forcing residents in these more remote areas to drive substantial distances even for basic necessities. States where this phenomenon is more prevalent have created organizations with initiatives to increase the availability of food items, locally-grown or otherwise. Rural areas in Kansas, for example, partnered with Kansas State University on a Rural Grocery Initiative to create a more successful and sustainable method for rural grocery areas to prosper (Kansas State University, n.d.). The Initiative provides rural grocery store management and financing tools to use locally in increasing the levels of services available to residents. The project has a Rural Grocery Toolkit that provides resources, surveys, networks, and best practices for future and existing grocery stores to use in better serving communities and consumers (Kansas State University, n.d.).

Illinois also provides assistance in bringing grocery stores to small towns. The Illinois Facilities Fund (IFF) is the largest Community Development Finance Institution (CDFI) in the Midwest. It serves as a lender and developer to create opportunities to low income areas and has recently started a program to build and own six grocery stores across Illinois with the help of the Illinois Fresh Food Fund (IFF, 2015). This state initiative started in 2012 with \$10 million in funds

from the Department of Commerce and Economic Opportunity with additional funds acquired through banks, foundations, and other CDFI's (IFF, 2015). Save-A-Lot in Rockford was the first store opened in this effort and recent projects include the finance and opening of other stores in Waukegan, Bronzeville, Roseland, East St. Louis, and Harvey (IFF, 2015). The aim of the Illinois Fresh Food Fund is to bring grocery stores to areas without ready and available access to healthy food. The success it has had can be adapted by other towns to guide the development of smaller community-centered businesses.

Population losses, shrinking economic markets, and tighter access to capital combined with a growing interest in local foods and products contributed to a need for different ways to launch business ventures. At the same time, more interest by residents in making direct investments in local ventures, especially those that affect quality of life, using internet based tools such as crowdfunding methods changed the development approaches used in many communities. While specifics differ widely among communities, for the sake of a better term, they are grouped as Community Supported Enterprises. As explained below, these enterprises differ from traditional development tools such as low cost loans or tax abatements that have been used extensively in the past. Rather, CSEs involve a direct action taken by residents or local investors in financing the businesses—sometimes with an expectation of a financial return but in other cases with no stated reward. Various forms of CSEs are described next.

## **Community Supported Enterprises**

While CSAs and food initiatives help advance the production and distribution of food and essential services, Community Supported Enterprises are also motivated by local needs--both material and social. CSEs were motivated by a need for community transformation. Opportunities in the local food industries stimulated local business activities necessitated by a declining economy that needed more local engagement. CSEs can be organized somewhat similar to CSAs to allow patrons to pay in advance for products, while being more engaged in the business and advancement of their towns by retaining money and jobs in the area.

CSEs have since developed in two distinct environments. Rural areas spawn CSEs that more directly address high priority local needs while urban areas developed businesses with products less rooted in necessity and based more on market opportunity, customer engagement, and profitability. In some cases, CSEs serve as “third places” where community members can assemble and connect with other individuals in a space away from home or work (Bruhn, n.d.). This opportunity creates a connection between community members and their businesses-enterprises that allows for the support, success, and long-term survival of CSEs. Urban areas with a broader range of opportunities focus on more unique and entertainment ventures such as craft



breweries, wineries, specialty restaurants, art venues, and other activities requiring larger markets or specialized customer preferences.

Currently, the relationships and nomenclature regarding Community Supported Enterprises are somewhat vague and confusing partly because the field is evolving rapidly. Communities have supported local enterprises for many years through tax concessions, low-cost loans, training programs, and other avenues. What is different now is that community agencies, both public and private, more actively and directly engage in helping entrepreneurs raise investment capital from residents and local groups. The opportunities for this engagement are extensive with new groups involved as opportunities emerge making it difficult to neatly identify and organize specific patterns of CSE development.

Equally important to emphasize is that launching new enterprises of any form and with any type of financing involves risk. In fact, estimates vary but perhaps as many as half or more of business startups no longer operate after five years for a various reasons including inadequate financing, miscalculation of markets, unexpected competition, and loss of interest by owners (Shane, 2008). Since CSEs usually involve small business ventures, it only makes sense that they will have many of the same experiences as other small recently launched ventures. At the same time, however, the commitment by local investors may help sustain these businesses in difficult financial times. Systematic detailed data on success rates of CSEs, however defined, is not yet available so it is too early to determine whether the CSEs will succeed at a higher rate than other traditionally financed ventures.

The research team in this project assembled information on CSEs from a variety of sources including descriptions on the internet, key informants, prior research studies, and other venues. After a detailed analysis of the information collected, the CSEs were categorized into three types of ventures: (a) Social Enterprises, (b) Community Supported Businesses, and (c) other self-identified organizations, which may have more limited community benefit, but self-identify as Community Supported Enterprises. This classification is arbitrary and will definitely change with the many approaches that CSEs take in terms of legal structure, financing, and working with investors. Following are definitions and distinctions between the previously discussed approaches (Table 1).

Community Supported Enterprise: An organization, venture, or business of any form founded to address a local community need. Often uses community financing at launch or growth stages.

Social Enterprise: An organization, venture, or business of any form that seeks to create value through the interplay of business and social impact (Dees & Anderson, 2006; Moizer & Tracey, 2010). May use philanthropic funding or community financing at any stage of launch or growth.

Community Supported Business: A business venture, where profit aims are primary, but some community benefit is incorporated into the strategy and operating practices such as using community financing techniques.

**Table 1. CSE Distinctions**

Type	CSE	Social Enterprise	CSB
<b>Similarities</b>	<ul style="list-style-type: none"> <li>• Financed by community methods</li> <li>• Relationship between business and community</li> <li>• Combines corporate and social goals</li> <li>• Can be any legal form</li> </ul>	<ul style="list-style-type: none"> <li>• Combines corporate and social goals</li> <li>• Can be any legal form</li> </ul>	<ul style="list-style-type: none"> <li>• Financed by community methods</li> <li>• Relationship between business and community</li> <li>• Combines corporate and social goals</li> <li>• Can be any legal form</li> </ul>
<b>Differences</b>	<ul style="list-style-type: none"> <li>• Includes other non-business ventures</li> <li>• Main goal is to improve social goals</li> <li>• Social impact drives strategy</li> <li>• Exact nature of business centers around local community need</li> </ul>	<ul style="list-style-type: none"> <li>• Double or triple bottom line drives strategy and operations</li> <li>• Seeks relationships with political, economic, and often government forces</li> </ul>	<ul style="list-style-type: none"> <li>• Main goal is earning profits for owners/investors</li> <li>• Revenue goals drive strategy</li> <li>• Management structure</li> </ul>

First, *Social Enterprises* may be financed through philanthropic, private, or to a lesser extent government sources, but focus mainly on addressing social and at times environmental sustainability goals through a business venture. While the core strategic focus is typically social (and at times environmental sustainability) impact, *Social Enterprises* are characterized by a dual focus on social and revenue goals. In other words, they must raise sufficient revenue from whatever sources to remain viable but still meet social (and often environmental sustainability) impact goals.

Second, Community Supported *Businesses* (CSBs) have profit as a main objective but include a social purpose component as a core strategic focus. CSBs may involve equity investment or leverage approaches. These activities may be financed by donations or contributions with, or without, expectations of a financial remuneration but to remain viable they must operate using sound business practices and pass a market test. In some instances, investors expect a financial return but they also invested in a community betterment issue so financial return was not an important issue given the relatively small initial financial investment or contribution.

Third, some ventures have one or several characteristics of a CSE and they are treated separately in later discussions. While these businesses may self-identify as CSEs (e.g., a custom brewery or pub with a monthly subscription program), they are not considered a CSE in this study since they lack either a crucial community funding component or actively pursue a direct community benefit or social impact. It has become fairly common to finance businesses using a crowdfunding approach even without a distinct social mission or purpose. While these may involve investments by local residents, they are not considered CSBs in this study.

Even within these three categories, many other variations and differences in structure further complicate a neat classification system as will be seen later in the examples and case studies. Nevertheless, the main classifications are discussed next and other differences will be incorporated into later discussions.

## **Social Enterprises**

Usually, CSEs are distinctly rooted in a geographic community, while Social Enterprises can be located in any “community” or location. Whereas a CSE is created by the community for development purposes, a Social Enterprise is not necessarily rooted in or governed by a place-based community. Nor do Social Enterprises need to focus on specific local issues like CSEs. Instead, Social Enterprises seek broader community benefit such as employment and training, job creation, or new strategies to generate revenue for a “parent” nonprofit organization. Social Enterprises are distinguished by the founding entity and/or “owner” usually launched by a “parent” nonprofit or an individual social entrepreneur with an idea to achieve a social goal through a business venture, which also establishes the strategy for distribution of profits. Typically, the founding entity also determines the legal and organization form. Social Enterprises like CSEs, are all legal forms including nonprofit, for-profit, and hybrid.

Nonprofits that launch Social Enterprises will either integrate the business within the “parent” organization or incorporate the Social Enterprise as a separate entity. This process is unique to each organization. For example, the nonprofit Delta Institute started the Rebuilding

Exchange in 2009 as a Social Enterprise with a mission to reclaim building materials from the waste stream and resell them through a reuse center. In 2015, the Rebuilding Exchange was transitioned from the Delta Institute to an independent nonprofit Social Enterprise, with an independent governing board of directors, in order to build its growth strategy.

The role of a social entrepreneur, an individual with an idea for a business that can achieve social impact, is central to the field of Social Enterprise. The central actor like the social entrepreneur may not be as prevalent in CSEs even though a local champion(s) is often very important. The organizational and legal forms of Social Enterprises founded by social entrepreneurs vary widely. A social entrepreneur can act within an existing organization to construct or create a wholly independent business venture. For example, Hot Bread Kitchen in East Harlem, New York was started by a social entrepreneur in 2007 and incorporated as a nonprofit.

Many incubators and accelerators have been created in the past ten years to support social entrepreneurs, especially those whose ideas are embedded in a technology platform. For example, Impact Engine was launched in 2011 to provide social entrepreneurs with incubator-style programming and funding to take ideas for social impact businesses to scale. The businesses launched by these entrepreneurs (social or otherwise), once again, can take almost any organization and legal form. However, a majority of Social Enterprise businesses launched through Impact Engine and other incubators and accelerators are for-profit. The growth of the for-profit Social Enterprise business sector has been followed by the development of an entire impact investing network and ecosystem where socially-minded institutions and individuals invest in these new enterprises with an expected return, typically, but not exclusively, below market rate.

The engagement of community members through ownership shares, volunteer staffing or collective decision-making, while typical features of CSEs, are not traditional features of Social Enterprise ventures. The governance and participation role of local residents in Social Enterprise is also limited. There may be minimal interaction between local groups and Social Enterprises, even when located in residential communities. When engagement does occur, it is often around retail purchasing opportunities. Examples include Growing Home's urban organic farm, where residents can purchase organic locally-grown produce at scheduled markets and the Rebuilding Exchange where the general public and community members can purchase reclaimed building materials.

Nonprofit Social Enterprise ventures are subsidiaries or spinoffs of a parent nonprofit organization or free-standing nonprofit organizations. The ventures are found in numerous industries and sectors from manufacturing, construction, retail, and service (Cooney, 2011). The nonprofit form of Social Enterprise is increasingly becoming a notable economic development strategy for two key reasons.

First, nonprofits are activating the Social Enterprise model as a “resource generating” (Cooney, 2011, p. 186) strategy in the disinvestment by traditional government funding sources. Second, Social Enterprises have become an important platform for workforce-based training (Cooney, 2011), frequently at a neighborhood and community level and in a wide range of industries. For example, the Chicago-based nonprofit Inspiration Corporation expanded its original Social Enterprise restaurant from the Uptown neighborhood to the Garfield Park neighborhood with the opening of Inspiration Kitchens-Garfield Park (IK-GP). Both restaurants (IK-GP and IK-Uptown) have increased the organization’s workforce development training capacity and the number of trainees in culinary arts.

The Community Action Partnership of Lake County currently operates four Social Enterprise ventures (Illinois Community Action Development Corporation, 2013), which provide the organization with earned revenue for its social services programming. The ventures include special events & catering, a T-shirt printing business, a resale store, and a rental housing business. Social Enterprises represent a portion of the CSE sector and they are certainly increasing in number as economic development practitioners seek ways to support their growth and long-term viability.

### **Community Supported Business**

In this study, Community Supported Businesses refer to a subset of CSEs that include businesses with more of a profit incentive. They continue to have common elements of CSEs, such as the integration of social and/or environmental initiatives and a goal to advance local economies, but financial objectives take a more forward role than in other CSEs. The main distinction, then, is that CSBs earning profits for owners and/or investors is a higher priority. Much of the available literature currently does not distinguish between CSEs and CSBs although here they are separated by differentiating between businesses created mainly for a community purpose and those designed with financial goals even though they also have additional social incentives. CSBs refer to the latter of these types.

Some businesses not initially created as CSBs still have close relations to their communities, but have adopted CSE approaches in expanding their operations. They began as traditional businesses and then later integrated community financing. Businesses integrated these methods to better serve their respective communities. Examples include additions to popular

restaurants to accommodate more customers and funding campaigns to ensure that a community gathering place continues to operate (Roman, 2009; Dandelion Communita Café, 2014). Further discussion of these and other CSBs is provided in later sections.

Community Supported Businesses operate as regular businesses that deliver a desired good with additional social, and sometimes intangible, benefits (Keyser, 2015). They also often use Community Supported Agriculture approaches. Such ventures include CSBread, CSArt, CSFish, and similar programs that use the CSA approach of paying in advance for a good or service (White, 2013). The classification of these CSBs becomes blurred as more businesses adopt similar methods to raise funds. CSBs have core social and community goals and are tied to their communities through an added financial connection. Other businesses, while using similar approaches, may self-identify as a CSB but have too limited a community or local connection to truly be defined as a CSB for present purposes. The next section further discusses these approaches.

### **CSE Adaptations of Hybrids**

Many businesses have adapted the CSA subscription model as a business strategy to sell a product and/or induce community involvement and support. Any businesses using these subscription methods must also have a high social role within their community in order to be truly classified as CSEs or CSBs (Keyser, 2015). The nature of CSA is to allow producers to obtain financial support from their customers to sustain the operation during the growing season. Other businesses have integrated similar pre-selling models as a unique marketing and sales strategy rather than its initial financial purpose.

In addition to CSA style models, other businesses are adapting CSA-type subscription methods to generate a more stable or higher product demand and thereby increase profits. Only when a business goes beyond corporate initiatives and integrates a social impact through a financial and/or organizational community connection do they meet the CSB definition used here. The varying level of community outreach and involvement (social or financial) is what makes these businesses difficult to classify.

Mobcraft Beer is the world's first completely crowdsourced brewery and is partially owned by 52 private Wisconsin investors (Mobcraft Beer, Inc., 2016). The business offers a unique selling approach where customers submit ideas for types of beer and then vote on which beer they want to buy. Voting is done through pre-buying the prepared batch and the one with the most pre-sales will eventually be made. This CSBrewery has adapted the CSA model of advanced purchasing to create community demand for their products and build a predictable, but modest market for their beer. While the ownership of this business is open to community members, there is little mention

of specific social impact initiatives that caused this business to start so it does not fit the current CSB classification. Begyle Brewing in Chicago offers CSA-style memberships to customers twice a year in June and December. Membership duration is offered in six or twelve month subscriptions with beer quantity and pricing varying accordingly. Members have access to other benefits such as product discounts and special members-only events.

The main difference between these businesses and other CSBs are the involvement (or lack thereof) of the community, as a whole, in the financial and organizational aspects of the businesses as well as the social impact that drives their creation and operation. The CSEs/CSBs examined in this report are classified in this way because of their motivation for community betterment and the roles played by the community in launching the effort. While some of these distinctions may seem somewhat arbitrary, their purpose is to more clearly differentiate the various approaches and help readers better understand the use of CSEs as a development strategy in their communities. This is not to suggest that private businesses using CSA-types of strategies make any less contribution to the city. Rather, local development groups are more likely to be motivated by a social purpose even if it involves opening, or reopening, a business as will be shown later with grocery stores in several small towns.

## **Background and Historic Precedents**

Community Supported Enterprises developed from prior models of cooperation among consumers, workers, or businesses. The growth of CSEs is often attributed to the increased popularity and adoption of CSAgriculture practices. This is true of specific CSEs, such as with subscription models where goods are pre-sold but other forms of cooperatives have also influenced their growth and development.

Historically, cooperatives provided a way for individuals to facilitate a common social goal. Early cooperatives in the U.S. involved the agricultural sector with the main benefits to farm producers. These cooperatives allowed better marketing of goods and helped to keep input costs low through cost-sharing methods (National Co+op Grocers, 2016). Cooperatives also provided storage or processing centers permitting producers to combine crops and sell in larger quantities. Later, consumers formed cooperatives to fight unfair practices of private and company stores and serve as consumer protection associations.

The cooperative movement has had waves of growth and decline with corresponding changes in the movement. Some early cooperatives in the US failed due to poor management, insufficient capital, or a lack of understanding of cooperative principles (National Co+op Grocers,

2016). The early 1900's saw a growth in buying clubs and cooperatively-owned wholesalers but many closed (Merrett and Walzer, 2001). The 1960's and 70's brought a new wave of consumer cooperatives with more diverse and experimental practices involving governance, reward structure, and innovative practices. The operating practices of cooperatives began to expand and include varying forms of governance, reward, and motivation.

More recent revivals of cooperatives have taken a different focus with newer structures including New Generation Cooperatives (NGC) commonly used in value-added agriculture (Merrett and Walzer, 2004). This model uses vertical integration in the production process with delivery rights to generate higher returns to producers through the sale of processed products. NGCs link investment contributions by member producers to the delivery rights of products, while the principle of one member, one vote still exists (Harris et al, 1996).

Many of the current cooperatives are reminiscent of the initial intended purposes to allow individuals to organize and create an enterprise that works in their best interests while adapting to changing conditions. The current structure allows individuals to join as members with the business operated for their benefit. The cooperative movement is large, with an estimated 1 million members worldwide and \$2.2 trillion in turnover in 2012 from the world's top 300 cooperatives (International Co-operative Alliance, 2015).

Advances and expansions of these models allowed for more community integration into businesses, which directly relates to the nature of CSEs in both the U.S. and internationally (Soviana, 2015). CSEs can use cooperative structures as a way to gain more community involvement and benefits. However, there are wide variations in management approaches and outcomes as are described next.



## Models of Community Supported Enterprises

Community Supported Enterprises are, by definition, supported by members in their communities. These “communities”, however, are not strictly defined as residents within the city in which the enterprise is located, and can extend well into other areas. Examples in this study show that neighboring towns/counties as well as other individuals are included in the “community” that creates and finances CSEs. Expanded use of crowdfunding approaches has the potential to widen the funding access as well as broaden the regions involved. Thus, in this report, the definition of community includes like-minded businesses, organizations, and individuals with a shared interest in the enterprise and/or involvement in its creation and financing.

CSEs created by, and for, the benefit of a community often use a place-based strategy for a defined region or city. Paul Bruhn of the Preservation Trust of Vermont describes Community Supported Enterprises as a “combination of charitable capital, charitable contributions, community support, and entrepreneurship”, though a CSE need only have some of these characteristics (Bruhn, n.d.). They have bottom lines that work to advance the local economy, wages, education, working conditions, and other aspects (Orsi, 2013). These values coincide with Triple Bottom Line accounting that defines a framework of social, environmental, and financial responsibility (Triple Bottom Line, 2009). These enterprises incorporate social as well as corporate aspects into their business structures.

The examples presented in this study are described as CSEs because they have characteristics that meet these criteria. The enterprises can include social projects such as parks, libraries, and hospitals that are not overtly created to earn profits but are intended to benefit a community and residents in other ways. At the same time, these ventures typically must meet a budget to continue operations but may not necessarily sell services or products. Rather, they may rely partly on taxes and donations while focusing on the health and expansion of a community. Consequently, these organizations differ in legal structure, financing arrangements, and management practices.

### Organizational Structures

CSEs can be many organization forms. The community itself can sell shares of stock for communal ownership or can financially support a new business through philanthropic or other avenues. The form in which a CSE develops depends on the needs and wishes of the owners but some approaches may be preferred because of easier legal filings, liability, governance, and management structures. CSEs can be privately or publically owned.

*Privately-owned businesses* that are considered CSBs are created in much the same ways as other businesses with traditional organization and structures. They have the typical attributes of a CSE, though are owned by a private agency or individuals that restrict the operation and decision-making to these limited owners. The business continues to focus on the needs of the community, but the profits and management of the business are left to the owners themselves. Table 2 shows common business types used in CSEs, private, or otherwise.

**Table 2. Common Legal Business Structures**

<b>Business Type</b>	<b>Description</b>
LLC	Limited liability of corporation with flexibility of partnership. Owned by “members” who can be individuals, corporations, or other LLCs (depending on state regulations).
Cooperative	Owned by and operated for the benefit of those using its services with benefits distributed among members. Board of Directors typically manage members who obtain voting rights by purchasing shares.
New Generation Cooperative	Growers commit to supplying a specific amount of produce to a processing venture and participate in the profits according to their involvement. In this form, growers bring products to an incubator for processing and then market them commercially. Members share in the costs of maintaining the incubator.
Partnership	Two or more people share ownership where each individual contributes in all aspects and shares in profits and losses of the business.
Sole Proprietorship	Unincorporated business owned and run by one individual. Owner entitled to all profits and is responsible for debts, losses, and liabilities.
Nonprofit	Serves a public purpose and has special treatment under the law. Can make a profit but cannot be primarily for profit which is governed as to distributions.
Corporation	A traditional for-profit corporation owned by shareholders who are not held legally liable for the actions or debts of the business. Shares may be purchased by all and the number of shares owned by any one person varies.
Hybrid	An organization that combines traditional for-profit and nonprofit business practices and whose purpose may include a social or environmental issue.

Source: U.S. Small Business Administration (n.d.); Haigh et al., (2015); Hackman (2001).

*Community-owned businesses* are usually created to fill a void within a market and typically when capital for new businesses is scarce (Bloom, 2010). They operate in much the same fashion as other businesses though they are more closely associated with the town or area served because residents have more of a direct say in the operations, either through voting rights or election of board members. Likewise, they are created to serve a specific purpose within the town or area in which they are created. Community-owned businesses fit into four categories summarized in Table 3.

**Table 3. Community Ownership Distinctions**

<i>Cooperative</i>	Communally owned and managed business for the benefit of members
<i>Community-Owned Corporation</i>	Traditional for-profit corporation that integrates Social Enterprise principles
<i>Small Ownership Group</i>	Small ad hoc investor group that capitalizes and/or operates a business
<i>Investment Fund</i>	Community-based fund that invests debt or equity into a local business venture

Source: Bloom (2010).

*Community ownership* exists in cooperatives such as The Merc Co-op in Lawrence, KS and the Shrewsbury Cooperative in Shrewsbury, VT. As with other cooperatives, members have voting rights, hold stock in the company, and share in the profits. Community-owned businesses can also be created through a sale of shares in a community corporation. Residents invest a specific amount and become shareholders in the company. They have voting rights and are represented by a board of directors that manages the daily business activities. Depending on specific the legal structure, profits may also be paid to resident-investors.

*Small ownership group* styles of CSEs involve a small number of resident-investors launching a business or enterprise in the community to meet a local social need. While many people may not consider small ownership groups as community-owned businesses since they are not open to the entire community, but they can be, if they are created with a community-wide cause in mind (Bloom, 2010). Members of a small ownership group may be active in operating the business or serve as silent partners, although they typically expect some form of financial return for their involvement. Somewhat different from this approach is a community investment fund that pools community resources to provide venture capital or loans to invest in community-based

businesses. This approach allows a community to invest and be active in a business without requiring direct involvement in operations.

The ownership structure of a CSE can also change over time and *transitional ownership* involves a transfer from one form such as private ownership to another form, e.g., nonprofit or community-owned. This approach can be used by a community to save and sustain a crucial existing business and then slowly transition it back to private ownership if and when it is financially stable. Though not classified here as a legal ownership form, examples such as Washburn Community Foods show where this approach has been used successfully by CSEs.

Further descriptions of structures commonly used by CSEs are provided in Appendix One with more information regarding their formation and how they operate. The main point is to recognize the many possible ways in which Community Supported Enterprises can be organized and managed. In some instances, the distinctions are slight but with important implications for ways in which the enterprise is managed and its potential success.

## **Hybrid Organizations**

Hybrid organizations have different names in the professional literature but with a common goal of combining social impact initiatives with financial sustainability (Haigh et al., 2015). These organizations are distinguished from other businesses with similar social or environmental goals in that hybrids combine elements of both for-profit and nonprofit entities to create a business model catering to traditionally underserved markets. Newer legal structures supporting these practices have emerged and are being implemented in many states including Benefit Corporations, Social Purpose Corporations, L3Cs, and others. These enterprises have an intrinsic social aspect in how they operate and provide legal inclusion of social causes and benefits associated with integrating these policies into business activities. They can be combinations of regular structures, such as Corporations or LLCs with the typical social practices found in nonprofits. More complete descriptions and comparisons of hybrid selections are included in Appendix Two.

Hybrids can also develop under different conditions that create multiple for-profit and nonprofit entities. Subsidiaries can be created by a nonprofit (for-profit) to engage in other for-profit (nonprofit) activities. Since nonprofit organizations are restricted from engaging in certain financing activities, due to tax exempt status, they may choose to organize as a for-profit entity and take ownership rights in the for-profit business (Morrison & Foerster LLP, 2013). By doing so, they can pursue further financing options formerly not available to the nonprofit entity.

