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DEVELOPMENT OF A FAMILY AGRIBUSINESS TRANSITION PLANNING TOOL

BY

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THESIS

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## **ABSTRACT**

This research identifies common family farm characteristics, outlines the various elements of succession planning, and describes the motivations and objectives surrounding the composition of a succession plan. Business, retirement, and estate planning elements were integrated to develop a succession planning tool for use in transitioning labor, management, and ownership of a grain farm operation from one generation to the next. Illinois Farm Business Farm Management data from 2003 to 2009 provided a profile of a typical farm likely to require a succession plan. Three farm succession scenarios were entered into the tool to illustrate the complex and individual nature of succession planning while showing how the same instruments are often used in various ways to achieve unique goals.

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# **1 INTRODUCTION**

The structure of farming in the United States has changed significantly over the last several decades. The scale necessary for success in farming has required a large portion of farmer wealth to be invested in the expansion of the farm. As many farmers near or pass retirement age, farm succession becomes an increasingly important concern. Many family farms are worth millions of dollars and are highly illiquid. Also affecting the transition planning process is longer expected life span. As the outgoing generation is expected to live longer, they must plan accordingly for a lengthier retirement. Sustainability of family farms in regions where agriculture provides a significant contribution to the economy highlights the importance of successful family farm transitions.

Rising average age of farmers, lack of farmers to continue in agriculture, and availability of farm assets, such as land, are frequently mentioned in discussions about the future of family farms. These realizations, along with the increasing structural complexity and value of family farm assets, have led to greater interest in succession planning. Succession planning refers to the transfer of farm ownership and responsibility between generations. Several universities and private organizations have developed projects specializing in providing information on transition planning to family farms and businesses.

Several concerns beyond that of merely continuing the family business also exist. As tax laws continue to change, business and estate plans will likely need to be altered to reflect what is best for the family and farm. If farmer and successor will be farming together, questions arise regarding the division of income and the timeline for transitioning ownership and management decisions to the younger generation. There are the possibilities of one or more heirs being interested in continuing the family business as well as one or more heirs not being interested in

joining the business. Parents usually want to treat their children fairly while encouraging them to pursue whatever vocation they prefer. This gives rise to the “fair versus equal” problem regarding transition and estate planning.

Whether active and inactive heirs should receive equal shares in a business is a question that can lead to complications for the business after the older generation’s death. Heirs active in the family business may resent inheriting an equal amount as inactive heirs due to the “sweat equity” they put into the business previously and most likely lack the capital to buyout other heirs. Inactive heirs may not wish to hold equity in a business in which any returns they would receive are likely to go back into the business but are unable to sell their share to the active sibling. These factors as well as others can lead to conflict and confusion regarding creating a comprehensive family transition plan, and instead result in avoidance of the topic. However, if these family farms are to survive for multiple generations a succession plan needs to be implemented that encompasses such things as business goals, continuity, transition plans, retirement planning, and estate planning. There has been research regarding several things that affect succession planning, such as farmer retirement plans and family conflict resulting from succession, but there is a lack of information pertaining to the whole succession process.

## **1.1 Specific Problem**

Succession for the purposes of this research is considered to be the process by which the labor, management, and ownership of a farm is transferred from one generation to the next as the older generation phases out of the business. It requires open discussion and communication to guide the transfer of management and labor as well as estate and retirement planning to effectively facilitate changes in ownership to meet the objectives of all parties involved. The process of transitioning the family farm is highly dependent on the goals of the parties involved.

However, organization and planning is needed to further the process and the basic objectives remain the same for many transitioning farms. There are many styles and approaches to the succession planning process, but there does not appear to be a comprehensive template for a basic succession plan.

Current farm operator demographics increase the importance of developing a relevant organization for planning the transition of an agribusiness. The average age of U.S. farm operators increased from 55.3 in 2002 to 57.1 in 2007 (USDA-NASS, 2009.). Mishra et al. (2005) have found that over one-fourth of all farmers and about half of all agricultural landlords are age 65 or older. According to 2007 data, 28% of principal operators on U.S. farms are at least 65 years old (Hoppe et al., 2010). The 65 and older age group controls over one-third of all farm assets and are staying in farming longer than previous generations (Mishra et al., 2005).

## **1.2 Objectives**

The purpose of this research is to identify common characteristics of family farms; establish the components essential to a succession plan; and develop a succession planning framework to allow farmers to meet common goals and objectives. The succession planning tool developed is meant to be a framework for transitioning a family agribusiness from one generation to the next. While recognizing the diverse set of interests and objectives that motivate the transition process for each individual, the tool is meant to be based on common criteria and objectives as identified by the literature and available data. Illinois Farm Business Farm Management (FBFM) data provide a profile of prevalent Illinois farm attributes which can be combined with common farm characteristics and transition goals identified in the literature to develop a succession planning framework.

The tool developed is meant to incorporate transition, retirement, and estate planning elements based on identified common farm factors. The framework and succession guidelines developed are intended to articulate what is needed for a comprehensive succession plan and provide possible courses of action along with subsequent consequences of those actions. The succession tool addresses succession planning from the perspective of the current operator and is meant to assist the succession planning process by providing information necessary for knowledgeable decision making. Overall, the material developed through this research is intended to be used in an advisory capacity for those assisting farmers in creating a succession plan.

### **1.3 Overview**

The following chapter provides a summary of literature relevant to family farm succession planning. Information is divided into sections describing succession planning; business continuity, goals, and principles; business planning; financial motivations; retirement planning; estate planning; and the role of professionals.

Chapter three describes FBFM data used to provide a profile of the prototypical farm likely to need succession planning. Chapter three also reviews frequent attributes of farms involved in succession planning as discussed in the literature. Descriptions of frequent succession objectives, succession planning problems, and transition options are also included to further establish common succession planning guidelines for the prototypical case.

Chapter four explains the development of the succession planning framework. Descriptions are divided into sections based on corresponding tabs in the Microsoft Excel tool developed in this research. Information contained in the general information, financial

information, business planning, retirement planning, estate planning, transition planning, and reports tabs are described as well as the reasons for their inclusion.

Chapter five provides a description of the results when the information for three prototypic cases is entered into the succession planning tool. A discussion of the results as applied to each farm case is also included.

Chapter six includes a summary of the research as well as conclusions derived from the results of entering information into the succession tool. Also discussed are limitations of the succession framework and suggestions for future research on this subject matter.