Likewise, a for-profit business may act in a similar way to create a private nonprofit foundation. This private foundation is controlled by the parent company and while it is eligible to receive tax-exempt status, it is subject to different regulations than typical charitable organizations (Morrison & Foerster LLP, 2013).

## **Management & Ownership Combinations**

The same individuals or group that create and own a business may also manage and operate it. Many CSEs listed in this study operate in traditional ways, although some have created newer managing practices through the combination of different entities. CSEs are often created through a community organization, such as a nonprofit, that initiates the efforts to create and finance a desired business (Appendix Four). The options available to the CSE are for the organization to manage the business or hire outside management. More often, a community organization owns the property, and sometimes the equipment, but rents the facilities to a private operator. These practices minimize the time spent operating the business and perhaps losses for a community. If a business fails, the community still owns the land and equipment and may later create another business if they so choose. While this may not be as common as other methods described, it still provides an interesting option for future CSEs.

## **Financing Strategies**

The availability of financing to sustain economic growth and development for any business venture, CSE or not, in rural areas is always an important issue. Growth and long-term success of these businesses depend on securing capital at proper stages within the business cycle (ICIC, 2015). CSEs need capital at any or all stages of growth from startup to scale and expansion. They can seek and secure capital from traditional sources, through creative financing or a combination of the two.

Traditional financing includes bank loans, SBA programs, venture capital, Angel investors, and other approaches (see Appendix Four for a more complete list of traditional financing strategies). Table 4 highlights eight key creative financing strategies, somewhat unique to CSEs. A more extended discussion of one of the seven strategies, crowdfunding is also provided.

**Table 4. Seven Key Creative Financing Strategies**

<b>1</b>	<b>Donations</b> <i>Donate money with nothing expected in return</i>
<b>2</b>	<b>Subscriptions</b> <i>Money paid up front with promised goods received at a later time. Viewed as an ongoing service</i>
<b>3</b>	<b>Gift Certificates/Pre-Sales</b> <i>Store credit is bought initially with a higher amount than purchase value redeemable in goods after the business opens</i>
<b>4</b>	<b>Sale of Shares/Equity</b> <i>Members invest and have an ownership stake in the business</i>
<b>5</b>	<b>Memberships</b> <i>Services, goods, or privileges given in exchange for investment, sometimes ownership is awarded as well</i>
<b>6</b>	<b>Community Loans</b> <i>Residents or Community Development Finance Institutions (CDFIs) loan money (often below market rate) to business and are then repaid at a later time</i>
<b>7</b>	<b>Crowdfunding</b> <i>Goods, services, or social impact promised as an incentive to investment</i>

**Crowdfunding**

A relatively recent, but popular, method that has gained momentum in recent years is crowdfunding. Ordanini et al., (2011) defines crowdfunding as “a collective effort by people who network and pool their money together, usually via the Internet, in order to invest in and support efforts initiated by other people or organizations” (as cited in Stiver et al., 2014). This type of financing allows individuals to be involved with business startups and provides businesses with more access to finance. Startup ventures can use the internet to publicize their operations and need for investment and can reach large groups of potential investors and donors at relatively low cost through online platforms.

Crowdfunding approaches differ in terms of lending, donations, rewards, and equity activities. *Donations-based crowdfunding* involves the public gifting money to a specific business or project without expecting a tangible return (Kuti & Madarász, 2014). This usually involves charitable giving, since many projects financed with donations involve charitable or social causes. This approach is common with socially motivated enterprises and involves the least debt since project owners raise funds without expectation of financial return to funders. Thus, organizations or individuals can use crowdfunding platforms to solicit funds for community-based projects.

*Peer to Peer lending* represents the largest share of the crowdfunding industry, though rewards and equity-based methods are the most widely-known (StartupOwl, 2015). Online lending allows a group starting a venture to obtain relatively small loan amounts from a wide pool of individuals who are then repaid based on a pre-determined interest rate. Individuals can make small loans to several ventures which diffuses their risk but also allows more people to invest in a small business activity, often in their community.

Crowdfunding platforms also allow peer lending that is repaid with zero interest. This interest free practice is more commonly referred to as social lending (Risterucci, 2016). Unlike donations-based funding, social lending programs require repayment of all funds contributed to the project, though the reasons for contributing to each are similar. Community Sourced Capital in Washington State is an active example of zero interest lending. Both donations and social lending require elements of patronage where funders are more concerned about creating a social good rather than additional returns (Mollick, 2014).

*Rewards-Based Crowdfunding* is a commonly recognized approach. Investors contribute a specific dollar amount to a campaign and receive a pre-determined reward based on the amount invested. The rewards can involve a small representative gift or some type of service provided (Kuti & Madarász, 2014). These nonmonetary returns entice potential investors and the businesses benefit since they are not expected to repay the amount invested. Rather, they provide a pre-determined item or prize for participating in the funding campaign. This method can also be used by a business to pre-sell goods thus creating further demand for the product from an early consumer base (Mollick, 2014).

Another approach to a rewards-based, *equity-based crowdfunding* activity involves selling shares of a company to individuals and, in effect, making them owners or stockholders in the company (ICIC, 2015). Equity crowdfunding allows entrepreneurs to raise larger amounts of money than with other platforms and provides greater investment incentives because investors can own a part of the venture. State and federal statutes govern the size of the investment, as well as the legal requirements on investors. The Federal JOBS Act of 2012 encouraged these types of

activities and states then created statutes to govern practices within their jurisdictions as described in more detail later.

### *Regulations*

Federal and state regulations limit the number and type of individuals and bodies that can invest in security offerings. This situation hindered the development of equity-based crowdfunding. More recently, however, a recent wave of both federal and state rulings opened the way for equity crowdfunding to grow. These changes are described briefly to help prepare readers who might be interested in using CSEs arrangements in their communities. However, the regulations differ by state and change regularly so it is important to keep abreast of recent developments.

The JOBS Act of 2012 created federal exemptions under securities laws to facilitate the offer and sale of securities without registering with the SEC (U.S. Securities and Exchange Commission, 2015). The Securities and Exchange Commission published rulings to implement Regulation Crowdfunding that open the sale of securities to non-accredited individuals. Effective May 16, 2016, the SEC adopted final rules permitting companies to offer and sell securities through crowdfunding and allow individuals to invest in these securities subject to investment restrictions (U.S. SEC, 2015). Federal restrictions in place for issuers of securities, investors, and intermediaries are listed below based on the SEC Final Rules regarding Regulation Crowdfunding (Crowdfunding, 2015).

Issuers using Regulation Crowdfunding are allowed to raise a maximum aggregate amount of \$1 million within a 12-month period and are required to disclose the following:

- Information on company officers, directors, and owners of 20% or more of the issuer;
- Information on the business and expected use of procured funds;
- Price and method of determining price of security, target offering amount, deadline, and whether acceptance of higher amounts is permitted;
- Related Party Transactions;
- Issuer's final condition;
- Financial statements (depending on the amount offered and sold); and
- Information on tax returns reviewed by an independent public accountant or audited by an independent auditor.



Investors are permitted to participate under the following restrictions:

- If annual income or net worth is less than \$100,000
  - Allowed to invest up to the greater of \$2,000 or 5% of the lesser of annual income or net worth
- If annual income or net worth is greater than \$100,000
  - Allowed to invest up to 10% of annual income or net worth
  - Amount sold to one investor may not exceed \$100,000

All transactions must take place through some type of intermediary, such as a registered broker/dealer or a registered funding portal (U.S. SEC, 2015). Intermediaries are required to do the following:

- Provide investors with information materials;
- Take measures to reduce risk of fraud;
- Provide information about the issuer and the offering;
- Provide communication channels to discuss the offering; and
- Facilitate the offer and sale of crowdfunded securities.

In addition, funding portals are prohibited from:

- Offering investment advice or recommendations;
- Soliciting purchases, sales, or offers to buy securities offered or displayed on platforms;
- Compensate promoters and other solicitations; and
- Hold, possess, or handle, investor funds and securities.

In anticipation of federal crowdfunding regulations to take effect, states enacted intrastate crowdfunding exemptions to promote local resident investment. Table 5 provides an overview of the 29 states (and the District of Columbia) with such legislation and the restrictions in place for offerings within each state. State legislation is modeled after federal exemptions for intrastate offerings including Section 3(a) (11) and Rule 504 of Regulation D of the Securities Act (Crowdcheck et al., 2016).

**Table 5. State Enacted Intrastate Crowdfunding Exemptions**

State	Effective Date	Annual Limit	Non-accredited Purchase Restrictions	Portal Use
Alabama	08-Apr-14	\$1 million	\$5,000 per investor	Silent
Arizona	03-Jul-15	\$2.5 million w/ audited financial statements; Otherwise \$1 million	\$10,000 per investor	Required
Colorado	05-Aug-15	\$1 million	\$5,000 per investor	Silent
District of Columbia	24-Oct-14	\$2 million w/ audited financial statements; \$1 million w/ reviewed financial statements; Otherwise \$500,000	Dependent on annual income and net worth	Allowed
Florida	01-Oct-15	\$1 million	Dependent on annual income and net worth	Allowed
Georgia	08-Dec-11	\$1 million	\$10,000 per investor	Silent
Idaho	20-Jan-12	\$2 million	Lesser of \$2,500 or 10% of net worth	Silent
Illinois	01-Jan-16	\$4 million w/ audited financial statements; Otherwise \$1 million	\$5,000 per investor/per offering	Required
Indiana	01-Jul-14	\$2 million w/ audited financial statements; Otherwise \$1 million	\$5,000 per investor	Required
Iowa	30-Dec-15	\$1 million	\$5,000 per investor/per offering	Required
Kansas	12-Aug-11	\$1 million	\$5,000 per investor	Silent
Kentucky	24-Jun-15	\$2 million w/ audited financial statements; Otherwise \$1 million	\$10,000 per investor/per offering	Required
Maine	01-Jan-15	\$1 million	\$5,000 per investor	Silent
Maryland	01-Oct-14	\$100,000 (Debt based only exemption)	\$100 per investor	Silent
Massachusetts	15-Jan-15	\$2 million w/ audited financial statements; Otherwise \$1 million	Dependent on annual income and net worth	Allowed
Michigan	26-Dec-13	\$2 million w/ audited financial statements; Otherwise \$1 million	\$10,000 per investor	Allowed
Minnesota	Pending	\$2 million w/ audited financial statements; Otherwise \$1 million	\$10,000 per investor/per offering	Required
Mississippi	26-May-15	\$1 million	Dependent on annual income and net worth	Required
Montana	01-Jul-15	\$1 million	\$10,000 per investor	Silent
Nebraska	01-Sep-15	\$2 million w/ audited financial statements; Otherwise \$1 million	\$5,000 per investor	Required
New Jersey	Pending	\$1 million	\$5,000 per investor/per offering	Required
New Mexico	Pending	\$2.5 million per offering	\$10,000 per investor/per offering	Required
Oregon	15-Jan-15	\$250,000	\$2,500 per investor	Allowed
South Carolina	26-Jun-15	Unlimited	Unlimited	Silent
Tennessee	16-Dec-15	\$1 million	\$10,000 per investor	Silent
Texas	17-Nov-14	\$1 million	\$5,000 per investor	Required
Vermont	16-Jun-14	\$2 million w/ audited financial statements; Otherwise \$1 million	\$10,000 per investor	Silent
Virginia	01-Jul-15	\$2 million	\$10,000 per investor	Allowed
Washington	12-Jun-14	\$1 million	Dependent on annual income and net worth	Allowed
Wisconsin	01-Jun-14	\$2 million w/ audited financial statements; Otherwise \$1 million	\$10,000 per investor	Required

Source: Crowdcheck et al. (2016); Freedman & Nutting (2016); Coverman (2015).

State regulations have increased investor activity and some CSEs have taken advantage of these legal efforts to facilitate business growth (Hurst, 2015). The legislative efforts offer other opportunities for small businesses that wish to sell securities using crowdfunding and other traditional methods. Passage of these exemptions facilitated both equity crowdfunding and traditional stock offerings for small businesses similar to related federal regulations. Since federal crowdfunding regulations have only recently taken effect, the market for equity crowdfunding is expected to grow and adjust to better accommodate the current and future use of these methods. The near term will affect what effects and changes, if any, will occur to current intrastate crowdfunding use.

### *Platforms*

The popularity of crowdfunding increased in 2008 with the creation of rewards-based platforms (Stiver et al., 2014) attracting resources that may not be readily available with other financing formats. Crowdfunding platforms permit the following: direct interaction between investors and entrepreneurs, creation of social community for investors and entrepreneurs, and a supporting body that facilitates affiliation between funders and creators (Kuti & Madarász, 2014). The portals *per se* vary with specific methods of fundraising but 1,250 crowdfunding platforms exist worldwide (StartupOwl, 2015). A wave of new online platforms is underway across the U.S. with additional platforms created regularly. A comparison of various types of crowdfunding platforms is provided (Table 6) but these are only a few examples and not exhaustive.

**Table 6. Crowdfunding Platforms**

<i>Platform</i>	<i>Type</i>	<i>Fee/Charge</i>	<i>Advantages</i>	<i>Disadvantages</i>
<a href="#"><u>CrowdRise</u></a>	Donations-based crowdfunding for charitable and personal causes	<ul style="list-style-type: none"> <li>• Initial 5%</li> <li>• 2.9% transaction fees</li> </ul>	<ul style="list-style-type: none"> <li>• Two campaign types, individual and nonprofit</li> <li>• Donors do not need an account to contribute</li> <li>• Keep all funds raised</li> </ul>	<ul style="list-style-type: none"> <li>• Limited design options for free trial versions</li> </ul>
<a href="#"><u>Community Sourced Capital</u></a>	Lending-based crowdfunding for small business	<ul style="list-style-type: none"> <li>• \$250 launch fee</li> <li>• \$50 charge per month until complete loan repayment</li> </ul>	<ul style="list-style-type: none"> <li>• Technical support</li> <li>• Marketing assistance</li> <li>• Administrative help</li> </ul>	<ul style="list-style-type: none"> <li>• All or nothing fundraising</li> <li>• Fixed amount of \$50 per pledge</li> </ul>
<a href="#"><u>Fundable</u></a>	Rewards and Equity crowdfunding for small business	<ul style="list-style-type: none"> <li>• \$179/month</li> <li>• Transaction fees may apply</li> </ul>	<ul style="list-style-type: none"> <li>• Profile creation wizard for campaign page</li> <li>• No fees on funds raised</li> </ul>	<ul style="list-style-type: none"> <li>• All or nothing fundraising</li> <li>• Can offer rewards or equity, not both</li> </ul>

<i>Platform</i>	<i>Type</i>	<i>Fee/Charge</i>	<i>Advantages</i>	<i>Disadvantages</i>
<a href="#"><u>Localstake</u></a>	Lending and Equity crowdfunding for small business	<ul style="list-style-type: none"> <li>• Multiple plans offered</li> </ul>	<ul style="list-style-type: none"> <li>• Availability of advisors to help run campaign</li> </ul>	<ul style="list-style-type: none"> <li>• Application of approval required for campaign</li> <li>• All or nothing fundraising</li> </ul>
<a href="#"><u>Crowdfunder</u></a>	Equity and Lending crowdfunding for startups	<ul style="list-style-type: none"> <li>• Two plans offered: \$299/month or \$999/month</li> </ul>	<ul style="list-style-type: none"> <li>• Confidential document protection</li> <li>• Access to network of investors</li> <li>• Investor analytics and live support</li> <li>• Keep all funds raised</li> </ul>	<ul style="list-style-type: none"> <li>• Need following documentation to use: Term Sheet, Executive Summary, and Investor Pitch Deck</li> </ul>
<a href="#"><u>StartupValley</u></a>	Equity crowdfunding for startups	<ul style="list-style-type: none"> <li>• 5% taken from successful campaigns</li> </ul>	<ul style="list-style-type: none"> <li>• Monitored blog and tips for successful campaigns</li> </ul>	<ul style="list-style-type: none"> <li>• All or nothing fundraising</li> </ul>
<a href="#"><u>Indiegogo</u></a>	Rewards crowdfunding for miscellaneous projects	<ul style="list-style-type: none"> <li>• Depends on funding model chosen</li> </ul>	<ul style="list-style-type: none"> <li>• Offers two funding models: Flexible and Fixed</li> <li>• Playbook provided with tips for success</li> </ul>	<ul style="list-style-type: none"> <li>• Promotions based on activity and rank</li> <li>• Increasing rank requires continued updates</li> </ul>
<a href="#"><u>Kickstarter</u></a>	Rewards crowdfunding for miscellaneous projects	<ul style="list-style-type: none"> <li>• 5% of successful campaigns</li> <li>• 3-5% transaction fees</li> </ul>	<ul style="list-style-type: none"> <li>• Most well-known platform</li> <li>• Large user base and high traffic</li> </ul>	<ul style="list-style-type: none"> <li>• All or nothing fundraising</li> <li>• Large number of projects makes recognition difficult</li> </ul>

Source: Bonnie (2014).

### *Further Developments*

Crowdfunding platforms extending beyond simple funding options exist and can expand the roles of communities and individuals in starting various types of businesses. *JumpStartFund* started as a way to combat the high failure rates with many online crowdfunding campaigns (Volmut, 2016). This platform introduces ideas or concepts and allows the online community to vote for projects they want to see succeed. The voting system guides selection of projects by *JumpStartFund* to market using the internet and fosters development of a supportive community before fundraising attempts occur.

Aside from traditional funding, this platform also encourages outreach and utilization of skills available from supporters. Followers can become further invested in these projects using project collaboration tools such as discussion forums, free advice, and file sharing. Another option is to hire workers on specific aspects of the project and pay them with equity in the new venture (Volmut, 2016). The collaboration provides entrepreneurs or agencies with access to a wide range

of talent at minimal initial outlay. It also allows individuals to invest in projects using their expertise rather than strictly a financial commitment.

This platform illustrates the progress that crowdfunding approaches have made to better integrate community members, discuss ideas, and thus enhance the success of projects. By adopting similar innovations, CSEs can engage communities and residents in new ways that lead to greater community involvement as well as create a pipeline to fund CSEs. Other crowdfunding developments include the direct financing of community-based projects which more closely resemble past CSE initiatives as shown in the next section.

### *Civic Crowdfunding*

An emerging subset of general crowdfunding activities, labeled “Civic Crowdfunding”, includes a process by which residents raise funds, often in collaboration with government agencies, to provide a community good or service (Stiver et al., 2015). This growing subset has developed in response to decreases in availability of public funding and resources.

Civic projects tend to be smaller in scale, community oriented, and less consumer-oriented. (Stiver et al., 2014). The goods produced through civic crowdfunding typically are more public in focus and are structured for longer duration in the community. This situation encourages involvement by the groups or individuals funding the project. Examples of successfully funded projects using civic crowdfunding include: The Ashville Tool Library (Ashville, NC), an outlet for lending tools and instructing citizens and the community on their use, and The Spirit of the American Navy (Naperville, IL), a restored sculpture installation in honor of the American Navy.

The popularity of civic crowdfunding increased due to its ability to connect community projects with municipalities, organizations, and citizens as well as its networking and collaboration capabilities between citizens and governments (Stiver et al., 2014). Civic crowdfunding typically follows a model that allows projects to receive financial support from: 1) government bodies, 2) for-profit or nonprofit businesses/organizations, and 3) private individual backers. Community members can form unique relationships with other groups and government bodies due to the specialized features of civic crowdfunding platforms. The use of online platforms for community-based funding also creates more outreach and community collaboration.

The use of crowdfunding sites for civic projects has grown substantially in recent years both on general crowdfunding platforms and specialized civic crowdfunding sites. Civic crowdfunding platforms vary in methods available for citizens and organizations to raise funds. The platform *Neighborly* uses a unique approach by allowing residents to loan money to community campaigns through the purchase of municipal bonds.

Another platform, *Patronicity*, has a direct public-private partnership that provides matching grants from organizational sponsors to projects that have successfully raised their goal. Civic crowdfunding platforms are similar to the general platforms previously mentioned, but in addition to offering the previously discussed funding options, many also have specialized features permitting involvement by community volunteers and donation of materials.

Table 7 shows U.S. crowdfunding platforms used to fund civic projects including *Indiegogo* and *Kickstarter* as well as the civic crowdfunding sites *Citizeninvestor*, *IOBY*, and *Neighborly*. The table provides a brief comparison of some dynamics and appeals of civic crowdfunding. The chosen dynamics for comparison include participation (who initiates the project, the time allotted, and who can see donor information), risks and rewards (availability of volunteer donation, types of payments, and if there are added returns), and payment dynamics (tax deductible donations, all or nothing campaigns, and availability of external matched-funds).

Among the selected platforms, only *IOBY* offers an outlet to secure volunteers and is one of only three to offer tax deductible donations. Participation on most platforms is open to the general public although they differ regarding who is able to initiate a campaign. Some civic platforms allow only governments or other organizations to create a campaign. Some platforms offer match funding that allows outside organizations to match the amount raised for each campaign and therefore provide additional funding but only *Patronicity* has a direct partnership with granting agencies.

The differences presented here simply show variations in platforms used to support in community projects. Choosing a platform to use for a specific project depends on the needs and goals of a community and the platform(s) with features necessary to obtain those goals. Likewise, the platforms change on a regular basis so a more current review of the various programs should be undertaken before deciding on which is most suitable for a specific project.

**Table 7. Civic Crowdfunding Platforms**

	<b>Platform</b>	<b>Citizeninvestor</b>	<b>Indiegogo</b>	<b>Kickstarter</b>	<b>IOBY</b>	<b>Patronicity</b>	<b>Neighborly</b>
<b>Participation Dynamics</b>	Posting Group	Gov't organizations	Open	For-profits, individuals	Open	Open	Gov't, civic organizations
	Time	Limited	Limited	Limited	Limited	Limited	Limited
	Donation Visibility	Public	Public	Public	Public	Public	Optional
<b>Risk &amp; Reward Dynamics</b>	Volunteer Availability	No	No	No	Yes	No	No
	Payment Type	Pledge	Pledge	Pledge	Pledge	Pledge	Pledge
	Rewards	No	Yes	Yes	No	Yes	Yes
<b>Payment Dynamics</b>	Tax Deductible (501c3)	No	Yes	No	Yes	Yes	No
	All or Nothing	No	Optional	Yes	No	Optional	No
	Match Funding	No	Yes	No	No	Yes	Yes

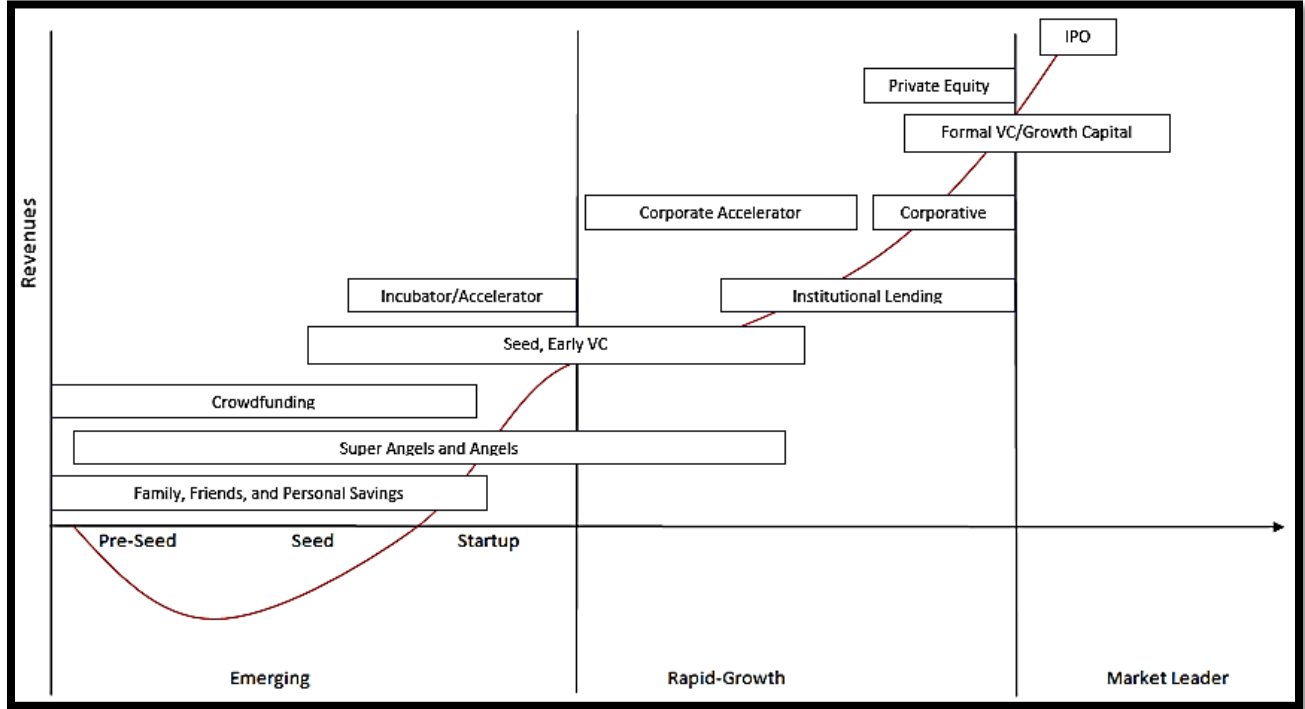
Source: Davies (2014); Patronicity (2015).

Civic crowdfunding illustrates the advances of traditional crowdfunding methods to recognize and integrate them in efforts to serve community needs better. It offers potential to build stronger local communities with close ties between governments, businesses, and residents. As businesses and communities continue to pursue these initiatives, additional alternative and unique approaches to financing will inevitably arise making more resources available to future businesses and enterprises including those in which residents are strongly interested.

### *Comparisons with Other Financing Forms*

Crowdfunding offers an alternative to traditional financing strategies and while the various platforms have unique resources and outlets, they may not be the best-suited financing approach for a specific enterprise. Figure 1 shows that crowdfunding is especially suited for emerging businesses and, in the past, businesses have successfully used these approaches to raise initial capital, buy buildings and equipment, and expand operations. As a business grows and becomes more profitable, other more stable financing options are available and better-suited to sustain the business.

**Figure 1. Startup Development Stages and Funding Options**



Source: Crawford (2015).

In contrast with traditional financing, crowdfunding activities provide services that extend beyond funding. They offer unique opportunities to find funding while promoting the business, facilitating communication and networking, and creating a consumer base from individual investors with an interest in the project (Mollick, 2014). Not the least of these advantages is the ability to pre-sell products and allow investors to contribute time and talent in designing and launching the business venture. All of these advantages make it a powerful tool for CSEs trying to extend their reach either within or outside of their communities.

Funding options comparable to similar traditional methods are available through crowdfunding (debt, equity, etc.) More detailed comparisons between crowdfunding and traditional funding options are provided in Appendix Four. While the current crowdfunding market is less than 10% of either the Venture Capital, Angel Investor, or Private Equity markets, some estimates are that the crowdfunding market will be nearly double that of the VC market by 2025 (ICIC, 2015; Crawford, 2015). The expansion of the crowdfunding market and the availability of greater community centered initiatives also create additional opportunities for the creation and growth of CSEs.



## Community Supported Enterprise Initiatives

A complete list of Community Supported Enterprises is not available and, in fact, the number changes regularly as some start and others close. During the course of the research in this project, more than 60 CSEs were identified and they vary widely by purpose, organizational structure, financing arrangements, size, and length of time in operation. Because the main interest is to inform readers about opportunities in how CSEs can contribute to local development efforts, information, and descriptions of approximately 40 CSEs that exhibit different uses in development applications was compiled. Most of the information was gathered from a review of websites, phone conversations, or personal interviews as of June 2016 so the materials may quickly become dated with changes. These descriptions are not intended as a ranking system and these CSEs are not being touted as the best, or most successful, although in some instances they have existed for many years. Rather, the intent is to provide basic descriptions and contact information on diverse approaches so local development groups can learn more CSE formation and operations. The following section first describes several state wide initiatives that in recent years have expanded opportunities for business investment using local funds. After the statewide initiatives are discussed, individual CSEs within different states are described.

### **State of Vermont: A CSE Movement Leader<sup>3</sup>**

The Preservation Trust of Vermont, a statewide initiative that helps local communities to best use and preserve historic places, has led the way in connecting businesses with financial opportunities in the community (Jordan, n.d.). Vermont has led the local food initiatives and has helped in establishing many CSEs. Other states can implement similar practices to ensure the creation and success of local food economies and CSEs.

Vermont enacted several legal measures that support the creation of small businesses and community development since the 1980's (State of Vermont, 2016). Currently, it has programs in employment growth, rural downtown redevelopment, and has passed legislation to better serve businesses and the community.

Special factors result in Vermont being a CSE movement leader, not least is its place in the political landscape. The rural nature of Vermont and somewhat liberal approaches provide an encouraging environment for innovative rural development efforts and the creation of CSEs. The prevalence of CSEs in the state came about from many converging characteristics and forces, the initiatives of many individuals, and public awareness of their value to rural areas. Since 2005 or

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<sup>3</sup> William Keyser prepared the initial draft for this section.

so, a strong awareness of ag/food entrepreneurship and the role of food systems in revitalizing the state economy have developed. Universities and colleges in the state have introduced innovative degrees in subjects such as food systems, sustainability, and nonprofit management.

Vermont has a higher percentage of residents living in small, rural communities than in any other state. Burlington, the state's largest city, and its metropolitan area has a population of 200,000. The state is the nation's 49<sup>th</sup> smallest, and the majority of its 627,000 residents live in small towns and villages or in isolated locations. The capital, Montpelier, is the smallest state capital in the U.S. (about 8,000). A consequence of the rural nature of Vermont is that the forest and farmlands that make up the state's landscape and communities are of great importance to citizens, both ecologically and economically. Median income is about \$53,000 and unemployment decreased from 3.8% in 2014 to 3.5% in 2015, but the total labor force declined nearly 1% (the 5<sup>th</sup> consecutive year).

The labor force participation rate among females in Vermont was much higher than the national rate of 57.2%. Holding two or more jobs is common in the state, and it is worth noting that the three states with the highest proportion of workers with two or more jobs—also Vermont, South Dakota, and Nebraska—had the fourth, third, and second-lowest unemployment rates. With such a high proportion of rural inhabitants, markets for local businesses tend to be small, even with the widespread availability of the internet.

Vermont has large numbers of women-owned businesses, employee-owned businesses, as well as food, and other co-ops. The state has the highest concentration of self-employment—more than 10% of all jobs and 96% of all businesses have fewer than 500 employees. Indeed 76% have no employees and are owner-operated. A common feature of Vermont employment is that many people hold two or more jobs to survive. Nonprofit organizations represent 12% of employment in Vermont. These factors contribute to the development of CSEs in the state to alleviate the economic and social consequences of rural life.

Vermont also has ambitious energy goals that will require the siting of small, distributed electricity-generation facilities in virtually every town in the state. In response, CSEs have been created to build community solar and wind power generation plants. Green Mountain Power, the largest electric utility, works with public and private partners to sponsor clean energy production: wind, solar, and hydro as well as 'cow-power'—the production of electricity through methane obtained from animal waste.

At the same time, more Vermonters were working at the end of 2015 than in June 2007, a rate of recovery some states have not yet achieved. While Vermont's economy may be considered healthier than most other states—median household income is higher than nationwide—the state's relative prosperity is unbalanced. In Burlington, the rest of Chittenden County and a few other outposts, business is healthy—in some cases even booming—jobs are being created and the population is growing. Rural counties still see less economic prosperity, population declines, and an aging population profile.

In 2012, the State legislature passed the landmark Act 142<sup>4</sup> “An act relating to preserving Vermont's working landscape.” The Act recognized that “Vermont's unique agricultural and forest assets—its *working landscape*—are crucial to the state's economy, communities, character, and culture. These assets provide jobs, food and fiber, energy, security, tourism, and recreational opportunities, and a sense of well-being.” It also declared that “Vermont is in the midst of an agricultural renaissance and is at the forefront of the local foods movement. The success has been due to the efforts of skilled and dedicated farmers, creative entrepreneurs, and the strategic investment of private and public funds.” The main purpose of Act 142 was to stimulate a concerted economic development effort on behalf of Vermont's agriculture and forest product sectors by systematically advancing entrepreneurship, business development, and job creation.

The state makes extensive use of federal rural development agencies, such as the SBA-sponsored Small Business Development Centers and the rural development services and grant-making in the USDA. In addition, Vermont has pioneered many state-level agencies that contribute significantly to the development of CSEs. These organizations include state agencies or, in an increasing number of cases, nonprofit structures. The more significant among these are described next.

*Vermont Department of Economic Development (DED)*—<http://accd.vermont.gov/economic-development>: DED's mission is to improve the economic well-being and quality of life of Vermonters, while preserving natural resources and community values. This results in significant moral as well as practical support for the CSE community in the state. DED services are not dissimilar to those available in other states, but Vermont's natural focus on rural gives it a special mission to encourage even the smallest enterprises.

*Vermont Economic Development Authority (VEDA)*—[www.veda.org](http://www.veda.org): For more than three decades the Vermont Economic Development Authority has partnered with Vermont banks and other

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<sup>4</sup> <http://www.leg.state.vt.us/docs/2012/Acts/ACT142.pdf>

lenders to provide low-interest loans to Vermont businesses and farms, both large and small. VEDA's mission is “to contribute to the creation and retention of quality jobs in Vermont by providing loans and other financial support to eligible and qualified Vermont industrial, commercial, and agricultural enterprises.” VEDA aims to understand an entrepreneur’s excitement in starting a business, and/or a business owner’s concerns in expanding a current business. Since 1974, VEDA has provided more than \$1.8 billion in financial assistance to Vermont businesses and farms. Their programs contributed to the creation of tens of thousands of jobs, helping Vermont’s economy grow and prosper.

*Vermont Department of Financial Regulation Securities Division (VDFR/SD)*—[www.dfr.vermont.gov/securities/securities-division](http://www.dfr.vermont.gov/securities/securities-division): VDFR/SD has a dual role of protecting investors and also promoting the success of small Vermont businesses. It introduced modifications to the Vermont Small Business Offering Exemption (VSBOE) in 2014, and nine intrastate public offerings have followed. They are essentially a within-state level equivalent of a public offering and naturally involve small local business fund-raising. While the Federal level introduction of Title III crowdfunding had a considerable impact, the availability of the VSBOE is significant.

*Community Capital of Vermont (CCVT)*—[www.communitycapitalvt.org](http://www.communitycapitalvt.org): Community Capital of Vermont is a statewide small business and microenterprise lender serving low and moderate income entrepreneurs. Loans range in size from \$1,000 to \$100,000 and can be used for business startup or expansion. CCVT specializes in providing loans to business owners who lack the collateral or credit history to qualify for traditional bank loans. An innovative aspect of the loans is that they are accompanied with an appropriate consultant working with the client business to both support the organization and improve the chances of loan repayments. In addition to managing its own loan funds, Community Capital administers the Vermont Job Start initiative to invest in lower income entrepreneurs and create jobs. CCVT offers an incentive loan product for businesses that process Vermont agricultural products. These loans to “value added” producers have an interest rate two points below CCVT's regular rate. In 2015, CCVT approved microloans valued at a total of \$435,000 to 29 Vermont businesses.

*Vermont Community Loan Fund (VCLF)*—[www.investinvermont.org](http://www.investinvermont.org): VCLF’s Small Business Loan Program targets businesses that provide benefits to low-to-moderate-income Vermonters through livable-wage jobs and revitalized communities. A VCLF loan can be used for real estate mortgages, fixed-asset financing, permanent working capital, a line of credit, purchase order financing, restructured debt, and subordinated debt. The maximum loan amount is \$350,000. VCLF is a mission-driven, community-focused alternative lender. Loans are made to local businesses, community organizations & nonprofits, child care providers, and developers of

affordable housing who do not qualify for a loan from a traditional lender. They also combine loans with financial consulting and business development services to make sure borrowers have access to resources needed to succeed.

*Vermont Sustainable Jobs Fund (VSJF)*—[www.vsjf.org](http://www.vsjf.org): VSJF, a CDFI, uses early stage grant funding, technical assistance, and loans to catalyze and accelerate the development of markets for sustainably produced goods and services. The VSJF meets critical market development needs for goods and services by deploying grants, technical assistance, and loans for: research, technology, and infrastructure development; technical assistance; financing; network development; education and outreach; workforce development; and sales and distribution. One program, the Flexible Capital Fund, offers sustainable businesses a new kind of flexible risk capital that brings instant access to peer networks, mentorship, and technical assistance. VSJF sees that technical assistance and mentoring through access to networks go hand in hand with risk capital. The Fund offers access to the [Peer to Peer Collaborative](#), a program under the umbrella of the Vermont Sustainable Jobs Fund. It provides CEO advisory services and access to a breadth of business and leadership networks essential to sustainable business growth.

*Vermont Employee Ownership Center (VEOC)*—[www.veoc.org](http://www.veoc.org): The Vermont Employee Ownership Center is a statewide nonprofit organization whose mission is to promote and foster employee ownership to broaden capital ownership, deepen employee participation, retain jobs, increase living standards for working families, and stabilize communities. The VEOC provides information and resources to owners interested in selling their business to employees, employee groups interested in purchasing a business, and entrepreneurs wishing to start a company with broadly-shared ownership.

*The Vermont Council on Rural Development (VCRD)*—[vtrural.org](http://vtrural.org): VCRD is a nonprofit organization dedicated to the support of the locally-defined progress of Vermont's rural communities. VCRD is a dynamic partnership of federal, state, local, nonprofit, and private partners. Actively non-partisan with an established reputation for community-based facilitation, VCRD is uniquely positioned to sponsor and coordinate collaborative efforts across governmental and organizational categories concerned with policy questions important to rural areas. VCRD has built a reputation for integrity as a mediator of public processes, setting the framework for decisions by communities and by policy leaders, that lead to direct and practical results in addressing fundamental challenges at the local and state level. Among other activities, VCRD

sponsored the Rural Broadband Project and e-Vermont efforts to bring Internet access to isolated communities.<sup>5</sup>

*The Preservation Trust of Vermont (PTV)*—[www.ptvermont.org](http://www.ptvermont.org): PVT is a statewide nonprofit organization founded in 1980 with a mission to help communities save and use historic places. Much of the focus is on strengthening downtowns, village centers, local initiatives, and building capacity. The executive director has been instrumental in many CSE projects in Vermont, as well as playing the role of CSE 'activist' at the state level. PVT has partnered with many public and private organizations at both state and local levels. While the focus is on preservation, many projects go far beyond conservation, by bringing buildings into renewed use for the communities where they are located, often partnering and promoting the creation of CSEs.

*Vermont Land Trust (VLT)*—[www.vlt.org](http://www.vlt.org): Since 1977, the nonprofit VLT has permanently conserved more than 1,900 parcels of land including more than 550,000 acres, or approximately 9% of the private, undeveloped land in the state. This conserved land includes more than 900 working farms and farmland parcels, hundreds of thousands of acres of productive forestland, and numerous parcels of community land. The conservation work of the VLT invigorates farms, launches new businesses, maintains scenic vistas, encourages recreational opportunities, and fosters a renewed sense of community.

*Vermont Working Lands Enterprise Initiative (VWLEI)*—[workinglands.vermont.gov](http://workinglands.vermont.gov): The *working landscape*<sup>6</sup> has a high priority in Vermont and it includes agriculture, food systems, forestry, and forest product-based businesses. Approximately 20% of Vermont's land is used for agricultural purposes and 75% is forestry. The Working Lands Enterprise initiative was passed by the state legislature in 2012 to manage and invest \$1 million in agricultural and forestry businesses. The mission of the VWLEI is to strengthen and grow the economies, cultures, and communities of Vermont's working landscape. The Working Lands Enterprise Board achieves this mission by making essential catalytic investments in critical leverage points of the Vermont farm and forest economy, and facilitating policy development to optimize the agricultural and forest use of Vermont lands.

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<sup>5</sup> As a small, rural state with rugged terrain, Vermont has difficulty attracting broadband Internet providers who are often unable to build profitable business models for serving the state. Vermont Fiber Link, a public-private partnership between the Vermont Telecommunications Authority (VTA) and Sovernet Fiber Corporation, a regional communications service provider, addressed this problem focusing on Vermont's key community anchor institutions such as K-12 schools that lack affordable high speed Internet access.

<sup>6</sup> Council on the Future of Vermont, 2007-09, VCRD. This in-depth study has been pivotal in the development of public policy.

As well as health care and worker cooperatives, Vermont has a high proportion of food co-ops—15 in the state (1 for every 43,000 people) which suggests a high propensity to be attracted to the CSE concept. Cabot Creamery, based in Vermont, is a \$ multi-million farmer-owned co-op business. VSECU, a major Vermont credit union, has established Co-op Capital to drive significant growth within Vermont’s cooperative economy and positively impact VSECU’s local communities. *Milk Money* (see p. 40) is a crowdfunding platform in cooperation with VSBOE and is backed by VSECU. It supports and empowers local entrepreneurs and investors to strengthen Vermont’s entrepreneurial ecosystem and to build sustainable economic development.

In a similar way, the existence of more than 70, possibly as many as 100, CSAs in Vermont, makes the community-supported concept familiar on a wide scale. In addition, Vermont has the highest density of L3Cs<sup>7</sup> in the U.S. (222 as of January 2016). This small enterprise form of business governance was pioneered in Vermont, as the first state to enact L3C legislation.

In trying to determine what lessons can be learned from Vermont for application for other places, there is a danger in drawing general conclusions from the specific conditions and culture of Vermont. To be a “Vermonters”, even by adoption, implies many social and economic behaviors that may not be relevant outside the state.

However, the most essential ingredient for allowing CSEs to flourish requires a systemic approach to rural development; one to which politicians, change-agents, entrepreneurs, and funders can all ultimately subscribe. It is unlikely to be a centrally coordinated process and how it comes about will vary by state or local circumstance. In large states, whose socio-economic geography varies, it may be possible only in certain regions of the state. Building a common culture cannot be mandated and will occur as a consequence of many conditions, as is shown in the Vermont experience, although key actors in the social and economic fields are likely to play significant roles.

On the other hand, many individual elements can be replicated in other states, without wholesale adoption of the Vermont experience. Debate will be necessary at many levels, not just political. Experimentation has been considerable in Vermont and will be, without doubt, necessary in other states. Local conditions for widespread growth in the creation of CSEs will vary.

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<sup>7</sup> A low-profit limited liability company (L3C) is a legal form of business entity in the United States that was created to bridge the gap between nonprofit and for-profit investing by providing a structure that facilitates investments in socially beneficial, for-profit ventures by simplifying compliance with Internal Revenue Service rules for program-related investments, a type of investment that private foundations are allowed to make.

At some point in the process, some or all of ten critical ingredients are necessary: (i) a form of collective analysis and priority-setting; (ii) a common culture on rural development is created but based on different dimensions; (iii) missing institutions and voluntary organizations must be created; (iv) innovative public and public/private funding mechanisms must be instituted; (v) hybrid business models and hybrid organizational structures will have to be enabled, especially those across public, private, and nonprofit boundaries; (vi) systemic legislation to enable local agencies to act will almost certainly be necessary; (vii) backing must be provided to allow the facilitation of work across traditional and sectoral boundaries of responsibility; (viii) in one or more sectors of local significance, it will be necessary to introduce common workspaces/hubs/incubators/accelerators, the latter probably linked to seed capital; (ix) university and college courses to support or encourage the development of CSEs will help; (x) establishment of integrated centers of excellence, training, services, and resources for sectors of state level significance (such as those that exist for food systems in Vermont).

*Milk Money (MM)* — <https://milkmoneyvt.com>: More and more projects including community supported enterprises are being funded using crowdfunding approaches. While many, if not most, of the projects involve entrepreneurs seeking investors, opportunities also exist for community groups to solicit funds for both private and public projects. These efforts are likely to increase in the future and efforts to facilitate the process will assist community groups.

States such as Vermont have made major strides in paving the way for increased use of crowdfunding approaches but legal requirements still pose hurdles for those relative unfamiliar with the necessary procedures and legal issues. Successful use of crowdfunding tools by both public and private groups can be facilitated by agencies that serve an intermediary role in helping groups determine the best options as well as prepare the necessary paperwork needed to follow correct procedures.

The facilitation role increases opportunities for entrepreneurs to raise the needed capital to launch businesses through crowdfunding platforms. For the most part, this assistance helps small, and most often, first-time, ventures. Rural areas are especially suitable due to lack of easy access to many of these types of services. Several such intermediaries have already formed and are in operation. Milk Money is one such example but is limited to working with entrepreneurs and investors in Vermont.

In the case of Milk Money, two entrepreneurs, committed to helping promote entrepreneurship and, with past small business experience, created a web-based platform and service company to facilitate the local investment process. Early on, they connected with the Vermont Department of Financial Regulation (DFR) which administers the Vermont Small Business Offering Exemption (VSBOE) to find ways to assist entrepreneurs and implement the regulatory program. For additional information on VSBOE, see p. 36.

The role of Milk Money is twofold. First is to guide potential entrepreneurs in organizing and conducting an effective crowdfunding campaign. The MM founders help a company fulfill the



requirements of preparing and submitting the necessary paperwork required by DFR and other agencies. For a relatively small fee, Milk Money personnel handle the transactions, prepare the reports to the DFR, and assist in other communication requirements which otherwise could divert attention away from managing the newly-created venture. The second role of MM is to educate and inform Vermonters on investment opportunities and how the investment process works.

The activity of MM increased substantially after it made contact with the Vermont State Employees Credit Union (VSECU) whose mission includes a commitment to empowering strong communities and local economies. VSECU's partnership with MM lends validation as well as valuable resources to the MM business model and in some cases, offers entrepreneurs an additional funding source.

MM holds regular events to educate Vermonters on the Invest Local concept and to provide a forum where entrepreneurs can meet potential investors. At these events, both groups can interact and determine potential interest within the regulations of the state legislation.

The process is relatively straightforward for potential entrepreneurs. After an introductory meeting (in person, by phone or Skype), Milk Money performs a Readiness Assessment and those that score high enough continue to the next step in the process. In some cases, this next step is to file a Solicitation of Interest form with the DFR to be able to "test the waters" with potential investors, after which the company can decide whether or not to engage in a Milk Money campaign. Alternatively, a company may choose to skip the Solicitation of Interest and move straight to a contractual arrangement with Milk Money to prepare and launch its campaign. Those companies that do not achieve a high readiness score are provided with feedback on the areas that need refinement and are referred to any number of existing agencies, consultants and workshops, including but not limited to the VT Small Business Development Center, the Center for Women and Enterprise, attorneys, tax accountants, and other groups. Thus, MM supports, rather than replaces, current public agencies.

After experience with several entrepreneurs, MM is preparing an "entrepreneur boot camp" to streamline the process of working with applicants in the future. The opportunities and assistance that programs such as Milk Money provide to business entrepreneurs in finding capital for their ventures are substantial and other states can benefit from considering the approach. Alternatively, these programs could be allowed to provide similar services in other states.

Contact Infor: [janice@milkmoneyvt.com](mailto:janice@milkmoneyvt.com)

802-899-0979

## State of Oregon

Hatch Oregon (<http://hatchoregon.com/connect-with-us>) is a community investment and education platform that works to accelerate local economic growth. It came as a direct result of the legal efforts of Oregon's nonprofit and Social Enterprise, Hatch Innovation, to ensure that all Oregon residents were able to invest in small businesses (<http://hatchthefuture.org/hatchoregon/>). Hatch Oregon is one of many programs created by Hatch Innovation to improve and grow communities.

Hatch Oregon currently has 10 regional nodes in the state that collaborate but maintain their own strategies, events, and networks (<http://hatchoregon.com/about-hatchoregon.html>). The Hatch Oregon platform provides information on local investing opportunities for Oregon residents, creates connections between community leaders, entrepreneurs, and investors, and facilitates the application of Oregon's Community Public Offering (CPO) for small businesses seeking to raise local capital (Hatch Oregon, 2016a).

For businesses with fewer than 50 employees, the program provides an educational and networking program, the *InvestOR Ready Accelerator*, which offers courses on fundraising, communicating and engaging investors and communities, and understanding a CPO (Hatch Oregon, 2016a). Investment opportunities are also presented through the secure Hatch Oregon website that allows Oregon residents to invest and receive financial returns on their investment (<https://secure.hatchoregon.com/>). Similar to crowdfunding platforms, businesses provide an executive summary, offering documents, and updates to their campaign in order to keep investors informed of their progress.

*Contact Info:* 2420 NE Sandy Blvd.

Portland, OR; [info@hatchoregon.com](mailto:info@hatchoregon.com)

## State of Washington

Community Sourced Capital (<https://www.communitysourcedcapital.com/>)

While the growth in crowdfunding sites provides much greater access to local funding sources for community supported projects, many hurdles still exist in arranging and implementing campaigns especially for small projects in communities that have limited experience with this relatively new funding source. Thus, intermediaries such as Milk Money and Community Sourced Capital can play a major role in helping businesses not only determine the amount of funds needed but also to organize a successful financing campaign.

Community Sourced Capital (CSC) was started as a Social Purpose Organization in Washington State (2013) to provide unsecured and non-interest bearing loans to small businesses

as well as a convenient way for local investors to provide funds to support their local economies. CSC is driven both by helping small businesses expand but also to help stabilize or revitalize a local economy. Potential investors can suggest businesses in their community to CSC for a funding campaign. The main objective is to connect qualified small businesses in need of short-term capital (loans) with local residents able and interested in making relatively small investments.

The essential requirements in working on projects with CSC include that the business is capable of repaying the loan in three or fewer years and still maintain a healthy revenue base. Also, the capital raised must fit into the business plan and advance its operating goals. High priority is assigned to a strong connection and sense of trust between the business and the community so that when the funding campaign is mounted, residents will be motivated to invest. When ready, the businesses pitch their campaign to potential investors during a 30-day period.

CSC is mainly interested in helping existing businesses expand rather than funding business starts with no experience. This philosophy is reinforced by the fact that businesses with CSC loans make monthly interest payments immediately after receiving the loan. In effect, this approach strongly encourages businesses to maintain a positive cash flow with a sound business management plan.

To apply for a CSC loan, a business must project future revenues and a business plan for its operations along with a balance sheet that documents the outstanding debt. The loans and businesses are both relatively small so the same level of sophistication as with a traditional loan is not necessary. Nevertheless, the CSC uses sound management principles in evaluating loan applications.

The charge for a business to start a campaign is \$250 which includes guidance and assistance in organizing their campaign. When the funding campaign has succeeded, businesses pay a \$50 monthly fee until the loan has been repaid. In turn, CSC provides a toolkit and regular contacts with the business to increase its chances of success. The monthly fee is not an interest charge; instead, it covers the CSC operating costs for handling the loans, monitoring the progress, and assisting the business. Nevertheless, the monthly fee makes small loans prohibitively expensive so applications for loans of less than \$5,000 are discouraged.