## **2 LITERATURE REVIEW**

Literature relevant to family agribusiness succession planning includes business, estate, and retirement planning, as well as financial motivations, effects on family relationships, and priorities placed on business continuity, goals, and principles. Business planning as it applies to the succession planning process clarifies the current position of the business and any trends that are occurring to identify areas of strength and weakness so the business can grow. Estate and retirement planning demonstrate the need for the plan to reflect interests beyond the scope of merely transferring property from one person to another. Although each family represents unique relationships and priorities, literature regarding family relations provides insight into underlying conflicts and motivations driving many transition decisions. Tax implications from transition, retirement, and estate planning decisions are a practical consideration that must be addressed. Much of the literature associated with succession planning addresses problems that arise from a sociological point of view. However, reports describing the current status of family farms and their level of succession planning demonstrate the need for more information. The following sections provide a summary of work that has been published on the various aspects of transition planning. Many of the components of succession planning are integrated so there will be overlapping interests throughout the sections.

### **2.1 Succession Planning**

Pesquin et al. (1999) stated that the family farm sector relies heavily on intergenerational succession. Laband and Lentz (1983) found that occupational inheritance is particularly strong among farmers as compared to other groups. Farmers are nearly five times more likely to have followed in their fathers' footsteps than nonfarm proprietors (Laband & Lentz, 1983). There are

many reasons succession is more frequent in farming relative to other occupations. Kotlikoff and Spivak (1981) found that intrafamily succession enables extended family to enjoy the benefits of intergenerational risk-sharing. Pesquin et al. (1999) note such advantages as “smooth” transition, reduction in transfer cost, benefits from the comparative advantages farm children have in running the business they are familiar with, and lower transfer taxes associated with farm succession. Tweeten and Zulauf (1994) found that intrafamily farm succession allows entering farmers to overcome borrowing constraints, at least in commercial farms.

Mishra et al. (2003) identified owner’s age, owner’s educational attainment, off-farm work, farm size, net worth, and successor’s ability to farm successfully as factors that have a large effect on the transfer of farm businesses. A study of farms in Iowa found that operator age, gross sales, and farm size were significant in determining whether a farmer would identify a successor (Duffy, 2009). Farms with gross sales greater than \$250,000 were approximately 10% more likely to have identified a successor and the likelihood of having a successor increased greatly for farms 1,000 acres or larger compared to smaller farms (Duffy, 2009). Mishra et al. (2003) also found that commercial farms, those farms with a gross value of production greater than \$250,000, were more likely to have a succession plan than smaller operations. Farms in certain regional locations were also identified as being more likely to have a succession plan. Farms in the Heartland, Northern Crescent, Southern Seaboard, and Eastern Upland accounted for 54% of farm households planning to retire (Mishra et al., 2003). Farmers indicating plans to retire were largely grain farmers, particularly corn, wheat, and soybeans (Mishra et al., 2003). Succession planning was found to be more common in farm households with net worth greater than \$1 million as of 2001 (Mishra et al., 2003).



Succession is sometimes described as occurring in phases over the course of three to six years or longer (Bowman-Upton, 2009). Stages of succession are identified in different ways by different authors. Jones (2005) suggests four stages of succession consisting of testing the successor's commitment to the business, commitment as the successor begins contributing property and management to the business, establishment when the younger generation has the skills required to run the business but the older generation is still fully involved, and withdrawal when the older generation withdraws from the business. Keating and Munro (1989) identified three central areas where farmers phase out of the business and bring in their successor. Business management, farm labor, and ownership of physical assets were determined to be the main elements determining exit phase from the farm (Keating & Munro, 1989). Keating and Munro (1989) found that the order in which farmers exited the business from first to last was through reducing their involvement in work, livestock holdings, production, marketing and financial decisions, and land and equipment. Furthermore, those who reported an expectation for the farm to remain in the family were significantly more likely to have decreased their involvement than those who did not expect the farm to continue to the next generation (Keating & Munro, 1989). Studies by Potter and Loble (1992) confirm this observation. Duffy (2009) found that transfer of livestock management was the most common farm task transferred while deciding when to pay bills, identifying financial sources, negotiating loans, and keeping farm records were the most common tasks retained by the older generation. Branan (2009) states the second generation should generally be included in management decisions no later than their sixth year of farming to show commitment to move forward.

## **2.2 Effects on Family Relationships**

Much of the literature focuses on reasons for conflicts and lack of success in succession. Common reasons include inconsistency of goals between generations, lack of planning, reluctance to discuss certain topics such as finances, unwillingness of the older generation to release control, and issues regarding fairness and equality (Jones, 2005). Barclay et al. attributed the complexity of farm transfers to the conflicting objectives associated with maintaining a viable farm business for subsequent generations, fair and equal treatment of family members, and the retirement provisions of the current operator (as cited in Duffy, 2009). Pitts et al. (2009) noted slim profit margins and complex property tax issues as reasons for succession difficulty.

Succession planning is regarded as critical in ensuring that family farms are successful in transferring from one generation to the next. However, families often put off planning for a variety of reasons, thereby endangering the continuity of their family farm. Keating and Munro (1989), as well as Jones (2005), posited that older generations may be reluctant to retire and fully transition the business to the next generation because their identity and self-worth are closely tied to the farm. Taylor and Norris (2000) noted that conflict over transferring the family farm may occur between siblings due to occupational implications for the next generation, the need for beneficiaries to keep the estate intact in order to maintain profitability, and because there may be strong emotional ties to the land. The authors concluded that professionals who advise farm families should focus on facilitating open family discussions to reach a consensus on fairness rather than focusing on equal or equitable divisions (Taylor & Norris, 2000). Pitts et al. (2009) found that stressors to the succession process for farm families included relinquishing versus retaining control, being fair versus doing what is right, profit versus affordability, explicit versus implicit communication, and progress versus continuity.

## **2.3 Business Continuity, Goals, and Principles**

Approximately 90% of all U.S. businesses are family owned or controlled (Bowman-Upton, 2009). Of family owned businesses, less than one-third transition to the second generation and only half transition from the second to third generation (Jones, 2005; Bowman-Upton, 2009). Approximately 5% make it from the third generation to the fourth generation (Jones, 2005). Around 40% of U.S. businesses are dealing with the issue of ownership transfer at any given time (Bowman-Upton, 2009). Family farms account for 98% of U.S. farms and 82% of production according to 2007 data (Hoppe et al., 2010). Eighty-eight percent of family farms are considered small (sales less than \$250,000) but these farms represent 64% of farm assets including 63% of land owned by farms (Hoppe et al., 2010). Large-scale family farms are responsible for approximately 66% of U.S. production and account for approximately 29% of farm assets (Hoppe & Banker, 2010). Brake reported that only one-fifth of family farms survive the transfer to the second generation (as cited in Pitts et al., 2009). In contrast, the Farm Legacy Project reports that 80% of family agribusinesses wish to continue the business into the next generation (Finck, 2010). Possible reasons for the lack of success in transferring businesses between generations include lack of planning, communication, and reluctance to release control (Jones, 2005).