Local investors interested in a business project have several options. Most often, they buy multiples of “squares” at \$50 each. These squares then create a pool of funds from which loans are made to the designated business. While the funds from investors are pooled, the loans are made to the specified business and as they are repaid, the investors receive payments on their initial

investment. The investors do not receive any dividend or interest, however, there is no guarantee that they will receive their funds back since it depends entirely on the success of the business and its ability to repay the loan. Thus, residents truly invest in a business that brings a return to the community other than financial gain.

Since its start, the CSC has made 96 loans of which 23 have been fully repaid and 72 are current on their loan payments with three businesses having ceased operations. The loans average between \$21,000 and \$25,000 but with a much broader range. According to the CSC website, 6,298 Square holders have loaned nearly \$2 million to businesses <https://www.communitysourcedcapital.com/>.

In 2015, CSC partnered with the Department of Commerce in Washington State to launch a *Fund Local* effort that will expand similar efforts to other counties across the state. Businesses and investors can participate in funding efforts by sponsoring programs including matching efforts for businesses in their regions in some cases with a possible tax deductible contribution <https://www.communitysourcedcapital.com/partners/fundlocalsponsors>.

The CSC activity has succeeded in raising funds for small businesses interested in expanding their operations but which often are discouraged from contacting traditional lending institutions because of transaction costs. Equally important is that the revenue-raising efforts represent direct contacts with potential investors in the community who also are likely to be customers. In this way, they build social capital and local engagement. The relatively easy access and low costs for both investors and businesses are likely to increase these types of efforts in other states as is suggested by the Milk Money initiative in Vermont using some of the same approaches.

*Contact info:* Community Supported Capital  
Seattle, WA; (425) 231-8313

## **State of Wyoming**

The Local Crowd (<https://thelocalcrowd.com>)

Rural areas often have special difficulties trying to access capital for business startups or expansions partly due to a limited number of local financial institutions or lending agencies but also because the businesses are not highly visible to a large number of potential investors. At the same time, sources of private capital exist with residents who, when they have an opportunity, may be willing to invest in something in which they have a stake or serious interest.

The *Local Crowd* (TLC) was formed in 2012 to help businesses and social organizations in rural areas and tailors its assistance specifically toward those groups. It was started with a USDA Small Business Innovation Research (SBIR) grant to build materials and a platform that allows local economic development agencies to mount campaigns for local businesses. In Phase I of the SBIR research project, TLC conducted a feasibility study of the model by launching it in two pilot sites in Wyoming. During the test period, the TLC platform successfully raised more than \$12,000 for four projects in about 30 days, proving the feasibility of the model. In a review of the impact study, the author noted:

“Among all the deciding factors that might drive donors, investors or potential entrepreneurs (social and private) to use a crowdfunding platform, familiarity with their community seems to elevate to an important level. The literature in economics and sociology confirms this result from the survey. The notion that entrepreneurs and investors are separate from the social structure of their communities has been a myth and continues to be. Risks associated with investing in local enterprises as well as risks incurred by social or private entrepreneurs are minimized by the familiarity of the community they are living in. Success in entrepreneurship requires community support.”

In Phase II of the SBIR program, TLC used data from Phase I to re-design the platform and organize a field testing effort including from 18 to 30 rural communities interested in participating. The overriding intention of TLC is to build an entrepreneurial support ecosystem in small communities that will create and support small business development efforts. The initial efforts include communities in Idaho, Illinois, Indiana, Iowa, Montana, New Hampshire, and Wyoming with plans to broaden the coverage as other communities express interest and are willing to participate in the program.

TLC is a rewards and donation based platform. A unique feature it offers is the functionality of Sponsored Rewards, which allows third-parties to contribute to fundraising projects by offering donated products or certificates. Thus, someone contributing to the community project can receive a certificate redeemable at another store. These interlinkages within the community on worthwhile fundraising initiatives not only financially support many types of businesses but they also build social capital and collegiality which is a major aim of Community Supported Enterprises.

TLC is in its early stages and started by working with local economic development organizations in rural areas such as Main Street organizations across the U.S. It held national competitions for small communities to apply to participate in the program. The planned development strategy, is to work directly with small business assistance organizations and other groups to assist in business finance initiatives. The design is to provide education and training materials in addition to direct assistance in helping these organizations start and manage a locally-based fundraising platform for local businesses.

The relatively unique features of The Local Crowd are its educational materials that focus on small communities in rural areas. The TLC technology has functions designed specifically for rural communities and unavailable on nationally-focused platforms. These functions include in-kind contributions, local matching, offline fundraising, and sponsored rewards. Building an entrepreneurial eco-system linking local resources and other businesses in a system that provides access to local capital is especially important in small communities with less access to financial institutions and a need to retain or strengthen social capital. While still in the formative or developmental phases, TLC addresses a significant market in rural economic development.

*Contact info:* 4218 Cheyenne Drive, Laramie, WY 82072

888-465-9622; [Diane@thelocalcrowd.biz](mailto:Diane@thelocalcrowd.biz)

### **Select Programs in Various States**

Previously discussed programs focused on statewide initiatives. However, there is a rich inventory of programs operating mainly within individual states. A sample of these efforts is described in some detail next to illustrate not only what services they provide but also how they were organized and financed. A more complete list is included in Appendix Five. The information was collected using a common research protocol (Appendix Six) that helps local development agencies evaluate opportunities to implement similar approaches that meet local needs and opportunities.

## California

KPFA Radio (<https://kpfa.org/>)

KPFA was started in Berkeley, CA, by Lewis Hill seeking to create the first listener supported, non-commercial based radio station in the U.S. (KPFA & Pacifica, 2016). The station first went on the air April 15, 1949 and has provided diverse programming on popular and controversial issues since its beginning (KPFA & Pacifica, 2016).

They also broadcast a wide mix of music, culture, news, and public affairs. Its mission includes the promotion of cultural diversity, freedom of the press, and community expression as well as contributing to an understanding between individuals with all preferences (KPFA & Pacifica, 2016). KPFA is labeled as “Community Supported Radio” and is one of a growing number of radio stations with a focus on community that rely on listeners for financial support (White, 2013). KPFA is viewed as a founder of on-air fundraising and to this day is solely supported by donations from listener and like-minded foundations (History, n.d.; KPFA & Pacifica, 2016). The website offers various ways for listeners to support the station including: fund drives, open contributing, sale of merchandise, and acceptance of vehicle donations (KPFA & Pacifica, 2016).



*Contact Info:* 1929 Martin Luther King Jr Way, Berkeley, CA 94704  
(510) 848-6767; [gm@kpfa.org](mailto:gm@kpfa.org)

Three Stone Hearth (<http://www.threestonehearth.com/>)

Three Stone Hearth is a Community Supported Kitchen in Berkeley, CA, started in June 2006 by a worker cooperative involving five individuals (Three Stone Hearth, 2016). This establishment offers subscriptions for ready-made meals to be delivered or picked up on-site. Its menu changes weekly allowing it to offer a wide variety of items. Customers can also order specialty items, such as local cheeses, fermented sodas, and coconut oil. It offers classes focusing on sustainable methods of cooking, holds tours of the facility, and invites speakers to lecture on nutritional topics (Three Stone Hearth, 2016). As of May 2015, the cooperative had 15 worker/owners and employed 28 full- and part-time workers (Three Stone Hearth, 2016).



*Contact Info:* 1581 University Avenue, Berkeley, CA 94703  
(510) 981-1334; [info@threestonehearth.com](mailto:info@threestonehearth.com)

## Colorado

Westwood Food Co-op (<http://www.westwoodfood.coop/>)

The Westwood neighborhood close to Denver, CO, is a community located in a food desert--where residents do not have access to sufficient, healthy, affordable food options because suitable grocery stores are too far away or permanently closed. In 2007, the community started to implement serious changes and formed a local nonprofit, *Re:Vision* that has since created a backyard gardening program, one of the largest of its kind in the U.S. (Cargill, 2015). Recently, this group used Kickstarter and other financing methods to launch the Westwood Food Co-op, Denver's first community owned and operated grocery store (Re:Vision, 2016). The Kickstarter campaign allowed the community to raise \$55,576 from 503 backers with membership fees of cooperative members providing additional funds (Re:Vision, 2016). The co-op currently has 12 active board members and measures are underway to move forward with the grocery store (Westwood Food Coop, 2016).

*Contact Info:* 3738 Morrison Road, Denver, CO 80219  
(720) 465-9605; [hello@westwoodfood.coop](mailto:hello@westwoodfood.coop)



## Florida

Dandelion Communita Café (<http://dandelioncommunita.com/>)

The Dandelion Communita Cafe is an organic cafe started in March 2006 in Orlando, FL, and is located in a landmark 1920's house that is a social gathering place for local residents and tourists (Dandelion Communita Cafe, 2014). Recently, the cafe started a Community Supported Enterprise program to help sustain and expand the cafe. Its unique approach uses promotion, investment, and donations that have allowed the cafe to thrive and expand. Promotion efforts include asking patrons to distribute flyers, engage in social media, join mailing lists, and introduce others to the cafe. Donation efforts include online and in-cafe charitable contributions as well as the donation of time, service, and products.



Other investment options are also available. The cafe is using Lending Karma, an online person-to-person lending platform, to secure multiple direct microloans from “local lenders” and an open bartering system where individuals lend professional services in exchange for store credit. Gift card investments are also available at four different levels where individuals provide an upfront payment and then receive a set number of gift cards per quarter with a 4% to 8% return added to the total initial amount paid. The cafe also has an ownership investment method. The cafe website suggests that partnership options are considered with like-minded groups or businesses wishing to support the cafe.

Plans for growth include adding a covered deck using green construction methods and a traditional barn-raising approach to both accommodate customers and stimulate “green” business and community efforts. Efforts are in place to fully document the expansion and the green methods utilized. An online blog and video documentation will be used as educational resources and a “Green Guide to Dandelion” will provide further sustainability instruction (Dandelion Communita Cafe, 2014).

*Contact Info:* 618 N Thornton Avenue, Orlando, FL 32803  
(407) 362-1864

## Illinois

Begyle Brewing (<http://www.begylebrewing.com/home/>)

Begyle Brewery opened in 2012 in Chicago after a successful Kickstarter campaign (Begyle Brewing, 2014). This campaign was launched in July 2012 to raise \$17,000 for a counter pressure growler filler. This type of filler wastes less beer than the conventional kinds and the owners initiated the campaign for this equipment in hopes of ending shrinkage. The owners raised \$19,000 in 45 days from more than 200 contributors (Spiselman, 2014). Begyle Brewing was named the best new craft brewery in 2013 by *Chicago Magazine* and is committed to sustainable practices that include using spent grain as feed to farms and relying on locally-grown hops. The beers are sold by retail stores such as Whole Foods, bars, and restaurants.

The company also offers Community Supported Brewery memberships of 6 or 12-month growler subscriptions. This allows a clientele to develop around their beer with discounts to members. Various options are offered in terms of size and time of subscriptions and, in addition to products received through subscriptions, memberships also include special discounts on beer and merchandise as well as membership-only events sponsored by the company.

*Contact info:* 1800 W. Cuyler, 1E, Chicago, IL 60613

(773) 661-6963; [oh.hey@begylebrewing.com](mailto:oh.hey@begylebrewing.com)

Nauvoo Market (<http://www.nauvoomarket.com/>)

Residents of Nauvoo (pop 1,118) rallied after hearing that the local grocery store located on the main street planned to close when the owner decided to sell in October 2015. Nauvoo was without a grocery store for nearly 6.5 months and then several residents, led by local bank personnel, organized and spearheaded an effort to reopen the store on the same site due to its convenience and prime location. The initiative had some immediacy because the building was for sale at that time.



A community cooperative was considered but there was not sufficient interest in this model. Instead, the group formed the Nauvoo Market, LLC and raised \$23,000 in donations from approximately 20 investors contributing at least \$1,000. The effort raised an additional \$20,000 in donations. A former resident, interested in seeing Nauvoo prosper, also made a significant contribution. The investors provided the main source of capital for the store although the city of Nauvoo provided money for façade improvements from Tax Increment Finance funds. Since opening, residents have contributed for specific purposes such as infrastructure or capital improvements. These residents invested relatively small amounts without a clear expectation of a financial return. No arrangements are in place for investors to receive a discount on purchases or other aspects that would be more common in a cooperative.

The group initially leased the building from the owner but then bought and renovated it. The purchase price was approximately the cost of an empty building since some equipment was outdated. Volunteers from the community played a major role in the remodeling and conversion of the store but this help is not counted as an in-kind financial investment. The current store manager worked closely with volunteers and investors in preparing a business model for the operation (Gertz Husar, 2015). The Nauvoo Market opened in May 2015 offering a variety of food options. The store carries mainly convenience items such as those needed on a regular basis. Its main competition is from full-service grocery stores within 15-20 miles where many residents regularly shop. A significant issue in managing the store is that the population in Nauvoo swells to several times its size in the summer months due to tourism which makes the store financially viable but sales drop creating a negative cash flow during the winter months.

The store works closely with customers to identify products, brands, and services that attract and retain a local clientele. Efforts to market locally-raised products have been made. Consideration has been given to expanding services such as catering but the profitability has not been determined since businesses in neighboring communities already address this market. A significant current issue is the need to replace major equipment, especially freezers. These capital expenditures represent major costs and the business model minimizes debt. The small size of the store makes the costs of merchandise high compared with competing large stores in neighboring cities.

The store offers a variety of food options to Nauvoo and the website describes the store as “A Community Success Story” (Gertz Husar, 2015; Nauvoo Market, LLC. 2015). Since the store has operated for less than a year, it is too early to accurately determine its future. However, the store is exceeding its sales targets due to local support but high inventory costs reduce the profits. However, management is optimistic and plans for the future include efficiency gains with possibly few hours of operation, replacing outdated equipment, and expanding to accommodate a wider

selection of basic items such as meat and produce. The possibility of opening a deli has also been considered to broaden the clientele. A market assessment will be conducted to identify other opportunities. There is some interest in pursuing external funds to undertake some of these plans and possibly a low-cost loan to purchase equipment.

The experiences with the Nauvoo Market reinforce the issues faced by many small businesses in their infancy and a reason why some do not continue. Nauvoo presents special challenges because of the decline in population during the winter months. Nevertheless, it is an example of where residents are willing to invest in an enterprise that enhances the quality of life in their community without expectations of fixed financial returns.

*Contact Info:* 1385 Mulholland Street, Nauvoo, IL 62354  
(217) 453-6526; [service@nauvoomarket.com](mailto:service@nauvoomarket.com)

Sitka Salmon Shares (<http://sitkasalmonshares.com/>)

Sitka Salmon Shares is a Community Supported Fishery that provides a variety of fish, caught and processed through sustainable means, from Sitka, AK, to the Midwest. The idea for Sitka Salmon Shares began in 2011 when a Knox College professor and students visited Sitka where they studied wild salmon populations and the environment of the large salmon reserves there (Sitka Salmon Shares, 2015). They then devised a way to connect the consumption of fish to conservation efforts and sustainability of Alaskan fisheries.

This CSFishery is membership-based allowing customers to purchase a “share” of salmon and other types of fish delivered directly to a member’s home. Enrollment comes in various monthly installments and is available at different pound levels and types of fish at prices ranging from \$14 to \$22 per pound. Members also receive other perks, such as special sales, cooking classes, recipes, fishermen events, newsletters, and exclusive pop-up dinners.



Sitka Salmon Shares aims to build strong communities of consumers in the Midwest that allow thriving fishing communities in Alaska. The company has a small number of fishermen-owners who catch the fish and then keep 20% of the harvest's final retail value (Sitka Salmon Shares, 2015). The fishermen use methods that minimize the ecological impact of the harvest and preserve the populations for future generations. In addition, 1% of company revenue is given back to fishery conservation efforts and habitat protection and the company also pays to offset the carbon released during their product's distribution.

*Contact Info:* 109 South Cherry Street, Galesburg, IL 61401

(309) 342-3474; [salmonsupport@sitkasalmonshares.com](mailto:salmonsupport@sitkasalmonshares.com)

### Toulon Grocery

Toulon, IL, (pop 1,292) has been active in Community Supported Enterprises since December 2006, when Stark County Ventures, LLC was created to help promote business ventures within Stark County. Following the closing of the only grocery store in the community, a four-person leadership team organized a community meeting under the guise of the LLC. At this meeting, nearly 50 persons committed \$30,000 to begin the process of purchasing the store and finding someone to operate it. Eventually over \$80,000 was raised to purchase and renovate the building. The local investors were not promised a financial return and the main motivation was access to the grocery store in the community to stabilize the current population and attract new residents. Several tenants attempted to run the store but quit and, in one instance, abruptly left the community. Thus, residents had been through several disappointments with bringing a grocery store to the community. Then in August 2012, a grocery store operator in a neighboring town agreed to run the store and succeeded. The store in the neighboring community was connected with *SuperValu*, a grocery distribution franchise which helped stabilize prices for the Toulon store.

However, in June 2014, the building burned, facing Stark County Ventures LLC again with a decision as to whether, or how, it could replace the store. The executive committee working with the store immediately called a meeting of members to decide the fate of the store. In a unanimous vote, the members decided to explore all possible avenues of replacing the store. If at all possible, it should be replaced in the same spot on Main Street. At this and subsequent meetings the vote was to replace the store at a cost not to exceed \$520,000. This capital was to be raised in several ways.



The two main sources were the insurance money and help from the Toulon TIF District. The city of Toulon provided access to \$310,000 in Tax Increment Funds over a 10-year period. A third way was to ask for additional funds from current LLC members and selling more shares. The State Bank of Toulon also provided a short-term loan to cover any shortfall. The store was rebuilt with support of nearly \$500,000 using as much local labor as possible. The new store opened in March 2016. The store is leased for \$500 monthly during the first six months and then the monthly rent will increase to \$1000. The lease agreement will be revisited after three years. The hope is that the current operator, the same person who operated the store prior to the fire, will buy the building.

The store, while still in the early stages, operates at a profit by stocking mainly convenience items for residents who do their main shopping at larger stores in the area. The store carries popular brands of merchandise but, thus far, has not tried to stock a disproportionate amount of locally-grown foods or organic products. It has a small eating area that provides free coffee, access to a microwave, and other features to make it a gathering place that builds social capital. The store offers pizza, fried chicken, and deli sandwiches on a carry-out basis. It also has a small liquor department. These additions help the store to show a profit. Currently under consideration is adding a delivery service to customers in the area.

As successful as the initial operations have been, the store is challenged to retain the core community as customers and compete with larger stores where residents work and do their main shopping. Nevertheless, the strong commitment shown by investors even without promise of a financial return is a positive sign for this CSE.

*Contact Info:* 125 W Main, Toulon, IL 61483  
(309) 386-5691

## Washburn Community Foods

The community of Washburn, IL, (pop. 1,145) came together to save their local grocery store after the owner decided to close it in February 2000. A 16-member committee was organized to brainstorm community ownership concepts. Shares were sold starting at \$50 each to community members and businesses to raise capital to buy the store from the previous owner and create a community corporation. With no guarantee or expectation of return, approximately 300 people bought shares, a majority of whom were local families. A local bank purchased \$10,000 worth of shares with additional funds obtained from revolving loan funds. In total, the committee raised \$230,000 to purchase the store. The store officially closed in 2000 and reopened as Washburn Community Foods.

In August 2006, the grocery store was converted to a cooperative to gain more working capital since initial interest in the store had dwindled. Annual memberships sold at \$100 each with an added 5% cash back on cooperative rebate cards. The cooperative had approximately 40



participants. While under community ownership, the store had a paid manager and a two to three person paid staff. Volunteers were also heavily involved in day-to-day business activities such as stocking shelves, cleaning, and unloading supplies. These volunteers were recognized at annual meetings and volunteer hours could be used to buy memberships in the cooperative.

Store revenues were insufficient to sustain operations and the store just broke even. Management tried different strategies for the store including various pricing practices but continued to fall short. At one point, the store partnered with local groups in the community who sold baked goods in the store as well as provided specialty products to increase traffic. The store also offered home delivery services catering to the elderly and young.

Despite these efforts, the store continued to face financial issues and after unsuccessful attempts in pursuing state cooperative grants, the committee decided to sell the store to private owners. The cooperative concept had lost some focus and the store faced increased competition from other stores as well as residents commuting to other places to work. Store margins did not cover costs and the committee did not want to ask the community for additional help without the likelihood of expected returns.

Washburn Community Foods was eventually sold in 2013 to a private owner at a significant discount in price. The new owner had previously owned two other grocery stores and knew the business models. This owner relied on family support and labor which saved on labor costs. At the time, the store was doing o.k. financially but not highly profitable due partly to high utility costs and overhead.

The store was sold in March/April 2016 again to a private owner with previous grocery store experience. The store had had infrastructure improvements such as lighting and refrigeration units. The store has scaled back on inventory to more of a convenience store and a private individual leases part of the store as a café.

The town of Washburn has several economic setbacks with a loss of seven key businesses including 40 jobs within 12 months. Recent business closings include a local restaurant, golf course, and GM dealer which caused a loss of tax revenue and a somewhat dim view of the future. A major positive for the town, however, is the local K-12 school which remains financially sound.

There are no current plans to create another Community Supported Enterprise similar to Washburn Community Foods, but future businesses may learn from this example. Communication is key to informing the community and allowing anyone who wants to be involved to contribute in various ways. This is easier now through the internet and social media. Enthusiasm and excitement are necessary to build support and this energy must be sustained throughout the life of the enterprise to keep it vibrant. Also important is to have a cadre of solid individuals who can initiate and sustain the idea. Engagement of young adults can bring important insights and their involvement in the decision-making is beneficial. Local leadership is especially important for the operation to succeed.

*Contact Info:* 108 N Jefferson Street, Washburn, IL 61570  
(309) 248-7515

## **Iowa**

The Mercantile (<http://www.cvillemercantile.com/>)

Correctionville, IA, launched a community-supported grocery effort after losing its local grocery store to a fire and being without one for more than three years (Gallagher, 2013). Members of the community worked with the Correctionville Economic Development Corporation (Cedcorp Inc.), a not-for-profit community group, to obtain donations to start a new store (IGIA, 2014).



Through fundraising efforts and donations, the group raised nearly \$120,000 for the store, with other funds coming from loans and grants (IGIA, 2014). Volunteers also helped in every step of the store's creation including with construction, cleaning, shelving, and assembling.

Cedcorp Inc. found local residents to operate the store. The managers entered into a ten-year lease agreement with Cedcorp Inc. to repay the group and become owners. The community group will then reinvest the funds in the community (Gallagher, 2013). The Mercantile opened in January 2013 and is currently a family-run store offering a variety of essential goods and specialty items.

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(712) 372-9752; [mercantile@ruralwaves.us](mailto:mercantile@ruralwaves.us)

### Township Grocery

White's Shopping Center was a major retailer in Bonaparte, IA, (pop. 426) and closed in 1986 when the family that owned a significant number of buildings downtown retired (Bohri, 2010). Facing an economic downturn due to several store closings, Bonaparte residents started a local nonprofit, Township Stores Inc., to address concerns about traveling long distances for basic food items. Through this organization, residents raised approximately \$100,000 in capital in sales of \$2,000 shares to 50 or more community members (Mitchell, 2008). The capital was then used to renovate five historic buildings to house several new businesses, including a Township Grocery. The Township Grocery was organized as a cooperative to stock a complete line of groceries.

Township Stores (TS) continues to sell groceries but with a shrinking market due to demographic changes, retirements, and other reasons that could not have been fully anticipated. Nevertheless, it provides an example of the long-term evolution of a CSB because it is an early example of residents investing money to support a local commercial venture and has continued for than 30 years. It also is interesting because Township Stores is one of relatively few businesses still operating on the main street weathering the long-term declines associated with towns its size. The 1993 Flood had a serious impact on Bonaparte because it is located on the banks of a river. Major damage occurred to several buildings, including Township Stores. The building in which TS is located is listed on the National Register of Historic Places which may make repairs more expensive. Repair costs, plus its relatively small size, adversely affect the profit margin.



Earlier, Bonaparte had embarked on a full-scale Main Street revitalization program that provided an infusion of new energy into the community. These efforts included restoration of a former opera house and expansion of the Bonaparte Inn (Bohri, 2010). Retirements, competition from large stores within relatively easy commuting distance, and internet shopping decreased the markets for some of these stores causing them to close. In some instances, establishments such as the Bonaparte Inn now operate on a limited schedule and are available for scheduled events.

Membership in the National Main Street program was discontinued in 2015 which meant fewer promotional events to draw people to the downtown. While Township Stores continues, changes in the economic environment with the opening of several large discount stores in recent years have reduced its profitability. Nevertheless, it continues to operate as a full service store selling fresh meat, produce, and similar items providing the convenience of not driving 30+ miles to larger stores.

A large Amish settlement in the area rents shelf space for locally-grown or made merchandise. At the same time, however, these residents also market their goods directly to the public which competes with the store and purchase large quantities of flour and other ingredients at discount stores. TS is unable to purchase many locally-made items at retail price and then resell them to the public in competition with local vendors. Likewise, the cost of merchandise in a small grocery store is high relative to large stores, which squeezes the profit margin for Township Stores as in other small scale groceries.

The future of TS and similar local CSBs depends on the economic viability and health of the community. While Bonaparte clearly has less economic activity than when TS started, there are several signs of vitality. For instance, three buildings in the downtown sold in mid-2016. One has an antique store and another has a pottery shop. Another pottery co-op plans to open. In some instances, these entrepreneurs are former Bonaparte residents who moved away and have returned. While some of these businesses will be seasonal or open only part-time, they still should bring more traffic to the downtown and benefit TS.