Jones (2005) recommends evaluating the strengths, weaknesses, and financial position of the business, developing a shared vision, objectives, and goals with all stakeholders, and making a plan to move the business forward through transition. Jones (2005) identifies management, ownership, and family as the three overlapping systems at work in a family business. The management system deals with day to day business decisions regarding production, marketing, and financing, while the ownership system concerns returns to investors and fairness and equity

in the treatment of ownership stakeholders or potential stakeholders, and the family system maintains family unity and relationships (Jones, 2005). While the family system is more emotionally and generationally oriented, the management and ownership systems are business oriented (Jones, 2005). Branan (2009) regards succession as the orderly transition of income, management, and ownership between generations in a business.

Spafford (2006) suggests incorporating the development of a business plan into the succession planning process. Creating company vision and mission statements, detailing the company's history and guiding values and principles, evaluating the company's strengths and weaknesses, identifying objectives and goals, and creating an action plan to address each goal is recommended (Spafford, 2006).

Tax minimization and wealth maximization are among the most prevalent concerns discussed in association with transitioning a business (Harl, 1996). Other common objectives of succession planning include bringing the next generation into the business and providing a financial base for the younger generation to begin their vocation while also providing an exit strategy from the business for the parents (Branan, 2009). Also important is providing adequate income for the parents throughout their retirement and determining how active and inactive heirs will be treated (Branan, 2009).

## **2.4 Business Planning**

Business planning provides an analysis of how the business operates to facilitate reduction of weaknesses and growth in potential areas of competition and opportunity (Spafford, 2006). Business planning as it relates to succession planning particularly involves developing a long term plan for the business based on financial trends, goals of the older generation and successor, and resource base of the business (Jones, 2005). Financial trends provide insight to the

farm's profitability and feasibility of transfer (Spafford, 2006). Jones (2005) states that according to farm financial standards, profitability should be evaluated by looking at net farm income, rate of return of farm assets (ROA), and rate of return of farm equity (ROE). ROA is net farm income less interest expense less the value of operator labor and management, divided by the farm asset base (Jones, 2005). ROE is net farm income less the value of operator labor and management, less interest, divided by the farm equity (Jones, 2005). Jones (2005) suggests that although benchmark levels are somewhat subjective, farms that have not historically achieved at least an industry average profit level will struggle to survive in the future. The suggested ROA benchmark for farm businesses when calculated without accounting for capital gains is 5% and 9% or 10% when calculated with capital gains (Jones, 2005). The recommended ROE benchmark is an ROE that is greater than the farm's ROA provided the operation's ROA is greater than its cost of debt (Jones, 2005). The business will often need to grow if multiple generations expect to farm together (Branan, 2009). Branan (2009) reports that the farm firm or production assets must generally produce growth of 5% to 6% per year to support another family given 3% inflation. Jones (2005) recommends determining the size of operation needed by estimating the farm income needs of the current generation and successor generation and then targeting 2.5% to 3% nominal growth in equity.

Several literature sources discuss the types of business entities common for farms. Common forms of business organization for agribusinesses include sole proprietorship, partnership, corporation, and limited liability company (Harl, 1996; Jones, 2005; Spafford, 2006). Sole proprietorships are owned and controlled by one person (Spafford, 2006). The length of a sole proprietorship is limited to the life of the owner and the individual is liable for all debts and obligations (Jones, 2005). A general partnership is a separate legal entity created by two or

more people in which money and property are transferred to the partnership and liability is shared equally among all partners (Beginning Farmer Center, 2009b). There are more complex forms of partnership that allow liability limitations such as the limited partnership or family limited partnership (Jones, 2005). A corporation can be classified as a C corporation or an S corporation and is a separate legal entity incorporated under state law that keeps the business distinctly separate from the owners (Beginning Farmer Center, 2009a). A limited liability company is created under state law by two or more people and requires articles of organization, an operating agreement, and a definite length of time that the business will exist (Beginning Farmer Center, 2009c).

The most common organizational form for a family farm is a sole proprietorship (Jones, 2005). Mishra and El-Osta (2007) found that farms organized as sole proprietorships were likely to have family succession. Results indicated that the probability of family succession increased about 4.4% if the farm was a sole proprietorship (Mishra & El-Osta, 2007). Depending on the number of heirs and the transfer method of choice, another business form may be required for a successful transition plan (Jones, 2005). Business organization can have significant effects on tax structure, estate planning, transition planning, and other business objectives (Jones, 2005). According to Jones (2005), the choice of business organizational structure is primarily related to issues regarding source of capital, liability, management flexibility and control, continuity, taxation, and legal filing requirements with limitation of personal liability the chief concern. Harl (1996) notes that creating multiple entities for the business, such as one entity for land and another for production assets, can increase flexibility of transition procedures while reducing risk and liability. However, it is also noted that there may be some negative tax implications,

particularly if land is held by a corporation and generates personal holding company income (Harl, 1996). Kraemer (2006) also suggests using trusts to protect assets and limit liability.

## **2.5 Financial Motivations**

The method of farm asset ownership transfer is highly dependent on the needs of the parties involved. Though valuation and tax implications are considered, ownership structure and the family's intended succession outcomes are the primary concern. Possible transfer tools for farm property include private annuities/self-cancelling installment notes, life insurance, buy/sell agreements, or gifts, all of which have an impact on tax values (Spafford, 2006). The federal government places a limit on the amount that may be gifted from one person to another each year. The current annual federal gift tax exclusion is \$13,000 and lifetime gift tax exemption is \$5 million (Sullivan, 2010). Federal estate taxes were repealed for 2010, but were reinstated in 2011 at 35% with a \$5 million exclusion amount (Sullivan, 2010). In 2013, federal estate taxes are scheduled to return to their 2001 levels (Sullivan, 2010). The Illinois estate tax exclusion is \$2 million with a bracketed estate tax rate capped at 16 percent (Illinois Attorney General, 2011). Suggested tools for transfer tax exclusion for small businesses include unified credit/exemption equivalent trusts, dynastic trusts, annual exclusion gifts, unified credit/exemption equivalent gifts, and statutory grantor retained interest trusts (Bowman-Upton, 2009).

Harl (1996) notes that decisions to sell, gift, or retain property until death should take income, estate, and gift taxes into consideration. It is recommended that property that is gifted be property that has not appreciated in value to avoid capital gains tax (Harl, 1996). Harl (1996) recommends retaining assets that have increased in value and obtaining a stepped up basis in the estate. Land may be eligible for a special use valuation for estate tax purposes but gifts of land are valued at fair market value (Harl, 1996). An Internal Revenue Code Section (IRC Sec.)

2032A special land use valuation can be used to value farmland as farmland, usually establishing a productive value that is less than the fair market value (Kraemer, 2006). The special land use valuation can reduce estate taxes but there are several criteria that must be met and there is a limit on how much the value of qualifying property can be reduced (Kraemer, 2006). The criteria for IRC Sec. 2032A special land use valuation require that the value of all farm assets less debt be at least 50% of the deceased owner's estate; the value of farmland must be at least 25% of the deceased owner's estate; the property must have been actually managed by the deceased owner for five out of the eight years prior to death and must have been used for farming during that period; a qualified heir must actually manage the property after the owner's death; the land must be used as a farm for ten years after the owner's death; and the land is subject to a federal tax lien (Kraemer, 2006). When deciding whether or not to sell land during the owner's lifetime, it is important to note inflation implications as well as the fact that sale of property may cause recapture of some soil and water conservation and land clearing expense deductions if the land was held for less than 10 years (Harl, 1996). Government cost sharing payments excluded from income over the past 20 years are also recaptured and deductions are disallowed for cost of producing unharvested crops sold with the land (Harl, 1996). These are not recaptured on property transferred at death (Harl, 1996).

## **2.6 Retirement Planning**

Dunaway noted that the market value of a farm is frequently below its value as a "going concern" leading to the conclusion that retirement and succession cannot be separated from everyday farm management decisions (as cited in Mishra et al., 2010). Using 2001 Agricultural Resource Management Survey (ARMS) data, Mishra and El-Osta (2007) reported that about 34% of farm operators who plan to retire within the next five years had a succession plan. Eighty



percent of these report a family member as the chosen successor (Mishra & El-Osta, 2007).

Mishra and El-Osta (2007) also found that 40% of households with the senior farm operator over 65 years of age and with no plans to retire had succession plans. According to 2001 ARMS data, 27% of farm operators nation-wide indicated they had a succession plan with 87% of those having identified a successor (Mishra et al., 2003). Of these, 52% indicated that the successor participated in the farm business and 38% reported the designated successor participated in management activities and decisions for the farm (Mishra et al., 2003). Mishra et al. (2003) found that the likelihood of having a succession plan increases with operator age and net worth. Branan (2009) reports that senior generation retirement income needs are roughly 80% to 100% of preretirement needs. Possible sources of retirement income are land rent, machinery rent, income from installment sales, payment for labor, dividends, retirement plans, or social security (Branan, 2009).

Longer life spans create a need for greater retirement holdings. World Bank reports that the 2008 U.S. life expectancy is 78.4 years. Farmers often put off saving for retirement or consider expanding the farm as their retirement security (Mishra et al., 2005). Forty-one percent of farmers indicated they would rely on income from their farm for retirement (Duffy, 2009). Farm households report 7.2% of expenditures go towards personal insurance and retirement plans as compared to 11% for all U.S. households (Jones et al., 2010). Mishra et al. (2005) report that one-fourth of the nonfarm assets that farm households maintain are retirement savings accounts. However, Mishra et al. (2005) also reports that only 40% of farm households participate in some type of retirement account, compared with 60% of all U.S. households. Based on 2008 ARMS data, 6% of farm household assets are held in IRA, Keogh, 401K, and other retirement accounts (Harris et al., 2009).

A frequently discussed method of property transfer that can provide retirement income for the parent generation is an installment sale. Harl (1996) notes several things parents can accomplish with an installment sale. Parents can retain an interest in the land as security by keeping the titles, receive a steady income for the duration of the contract, transfer management responsibility for the property to the buyers, and reduce the size of their estates by consuming or making gifts of the installment payments (Harl, 1996). There are drawbacks associated with an installment sale however. Parents may outlive the life of the contract and then have to find other sources of income and inflation may raise cost of living to the point that the fixed contract payments do not meet expenses (Harl, 1996).

## **2.7 Estate Planning**

A study by Kimhi and Lopez (1999) suggests that a large proportion of farmers do not transfer the farm while they are still alive. If the farm is expected to be maintained as a going concern, estate and succession planning become even more essential to business success. One method of funding a transfer when at least partial ownership is retained by the older generation is through life insurance to purchase the farm business from nonfarm heirs after the death of the property owner (Tauer, 1985). Life insurance could also be used to finance a buy/sell agreement (Tauer, 1985). Insurance premiums are not tax deductible, but the proceeds are not subject to income tax (Tauer, 1985). Other methods include financing the purchase and transfer of property with equity and borrowing from the seller or a third party (Tauer, 1985). Although dependent on such things as age, income tax rate, risk preference, and cost of insurance and capital, Tauer (1985) found that partial funding of farm property transfer with life insurance was optimal in many cases. With a private annuity or self-cancelling installment note, assets are sold to the successor, which removes them from the estate, and the note (or annuity) is cancelled at the

death of the out-transfer generation so the replacing asset (note/annuity) is effectively removed from the estate (Spafford, 2006). This option allows the successor to acquire a stake in the operation and build business equity with their parent. Buy/Sell Agreements set forth a formal agreement for facilitating ownership transfer based on triggering events and obligate business owners to buy all or a portion of the business upon the retirement, death, or disability of another owner (Spafford, 2006).

Several authors note the importance of distinguishing between what is fair and what is equal when there are heirs that are both active and inactive in the family business. The fair versus equal concept implies that all heirs may not be treated equally when considering division of business ownership and business assets due to differences in vested interests in the business, preferences in investment returns, and business continuity concerns (Spafford, 2006). Tools such as buy/sell agreements, option agreements, and life insurance can be used to assist in ensuring business assets stay in the family when both active and inactive heirs exist (Spafford, 2006). Although the market value of each heir's inheritance may not be equal, there is value derived from achieving the owner's intended outcomes.

With family businesses, the bulk of assets are usually held in the business (Bowman-Upton, 2009). Lack of estate planning can result in unanticipated fees, increase the length of time until the estate is settled, and final wishes and intentions may not be met (Kraemer, 2006). Things to consider when constructing an estate plan include charitable plans, wills, trusts, life insurance, valuation methods, and estate taxes (Kraemer, 2006). Bowman-Upton (2009) notes the use of last wills and testaments, living trusts, marital deduction trusts, and installment payments as transfer tax deferral techniques. It is noted in the literature that it is important to remember to properly document and implement the estate plan as well as update it to reflect the

current estate holdings, laws, and wishes of the parties involved (Kraemer, 2006). Although a lawyer's counsel should be sought in setting up an estate plan, there are various methods and tools that are frequently employed by family farms in facilitating a smooth estate settlement (Kraemer, 2006). Of special importance in estate planning for farms and agribusinesses is special land use valuation allowing farm and ranch land to be valued at a lower agricultural value instead of its value for other purposes (Kraemer, 2006). Without proper planning and management, the value of an estate after probate and taxes can be severely diminished (Kraemer, 2006).