The long-time experiences of Township Stores illustrate the importance of several factors. First is the immediate need for a service. Conditions differ now from 1987 and residents do not have to rely on Township Stores as they did then. Second, the surrounding economic environment is crucial. Other stores have closed, reducing local employment which further reduces the market for items sold by TS. Likewise, with business closings, residents now commute elsewhere to work and purchase in those locations as well as possibly over the internet but the internet is less likely to directly impact grocery items. Third, the high school in Bonaparte recently closed which will

also reduce the local traffic. Fourth, operating on a small scale, as is seen in other examples, means high operating costs and more difficulty competing with large stores in nearby areas.

These factors are not unique to CSBs but, once again, illustrate the difficulties in managing small businesses, however financed. The fact that investors did not expect to receive a financial return and did not make a large initial investment means that CSBs can continue longer and contribute to the community. The future of Township Stores will depend more on other factors in the community. Most of the original investors are no longer there so a new group of energized residents interested in pursuing the vitality of the community is essential to keep communities such as Bonaparte economically viable. In any event, it has successfully met its initial purpose more than 30 years ago and continues to operate.

*Contact info:* 104 Washington Street, Bonaparte, IA 52620  
(319) 592-3555

## **Kansas**

### Hometown Market

Residents in Minneola, KS, were concerned about the future of their town after the local grocery store closed and residents had to drive more than 20 miles to buy basic necessities (KSN-TV, 2015). After being without a grocery store for more than two years, the community created a community-owned store (Calderon, 2012). A board was created and sold shares at \$50 to more than 260 residents raising \$200,000 for renovations and to stock the new store. Residents also participated in the renovation process by volunteering their time and labor.

The Minneola community claims ownership through more than financial means due to the physical involvement of its residents in starting the store and the strong volunteer force that guided the entire process (KSN-TV, 2015). Residents continue to support the Hometown Market to see their small town thrive and keep money within the local community. Ownership also plays an important role in generating a commitment to the store's success.

*Contact info:* 135 S Main Street, Minneola, Clark County, KS 67865  
(620) 885-4326

### The Merc Co-op (<http://themerccoop/>)

The Merc Co-op is a Community Supported Enterprise in Lawrence, KS, that provides a place to eat, shop, and learn about sustainable food and products through cooperative ownership open to the entire community. As a consumer-owned cooperative, it has more than 7,000 members (The Merc Co-op, 2016). The Merc co-op started in 1974 as a volunteer-based buying club but in 1977, moved from a former member's basement into a new location of a previous grocery store. During 15 years at this location, it grew to 80 employees with nearly \$4 million in sales.

In 2001, The Merc moved into its current larger location and added a meat and seafood department plus an on-site classroom. Currently, it is a thriving business with a growing membership base and higher sales. The business is owned and run by the consumers, who make decisions for the benefit of members. Benefits to members include discounts, coupons, focus group and survey participation, voting rights in elections, and eligibility to serve on the Board of Directors.

By joining the Merc Co-op, members not only benefit financially but also help support the community since it has a long history of community outreach and involvement including supporting local organizations by donating food and supplies. The store has a multi-purpose classroom used for cooking classes that are open to the entire community. It provides store tours and health lessons to nearby schools and oversees multiple school garden projects (Tevis, 2015).

*Contact Info:* 901 Iowa, Lawrence, KS 66044  
(785) 843-8544; [gm@themerccoop](mailto:gm@themerccoop)

### **Michigan**

#### Mulefoot Gastropub (<http://www.themulefoot.com/>)

The Mulefoot Gastropub is a farm to table restaurant in Imlay City, MI. The restaurant makes everything in-house and by hand with ingredients purchased from local farmers and producers (Hernandez, 2015). The restaurant, including the walls and furniture, was built entirely by local labor. The funding model for the restaurant is modeled after the traditional Community Supported Agriculture. Shares are sold at \$1,000, \$2,500, and \$5,000 allotments and repaid in 20-24 monthly installments of food, alcohol, and other products (Hernandez, 2015). Approximately 20 shares were sold providing the \$80,000 needed to build the restaurant (Hernandez, 2015).

The Mulefoot Gastropub was profitable in the first two years of operation and recently moved to a new location in the downtown area of Imlay City. The new building provides more space and features, while maintaining the value of the historic building in which it now resides (Wearing, 2016). The additions to the building include a private dining area, outdoor seating, an open kitchen, and a chef's table. The community and restaurant patrons have continued to support the business through this transition.

*Contact Info:* 596 S Cedar Street, Imlay City, MI 48444  
(810) 721-1019; [mike@themulefoot.com](mailto:mike@themulefoot.com)

## **Minnesota**

Northeast Investment Cooperative (<http://www.neic.coop/>)

The idea for the Northeast Investment Cooperative began as a way for residents to invest in real estate and the development of their community (NEIC, n.d.). The Northeast Minneapolis town had struggled with rundown storefronts and vacant properties when neighbors decided to take responsibility and formed the real estate co-op. The NEIC was incorporated into a cooperative in 2011 and sold shares of \$1,000 to join as well as additional shares of non-voting stock (NEIC, n.d.; LaVecchia, 2015). The cooperative began with 39 founding members who then elected a board of directors and adopted cooperative bylaws (NEIC, n.d.).

In the spring of 2012, the NEIC was approached by the Recovery Bike Shop to partner in a new renovation project (NEIC, n.d.). They signed a purchase agreement and at the time had 90 members committed to the project (NEIC, n.d.). The NEIC sold Class C and D shares to raise additional capital for the project and eventually raised sufficient money to purchase two buildings (NEIC, n.d.). After a renovation financed through a 2% loan from the city and a loan from a local bank, they sold one building to the Recovery Bike Shop and leased the other to two young businesses struggling to find commercial space (LaVecchia, 2015).

Construction was completed in 2014 and the properties are now home to thriving businesses that have created jobs and invested in the community (NEIC, n.d.). As their first project is completed, the NEIC plans to look for further investment and development opportunities that bring greater economic growth.

*Contact info:* P.O. Box 18082, Minneapolis, MN 55418  
(612) 562-6342; [info@neic.coop](mailto:info@neic.coop)

## **Montana**

### Little Muddy Dry Goods

(<http://www.visitmt.com/listings/general/department-store/little-muddy-dry-goods.html>)

Little Muddy Dry Goods was created from necessity when the rural town of Plentywood, MT, (pop. 1,918) faced losing the local Stage department store. The closing meant that residents would lose convenient access to clothing and housewares (Mitchell, 2003). Town leaders also feared additional economic downturns as residents left to shop for other goods and services essentially taking commerce and money away from Plentywood (Bohrer, 2004).

The former department store manager proposed a community-owned store concept where shares would be sold to residents to open a new department store (Mitchell, 2003). Community leaders created a LLC and sold shares @ \$10,000 (Bohrer, 2004). A total of 18 shares were sold to community members with many shares purchased by groups of residents (Mitchell, 2003). The store opened in 1999, a few months after the offering, in a 10,000 square foot location. Though not highly profitable, Little Muddy Dry Goods filled a community need for residents in Plentywood. This department store is one of the earliest CSEs researched in this project and the model for its creation has helped to set a precedent for other similar enterprises in other areas.

*Contact Info:* 122 North Main Street, Plentywood, MT 59254

(406) 765-1721; [muddy@nemont.net](mailto:muddy@nemont.net)

## **Nebraska**

### Wolf Den Market

When the small grocery in Arthur, NE closed, residents faced a 40-minute drive to other places to buy basic foodstuffs (Eig, 2001). Residents worried about the economic health of their community as more businesses closed and the population declined. The Wolf Den Market opened in 2000 as a student-run operation to help with the hardships of not having a community grocery store (Buchman, 2014).

The store began as a project in the local high school entrepreneurial program, created years before through a \$22,500 state grant (Eig, 2001). The program had eight students who initially undertook a market survey to see if residents would respond positively to a new grocery store. The results of the survey showed that individuals favored lower prices and would be more likely to shop in Arthur if they felt they were helping students learn business practices in the process (Eig, 2001).

The students rented a house at \$200 a month (Eig, 2001). Donations of materials were provided by various groups and included the free installation of telephone lines by the telephone company, 1,000 free kilowatt hours a month for six months from the power company, shopping carts from a nearby Wal-Mart, and the county provided gravel for the store driveway (Eig, 2001).

A cooperative was created to ensure community support with profits redistributed among members (Eig, 2001). Shares were sold to Arthur residents and a board of directors was elected. To circumvent high distribution costs, supplies are bought from a grocery store nearly 30 miles away and volunteers help transport and restock supplies for the store (Buchman, 2014).

*Contact Info:* 8 N. Highway 61, Arthur, NE 69121  
(308) 764-2500

### Cambridge General Store

In 2010, Cambridge, NE, residents were concerned about the local effects of a major local store closing. Members of the Economic Development Board tried to contact other similar chains such as Dollar General, but were unable to convince them to come to Cambridge due to its small size. The Economic Development Board researched ways to create a community-owned store and contacted community members through surveys and town meetings (Discoe, 2011).

They also met as a community to propose creating a LLC. By the close of the meeting the group had raised \$50,000 (Discoe, 2011). All community members were given an opportunity to invest in the new store for a minimum of \$500 and by March 1st, more than \$260,000 had been raised. Volunteers cleaned and painted the store as well as helped unload and stock inventory. A contest was held to determine the name of the store.

*Contact Info:* 714 Patterson Street, Cambridge, NE 69022  
(308) 697-3308

## **Nevada**

### Garnet Mercantile

The residents of Ely, NV, (pop. 4,221) were faced with driving nearly 190 miles to buy clothing and other goods after the local J.C. Penney, the only department store at the time, decided to close (Rosenblatt, 2004). After failing to attract other large retailers, the community looked to

The Powell Mercantile in Powell, WY, for guidance in creating a community-owned store (Rosenblatt, 2004).

Town leaders formed the Community Owned Mercantile Project Inc. and sold \$500 shares to investors across the state of Nevada. Fundraising efforts included newspaper advertising, community meetings, statewide calling, and word of mouth advertising. Nearly \$500,000 in support was raised surpassing the original goal of \$400,000 (Sabo, 2014; Rosenblatt, 2004).

The Garnet Mercantile officially opened in 2004. Backers of the store saw initial success with the store's ability to cater its merchandise to unique area needs and assurances that the store would be run by residents for residents (Rosenblatt, 2004). The Garnet Mercantile showed exhibited signs of difficulty during the recent recession, though its major hardship came in 2013 with a flooding due to a broken water main (Sabo, 2014). A vast majority of inventory was destroyed and the store remained closed for nearly six months during repairs. The store reopened and restocked lost merchandise while trying to rebuild its customer base.

Internet sales also had an impact on the store with more individuals preferring to buy clothing and other goods online. The store responded by focusing the inventory on items not typically bought online (Sabo, 2014). Store employees also used online methods to buy wholesale goods to restock the sold merchandise. The Garnet Mercantile has also had increased demand and sales by offering specialty and handmade items. Store profits are used for inventory or associated store costs.

*Contact info:* 363 Autumn Street, Ely, NV 89301  
(775) 289-4636; [garnetmercantile@gmail.com](mailto:garnetmercantile@gmail.com)

## **New York**

Greenlight Bookstore (<http://www.greenlightbookstore.com/>)

The independently-owned Greenlight Bookstore is in Fort Greene, Brooklyn, NY (Greenlight Bookstore, n.d.). In 2008, after winning \$15,000 from the Brooklyn Business Library's Power Up business plan competition, the two owners began discussing plans to open a forward-thinking, independent bookstore. At the same time, the Fort Greene Association (FGA) surveyed the community to identify establishments that residents wanted in the neighborhood and the overall consensus was a bookstore. The FGA then contacted the owners to see if their idea could be implemented and the parties agreed to start the project.



The FGA held an event for the new bookstore in September 2008 and more than 300 community members attended showing their support (Mitchell, 2010). At this event, the community lender program was launched. This initiative asked individuals to loan \$1,000 or more to help start the bookstore which would be paid back quarterly at a pre-determined interest rate, from 2.5 to 4%. Lenders also received additional perks including a discount on all purchases until complete repayment of the loan as well as advance notice of bookstore sales and author appearances. More than \$70,000 in startup capital was raised in this community lending program. In addition to financial support, community volunteers also participated in the design and construction of the bookstore including painting, cleaning, and sorting books (Greenlight Bookstore, n.d.).

In the summer of 2015, the Greenlight Bookstore repaid the remaining community lender loans and announced plans to open a second location in another neighborhood. The second store's arrival to this neighborhood has had positive support and encouragement from local community organizations and will be structured to meet neighborhood needs and become a "true community space" (Greenlight Bookstore, 2016). The owners reopened the community lending program to help finance the new store and as of May 2016, had raised more than \$150,000 in community loans from 55 (mainly resident) supporters.

*Contact Info:* 686 Fulton Street, Brooklyn, NY 11217

(718) 246-0200; [info@greenlightbookstore.com](mailto:info@greenlightbookstore.com)

## **Vermont**

Barnard General Store (<http://friendsofbgs.com/>)

After 180 years in Barnard, VT, (pop. 947), the Barnard General Store (BGS) closed in 2012 after several years of financial hardship (Town Rallies, 2013). The store sold basic grocery items, had a delicatessen, and included boat rentals used at a beach area across the street. The owners had several operators in recent years and contacted the town government in 2008 indicating some financial



difficulties and asked for assistance. In the interim, local leaders contacted the Preservation Trust to assist in organizing an effort to help engage the community in addressing the issue.

The BGS was a social center in the community and residents were upset about its closing. These sentiments helped rally Barnard residents and finally created Barnard Community Trust, a 501(C)3 nonprofit, which several residents started under a mantra of “Save the Store”. Initial funds were raised with low membership fees (\$10) paid by approximately 500 residents. Encouraged by this support, the BCT made an initial offer on the property that was refused by the owners.

The store owners then placed the business and property on the market (\$750,000) at well above the appraised market value (\$450,000). The Preservation Trust was contacted for assistance in organizing community leaders since residents feared that it would be purchased by a national chain and possibly redeveloped into other uses with a loss of the social capital. The property is adjacent to a state park and is an integral part of the area. The owners called a meeting of interested buyers with only one proposal submitted (\$500,000) using an option payment (\$20,000) and a six-month window to assemble the overall financing. Thus, the purchase process had started and now the BCT had to arrange the remainder of the financing.

The Barnard Community Trust (BCT) raised \$300,000 through grants and private donations in its first year and the previous owner assumed a \$200,000 one-year mortgage, which allowed the BCT to take control of the property (Friends of Barnard, n.d.). During the interim, the BCT kept the store open in the morning so that it continued to be in continuous operation. Donuts and coffee were provided and residents congregated on a regular basis building additional interest and commitment in the community. In the course of a year, the BCT had raised \$50,000 to \$60,000 in small donations plus several large donations including \$50,000 and \$250,000 from families, or former residents. As of the end of 2012, the BCT was still short of funds, but by August 2013 the funds were raised and the debt was retired. Thus, the BCT owned the property needing major capital improvements which were then started.

Once it owned the property, the BCT had to find suitable operators so issued a Request for Proposal for a store operator. During the interim, volunteers ran a small cafe on the property using donated goods from local businesses (Peterson, 2014). Residents also donated considerable time and talent to improving the store and preparing it for operations. The town eventually found managers with previous store experience and looked for a business to operate.

The business opened in September 2013 and currently has between \$800,000 and \$1 million in annual sales. A standard 10-year lease arrangement was set up with the option to renew two additional times. The current relatively low rent will increase slightly when a certain level of sales is reached and the operator can sell the store operation with approval of the BCT

which owns the real estate and building, pays property taxes, and covers insurance premiums. The financial returns to the BCT are from rental fees paid by the operator.

The store purchases merchandise from Associated Grocery Stores of New England which offers technical assistance in management practices and also will provide interim management in the event a change in operators were to occur. Residents responded well to the new managers who, in turn, tailored their business practices to the needs in the Barnard community. The lease requires the current owners to maintain the popular beach area nearby the store (Peterson, 2014). An important component of the store is an emphasis on selling local foods purchased from several cooperatives in the region.

Several lessons to learn from the Barnard experience include the importance of local leadership not only in launching the effort but also in maintaining enthusiasm for the project. The Barnard Community Trust has a 10-member board. Finding an operator(s) with previous relevant experience in the grocery business was essential as was the technical assistance from statewide organizations such as the Preservation Trust with both technical knowledge and contacts. Specialized legal knowledge and advice with operational issues such as writing leases and working through financing arrangements are important in situations where community leaders are unfamiliar with some of these issues. An organized capital campaign at the start, rather than a piece-meal approach, would have made the project move more quickly.

The BGS is part of a larger community and economic development effort. BCT is currently considering an application for a Vermont Downtown Program sponsored by the Vermont Agency of Commerce and Community Development. The BGS contributes heavily to the social capital in the community, is a regular meeting place, and provides access to essential goods for residents and surrounding areas.

*Contact Info:* 6134 VT-12, Barnard, VT 05031

(802) 234-9688; [barnardstore@gmail.com](mailto:barnardstore@gmail.com)

Hinesburgh Public House, Hinesburg, VT (<http://hinesburghpublichouse.com/>)

The Hinesburgh Public House (HPH) was started in December 2, 2012 on the site of a former cheese processing plant in Hinesburg, VT, (pop. 4,396) and operates as a Community Supported Restaurant. Planning and organizing the business took about 12 months. Building local community development was a



major goal from the start since the business is organized as a Vermont Benefit Corporation and was an outcome of the owner's previous experience with Ben and Jerry's franchises and a triple bottom line. He also had experience with socially responsible businesses and previously had owned a restaurant.

Familiar with operations of the Bob Cat Café in Bristol, VT, two owners invested approximately \$250,000 and obtained a bank loan for \$100,000. They then pre-sold meals to the public at \$500 expecting to receive \$550 in return (10%). The 80 initial investors could renew their investments at a later date. The nearly \$40,000 that was obtained from investors was used as operating capital and provided a market test for the viability of the socially responsible business. The business has a 5-person board of directors including the two owners and holds regular meetings with its "stakeholders" who participated in the initial solicitation of funds.

The business charter clearly identifies main stakeholder groups: local food producers, guests, HPH staff, local community builders, area producers, and investors. The overall intent is for the business to be financially sustainable but also to contribute to the overall betterment of the nine surrounding cities: Hinesburg, Starksboro, Monkton, Charlotte, Shelburne, St. George, Williston, Richmond, Huntington, and Bristol. It accomplishes this mission by working with nonprofits in these communities helping them raise funds as well as making contributions to the area.

In addition to serving the general public which is the mainstay of the business, the HPH also provides special support to local groups with an annual budget of less than \$500,000; serve the targeted communities; and are nonprofit or tax-exempt and nonpolitical. The underlying premise is that these organizations improve the quality of life by adding to the social capital in the area. To meet its social purpose mission, the HPH hosts several regular events and activities.

On the first Tuesday of each month, HPH partners with a local nonprofit in a local fundraising venture, named “community dinners” that involve a three-course locally-sourced dinner for \$20, in addition to the regular menu. The local nonprofit markets the event and receives one-half of the revenues generated. Thus, if 100 patrons attend the event, the nonprofit receives \$1,000. In addition to raising funds, this event provides the local organization an opportunity to inform the public about its purposes and activities. The “community dinners” are also a way for HPH to gain exposure, attract new patrons, and reduce the need to advertise. The dinners help all groups named in its stated mission.

Another regular event is “Burger Night” which is held on Mondays and provides hamburgers for \$7. This event is targeted to less fortunate in the community and not a regular clientele. However, it reaches into the community to meet a social need and has become popular. Both events are subsidized by the owners to improve quality of life in the area and fulfill one of the goals in the business plan.

Overall, the HPH has been profitable with revenues of approximately \$1 million per year although the early years involved some adjustments in finding appropriate staff. The business model is to promote from within which not only addresses one of the identified groups to be served but also provides access to well-trained management. The community benefit reports, required as a Vermont Benefit Corporation, show that the five targeted clienteles are being served with management metrics indicating that the business is performing according to expectations or above during certain seasons of the year when the tourist traffic changes. Customer evaluations also have been positive with repeat trade at expected levels. The performance of the business exceeds expectations by the restaurant industry as a group.

Several lessons can be learned from the experiences with HPH. First, a champion for the project with a background in the industry was important. In this case, the owners were long-time residents of the community and had experience working with a socially-responsible company. Those ideas applied easily to the Community Supported Restaurant.

Second, a community restaurant filled a void in the community that did not have many other alternatives as social meeting places. The HPH met that need by engaging residents in the local decisions. The owners continue to work with residents by offering meeting space, communications with “shareholders” and incorporating their ideas into restaurant operations.

Third, the mission and vision for the venture are clear and well-communicated to both staff and guests. The regular community dinners, hamburger nights, and similar events are used effectively in marketing efforts which offset other traditional market costs. In essence, the community has a stake in the restaurant and local nonprofit groups are an effective part of the overall marketing efforts. Both the restaurant and the nonprofit groups benefit from this relationship.

Fourth, an obstacle common to most small businesses is the high cost of inventory, namely buying from local suppliers and producers rather than cheaper large volume suppliers. In addition, the staff is paid above the going wage which is another operating goal. However, this buying approach is an integral part of the CSRestaurant so can be partly incorporated into the overall operations and marketed accordingly. Likewise, there is minimal direct local competition which gives the business an advantage.

Finally, the extensive experience of the owners with a socially-responsible company prepared them well to start the HPH. They are open-minded to the needs and interests of the community. Being organized as a Vermont Benefit Corporation provides both a setting and a reinforcement for engaging the community in the restaurant decisions and activities as well as requiring the Corporation to produce an annual report to the community on the services provided. In turn, the designation is used in marketing the business.

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802-482-5500; <http://hinesburghpublichouse.com>

City Market, Onion River Co-op (<https://www.citymarket.coop/>)

The Onion River Co-op began as a buying club in Burlington, VT, in 1973 and since then has had many locational and growth changes. In 2002, the co-op entered into an agreement with the city of Burlington to operate a grocery store on land leased from the city (City Market, n.d). This new location opened in February of the same year and significantly increased the size of the business. The new store, City Market, offers prices comparable to those of larger chain sellers which differs from the original Onion River Co-op that sold only natural foods.

An agreement with the city helped shape the current grocery store and business, City Market, Onion River Co-op. Ownership is structured as a cooperative with open membership and democratic leadership. Currently, the co-op has more than 11,000 members/owners (City Market, n.d). Members elect a board of directors to represent them and make decisions implemented by a general manager and staff. Members must sign up and pay an annual membership fee of \$15 but a full share in the co-op is \$200. Cooperative members can also earn money on their purchases through the Patronage Refund Program. In 2014, patronage checks were sent to 10,000 members with an average payment of \$93 (City Market, n.d).

City Market supports local growers and producers and donates to many local nonprofits, community fundraisers, and city events. The co-op directs its efforts to support programs that work to alleviate childhood hunger and promote sustainability in agriculture. Customers are offered an option to round up grocery totals with proceeds paid to several nonprofits monthly. This “Rally

for Change” program gives 50% of the proceeds to a nonprofit that helps the local food system alleviate childhood hunger; 40% is given to the Chittenden Emergency Food Shelf; and 10% is donated to a nonprofit that meets the co-ops’ global ideals (City Market, n.d).

With community ownership, the store can offer necessary products and services at reasonable prices and in ways that benefit the local area. Daily transactions in The City Market, Onion River Co-op average 4,500 with \$38 million in total sales in 2014 (Pollack, 2015). The cooperative also gained local and national recognition for its community outreach and financial achievements (City Market, n.d).

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(802) 861-9700; [info@citymarket.coop](mailto:info@citymarket.coop)

### Claire’s Restaurant [CLOSED]

Claire’s was a Community Supported Restaurant started in May 2008 in Hardwick, VT, by four partners including a chef and another store owner (BALLE, 2012). Initially, they considered a Co-op as an ownership model, but decided that an LLC model would be the most suitable way to manage the project. In turn, the community wanted to support a business that keeps money local and with the creation of Claire’s, 80 cents of each dollar spent would stay within the state. The community and owners began raising money in 2007 and formed two separate entities: Hardwick Restaurant Group LLC and Claire’s Restaurant and Bar LLC (BALLE, 2012). One LLC owned the building and equipment in order to keep it within the community and the other owned the actual business. They financed this initiative in several ways including:

- Community Supported Restaurant (CSR) subscriptions: 50 people bought CSR subscriptions, providing Claire's with \$50,000 in operating capital. Subscriptions cost \$1,000 each, and could be redeemed once per month, 10 months of the year, \$25 at a time, for four years.
  - Coupons were transferable, e.g., to family members
  - Strict schedules as to control cash flow were maintained
- Community Lenders: 10 people loaned Claire's \$5,000, providing \$50,000 in operating capital. These simple loans were not guaranteed and were to be repaid with interest after 5 years.
- Grant: The Preservation Trust of Vermont, recognizing the importance of a vibrant restaurant and community gathering place to the economic and social vitality of a downtown, provided a grant for the first year of rent.

Claire's was profitable for at least five years but management differences caused it to close. During this time, a pizza establishment started and provided some competition but this apparently was not the main reason for closure. Cost overruns and other management issues led to less than expected outcomes. At some point, current investors were unwilling to add money to the operations and other investors were not forthcoming.

Efforts by another group are currently underway to start a CSRestaurant but at this time it is unknown if they will succeed. Another restaurant had started and failed but the building and equipment remain. The Hardwick Restaurant Group holds a 12-year lease on the property with several years remaining and the Group is trying to entice another restaurant. The issue seems to be more management differences than lack of market. This suggests the importance of finding investors but also in organizing the operation so that internal issues can be resolved quickly without threatening the viability of the venture. It also shows the importance of a solid business plan that effectively guides the operations. Efforts are still underway to find an operator for the CSRestaurant and the market potential seems to exist.

Guilford General Store (<http://www.guilfordcountrystore.com/>)

Guilford, VT, (pop. 2,121) is in a relatively rural area in southern Vermont with relatively easy access to larger communities. The area had several businesses including a hardware store and a general store in close proximity that provided access to basic services. The Guilford Country Store provided groceries and other items plus a place where residents could congregate, so it played an important role in community life and stability in Guilford.



The owner of the Guilford General Store passed away and the surviving spouse was unable to continue the business so decided to discontinue operations and sell the property. This situation concerned Guilford residents since the area, with no zoning regulations, would allow developers wide discretion over what could be done with the properties. A national chain had already shown interest in the property and there was some fear that the site would be converted to other uses and purposes causing Guilford to lose a long-term business and historic landmark.



The Friends of Algiers Village (FAV), created in 2004, became interested in the local situation and launched a “save our village” initiative to purchase four deteriorating buildings with the idea that this historic area could be preserved as a gateway to the community. The Guilford Country Store remained closed for three years while FAV tried to raise local funds for the project. The Windham Housing Trust (WHT) in Brattleboro had been a major collaborator, with FAV buying and holding properties until WHT could develop them for affordable housing. Likewise, the Preservation Trust of Vermont provided technical assistance and guidance in the project.

The FAV organized an effort to purchase the Guilford Country Store at \$300,000 of which \$240,000 was the fair market value and \$60,000 was goodwill. A local bank held a \$140,000 mortgage on the property. The Vermont Housing & Conservation Board (VHCB) granted \$70,000 for acquisition with the requirement that a historic façade easement be placed on the property. A large local donation of \$60,000 was provided, along with many donations from local donors and beyond. After purchasing the property, FAV raised another \$600,000 (to date) to rehab the failing structure, \$100,000 of which came as a no-interest loan from a friend of the project. The final financial restructuring occurred in 2013 with \$300,000 as a mortgage from the same local bank and the remaining \$600,000 from donations and multiple grant awards.

Major local fundraising efforts with broad-based participation had occurred including local school children making a video about the project which along with other efforts increased “buy-in” from the community. Initially, there were 225 regular donors per year who do not receive a discount on purchases or expect a financial return. However, since FAV is a 501(C)3, donors can qualify for a tax deduction.

Housing in the area is relatively expensive so there was some interest in making housing more affordable which provided opportunities for FAV to collaborate. They partnered with Windham Housing Trust on two projects to build 24 affordable housing units and help stabilize the community. Thus, the Guildford project involved collaborations among private groups, state, federal, and local agencies.

By 2013, the Friends of Algiers Village owned a historic building, containing a century old general store with land that they could lease to an operator and obtain rental revenue. They next had to find an operator with both the knowledge and finances to start the business. Fortunately, they found a family in Manhattan with 12-years of experience running a catering business and market. They had recently relocated to the area and were interested in operating a business. A lease agreement was reached and the business reopened in 2013 after being idle for 3 years.

The FAV maintains the building and makes major capital improvements. Two residential rental units above the store contribute to the cash flow. Likewise, other groups participate in the venture. For instance, there is a large amount of snowmobile traffic in the area so they donated the labor and some equipment to install a gas pump at the store. Other residents contributed time and money toward reviving both the business and the building. The overall goal by FAV to obtain a positive cash flow has been achieved. Since they are strongly committed to having the General Store in the community, regular fundraising efforts will continue until the building is fully rehabbed and leased. Plans are under consideration to add a deli and a bakery in the store. The upstairs portion could also be converted into a co-working space that would appeal to local entrepreneurs.

The Guilford Country Store (business) has issues facing many, if not most, small businesses, namely high cost of merchandise and small markets. There is interest in expanding this business to increase the prepared food and catering activities provided as a way to generate additional profits. FAV is considering leasing additional space to a baker who could complement the Country Store business. Competition from larger operations limit the profit potential of the business thus it needs multiple profit centers. Rents from apartments plus a possible co-working space and other developments help stabilize the cash flow and eliminate the need to seek support from local fundraising.

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(802) 490-2233; [guilfordcountrystore@gmail.com](mailto:guilfordcountrystore@gmail.com)

#### Latchis Hotel and Theatre in Brattleboro, VT

The Latchis Hotel and Theatre in Brattleboro, VT, (pop. 7,414) opened in 1938 and has continued as a major architectural fixture in the downtown since that time hosting major theater events and other community activities. It is an Art Deco building, one of only two in Vermont so is an area landmark and was named after an early family member prominent in the community. Its impact extends well beyond Brattleboro and into Southeastern Vermont. The Latchis family owned and managed the theater until the property needed major repairs and they put it on the market in 2001. It included a 30 room hotel, three retail spaces, a full-service restaurant, and three operating movie theaters (Bruhn).



After a feasibility study by the business community, the Brattleboro Arts Initiative (BAI), a nonprofit organization that included Arts participants and patrons, collaborated with the Preservation Trust to purchase and restore the theater and hotel in 2003. This project was part of a major revitalization effort for the city of Brattleboro which had experienced several business closures. The Latchis Theatre, along with several local movie theaters, competed for first-run movies as well as provided live performances. However, because of its long-term status in the area, a downtown hotel, and major Art Deco architecture, it had a special presence that enabled BAI and other organizations to solicit donations and investments in the restoration.

The Preservation Trust of Vermont provided a five-year no interest loan of \$550,000 to assist in the \$1.4 million purchase price and support needed to manage the project, fundraise, and provide an operating reserve. A state appropriation of \$300,000 was obtained with \$450,000 provided by foundation and corporate grants. Individual contributions raised an additional \$300,000. More than \$1.3 million was raised in this effort plus \$550,000 in loans to launch the project. In addition, a federal grant of \$300,000 was obtained.<sup>8</sup>

Two organizations participated in the project. The BAI changed its name to *Latchis Arts* in 2012 and, as a nonprofit, owns all the shares in the Latchis Corporation, a for-profit organization with a 10-person board of directors, which owns the building and manages the theater and hotel business. *Latchis Arts* has a 10-member board representative of the community including not only arts patrons but representatives of other professions as well. This board interacts with a donor list of people interested in preserving the Latchis and conducts fundraising efforts for special projects as needed. In essence, it creates and maintains a public awareness for the complex. The nonprofit organization receives revenues from the operations of the properties but does not manage the properties directly.

The *Latchis Corporation* is a for-profit with responsibility for managing the theater, hotel, and other operations. It has a board of directors from the community and hires a hotel manager as well as a theater manager. A general manager works one-half time for each organization. The corporation pays rent to Latchis Arts for use of the property as well as pays fixed dividends to the nonprofit organization and a surcharge based on ticket sales. These revenues provide approximately one-half of the operating budget for the nonprofit. Other sources of funds include concessions, an ATM rebate, and direct donations from several annual appeals.

The Latchis also has had major capital improvements since it was purchased. Between 2003 and 2014, a total of \$2.4 million was spent on building improvements and safety upgrades--

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<sup>8</sup> Based on materials obtained in personal interviews with Latchis personnel.

some of these funds coming from grants or donations and others from the operations of the hotel and theater. In each case, they represent additional investments in the community.

In addition to being run as a profit-making business, the Latchis also provides opportunities for local groups to use the facilities as fundraisers. In these events, the theater receives the first \$500 in revenues and local sponsors receive the rest. In certain instances, the scheduling of nonprofit uses may have to yield to for-profit events such as the opening of a major film or similar activity.

The story of the Latchis Hotel and Theatre illustrates the importance of collaboration not only among public and private organizations but also direct involvement by the federal government, statewide foundations, and state government agencies. The for-profit and nonprofit partnership arrangement of the Latchis as well as its ability to reach out to other businesses indicates the importance of integration into the community. The successes in the past decade have now led to a new strategic planning effort to address the next several years. Efforts to use the theater facilities more completely during daytime hours, provides more access to community groups interested in renting space for meetings and events, and address capital needs are all included in the strategic plan (Latchis Strategic Plan).

In the case of Latchis as a Community Supported Enterprise and its impact on Brattleboro, the early intervention by the Preservation Trust to help initiate, organize, and support local efforts was key to the success of the project. A project of this magnitude in a community of Brattleboro's size and location is an important local economic development effort. The fact that it can be operated as a business that pays taxes and generates other sources of revenue to local governments plus provide a social gathering place and help other nonprofits raise funds is important to the economic prosperity of the area. This is especially true because it attracts revenues from surrounding areas as visitors attend events and stay at the Latchis.

*Contact info:* 50 Main Street, Brattleboro, VT 05301  
(802) 254-6300; <http://www.latchis.com/>

The Bee's Knees (<http://www.thebeesknees-vt.com/>)

The Bee's Knees originally opened in Morrisville, VT, in 2003 as a cafe. The cafe soon became a place for community members to eat and socialize where employees and customers could interact. The small size of the restaurant could not accommodate the demand. The kitchen was too small and a larger seating area was needed but funds to remodel were not readily available (Roman, 2009). The owner considered selling the business but was convinced by community members to try a community supported venture instead.

The owner started the sale of Community Supported Restaurant certificates of \$1,000 to finance the expansion and, in return, investors would receive \$1,080 in food vouchers. The restaurant also obtained unsecured loans of \$5,000 from customers to be repaid with a 4% return and an additional 10% discount on food purchases (Roman, 2009).

The Bee's Knees remodeling effort began in December 2007 with an expansion and the cafe remained open during most of the construction efforts. Community volunteers helped in the project to ensure that the opening was on schedule. Renovations added to the restaurant's available space and created outdoor seating along with a better functioning kitchen. The restaurant reopened providing a community centered meeting place and helped the local economy by supporting farms, artists, and musicians in the area. The restaurant closed in November 1, 2015. While the website still exists, information regarding reasons for closure were not available.

The Gleanery (<http://www.thegleanery.com/>)

The Gleanery is a Community Supported Restaurant in Brattleboro, VT, that uses surplus and unneeded crops from neighboring farms. Personnel create menus based on crops that farmers can provide during various seasons. A major café in the community had recently closed which triggered preparation of a business plan by three owners of the restaurant.



They then entered an annual competition hosted by the Brattleboro Development Credit Corporation and Strolling the Heifers winning a \$5,000 startup grant (Hirsch, 2013). Later, they created community membership shares of \$500, \$1,000, and \$1,500 to help the restaurant through its first three years. This initial investment guaranteed membership that would be paid back monthly through food credits and other activities including special dinners, classes, and food baskets. A Kickstarter campaign was also used. The owners secured more than \$10,000 from online backers who were reimbursed with a variety of rewards depending on donation level (James, 2012).

The partners worked with a local architect to design the restaurant and residents donated time and materials to help build tables and counters. Mugs are made by students in a local pottery

school and studios donate leftover materials for plates, dishes, and bowls (Hirsch, 2013). The entire process was started with an overall theme to reuse and not waste and that approach continues today.

*Contact info:* 133 Main Street, Putney, VT 05346  
(802) 387-3052; [thegleanery@gmail.com](mailto:thegleanery@gmail.com)

Phoenix Books (<http://www.phoenixbooks.biz/>)

Phoenix books is owned by two partners with three locations in Essex, Burlington, and Rutland, VT. The business began in 2007 with the opening of the first location in the suburban area of Essex. Then in 2011, a closure of a major bookseller left the nearby Burlington area without a bookstore. The owners considered moving the location of Phoenix Books to a larger market area, but then decided to open a second location there instead.

Hoping to avoid a costly and time-consuming market study, the owners decided to implement a community-based approach to help finance the new bookstore based on the philosophy described in *Locavesting* (Cortese, 2011) and on expert legal counsel well-versed in Vermont legislation and practices. Previous backgrounds in nonprofit development and fundraising enabled the owners to raise the capital quickly and launch the enterprise.

The following options were made available to community members interested in becoming involved:

- Option 1: Individuals loaned funds at 4% interest as ten year notes. Nothing is paid within the first five years. Accrued interest is paid in the following five years and then the principal and interest. These investors also had the option to convert the note to an ownership share though, as of now, no one has.
- Option 2: A pledge of \$1,000 allowed individuals to pre-buy books and hold a book club membership with additional store discounts.
- Option 3: An annual membership cost \$20. Individuals could pay \$100 to purchase a membership for five years.

Fundraising events were held in people's homes to obtain more support and advertise the business to the community. The owners also accommodated the financial abilities of community members encouraging them to invest only what they could afford. Other residents invested multiple amounts. Nearly \$360,000 was raised from large increments offered through Option 1 with the remaining \$65,000 from smaller pledges in Options 2 and 3. The total raised was \$425,000.

The closing of Borders also offered a unique opportunity for Phoenix Books to secure relatively inexpensive bookcases and materials needed in their new bookstore. They purchased and stored them through in-kind help from a friend. Space was secured one block away from a major marketing location where a space of 7,000 ft. was rented at \$11/foot, well below the going rate of \$25/foot rental in the area. The Burlington Store opened in May 2012.

In November 2014, one of the owners was contacted by representatives from Green Mountain Power in Rutland, VT, to possibly open a third location there. Green Mountain Power was helping to revitalize Rutland after the town suffered economic declines and other issues. Rutland had two independent bookstores that had since closed. The community had secured support from 30 members who had committed to pledging \$1,000 each to the new store with widespread support from important community leaders. A \$10,000 grant to open the store also had been secured. The intent was to run the bookstore with local management so the owners sought a local business partner to be part-owner and manage the Rutland store. That person invested \$50,000 which would be fully recovered within 3 years and would control 20% of the business. The Rutland location opened in September 2015.

Phoenix Books is currently doing well. The Burlington store is financially stable with sales of nearly \$1 million. Their numbers increased substantially from May 2012 to the spring of 2015 and in 2015, jumped 17% over previous years. Investor support is positive and customers have shown additional support by keeping their money within the business. A majority of the initial pre-buyers who invested through Option 2 have all or mostly spent their store credit. A small number decided to reinvest with an additional pledge.

Contact info: [info@phoenixbooks.biz](mailto:info@phoenixbooks.biz)

Phoenix Books Essex  
21 Essex Way #407, Essex, VT 05452  
(802) 872-7111

Phoenix Books Burlington  
191 Bank Street, Burlington, VT 05401  
(802) 448-3350

Phoenix Books Rutland  
2 Center Street

Rutland, VT 05701

(802) 855-8078

Shrewsbury Co-op at Pierce's Store (<http://www.piercesstorevt.com/contact-us.html>)

The Town of Shrewsbury, VT, (pop. 1,056) had a general store in operation since 1865 and the Pierce family had operated it since 1918 until the last family member decided to close it in 1993 (Shrewsbury Co-op). The store was an integral part of the social fabric of the community and a regular meeting place for residents so there was concern about its loss. Fortunately, in 2001, a Pierce family member had left a bequest to the



Preservation Trust to find a way for the store to reopen and continue operations and specifically to “draw the community together”. Two bequests were involved. The first bequest was a trust that provided \$15,000 to the store operator to pay taxes and other expenses to open the store. The second bequest established a Vermont Community Fund that provided matching funds up to \$30,000 for development efforts in surrounding communities.

In late 2007, the Historic Trust issued a request for proposals (RFP) from groups interested in purchasing and operating a grocery store in the building which had been idle since 2001. At that meeting, approximately 25 residents decided to organize a cooperative and respond to the RFP with several members taking the lead in designing the project. The members each contributed between \$10 and \$25 as earnest money. Initially, they had a target of \$25,000 that increased it to nearly \$125,000 with contributions from area residents. A Small Business Development Center at a local college analyzed the demographics, estimated potential markets, and helped with a business plan. The organizers wanted to avoid debt to the extent possible. The planning process determined that 325 patrons within 3 miles of the store would have to spend an average of at least \$15 per week to make the store viable.

They filed the paperwork, set up a bank account, and completed the incorporation papers with the first meeting of the Shrewsbury Co-op held in June 2009. Members of the co-op pay \$25 per year each and approximately 175 families hold memberships. The Co-op was not organized as a benevolent Co-op so it pays property taxes and income taxes. In return, members receive a discount of 2% on sales but do not receive dividends. However, the Co-op is open so that anyone can make purchases in the store.

Preparing the store for operations was a community event with 80 residents donating time and materials as needed on the first day. An inventory of \$10,000 was purchased to open the store.



The business model is to sell products from the surrounding area such as meat, cheese, eggs, maple syrup, and artisan crafts on consignment to maintain close ties with the community.

The business opened after several delays and conflicts with operators and in some instances a minimum wage plus free housing was provided. Each of the first two managers left after approximately two years. The third, and current, manager is from the area and has previous business training and is integrally involved in both the Co-op and the community.

The store has exceeded sales targets in the past several years. It is working to meet industry standards regarding profit levels and mark-ups while remaining competitive with other stores in the region. Efforts are underway to increase staff wages and to increase the discounts provided to members. Because of the small size of the store, the cost of merchandise is high so efforts are underway to tailor products sold to specific tastes of patrons. The initial organizers preferred to restrict alcohol and tobacco sales but they are now included in the inventory. The store contracts with a baker in a neighboring area for delivery of popular items.

The number of paid staff is small because volunteers regularly assist with various duties required in operating this type of business. The volunteers do not receive financial credit for their efforts and, thus, are essential to the success of the venture by keeping costs under control. The store has a licensed kitchen which offers opportunities for residents to make and sell products in the store. It is currently considering adding sliced meats and cheeses as well as hosting wine-tasting events. The store holds monthly community dinners produced by residents that build rapport and support among customers. Also under consideration is renovating another building on the property to expand the capacity to accommodate community events that the store could cater.

The store faces obstacles of other similar-size business ventures. The cost of merchandise is more expensive than in larger stores in nearby locations. The size of the market is small which makes the store vulnerable to changes in the local economy. Shrewsbury lost population between 2000 and 2010 which affects the potential market so effective management practices will be needed to make the store continue to succeed.

At the same time, however, several lessons can be learned from the experiences with Shrewsbury Co-op at Pierce's Store. First, the foresight of the Pierce family in making a bequest to see the store continue was crucial to its continuation. Second, the availability of a statewide agency such as the Preservation Trust to work with local groups to buy and reopen the store is important. Third, the willingness of residents to invest in the store and participate in the Co-op may well be the main ingredient in the continuation of a strong community asset.

*Contact info:* 2658 Northam Road, Shrewsbury, VT 05738  
802-492-3326

[Putney General Store \(http://putneygeneralstore.com/\)](http://putneygeneralstore.com/)

The Putney General Store is the oldest continuous operating general store in Vermont, starting in 1796. As with many Vermont general stores, in Putney (pop. 2,702) it was a social gathering place and contributed heavily to the social capital and quality of life in the area. It provided access to basic groceries and other items to area residents. A major fire in 2008 destroyed the facade and gutted the interior of the building but part of the structure could be salvaged. The loss caused significant concern among residents. The insurance proceeds were inadequate to rebuild and the owner had too much debt to take on a rebuilding effort so additional capital had to be raised to reopen the business. The building sat idle for several months.

Because of its importance to the community, the Putney Historical Society (PHS) was contacted by the Preservation Trust of Vermont, and encouraged to acquire the property and stabilize it with the potential of resale. Instead, the PHS decided to return it to the former status as a General Store with expanded merchandise. The purchase price for the building was \$105,000 and the estimated cost of the entire rebuilding



process was nearly \$500,000. They proceeded with reconstruction efforts using donations from community members along with grants and loans from the Vermont Housing and Conservation Board, the Vermont Community Development Program, the Vermont Community Loan Fund, the Preservation Trust of Vermont, and the Windham Regional Commission. The Putney Historical Society is a 501(C) 3 so could accept donations from residents and other groups.

Work continued until the structure was nearly complete by November 2009 when an arsonist burned the building to the foundation forcing the PHS to start over. The outpouring from the townspeople was significant as was their commitment to bringing the General Store back to life. The Preservation Trust of Vermont assisted PHS with organizing and evaluating planning options for another reconstruction. Fortunately, in this case, the insurance coverage was adequate so the losses were not as serious as in the previous case.

PTV also provided a small grant to help launch the effort and secure other funding including a \$160,000 federal grant from the Village Revitalization Initiative through Senator Leahy's office. Vermont's Community Development Program recommitted its 2008 Community Development Block Grant and increased it from \$200,382 to \$287, 382 to allow for construction

instead of rehabilitation. The total cost was estimated at \$1.3 million to rebuild and increase operations. The PHS wanted to minimize long-term debt to keep the rent reasonable for a store operator over the long term.

Publicity about the fire and its impact on the community helped fundraising efforts. The main donations (more than \$420,000) came from more than 350 residents, both current and past, who wanted to be a part of the rebuilding project. Other grants came from the Woodtiger Foundation, Block Foundation, Thomas Thompson Trust, Pepsi Refresh, Brattleboro Subaru, and Chittenden Bank, among others. The PHS owns the building and the property with a mortgage of \$230,000. They purchased used equipment to outfit the store and issued a RFP from interested store operators. By December 2011, the PHS was in a position to reopen the store.

The first operator did not succeed and in 2013 sold the business to an experienced pharmacist in Brattleboro who was interested in setting up a pharmacy on the second level of the store. The store is back in operation with access to basic health care needs and prescriptions in the community. Residents have responded positively to the store but, as in many small businesses, the cost of merchandise is relatively high, making it difficult to compete with other stores in neighboring cities. The store is successful but operates on a tight margin and since it is still young, the future is not completely clear.

Putney residents commute to other areas to work so have access to other stores for purchases. The cost of housing is relatively high in Putney which may limit its future growth potential. In a small store, payroll costs can be a substantial expense especially when the store is open long hours for the customer convenience. Its close proximity to neighboring towns such as Brattleboro means stiff competition. Nevertheless, at this time, the store continues to operate and provides a quality and essential service to the community that, in turn, makes it a more attractive place to live and raise a family.

Important lessons from the Putney example are similar to those in other examples. A local champion and residents committed to the future of their town are crucial. This was especially borne out in Putney after the second fire. Leaders and residents did not give up. Rather, they rebuilt a second time and continue to patronize the store. Putney may have had an advantage because it was experienced with other CSE projects so may have been more inclined to take this route.

Equally important in this case is the strong help provided by state agencies such as the Vermont Community Development Program and VHCB as well as private statewide nonprofits such as the Preservation Trust. While financial assistance is crucial, the expert guidance provided

and the contacts with other federal, state, and local agencies were essential for the Putney Historical Society to succeed with the project. This point has come up in nearly every discussion with local agencies involved with CSEs. It starts with recognition of a need or crisis, a willingness of residents to collaborate, local leadership, participation by private agencies, and support by other governmental units.

*Contact Info:* Putney General Store & Pharmacy; 4 Kimball Hill, Putney, VT 05346  
(802) 387-4692; [putneyrx@gmail.com](mailto:putneyrx@gmail.com)

## **Wisconsin**

Mobcraft Beer (<https://www.mobcraftbeer.com/>)

Mobcraft Beer is reported to be the first completely crowdsourced brewery (Mobcraft Beer Inc., 2016). It used the equity crowdfunding platform CraftFund and raised \$67,000 by selling shares in the company to 52 investors (Hurst, 2015). This intrastate campaign was one of the first of its kind and Wisconsin was an early state to adopt a crowdfunding law. Mobcraft Beer has won silver medals at the Great American Beer Festival and was named the top brewery in Wisconsin through *ratebeer.com*. They hold contests where individuals submit ideas for beers and the ideas with the most pre-orders are brewed. This subscription based method is similar to other Community Supported Breweries that have become popular in recent years. The brewery works in conjunction with House of Brews, also in Madison, to create and supply their products. Recently, they were on the television show Shark Tank but turned down the initial offers received (Mobcraft Beer Inc., 2016).

*Contact info:* 4539 Helgesen Drive, Madison, WI 53718  
(608) 535-4553; [beer@mobcraftbeer.com](mailto:beer@mobcraftbeer.com)

Cow & Quince (<http://www.cowandquince.com/>)

Cow & Quince was started in September 2014 in New Glarus, WI, (pop. 2,172) by a first time restaurant owner and member of Soil Sisters ([soilsisters.org](http://soilsisters.org)), a women's farmer initiative for sustainable agriculture (McColl, 2015).

The business, located in a 1930's building in New Glarus that formerly was a grocery store in the heart of downtown, is a market and a restaurant designed to provide a farm-to-table experience with locally-prepared "sauces, bread, jams, desserts, and fermented delicacies." The ingredients are local and organic food products grown on nearby Wisconsin farms. Monthly prix fixe dinners with several courses at a fixed price are prepared. These meals require reservations. In addition, an annual members' dinner is provided for participating members.



The Cow & Quince has several forms of memberships incorporated into the financing plan. A *community* membership (\$125) provides a 10 % discount on meals and other items in the market plus a 15% discount on the prix fixe dinners. *Full Membership* (\$360) provides a 15% discount on all grocery, market, and restaurant purchases plus 15% discount coupons (transferable) for the prix fixe dinners. These members also receive two invitations to the annual members' dinner. When joining, members receive a \$25 gift card which provides visibility to a wider audience. Suppliers are also offered a "farmers membership" which invites them to receive part of their receipts in credit at the Cow and Quince.