## **2.8 Role of Professionals**

Many of the actions and tools for succession discussed in the previous sections cannot be implemented by farmer and successor alone. Successful succession planning often requires a team of professionals to ensure that objectives are feasible and completed. Such professionals as an attorney, accountant, financial planner, banker, insurance agent, and broker may be involved depending on the size of business and complexity of plan (Spafford, 2006). Branan (2009) states that potential advisors for farmers forming a succession plan include attorneys, accountants, business consultants, counselors, financial planners, insurance agents, lenders, and mediators. Having an advisor for succession planning can prove useful by providing an objective party to study the situation and hear the concerns and wishes of all parties involved before establishing a plan (Jones, 2005).

Financial planners, accountants, and attorneys specializing in estate planning are the professionals most frequently discussed in the literature. The accountant or financial planner associated with the business can provide insight to the feasibility of the farm supporting multiple families based on financial trends in the business as well as the tax implications of succession planning decisions (Jones, 2005). Financial planners can also assist in forming a business plan

for business growth and provide guidance for retirement planning (Spafford, 2006). According to Branan (2009), the role of financial planners is to provide expert advice on income needs and diversifying returns on working liquid capital. Attorneys are necessary for the estate planning component of succession and should be able to help facilitate the transfer of ownership while minimizing taxes (Kraemer, 2006). An attorney that is familiar with bequest wishes as well as the business to be transferred can help ensure that the estate plan is truly comprehensive and accomplishes all intentions (Spafford, 2006).

A professional financial planner or advisor can also prove valuable in maintaining momentum for succession planning as the process can easily be put on hold by the farmer and successor due to the time demands of the farm (Spafford, 2006). Mishra et al. (2010) recommend that economists, financial planners, and business consultants assist family farms with formal succession plans through the development of educational programs pertaining to succession planning, development of procedures that clearly identify the steps that need to be taken to successfully complete succession planning, and distribution of succession plan examples to farm families starting the succession planning process.

## **2.9 Summary**

Most farms are sole proprietorships (Jones, 2005). The majority of farmers retain some form of ownership until death (Kimhi & Lopez, 1999). A substantial portion of farmer wealth is tied up in farm assets (Mishra et al., 2005). Most farmers wish to pass the family farm on as a going concern (Finck, 2010). The structure and size of farmer wealth requires special consideration in developing a succession plan that allows the farm to be passed on as a going concern while ensuring that retirement needs and estate planning wishes are met. Common methods for facilitating the transfer of assets include estate planning, installment notes, buy/sell

agreements, and gifting (Spafford, 2006). Also of concern when planning to transfer the family business from one generation to the next are tax implications and valuation methods (Harl, 1996). Professional help is necessary to ensure that the succession plan is optimal for the goals of the family (Branan, 2009; Jones, 2005; Spafford, 2006). Much of the literature regarding succession planning is limited to sociological interests. Pitts et al. (2009) found that common reasons for family farm succession failure are lack of planning, family conflict due to unclear or insufficient communication, and issues arising from treating heirs fair versus equal. The literature indicates that it is important to increase communication through informing parties involved what will happen with succession and estate settlement and why (Taylor & Norris, 2000). Communication improves perceptions of fairness among heirs and reduces conflict resulting from estate settlements that can lead to business divisions (Taylor & Norris, 2000). Given the demographics of family farms, there is interest among universities and private companies in developing materials for family farm succession planning (Mishra et al., 2010).

### **3 DATA**

Common farm attributes identified through the use of FBFM data and relevant literature are used to identify relevant types of transition cases. Common practices and objectives as identified in the literature are used to establish the guidelines around which the succession plan is formed. Establishing a basic transition plan for common criteria illustrates the complexity of succession planning for individual operations and provides a framework platform around which basic plans may be formed. The following sections include an empirical examination of FBFM data to show commonalities and trends used to identify the prototypic transition case, review of common farm characteristics identified in the literature, description of common succession plan objectives, analysis of problems associated with succession planning, evaluation of transfer options, and summary of principles guiding the succession process.

#### **3.1 Empirical Summary of FBFM Data**

FBFM data for 2003 through 2009 provide information on Illinois farmer ages, business type, net worth, retirement savings, and financial ratios. Identifying common farm attributes provides insight into factors affecting succession planning for most farmers. The data were sorted to include only certified usable fair market value balance sheet, income statement, and family living/sources and uses certifications. The data were then filtered to include only the primary farm operator and eliminate unknown birthdates.

Sole proprietorships and grain farms account for the highest percentage of business organization and farm type in each year considered. Table 3.1 shows that over 90% of farms were sole proprietorships every year in the dataset. At least 90% of farms were classified as grain

farms each year with hog farms representing the next highest percentage of farm type with 5% or less each year as shown in table 3.2.

The average age of FBFM participants was slightly below the national average of 57.1 in 2007 but still suggests a trend of increasing operator age. The average age in 2003 was 50.9 and increased each year to an average age of 54.5 in 2009. Table 3.3 shows the trend of increasing farmer age while figures 3.1 and 3.2 depict the percentage of operators in each age group for all farms and sole proprietorship grain farms. The 35 to 49 year old age group accounted for the greatest percentage of farmers in 2003 and 2004. For 2005 through 2009, the majority of FBFM farmers were in the 50 to 64 age group. The percentage of farmers in the 65 years of age and older group increased each year from 2003 to 2007 before decreasing from 18% to 16% and remaining there for 2008 and 2009. Although the percentages vary slightly, these age group trends remain consistent when only ages of farmers on sole proprietorship grain farms are considered.

FBFM data show that over 70% of members maintain retirement accounts. Approximately 65% of FBFM participants that fall into the age 65 and over category had some savings in a retirement account in 2009. The 2009 average retirement savings value for farmers in the 65 and over age group was \$77,810. In 2008, the average retirement savings for the same age group was approximately \$71,225. Over 70% of farmers age 50 to 64 had retirement savings each year for 2003 through 2009. In 2009, 80% of farmers in the 50 to 64 year old age group had retirement savings with an average value of \$95,292. The average retirement account value for all age groups of sole proprietorship grain farms in 2009 was \$82,776. Farm operators in the 50 to 64 year old age group on sole proprietorship grain farms have had higher average retirement savings than other age groups associated with similar farms for 2007 through 2009. Tables 3.4



and 3.5, as well as figures 3.3 and 3.4 illustrate the retirement savings numbers described for each age group.

With the exception of the 34 and younger age group, average value of operator total assets has trended up each year from 2003 to 2009. Tables 3.6 through 3.9 show that the bulk of assets are held in fixed assets, particularly in the 65 and older age group. Tables 3.6 and 3.8 show how assets are held in each age group by percentage while tables 3.7 and 3.9 show average values for each age group. In 2009, 61% of assets held by FBFM farm operators age 65 and older were fixed assets, 20% were intermediate assets, and 20% were current assets. For the same year, the 50 to 64 year old age group assets were 25% current, 29% intermediate, and 46% fixed. The 2009 breakdown of assets for the 35 to 49 year old age group included 26% current assets, 29% intermediate assets, and 44% fixed assets. Finally, the age 34 and younger group's assets were 32% current, 31% intermediate, and 37% fixed in 2009. The average value of current assets decreased for all age groups from 2008 to 2009. However, average values for intermediate assets and fixed assets increased in all age groups from 2008 to 2009 except fixed assets for the 34 and younger age group. There are some variations in percentages but these trends are similar when farms that are not sole proprietorships or grain farms are eliminated from the data.

Average liability values for each age group are shown in tables 3.10 and 3.11. Liabilities for the 34 and younger age group decrease in each category from 2008 to 2009. In 2009, the average value of current liabilities for the 65 years of age and older group was greater than the average value of long term liabilities. The value of liabilities for the 65 and older age group was lower than average values for the other age groups in each category for every year except long term liabilities in 2006.

The average net worth for all farms and sole proprietorship grain farms increased each year for 2003 to 2009 as displayed in figures 3.5 and 3.6. The average net worth among FBFM farms was \$1,696,012 in 2009. The 65 and older age group consistently had the highest average net worth compared to other age groups. When only considering those farms where the operator is age 65 or older, the average net worth increased to \$2,279,648 for 2009. In contrast, average net worth for FBFM farmers age 34 and younger was \$763,833. Average net worth increased across all age groups from 2003 to 2009 except in 2005 for the 65 and older age group and in 2009 for the 50 to 64 age group. The 2009 average net worth of sole proprietorship grain farms was \$1,715,866. Average net worth for sole proprietorship grain farms increased each year for all age groups except 2006 for the 34 and younger age group and 2009 for farmers age 50 to 64 as shown in figure 3.6. Tables 3.12 and 3.13 present the average ROE and ROA for all farms and sole proprietorship grain farms by age group. Average net farm income for all farms trended up overall from 2003 to 2009 but decreased sharply for all age groups in 2005 and 2009. Net farm income trends for sole proprietorship grain farms are similar to net farm income trends for all farms as depicted in figures 3.7 and 3.8.

### **3.2 Transition Case Commonalities**

The literature identifies sole proprietorship as being the most common type of farm organization (Jones, 2005). Most farmers retain at least some ownership in the operation until death for a variety of reasons both personal and financial (Jones, 2005; Keating & Munro, 1989; Kimhi & Lopez, 1999). Data from 2001 show that commercial grain farms with net worth over \$1 million are more likely to participate in succession planning (Mishra et al., 2003). Likelihood of succession planning also increases with operator age (Duffy, 2009; Mishra et al., 2003). Operators over the age of 65 account for over one quarter of all U.S. farmers and control over

one third of farm assets (Mishra et al., 2003). Most farmers have put greater emphasis on expanding the business over the course of their career than saving for retirement (Mishra et al., 2005). Therefore, for the purposes of forming a prototypical transition case, it is assumed that the farm to be transitioned is a sole proprietorship commercial grain farm with an operator who has not set aside substantial savings for retirement, and who wishes to maintain at least partial ownership of the business's assets until death. It is also assumed that the older operator is ready to move towards retirement and transition operational control to the successor. It is assumed that the successor is a child of the retiring generation and that the retiring generation is married. However, succession planning with a non-heir or non-family member successor is a possibility.

A plan still must be made and estate planning provisions set forth to ensure the operator's intentions are met in the case of a non-heir successor just as in the case of an heir successor. The process may begin with an employer/employee relationship and then progress to the farm transferring ownership and management through some combination of sale and lease arrangements. Many of the tools used to structure the transfer of the farm to a non-heir successor are the same as would be used for an heir successor but the way they are used may change. Buy/sell agreements and life insurance trusts in particular may be used to help transfer the farm to a non-heir. Documents may need to be in place to ensure the non-heir successor will continue to be able to operate the farm if there are non-farm heirs who will eventually become owners. Family, financial, and legal implications of actions are of key importance to this transition process.

### **3.3 Objectives of the Succession Plan**

Common goals and objectives of succession planning as identified in the literature will be used to motivate the transition plan. The importance of noting ownership structure, the value of

operator and successor preferences, and time and risk uncertainty are all underlying factors that guide the succession planning process. After articulating what those involved in succession planning would like to happen, one of the most common concerns is minimization of taxes such as income, estate, and capital gains (Harl, 1996). Estate taxes are not as likely to be a concern given current estate tax legislation. However, as estate tax laws will change over time, estate taxes will be treated as a concern for the purposes of this research and general tax savings principles will be applied. Other common objectives of succession planning include maximizing wealth, bringing the next generation into the business and providing a financial base for the younger generation to begin farming while also allowing the parents to retire from the business (Branan, 2009). Providing income to the parents throughout their retirement and determining how active and inactive heirs will be treated are also important (Branan, 2009). Ensuring that the operation continues to grow and shielding it from potential negative events is important as well (Spafford, 2006).

### **3.4 Problems Associated with Succession Planning**

Succession planning is very much a multifaceted process. For all cases, it is important to identify what each generation wants to happen, particularly that the older generation wants to pass on the farm and that the younger generation wants to farm (Spafford, 2006). There are many stages of succession and consequently many components of a successful transition plan and communication is a key element in ensuring that everyone's objectives and goals are met (Jones, 2005). The procedure is greatly affected by family preferences and communication among all the parties involved (Taylor & Norris, 2000). Although important for the completion of a successful transition, decisions regarding when to transfer management of the business are relatively subjective and dependent on such things as ages, preparedness, and preferences of those

involved. As such, this research focuses on the transition of ownership in a family agribusiness. Extra emphasis is placed on the importance of estate planning to accommodate farmer preference of retaining at least partial ownership of farm assets until death.