The business stocks other items made locally so it represents a community supported business and a source of local merchandise for tourists. They engage the community in raising capital and in creating an awareness of sustainable food practices. New Glarus is home to several local community efforts including the New Glarus Brewery with a well-known product and a marketing strategy that concentrates on sales in Wisconsin. Combined, these ventures make New Glarus a significant tourist attraction.

The Cow & Quince also supports community improvement issues. A new processing kitchen, funded by a grant from the USDA's Local Food Promotion Program, makes a canning facility available to producers. These services expand the exposure of the store and further illustrate a commitment to inform the community about the accessibility and affordability of local food and organic food plus, in the process, add to the local economic stability of the area by purchasing locally.

*Contact Info:* 402 2nd Street, New Glarus, WI 53574

(608) 527-2900; [info@cowandquince.com](mailto:info@cowandquince.com)

## Wyoming

### The Mercantile [CLOSING]

The Mercantile in Powell, WY, (pop. 6,476) was created after a major department store closed. The closure forced Powell residents to drive more than 50 miles for basic necessities and community members were concerned about the economic losses that the closure would bring. Residents tried to attract other chain retailers but efforts failed because they did not meet the necessary population criteria (Batdorff, 2004). News then traveled about a small town department store in Plentywood, MT, Little Muddy Dry Goods, that had been started by community members, each contributing \$10,000 in capital (ILSR, 2008). Powell residents visited Plentywood and decided that the same model could work in Powell.

The town formed a board of members and filed paperwork with the state to offer stock in the new enterprise, The Powell Mercantile (Mitchell, 2008). The business plan required \$400,000 in capital which was raised by the sale of more than 800 shares in \$500 increments (Bloom, 2010). The board also held fund-raising sessions and brought in speakers to help raise needed funds. The Powell Mercantile opened in 2002 and after several years expanded into an adjacent building with the help of a \$180,000 grant from the Wyoming Business Council adding additional needed space (Monday, 2009).

Dividends were not initially paid to shareholders, but were reinvested in the business, until the fifth year of operation, when a \$75 dividend per share was paid (Monday, 2009). The Mercantile was profitable during its first few years and did not have a net loss until the seventh year of operation (Monday, 2009). The store began to show signs of financial difficulty in 2013 when half of the building was sold to create three other businesses (Lawrence, 2014). The store also reduced the number of employees and sales later decreased dramatically in 2014. In March 2016, the decision to close the Powell Mercantile was made and operators are trying to sell the building and remaining merchandise (Powell, 2016). This closure is attributed to changes in buying habits, competition from new businesses, and increased internet shopping.

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(307) 754-5888; [themerc@tctwest.net](mailto:themerc@tctwest.net)

## **Lessons Learned from CSE Approaches**

While CSEs differ in purpose, design, and operations, they have common features that can help other groups interested in using the CSE approach in local development efforts. The diversity of issues addressed as well as the types of organizational structures and purposes used in CSEs speaks highly of their versatility and potential for community enhancement. However, these efforts are a blend of economic development strategy and a business startup, which adds a dimension to CSEs that may not exist in all private business.

Above all, however, a CSE faces the normal difficulties associated with this type of business activity. Obtaining adequate financing upfront is paramount and is a frequent cause of failure in the early years. A CSE can be even be more challenging due to the need to organize a large number of small part-time investors caught up in the excitement of this community effort. Maintaining the necessary level of interest over a long time requires continued efforts and communication as is noted below.

Accurate assessment of markets and effective management practices are essential to success. Because investors are not always well-versed in business practices, an education process may be needed to control expectations and guide potential investors in the process. At the same time, it is crucial that the organization is structured effectively to minimize potential negative effects of disagreements. The fact that CSEs are driven partly by social goals does not absolve them from meeting a market test.

Also important to understand is that the interest in using a CSE approach may signify that the private market did not accept the initial business venture. Several grocery store examples showed that previous owners wanted to sell the business partly because profit goals were not met. The motivation of residents was to help retain the business but the market conditions did not change. Thus, tight management practices or a different business model were needed to keep the venture viable.

Several key ingredients in organizing a CSE/CSB were identified in the comparisons of CSE examples. First, and perhaps foremost, is a recognized need, or deficiency, in a specific activity or service in the community. This need must then be marketed well. Community-wide recognition of the need is what seems to drive the successful organization and mobilization of residents who then invest in the project. Several CSEs in this study were triggered by the loss of a grocery store. Faced with the inconvenience of less access to basic food items motivated residents to invest or donate funds for an effort to reopen a store. In any event, it is important that the project be clear and communicated as an opportunity to residents or potential investors.

Second, a suitable organizational model or approach is necessary to attract overall support in the community for initial investment as well as continued patronage. In some instances, the model or management approach did not seem to function well and deteriorated into financial disagreements resulting in closure even when the CSE was profitable. Initial interest and excitement can start a project but it must be able to support the effort for a long period. When organized correctly, an attraction of CSEs, especially using the CSA pre-payment approach, is that a steady clientele is built into the venture when investors receive part of their returns in trade. This can be an important source of long-term market stability.

Third, several people interviewed in the project emphasized the importance of a spark plug or champion for the project who has credibility in the community. In some instances, it was a financial person leading the effort while in other cases it was the prior business experience of an investor or manager. Nevertheless, gaining and retaining this credibility for a long period of time can be challenging but is essential for the project to flourish. The local champion is often someone with business experience and who can convey an entrepreneurial spirit to community leaders and residents. This person(s) often has a major stake in the venture—financially or otherwise—to retain credibility when the project faces challenges. An appropriate local leader is also important because most CSEs involve several sources of financing that require credibility to raise funds from other than traditional financing sources.

Fourth, a positive and supportive economic environment in which the CSE is located has been especially important. A deteriorating economic environment adversely affects all stores and can threaten a newly-formed CSE. In many cases, financial institutions have made loans to help initiate a CSE and its personnel have been major players in helping to organize and manage the ventures. A review of the CSE examples in this report suggest that the source of expertise and commitment may be less important than the fact that it is available and willing to become involved.

The overall economic conditions in the area greatly affect not only the potential for the CSB but also can contribute to the need for this approach. Changes in population and employment create conditions that can discourage or even prevent private investments. In these cases, a CSE may be the only alternative to preserving a business and stabilizing the economy. At the same time, however, this situation makes it more difficult for the CSE to survive, let alone prosper. This study identified several cases where a CSE approach may have been the only suitable alternative and even though the CSE performed reasonably well, the economic declines threatened its continued viability. In several such cases, the CEB was used in a transitional process to help retain a private business and ultimately return it to the private sector.



The research in this project makes it clear that the CSE approach works best in conjunction with a broader economic development strategy to promote the local economy. A CSB, in essence, includes a combined community development and an economic development approach. One venture, by itself, is unlikely to reverse a local economic downturn and without clear indications of success, may cause investors to lose interest. A significant challenge is how to create an exit or succession plan. More experienced CSEs clearly show that maintaining interest among investors, past or future, can be difficult. An aging population initially vested in the project may have moved on lessening the local commitment. This is especially important in the CSEs that rely on substantial donated time and materials.

While many aspects involved in starting a CSE resemble those in starting other businesses, there are several important considerations for CSEs including a need to work with the public as investors without a clear expectation of financial return. While, initially, the public can become caught up in the excitement and making a commitment to their community, they can lose interest without continued communication regarding the contributions and success of the venture. In other words, maintaining a relationship with investors is especially important even when they may not have control of management decisions.

CSEs are only one of several approaches to financing a business. The increasing use of crowdfunding platforms and the relative ease of accessing residents will likely mean that this financing approach will grow in popularity especially in areas with sparse and declining populations and small markets. Community and economic development practitioners can explore some of the examples in this report and determine whether the models used, or some variant, could work in their area. Not all, but many have proven successful and are making a serious contribution to the quality of life in their community.

## Appendix One. Legal business structure formation

All information presented here is from the U.S. Small Business Administration website.<sup>9</sup> It is provided as a resource to aid in future business creation.

### **Limited Liability Company (LLC)**

*Description:* Owners of the LLC are its “members” and can include single individuals, multiples, corporations, or other LLCs (depending on state regulations). There are no restrictions to how many members may be included.

*Formation:* The name of the business must indicate that it is an LLC and must be unique to the business. Articles of organization must be filed to legitimize the LLC and include information regarding name, address, and members’ names. A majority of the time these will be filed with the Secretary of State though that may differ from state to state as do filing fees. Operating agreements are not required by most states but are recommended for LLCs with many members. These agreements set in place regulations and rules for the operation of the business and include information on the following: percentage of interests, allocation of profits and losses, members’ rights, responsibilities, and other supplemental information.

Licenses and permits must be obtained once the LLC is registered. These also vary by state, related industry and locality. Federal and state guidelines must be followed when hiring employees. Some states may also require an announcement of LLC creation in a public outlet, such as a newspaper.

*Taxes:* The LLC itself is not taxed and all federal income taxes are paid through members’ personal income. Some states may still tax income for the LLC. Some LLCs will automatically be classified as a corporation when filing taxes though if this is not the case, they may choose to file either a partnership or sole proprietorship tax return.

### **Benefits:**

- Limited Liability protects members from personal losses
- Less registration paperwork
- Smaller startup costs
- Less restriction in profit sharing - members decide how to distribute

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<sup>9</sup> <https://www.sba.gov>

## **Corporation (C Corp)**

*Description:* A corporation is a business that is owned by a set of shareholders. The sale of shares often takes place through public stock offerings. Shareholders are not legally liable for any actions or decisions made by the business.

*Formation:* A business name must be established and registered with the state government. If an operating name is chosen that differs from the registered name, then the business must file a fictitious name. Some states may require the inclusion of a corporate designation after the proposed name.

Registration is done through the Secretary of State office and may require articles of incorporation, establishment of directors, and issuance of stock certificates to initial shareholders. (These will also depend on the state in which the corporation is filed.) Once registration is complete, licenses and permits must then be acquired. These will likely vary by state, industry, and locality. Any employment must also adhere to state and federal legal requirements. Registration and filing fees vary by state.

*Taxes:* Corporations must pay federal, state, and local taxes. They are required to pay income tax on profits and in some cases may be double-taxed; when profits are made and when dividends are paid to shareholders (on their personal tax returns). When reporting revenue to the federal government, corporations fill out the U.S. Corporation Income Tax Return, IRS Form 1120 or 1120-A. Employees who are also shareholders will pay income tax on their wages.

### *Benefits:*

- Limited Liability: shareholders are legally protected from the actions of the corporation and are only accountable for their investment of stock into the company
- Able to raise funds through the sale of company stock
- Corporations and owners file taxes separately; owners pay taxes only on profits paid to them and additional payments are taxed at a corporate rate which is usually less than personal tax rates

## **Partnership**

*Description:* A partnership is a business with shared ownership between two or more people. All parties contribute equally into the various aspects of the business and share in the gains/profits and losses.

*Formation:* A legal partnership agreement is required to outline how decisions will be made, how profits will be distributed, a resolution process for disputes, and future changes to the business. A business name must be created, either from the partnership agreement or the last names of the partners. If operating under a different name, then a fictitious name must be filed. Registration is

through the Secretary of State's office. After registration, licenses and permits must be acquired and vary by state, industry, and locality. Any employment must follow federal and state guidelines. Required registration and filing fees vary by state.

Taxes: Partnerships must file an "annual information return" that reports income, gains, deductions, and losses. Income taxes are not paid by the business, but are paid by individual partners on personal tax returns. Partners are not issued a W-2 as they are not employees. Partnerships must file a Form 1065 and any extensions needed must provide copies to all partners by the required date.

Partnership taxes include: Annual Return of Income, Employment Taxes, and Excise Taxes.

Partners are responsible for: Income Taxes, Self-Employment Tax, and Estimated Tax.

Benefits:

- Inexpensive and easy to form
- Pooling of resources to obtain capital
- Shared financial burden

## **Sole Proprietorship**

Description: A Sole Proprietorship is one of the simplest business structures since it is owned and operated by an individual with no distinction between the business and owner. The owner receives all of the profits and is accountable for all losses, debts, and liabilities.

Formation: No formal action is needed to form a sole proprietorship but the necessary licenses and permits must be obtained along with any associated fees which vary by state, industry, and locality. Operating under a name different from one's own requires filing a fictitious name and another name must be chosen that is not already claimed by a different business.

Taxes: Since the business and owner are the same, the income of the sole proprietorship is the owner's income. The owner reports income with a standard Form 1040 and a Schedule C. It is the owner's responsibility to pay all income taxes including estimated taxes and self-employment.

Benefits:

- Least expensive business structure to form
- Complete control over business decisions
- Lowest taxes of all business structures
- Easier tax filings - as the business is not taxed separately

## **Cooperative**

*Description:* A cooperative is a business that is owned and operated by its members and for the benefit of those members. Membership guarantees voting rights in the business while a board of directors and officers are elected to manage the business. Membership is obtained by the purchase of shares in the cooperative though the number of shares bought does not affect the value of one's vote because this structure has a one member one vote policy.

*Formation:* A group of individuals meet and agree on a common need and strategy to implement this business. Often meetings, surveys, and feasibility analyses are conducted. If the cooperative incorporates, the following actions must be done:

- Article of incorporation must be filed and approved by the state registry;
- Create bylaws that comply with state laws;
- Create membership application to legally recruit members;
- Elect directors of the cooperative;
- Conduct a charter member meeting to amend and adopt bylaws;
- Obtain relevant business licenses and permits which vary by industry, state, and locality; and
- Any employment must comply with state and federal regulations.

*Taxes:* Cooperatives are not required to pay federal taxes from the business entity. Instead, members pay federal taxes when filing personal income tax forms. A Form 1099-PATR should be filed on any income received from a cooperative. A consumer cooperative of retail goods or family, personal, or living services must file a Form 3491 Consumer Cooperative Exemption Application. Some cooperatives may be exempt from state and federal taxes.

*Benefits:*

- Less taxation: only tax the income received from cooperative
- More funding opportunities through various grant programs
- Less disruption when members leave and join
- Democratic leadership

## **Nonprofit Corporation**<sup>10</sup>

*Description:* A nonprofit corporation is similar to a regular corporation, although nonprofits are tax-exempt entities that serve a public purpose. They can make a profit, but their main purpose cannot be to do so.

*Formation:*<sup>11</sup> An available name must be chosen that complies with state legal requirements. A board of directors is required as well as the creation of bylaws for the organization. Articles of incorporation must be filed with the state where the business is headquartered. Registration with the state is often required prior to engaging in charitable solicitation and fundraising. Other licenses and permits may be required depending on the specific practices of the nonprofit and whether any employment practices will take place.

*Taxes:* Nonprofits must apply for a Federal 501(c) 3 tax-exempt status by submitting an application through the IRS. Other state applications may be required. If approved, the nonprofit will be exempt from any local, state, and federal taxation. The nonprofit may be required to pay other taxes on related activities, such as employment taxes. Contributions to the nonprofit are eligible for a tax deduction for donors.

### *Benefits:*

- Tax exempt status
- Tax deductible contributions for donors
- Public and private grant programs offer greater funding
- Limited liability to shareholders

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<sup>10</sup> There are other legal structures for a nonprofit organization though the nonprofit corporation is the most common.

<sup>11</sup> For more information on separate state requirements please check [here](#).

## Appendix Two. Hybrid Organizations<sup>12</sup>

### Benefit Corporation

A for-profit corporation that legally recognizes a public benefit as one of its business purposes. There are similar taxation and formation procedures as with a traditional corporation; however, requirements vary in states where this structure has been legalized. The charter of a benefit corporation must state the adopted public benefit. In some cases, a benefit director must be appointed and annual benefit reports are required. These reports are set and assessed by a third party standard that is pre-selected by the benefit corporation.

### B-Corporation<sup>13</sup>

Not to be confused with a benefit corporation, a B-Corporation is a for-profit business entity that has been certified through the third party, nonprofit, B-Lab. Companies that have this certification are assessed through strict social, environmental, and performance standards. Recertification is required every few years as well as separate filings, reports, and fees.

### Benefit LLC

Combines the legal recognition of social purposes and the organization of traditional LLC's. Similar practices as with benefit corporations though in an LLC format. This is done so as to allow current LLC's to adopt social purposes without a requirement to convert to a corporation. Formation, organization, and taxation are similar to traditional LLC's. Legal efforts regarding BLLC's are substantially less than other forms.

### Social Purpose Corporation (SPC)

Formerly known as a Flexible Purpose Corporation. A for-profit corporation that pursues one or more explicitly stated social or charitable purposes in addition to other corporate goals. Organization, formation, and taxation requirements are similar to those of regular corporations with a few exceptions. Special purposes of the SPC must be included in the articles of incorporation and adhered to by the corporation's actions and activities. These "special purposes"

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<sup>12</sup> Information in this section is based on *Which Legal Structure is Right for my Social Enterprise? A Guide to Establishing a Social Enterprise in the United States* by Morrison & Foerster LLP. For more information regarding legal business formation, social enterprises, and hybrids, this guide may be found [here](#).

<sup>13</sup> Further information on B-Lab and B-Corporations can be found [here](#).

must also comply with legal definitions and restrictions which depend on the state of operation. Further annual and current reports must be done to ensure compliance with the set special purposes of the corporation.

#### Low-profit Limited Liability Company (L3C)

A traditional LLC structure that operates for a charitable purpose. Articles of organization must include the social purpose of the L3C. Formation and taxation is similar to traditional LLC's though further requirements and filings are needed. These will depend on the state in which the L3C will be located. This form offers few advantages over traditional LLC's aside from greater association to social purposes.

#### Hybrid Subsidiary

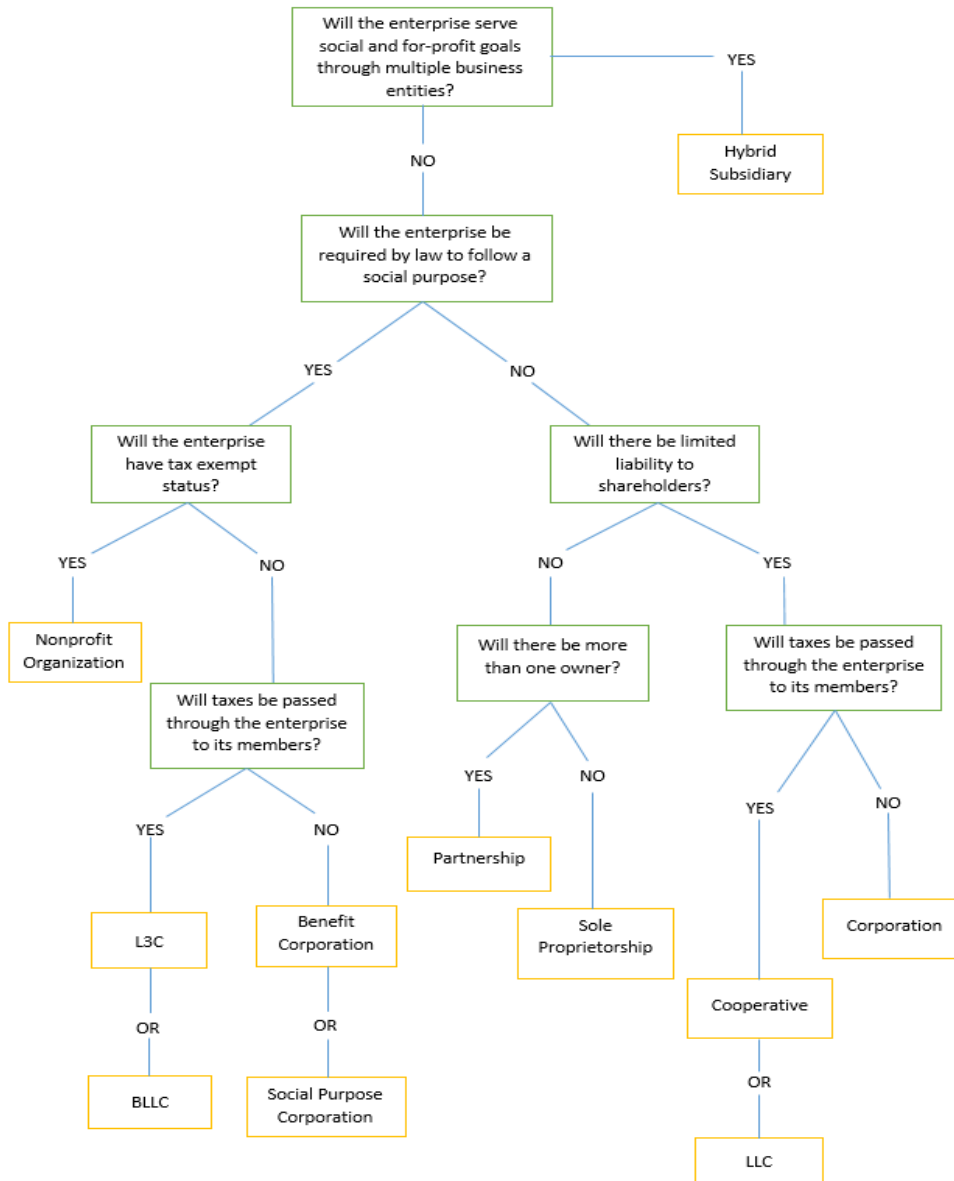
Can be a for-profit entity that creates a private nonprofit foundation or a nonprofit organization that creates a for-profit subsidiary. This is done so as to engage in social purpose activities typically associated with nonprofit charities, though through less financially restricted means. The nonprofit organizations are tax-exempt entities and the for-profit businesses are driven by financial incentives. If the nonprofit is the parent company, as long as it holds sufficient ownership of the for-profit subsidiary, it is able to engage in other financial activities and retain its tax-exempt status. If the nonprofit organization is the subsidiary, as a private foundation it is regulated similar to typical nonprofits with some variations.



## Appendix Three. Choosing a Business Structure

The following chart is included to help with deciding which business structure is best for an intended enterprise. This diagram is modeled after a guide found in *Which Legal Structure is Right for my Social Enterprise? A Guide to Establishing a Social Enterprise in the United States* by Morrison & Foerster LLP.

Check current state laws and regulations regarding the creation of Social Enterprises and hybrid organizations.<sup>14</sup>



<sup>14</sup> A guide to the legal status of some Social Enterprises can be found [here](#).