Transition of management responsibilities of at least part of the business happens during the out-transfer generation's lifetime with partial ownership of assets changing hands with estate planning in this research. Ownership transfer through the estate often brings out questions of fair versus equal treatment of heirs in estate planning. If there are farming and non-farming heirs, the fair-versus-equal dilemma becomes even more important. Open family discussion is needed to determine the wishes of all parties involved. If inactive heirs do not wish to have a financial interest in the family business or if parents want assets to be owned only by those actively involved in the farm, life insurance is one possible way to create inheritance for non-farming heirs that is not related to business assets (Spafford, 2006; Tauer, 1985). Proceeds from life insurance could also be used to fund a buyout of inactive heirs by the successor if both active and inactive heirs inherit business assets (Tauer, 1985). Purchasing sufficient life insurance to buyout inactive heirs may prove to be costly however. Another possible consideration during estate planning is whether active children should receive increased inheritance based on some predetermined equation for the "sweat equity" they have put into the business (Hanson, 2007). The method of compensating the successor for "sweat equity" could be affected by how the heir is currently involved in the business or how the family chooses to transition ownership. Of chief importance is that those involved know the reasoning behind bequest decisions.

Questions that arise from the business management perspective during a transition often include such things as who should invest in expanding the business and who should receive government payments. Parents are often the major asset holders and have the capital to invest

whereas the younger generation usually does not have the equity needed and cannot afford to buy the land and equipment the business requires (Branan, 2009). However, parents also need to consider their retirement needs and how they want to treat all heirs. The answers to these questions often depend on the wishes and situation of those involved. Communication is needed for all parties to understand what will happen and why. It is also important to note the need for flexibility and periodic reassessment of the transition plan as values, interests, and circumstances change over time.

### **3.5 Transfer Options**

The literature describes several methods of transferring ownership of farm property. Each method has advantages and disadvantages depending on the objectives governing the succession process. Different means of transfer are also best suited to different types of assets. Methods of transferring business assets include gifts, leases, sales, joint ownership, and transfer of property through estate planning (Harl, 1996). Other tools for facilitating the transfer of property include life insurance and buy/sell agreements (Spafford, 2006).

The sale of farm assets to the successor provides money for the older generation's retirement while providing the successor with a place to start building equity. Selling property is not always feasible as the resources are needed for production and the younger generation frequently lacks sufficient capital to purchase them (Harl, 1996). Also, older generations prefer to retain ownership of certain types of property until death for a variety of reasons. These reasons include tax saving motivations and feelings of attachment associated with the property and business they have built up over their lifetime (Jones, 2005; Keating & Munro, 1989). Selling assets that have appreciated in value, such as land, will cause a change in basis which could result in capital gains or income taxes that could be avoided if the asset passed through the estate

(Harl, 1996). Land that would benefit from the application of special land use valuation would be required to be valued at fair market value if sold (Kraemer, 2006).

A self-cancelling installment note or private annuity are options that would provide income for retirement to the parents and remove the asset from their estate while not requiring the successor to raise capital all at once (Spafford, 2006). However, it is possible that the parents may outlive the stream of payments. Installment sales are an effective way to freeze the value of the asset being sold but inflation raising the cost of living beyond the amount of the fixed payments is a concern (Harl, 1996). There are also tax implications to consider as discussed when selling an asset.

Gifting assets to the successor may be a beneficial option particularly if the parents do not need the income from the sale of certain assets for their retirement or if they need to reduce the size of their estate to avoid an estate tax (Spafford, 2006). However, there are limitations on how much a person may gift to another person in a year without having to file a special tax return, as well as a lifetime limit on how much may be gifted tax-free (Sullivan, 2010). The same basis and valuation concerns as were discussed regarding selling an asset apply to the gifting of assets. Gifting partial ownership in the business to the successor may be a way for the parents to demonstrate commitment to transferring the farm to the successor as well as provide owners with the opportunity to discount the value of the business for tax purposes because multiple owners could reduce the resale marketability of the business (Harl, 1996).

Renting farm assets, such as land, to successors and then distributing them to heirs through the estate after the death of the parents is in line with preferences of the retiring generation (Branan, 2009). The proceeds from leasing assets provides income for retirement to parents while giving successors access to assets they would not otherwise be able to afford but

are necessary for the business to succeed. In the case of land, leasing may preserve the ability to utilize a special land use valuation if applicable (Kraemer, 2006). Using the estate to distribute the assets upon the death of the owners also allows the assets to receive a stepped up basis and results in tax savings for the owners (Kraemer, 2006). The income parents receive from renting assets should not decrease social security benefits if they do not “participate materially” in the production of income from the assets or render “substantial services” (Harl, 1996).

Trusts are mentioned throughout this research as instruments commonly used to achieve estate planning objectives. There are many types of trusts suited to various purposes (Richardson & Geyer, 2009). A revocable living trust can be used to save on estate settlement time and costs, allow all property to be dealt with in the state of residence if property is owned in more than one state, allow a farming heir to gradually buy into the operation, and provide a measure of risk protection to inheritance (Hachfeld et al., 2007). Trusts can be tailored to meet their intended purpose such as providing funds for charities and education or transferring property ownership in increments (Richardson & Geyer, 2009). A “pour over” will should be used to transfer assets previously left out of the trust or newly acquired into an existing trust (Kraemer, 2006). It is important to note that assets must be formally transferred into a trust after it is created (Hachfeld et al., 2007). Also of importance is noting the look back period applicable, five years for transfers to trusts and gifts, when qualifying for Medicaid nursing home care (Kraemer, 2006). The look back period starts from the date of application for Medicaid and the length of any ineligibility period is determined by dividing the value of transfers in the look back period by the monthly cost of nursing home care in the applicant’s area (McEowen, 2006).

Insurance has been discussed as a method of providing alternative inheritance to inactive heirs or funding the buyout of inactive heirs. Life insurance may be placed in an irrevocable life



insurance trust to guarantee the proceeds do not increase the value of the estate (Harl, 1996). Final expenses, outstanding debts, special needs, educational funds, income replacement, business overhead, estate tax and transfer obligations, administrative expenses, and equitable transfer funds are all things that may be considered when determining life insurance needs (Spafford, 2006).

Joint ownership is another way ownership can be transferred between the parent generation and successor. In the case of joint tenancy the two generations own assets together and items pass to the survivor when the first dies (Beginning Farmer Center, 2009e). Joint tenancy assumes that the older generation will die first (Beginning Farmer Center, 2009e). Tenancy in common would have the generations owning assets together with the first to die leaving their share to whomever they wish upon their death (Beginning Farmer Center, 2009e).

### **3.6 Summary**

The prototypical succession case as identified by the literature and FBFM data is a sole proprietorship, commercial grain farm (Jones, 2005; Mishra et al., 2003). The high percentage of sole proprietorship farms in the FBFM data may reflect a lack of need for FBFM services by other forms of farm organization, such as corporations. However, the literature also establishes sole proprietorship as the most common form on farm business entity (Jones, 2005). Ninety-eight percent of U.S. farms are considered a family farm, meaning the majority of the business is owned by the operator and individuals related to the operator (Hoppe et al., 2010). Based on age and asset ownership demographics, it is assumed that the principal operator on the farm associated with the succession plan is approaching retirement age and has under-saved for retirement. The out-transfer generation will maintain ownership of at least some business assets and require income from the farm for retirement.