## Appendix Four. Funding Options for Small Businesses

	Type	Description	Advantages	Disadvantages
<b>Traditional Private Sector Capital</b>	<i>Private Equity &amp; Venture Capital</i>	Private investors provide funds in exchange for an ownership share	<ul style="list-style-type: none"> <li>• Can provide substantial capital and opportunities for growth and follow up funding</li> <li>• Access to new customers, suppliers, and service providers through specialized networks</li> <li>• Providing advisement and management services through due to ownership share</li> </ul>	<ul style="list-style-type: none"> <li>• Low successful obtainment rate</li> <li>• Focus on traditional venture sectors</li> <li>• Due diligence process is expensive and time-consuming</li> <li>• Loss of ownership and diminished control</li> </ul>
	<i>Angel Investors</i>	Private individuals invest their money for an ownership share	<ul style="list-style-type: none"> <li>• Includes non-accredited investors</li> <li>• Can provide more patient capital</li> <li>• Capital is flexible and includes small and large loans</li> <li>• Can be less time-consuming and typically requires less due diligence</li> </ul>	<ul style="list-style-type: none"> <li>• Concentrated in only a few industries</li> <li>• May not have resources for multiple funding rounds</li> <li>• Active angels may interfere with business operations</li> </ul>
<b>SBA Programs</b>	<i>SBIC Program</i>	Partners with privately owned, professionally managed investment firms. Most provide debt financing	<ul style="list-style-type: none"> <li>• Operate similar to private equity and venture capital</li> <li>• Provide funding in broader industries and regions</li> <li>• Program stability through business cycle</li> </ul>	<ul style="list-style-type: none"> <li>• Competitiveness in securing funding</li> <li>• Amount invested each year is small compared to other forms</li> </ul>
	<i>SBIR &amp; STTR Programs</i>	SBA dispersal of capital from 11 federal agencies that supports small business engagement in federal R&D with the potential for commercialization	<ul style="list-style-type: none"> <li>• Grants provide zero cost capital</li> <li>• Federal agencies do not take ownership or property rights</li> <li>• Competitive but higher acceptance rates</li> <li>• Finance a broader set of industries</li> <li>• Some matching funds and gap funding</li> </ul>	<ul style="list-style-type: none"> <li>• Suited only for early stage funding</li> <li>• Working with governmental agencies can be a bureaucratic and time-consuming process</li> </ul>
<b>Specialized Opportunities</b>	<i>Program Related Investments</i>	Investment treated as a grant from a foundation to nonprofit and for-profit organizations	<ul style="list-style-type: none"> <li>• Debt financing – Retain full ownership</li> <li>• Good source for long-term, patient capital</li> <li>• May provide lower-cost capital</li> <li>• Financing across diverse industries and geographies</li> </ul>	<ul style="list-style-type: none"> <li>• Relatively small market</li> <li>• Intermediaries may lack knowledge and resources to facilitate investment</li> <li>• Decision process may be lengthy</li> </ul>
	<i>Community Development Venture Capital</i>	Mission driven VC funds investing in small businesses in underserved communities	<ul style="list-style-type: none"> <li>• Provides to more diverse industries and regions</li> <li>• Combine VC resources with social/environmental impact investment</li> <li>• Flexibility and ability to make smaller investments</li> </ul>	<ul style="list-style-type: none"> <li>• Amount invested each year is relatively small</li> <li>• May not be as effective as traditional VC</li> </ul>
	<i>EB-5 Immigrant Investor Program</i>	Issuance of visa to considerably high investments from immigrants. Created to increase jobs in high unemployment areas using foreign capital	<ul style="list-style-type: none"> <li>• Can be relatively low cost of capital</li> <li>• Provides to diverse set of industries and regions</li> <li>• Flexible capital can be invested in small amounts</li> <li>• Some ownership obligations to investors, typically less control</li> </ul>	<ul style="list-style-type: none"> <li>• Complex program and small market</li> <li>• Costly and difficult to hire intermediaries</li> <li>• Longer approval times</li> <li>• Not patient capital</li> <li>• May not have resources available for multiple funding rounds</li> </ul>
<b>New Sources</b>	<i>Revenue Based Capital</i>	Pay fixed percentage of top-line revenues monthly, quarterly, or annually until full investment is paid back. Both debt and equity characteristics	<ul style="list-style-type: none"> <li>• Debt financing – Retain full ownership</li> <li>• Can be used to fund growth projects</li> <li>• Does not require personal guarantees, collateral, or restrictive covenants</li> <li>• Incentives to support additional business growth</li> </ul>	<ul style="list-style-type: none"> <li>• Relatively small market</li> <li>• If structured as equity – dilute ownership and control</li> <li>• Payments may have to be made before cash flow is realized</li> </ul>
	<i>Rewards-based Crowdfunding</i>	Web-based platform used to offer a set reward (product or service) in exchange for financial commitment	<ul style="list-style-type: none"> <li>• Retain full ownership of company</li> <li>• Highly flexible, low cost capital</li> <li>• Low risk, less time-consuming source</li> </ul>	<ul style="list-style-type: none"> <li>• Smaller funding amounts</li> <li>• May not have resources available for multiple funding rounds</li> <li>• Must leverage network and provide clear value proposition</li> </ul>
	<i>Equity-based Crowdfunding</i>	Use of an online platform to raise equity in exchange for an ownership share in a company	<ul style="list-style-type: none"> <li>• Larger pool of investors – Accredited and Non-accredited</li> <li>• Direct advertisement to the public through online channels</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of ownership and control</li> <li>• Complex and new federal and state regulations</li> </ul>

Source: Initiative for a Competitive Inner City, 2015

## **Appendix Five. CSEs, CSBs, and Businesses Using CSE Financing Methods** *(Listed Alphabetically by State)*

### **Arizona**

Barrio Bread Company, Tucson

### **California**

Awaken Cafe, Oakland

KPFA Radio, Berkeley

Shingletown Library, Shingletown

Three Stone Hearth, Berkeley

### **Colorado**

Fresh Thymes Eatery, Boulder

Walsh Community Grocery Store, Walsh

Westwood Food Co-op, Denver

### **Delaware**

88.7 The Bridge, Milford

### **Florida**

Dandelion Communita Cafe, Orlando

Orlando Health, Orlando

### **Georgia**

Empower Family Medicine, Decatur

### **Idaho**

Boise Brewing Company, Boise

### **Illinois**

40 North, Champaign

Begyle Brewing, Chicago

Luna Herb Company, Troy

Nauvoo Market, Nauvoo

Recess Brewing, Edwardsville

Sitka Salmon Shares, Galesburg

Sketchbook Brewing, Evanston

SuperValu, Toulon

Washburn Community Foods, Washburn

**Indiana**

Burlington Community Library, Burlington

**Iowa**

The Copper Penny, West Liberty [CLOSED]

The Mercantile, Correctionville

Township Grocery, Bonaparte

**Kansas**

GCIA Grocery, Gove

Hometown Market, Minneola

The Merc Co-op, Lawrence

**Maine**

Local Sprouts Cooperative, Portland

Port Clyde Fresh Catch, Port Clyde

**Michigan**

Mulefoot Gastropub, Imlay City

**Minnesota**

Northeast Investment Cooperative, Minneapolis

Project Resources Corp, Minneapolis

**Montana**

Little Muddy Dry Goods, Plentywood

Livingston Mercantile, Livingston

**Nebraska**

Cambridge General Store, Cambridge

Circle C Market, Cody

Wolf Den Market, Arthur

**Nevada**

Garnet Mercantile, Ely

**New Mexico**

New Mexico Tea Company, Albuquerque

**New York**

All Good Bakers, Albany  
Community Beer Works, Buffalo  
Greenlight Bookstore, Fort Greene  
Greyston Bakery, Yonkers  
Saranac Lake Community Store, Saranac Lake  
Stolen Chair Theater, New York  
Sweet Deliverance, Brooklyn  
Third Root Community Health Center, Brooklyn

**North Carolina**

Renaissance Community Coop, Greensboro

**Oregon**

CS Fishery, Garibaldi  
Salt, Fire, & Time, Portland

**Pennsylvania**

The Head & The Hand Press, Philadelphia  
Yoga Matrika, Pittsburgh

**South Dakota**

Clark Hometown Variety Store, Clark

**Texas**

Lenoir Restaurant, Austin

**Vermont**

Barnard General Store, Barnard  
Brattleboro Food Co-op, Brattleboro  
Cabot Creamery Cooperative, Waitsfield  
City Market Co-op, Burlington  
Claire's Restaurant, Hardwick [CLOSED]  
Guilford Country Store, Guilford  
Latchis Hotel & Theater, Brattleboro  
New Leaf Deli & Market, Shelburne [CLOSED]  
Peacham Cafe, Peacham  
Phoenix Books, (Rutland, Essex, Burlington)  
Putney General Store, Putney  
Shrewsbury Cooperative, North Shrewsbury

The Bee's Knees, Morrisville [CLOSED]  
The Commons, Brattleboro  
The Gleanery, Putney  
The Savoy Theater, Montpelier  
West Townshend Country Store, West Townshend  
Windham Foundation, Grafton

**Wisconsin**

Black Sheep, Rice Lake [COMING SOON]  
Braise, Milwaukee  
Cow and Quince, New Glarus  
House of Brews, Madison  
Mobcraft Beer, Milwaukee

**Wyoming**

The Mercantile, Powell [CLOSING]

## Appendix Six. Interview Protocol

Name of CSE: \_\_\_\_\_ State: \_\_\_\_\_

### **Background**

*These questions ask how the idea for the enterprise came about and the methods used to gain support and momentum from the community. Who initiated the project? Was it a community group, private individual, a government organization? Also, was there a general application of business knowledge (i.e., marketing, sales, finance, operations, etc.) and principles to the venture?*

1. How did the business start?
2. When was it started?
3. What was the motivation or intended outcome (note: try to probe for discrete, if possible measureable social, revenue and if relevant, environmental sustainability goals/outcomes)?
4. Who were the main players in creating the business? (positions in community, not names)
5. Were they from the current community or neighboring areas?
6. How many investors contributed to the business initially?
7. Was there an option to invest “in-kind”, namely donated labor, services, etc., along with or instead of money?
8. How much was raised initially from investors to launch the business?
9. Was there a set business plan from the onset? If so, is it followed, updated? (is a copy available?)
10. What products/services/industry best describe the business?
11. Who are the main targeted customer segments?

### **Structure of Enterprise**

*What type of ownership structure was chosen for the enterprise and whether this ownership is limited to private individuals, the entire community, or a specific organization? We can then distinguish between public and private ownership. Have the businesses had transitional*

*ownership from public to private or vice versa? Also looking for different management structures where one group owns the building and equipment and leases to another group.*

*How was the enterprise funded, both through community financing and other means? Also, the ways that the community provided support, such as volunteering, donation of materials, fundraising events, promotion, etc., will be useful. Was the community the main driving force in this project? If it was, then how and, if not, then what was their level of involvement?*

1. What is the legal ownership structure of the business, e.g., LLC, cooperative, etc.?  
Why was this option chosen?
2. Has this structure changed since the creation of the business? If so, explain.
3. Are those who invested in (own) the business the same as those who operate it? If so, explain.
4. What were the main forms of startup financing? e.g., personal contacts, crowdfunding
5. Has additional financing been needed/secured since startup? For what purposes?
6. Were community financing methods used? Which ones and why?
7. In what other ways was/is the community involved?

### **Takeaways**

*The intent is to obtain ideas about what to expect when creating a CSE that can be put to further use for others wishing to start one.*

*How is the business currently doing and expectations for the health of the business? Also, have the initial goals of the business been realized?*

1. How long did the entire process take to start the venture or enterprise? (until it opened)
2. What types of financial rewards were provided? Any in-kind, e.g., discounts on trade as part of the financial return?
3. What were the greatest hurdles to overcome in starting the enterprise?
4. Would anything be done differently, if starting it again?
5. Has this venture succeeded?
  - How has it benefitted the community other than employment?
  - Is it financially profitable? What are current sales?
  - For the past three years?



*If the business has since closed, discuss the reasons for closure and what has happened to the building, equipment, and any investors. Has the business reopened under different management or have other similar ventures tried to replace it.*

**Future of the Enterprise**

*How has the connection to the community grown or dissipated and whether the business is likely to expand? Also, what future developments are planned?*

1. How has the business changed since its beginning?
2. What are the plans for the future?
3. Any other comments you would like to make about the experience of starting this venture?

Thanks for participating in this survey. If you wish a copy of the tabulated results, please provide a name and e-mail address.

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# Emergence and Growth of Community Supported Enterprises

Norman Walzer and Jessica Sandoval\*

Local public officials and community leaders, driven by a need to revitalize their economies in the post-recession years, help finance local ventures in new and interesting ways. Low-cost loans and other financial inducements still support business startups and expansions. However, local groups also raise funds invested directly in local ventures called Community Supported Enterprises (CSEs). When these activities sell a product or service, they are called Community Supported Businesses (CSBs).

CSE approaches involving direct local investment in businesses are not entirely new but their motivation increased during the slow post-recession recovery. Now they are often driven by a perceived need to start, or retain, essential businesses at risk of closing. Grocery stores and restaurants are common examples, especially in small and remote areas. The need for these basic services caused residents to explore new financing tools and approaches.

The growing engagement by local residents in promoting community sponsored businesses came about partly because of difficulties these businesses had in accessing capital for either startups or expansions. Likewise, long-term economic declines, plus pending retirements of community members without local heirs, threatened long-standing businesses considered vital to the future of communities.

At the same time, the advent of crowdfunding platforms and other changes in financing alternatives brought options for financing public and private ventures with relatively small contributions by residents. In some instances, residents contribute to local ventures with little, if any, expectation of financial return but value the contributions of the activity to local quality of life or see it as a charitable contribution plus an investment. This scenario offers new alternatives for local leaders to team with business or social entrepreneurs in exploring ways to create, or otherwise reshape, services that make the community a more attractive place to live for current and prospective residents.

Thus, community supported enterprises are both community and economic development approaches. A more complete understanding of factors driving the increased use of CSE financing methods and how they are changing, along with innovative approaches followed in organizing local investors, can help policymakers and practitioners address local concerns more successfully.

The Center for Governmental Studies (CGS) at Northern Illinois University (NIU) partnered with Michigan State

University and the University of Wisconsin-Extension, with funding from the North Central Regional Center for Rural Development (NCRCRD) at Michigan State University, to examine how communities finance and promote small businesses. The study is a first step in helping outreach agencies design programs to address local needs. The practices change over time deepening our understanding of strategies as well as successful practices.

The NCRCRD report (<http://cgs.niu.edu/reports/Emergence-and-Growth-of-Community-Supported-Enterprises.pdf>) provides background materials explaining various types of CSEs along with local approaches used to launch them with mini-case studies selected to show differences in purpose and financing practices. Since literally hundreds of different types of CSEs exist, the group included is neither exhaustive nor representative of all CSEs. Many examples are from the Midwest as well as Vermont, Washington, and Wyoming. The sample CSEs illustrate a broad profile of approaches based on information gathered from the internet, phone interviews, and/or on-site interviews to learn about motivations for organizing, involvement by key individuals, and outcomes. Efforts to obtain more complete information are underway and the importance of candid discussions with principals in these efforts cannot be overstated because they are directly involved with on-going operations.

*The use of CSEs will increase in the future as residents engage more and more in local financing efforts.*

The report examines in some detail the roles played by social capital in small rural areas as a motivational factor for investment by residents. Major difficulties and obstacles were overcome in starting and maintaining the businesses.

The main purpose of this research is to help economic development practitioners such as university Extension personnel or other outreach groups learn ways to use CSEs in working with community leaders and business entrepreneurs on revitalization efforts. In addition, understanding the different resources available is key to implementation. The use of CSEs will increase in the future as residents engage more and more in local financing efforts.

\*The authors are Senior Research Scholar and Research Assistant in the Center for Governmental Studies at Northern Illinois University. The full report is available for download at <http://cgs.niu.edu/reports/Emergence-and-Growth-of-Community-Supported-Enterprises.pdf>



## Defining a CSE

Community Supported Enterprises are difficult to define precisely due to their diverse purposes and approaches but a common characteristic is direct community support and involvement in addressing a social need or to enhance quality of life. In some instances, CSEs provide a product or service but the main impetus is not profit although they must follow sound business principles in order to continue operating. They are funded mainly through direct contributions or donations

from local groups often with no expectations of financial remuneration.

Some CSEs, labeled as Social Enterprises in this project, have clearly defined products or services with limited or no financial support from the immediate community where they are located. They have a social mission or purpose and are funded by: (a) direct contributions or donations from stakeholders without financial remuneration; and (b) revenues from product sales.

## Distinctions Among CSEs

Type	CSE	Social Enterprise	CSB
<b>Similarities</b>	<ul style="list-style-type: none"> <li>Financed by community methods</li> <li>Relationship between business &amp; community</li> <li>Combines corporate &amp; social goals</li> <li>Can be any legal form</li> </ul>	<ul style="list-style-type: none"> <li>Combines corporate &amp; social goals</li> <li>Can be any legal form</li> </ul>	<ul style="list-style-type: none"> <li>Financed by community methods</li> <li>Relationship between business &amp; community</li> <li>Combines corporate &amp; social goals</li> <li>Can be any legal form</li> </ul>
<b>Differences</b>	<ul style="list-style-type: none"> <li>Includes other non-business ventures</li> <li>Main goal is to improve social goals</li> <li>Social impact drives strategy</li> <li>Exact nature of business centers around local community need</li> </ul>	<ul style="list-style-type: none"> <li>Double or triple bottom line drives strategy &amp; operations</li> <li>Seeks relationships with political, economic, &amp; often government forces</li> </ul>	<ul style="list-style-type: none"> <li>Main goal is earning profits for owner/investor</li> <li>Revenue goals drive strategy</li> <li>Management structure</li> </ul>

In still other cases, CSEs operate closer to a traditional business model and may even have operated as a business in the past but are now reorganized as a CSE to raise additional capital or financing. These operations, called Community Supported Businesses (CSBs), represent a different approach from Social Enterprises or general community support provided to businesses. A CSB can have community investors who may, or may not, be directly involved in managing the business venture that, typically, sells a product or provides a service. In some CSEs studied, local groups converted a struggling private business to a CSB to retain it in the community and then sold it to private owners as an on-going business.

CSEs are organized and financed in many ways, including both equity and leverage models, depending on local conditions and opportunities. Sample CSEs in this project were selected to illustrate the differences. Distinctions and arrangements for financing CSEs are described in more detail in <http://cgs.niu.edu/reports/Emergence-and-Growth-of-Community-Supported-Enterprises.pdf>.

## Financing Approaches

Ways to finance CSEs range from donations to crowdfunding platforms that have gained popularity in recent years and will likely increase in the future. Pre-sales or subscriptions, such as used in Community Supported Agriculture efforts, increase market stability for the products or services. Investors often receive a return in discounts or future services under a specific agreement.

Success of the financing approaches depends on unique local circumstances under which a business venture starts. Therefore, generalizations about best practices are difficult to make. In addition, some approaches (described as Hybrids in this study) are used by private businesses as marketing tools to directly engage customers in product decisions such as forming clubs or groups to vote on future products. These businesses are sometimes

## CSE Financing Approaches

<p><b>Donations</b></p> <p>Donate money with nothing expected in return</p>
<p><b>Subscriptions</b></p> <p>Money paid up front with promised goods received at a later time. Viewed as an ongoing service</p>
<p><b>Gift Certificates/Pre-Sales</b></p> <p>Store credit is bought initially with a higher amount than purchase value redeemable in goods after the business opens</p>
<p><b>Sale of Shares/Equity</b></p> <p>Members invest and have an ownership stake in the business</p>
<p><b>Memberships</b></p> <p>Services, goods, or privileges given in exchange for investment, sometimes ownership is awarded as well</p>
<p><b>Community Loans</b></p> <p>Residents or Community Development Finance Institutions (CDFIs) loan money (often below market rate) to business and are then repaid at a later time</p>
<p><b>Crowdfunding</b></p> <p>Goods, services, or social impact promised as an incentive to investment</p>

marketed as “community supported efforts” making it difficult to separate them from the CSEs described in this project. However, absent an identified social purpose or goal, they are not included in this study.

The increased use of crowdfunding techniques to finance both social enterprises and business ventures further blurs distinctions between CSEs and CSBs. In both cases, residents are offered opportunities to invest in a local activity that, in some way, is important to the community either as a business or a social endeavor. Residents can donate or invest in local projects using relatively simple internet platforms. Common to the CSEs studied in this project is that participants typically motivated by the potential of a business or social enterprise to improve the community.

The passage of the Federal Jumpstart Our Business Startups (JOBS) Act in 2012 brought new avenues to engage smaller investors in local ventures. States responded by creating statutes that expand these initiatives to encourage non-qualified investors (those with smaller assets) to become involved. Consequently, statewide and local efforts such as Community Sourced Capital (Washington State), Milk Money (Vermont), The Local Crowd (Wyoming) and Hatch Oregon (Oregon) now work with businesses on financing efforts.

The state of Vermont has aggressively led efforts to revitalize rural areas and consequently has a large number of CSEs. Discussions with local experienced groups reinforce the importance of a positive local climate and supportive state legislation in successful endeavors. The enabling legislation in Vermont is described in more detail and can be a model for use in other states, especially those with large rural contingents. In the end, however, local commitment and follow-through are key to success in these ventures.

The diversity and variations found in the CSEs examined are testimony to the versatility of the approaches used. Perhaps most common were efforts to retain or expand businesses that provided groceries and other basic items. Examples in Illinois, Iowa, Vermont, and several other states are analyzed. Restaurants and bookstores are also businesses in which residents seem likely to invest. In addition, entertainment facilities are seen as crucial in a high quality of life and residents are often willing to invest in them. Public agencies will finance even more special projects using funds from crowdfunding types of efforts.

### **Growing Roles of Intermediaries**

While crowdfunding platforms are becoming more common and easier to navigate, small businesses will still need help marketing their products to residents. In response, several firms have started to work with local agencies in Vermont, Washington, and Wyoming.

Milk Money (<https://www.milkmoneyvt.com>) started in Burlington, Vermont to help small businesses raise capital using crowdfunding platforms. It guides entrepreneurs through the fundraising process and then provides management expertise to help the business prosper. This intermediary program currently operates only in Vermont but the model is suitable elsewhere. Milk Money holds events where businesses can

present their projects or operating model and interact with potential investors. The fees to the businesses are relatively small and potential investors obtain the necessary information needed to evaluate investment opportunities. Similar services will expand in other states.

The Community Sourced Capital initiative (<https://www.communitysourcedcapital.com>) provides somewhat similar services to businesses in the state of Washington. However, in this case, existing businesses can raise funds through a no-interest loan for a designated time from pooled funds of local investors. The businesses start repaying the loans immediately but receive management assistance to increase their success. The zero-interest loans are then repaid to the investors. This approach helps investors fund local projects and provides low-cost loans to businesses in which they are interested. The focus is on local involvement that can build social capital and engagement in a community.

### **Keys to Success**

1. Establish the Need for a CSE to Build Local Support
2. Create a Suitable Organizational Structure
3. Have a Local Champion
4. Understand the Local Economic Climate.
5. Identify Funding Opportunities for CSE Efforts
6. Communicate to Keep Momentum

The Local Crowd ([www.thelocalcrowd.com](http://www.thelocalcrowd.com)) in Ralston, Wyoming, is a relatively new program (started in 2012) targeted to startups in rural areas. The program provides a toolkit for local development agencies and other groups to organize crowdfunding or similar fundraising efforts that can help businesses in their communities. Started with USDA-RD support and after several national competitions, the program now works in seven states providing training programs and local tools. A relatively important aspect is that it accepts in-kind contributions including professional services as an investment in the business. Other businesses can make awards to investors contributing to another business venture.

### **What Have We Learned?**

A literature review and study of the sample CSEs identified several important elements to consider in evaluating use of CSE approaches in local development efforts. These approaches are not hard and fast rules; instead, they are common in many of the efforts and personnel involved identified them as instrumental in local successes. Some of these principles also apply to other community or economic development initiatives.

First and foremost, establishing and documenting the need for a community supported enterprise is critical in building local interest and support. Timing is important and organizing an initiative when the purpose is highly visible can help in the efforts. Announcement of a store closing or the fact that it is up for sale has been an important motivating factor in the sample CSBs.

Second, a suitable organizational structure whether cooperative, LLC, or sole proprietorship is key to the ultimate

success of the venture. Most important to understand is that a CSE faces the same market tests as any other small business and, in some instances, even more so when the initial stimulus was that a previous business failed or closed. Thus, restarting the business may require a serious evaluation of the products or services delivered as well as possible markets which can increase the information needed by the local organizing groups.

Third, a local champion, or spark plug, with previous related experience and credibility in the community is an asset, or even a necessity, in successful CSE startups. Finding this person(s) can be difficult as is retaining local enthusiasm in the face of setbacks in the business venture. In the CSEs studied, retirees and long-standing members of the community often were a source of this motivation and talent. Likewise, they had invested time and money in the community so had a strong incentive and desire to see the community prosper.

When this champion is not readily apparent, community leaders can sometimes rely on external sources such as consulting agencies but they may not have the same ability to motivate local investment as long-time members of the community. In the case of several Vermont CSEs, the Preservation Trust of Vermont served as an intermediary and stimulus to local action. This state agency had the resources, contacts, and credibility to help local groups organize and start a CSE. As a neutral third party, the Preservation Trust has access to a broad resource base and, in several instances, used money from bequests to revive closed businesses. Given the large transfer of wealth currently underway in rural areas, this approach could be attractive in other states.

Fourth, the economic climate in which a CSE is launched is critical, especially when the motivation is to bring back an important social institution such as a restaurant where residents regularly congregate. Declines in population or economic status can present a situation where the CSE becomes a last resort if it is an outcome of continued deterioration in the local environment. Those situations place added pressures on CSE startups and they may have to be part of a broader community-wide development strategy to succeed and make an important contribution to overall development efforts.

The contributions of state and federal agencies in launching and maintaining CSEs must also be recognized. Often, state agencies encourage traditional incentives or low-cost loans but do not pay as much attention to working with local investors. As the CSE approach gains popularity, its value as a local development tool will be recognized.

Finally, CSEs can pose special difficulties in maintaining long-term backing as the initial supporters pursue other opportunities. This is especially true in rural areas with stagnant population and residents working outside the community. Likewise, greater reliance on the internet to communicate and maintain social contacts may lessen the need for physical places where people regularly congregate and build social capital. This may mean that CSEs will hold more outreach events such as the community dinners hosted by Vermont country stores.

### **Importance of Social Capital**

The need for long-term support and persistence in implementing a CSE strategy, even when difficult to sustain, cannot be

overstated. In several case studies, the organizers were frustrated at several times with setbacks. However, they were able to reorganize their efforts and retain continued support from local investors.

CSEs, for reasons discussed, will likely increase in use as crowdfunding platforms and other legal, organizational, and financing mechanisms emerge. They represent a direct and relatively low cost way to participate for residents interested in engaging in local community development initiatives. Depending on how the organizing group is structured, investors may also receive tax breaks. The experiences with CSEs have been varied with some doing well and others going out of business after a period of time but the same is also true of private businesses. The information gained in this research helps inform community leaders and practitioners about past experiences.

While many aspects of starting a CSE resemble those involved in starting traditional businesses, there are several important considerations for CSEs, including a need to work with the public as investors without a financial return. While, initially, the public can become caught up in the excitement of making a commitment to their community, they can lose interest without continued communication about the contributions and successes of the venture. In other words, maintaining a relationship and communicating with investors is especially important.

Financing arrangements are changing and CSEs are only one of several approaches available. The increased use of crowdfunding platforms and relative ease in reaching residents means that this financing approach will grow in popularity especially in areas with sparse or declining populations and relatively small markets. Community and economic development practitioners can explore the examples presented in the report and determine whether the models used, or some variation, can work in their area.

The need to preserve social capital is of special interest in this project since it came up as a motivating factor many times in local discussions. The “community store” concept in Vermont has played an important role in stabilizing rural areas and is valued highly by residents. While private businesses provide basic goods and services, they are more driven by a profit motive so that when a business is no longer profitable, it closes. Likewise, small businesses typically have paid staff and handle a specific selection of merchandise and services.

The Vermont experiences differ from traditional for-profit businesses. In the community stores model, residents invest (donate) both time and money to keep them going. Some CSEs rely heavily on donated labor in store operations and carry a large selection of locally-produced goods or services including food, crafts, arts, and other items. In some cases, a store had closed and remained vacant for several years until it was revived by a local group pooling their resources, both time and money.

The findings in this report pose the question of whether a community store model will become more common in small communities such as in the Midwest as a way to preserve quality of life and social capital during population and economic declines? The community store approach has many elements that are attractive in small communities and their use is worthy of additional research. This report is a start and offers guidance for some of these initiatives.