There are many ways to transfer ownership of property. Major concerns when considering the best way to transfer ownership include treatment of non-farming heirs, securing income for the duration of the parent generation's retirement, and tax implications (Branan, 2009; Harl, 1996). Although decisions on when and how to divide property are ultimately dependent on the preferences of the owner, certain methods of transition appear more beneficial given the type of asset to be transferred and the situation surrounding the transfer. Unless there are special preferences or circumstances, it appears to be advantageous for the retiring generation to retain ownership of assets and use a trust to distribute ownership of assets to heirs. Retaining ownership of assets until death helps avoid potential taxes generated by the sale of such assets (Harl, 1996). Use of a trust can help ensure that the agribusiness owners take advantage of the full estate tax exclusion available to them (Bowman-Upton, 2009). Leasing assets to the successor provides retirement income to the older generation (Branan, 2009). Letting the assets pass through the estate also allows them to receive a stepped up basis and in the case of land may allow it to be eligible for a special land use valuation rather than fair market valuation (Kraemer, 2006). A marital deduction trust is often used to allow the surviving spouse to delay or avoid paying an estate tax. However, this research focuses on the transfer of ownership to the successor.

For the purposes of this research, the out-transfer generation holds most of their wealth in the farm so inheritance is related to the business. Liquidating certain business assets to build wealth in other areas is not an option as they are necessary for the successful operation of the farm and the successor cannot afford to buy them in addition to the tax implications previously discussed. Therefore, bequests to heirs, including those not active on the farm, will likely include farm assets. Parents in different situations may feel differently about how to distribute assets

between active and inactive heirs. Heirs may also have differing opinions regarding ownership in a business they do not actively participate in. As mentioned, possible options for providing flexibility and fairness to heirs who do not want ownership in the farm include the use of life insurance and buy/sell agreements to allow the successor to purchase farm assets without taking on excessive debt (Spafford, 2006). Family discussion regarding preferences in ownership would prove useful in determining life insurance needs and buy/sell agreement structure (Spafford, 2006). Changing the form of business entity or forming multiple business entities and transferring shares of ownership to heirs could prove useful in reducing the value of the estate as well as lessen liability. Taking advantage of the gift tax exclusion by giving a portion of assets to the successor if parents can afford it would assist the successor in building equity, demonstrate commitment to keeping farm assets available to the successor, and may help compensate the successor for adding value to the farm as well as taking on risk associated with farming. If gifting is not feasible, the parents may wish to will an increased percentage of assets to the successor compared to what inactive heirs receive based on years the successor was acting as an operator on the farm. Parents could also protect the successor's ability to farm when there are non-farming heirs by stipulating the sale terms and first right of refusal for the successor to buy the non-farming heirs' inheritance if they wished to sell it (Beginning Farmer Center, 2009d). Valuation and option agreement decisions would require communication between all parties to establish the reasons for such stipulations and lessen the likelihood of feelings of inequality and unfairness.

### 3.7 Tables

**Table 3.1 Type of Business by Percentage, FBFM Participants, 2003-2009**

Year	n	Individual	Corporation	Estate	Joint		LLC	Partnership	Sub S Corp.	Trust	Unknown
					Venture						
2003	1048	94%	0%	0%	0%		0%	1%	0%	0%	5%
2004	1164	94%	0%	0%	0%		0%	1%	0%	0%	5%
2005	1100	94%	0%	0%	0%		0%	0%	0%	0%	5%
2006	1072	94%	0%	0%	0%		0%	0%	0%	0%	5%
2007	626	94%	0%	0%	0%		0%	0%	0%	0%	6%
2008	1119	95%	0%	0%	0%		0%	0%	0%	0%	4%
2009	1066	94%	0%	0%	0%		0%	0%	0%	0%	6%

Source: Illinois FBFM

**Table 3.2 Type of Farm by Percentage, FBFM Participants, 2003-2009**

Year	n	Hog	Grain	Part time	Dairy	Dairy	Beef	Part time	Irrigated	Mixed
				grain	grain			livestock	sand	livestock
2003	1048	5%	90%	1%	0%	2%	1%	0%	1%	0%
2004	1164	5%	90%	0%	0%	2%	2%	0%	1%	0%
2005	1100	4%	91%	0%	0%	2%	1%	0%	1%	0%
2006	1072	3%	93%	0%	0%	1%	1%	0%	1%	0%
2007	626	3%	92%	1%	1%	2%	1%	0%	1%	0%
2008	1119	3%	92%	0%	1%	2%	1%	0%	1%	0%
2009	1066	3%	92%	0%	1%	2%	1%	0%	1%	0%

Source: Illinois FBFM

**Table 3.3 Average Farmer Age, FBFM Participants, 2003-2009**

Year	n*	Sole Proprietorship	
		All Farms	Grain Farms
2003	1048	50.9	51.1
2004	1164	51.6	51.8
2005	1100	52.5	52.7
2006	1072	53.3	53.6
2007	626	53.6	54.0
2008	1119	54.1	54.4
2009	1066	54.5	54.9

Source: Illinois FBFM

\*Sample size for Sole Proprietorship Grain Farms is a subset ranging from 90-93% of All Farms.

**Table 3.4 Percentage of Farmers with Retirement Savings, All FBFM Farms, 2003-2009**

<b>Year</b>	<b>n</b>	<b>34 &amp; Younger Age Group</b>	<b>35-49 Age Group</b>	<b>50-64 Age Group</b>	<b>65 &amp; Older Age Group</b>	<b>All Ages</b>
2003	1048	69%	74%	74%	62%	72%
2004	1164	76%	74%	73%	67%	73%
2005	1100	74%	76%	75%	64%	73%
2006	1072	59%	75%	75%	70%	74%
2007	626	52%	72%	78%	62%	72%
2008	1119	66%	75%	81%	66%	76%
2009	1066	64%	79%	80%	65%	77%

Source: Illinois FBFM

**Table 3.5 Percentage of Farmers with Retirement Savings, FBFM Sole Proprietorship Grain Farms, 2003-2009**

<b>Year</b>	<b>n</b>	<b>34 &amp; Younger Age Group</b>	<b>35-49 Age Group</b>	<b>50-64 Age Group</b>	<b>65 &amp; Older Age Group</b>	<b>All Ages</b>
2003	883	80%	77%	76%	64%	75%
2004	978	77%	76%	75%	70%	75%
2005	945	73%	79%	77%	67%	76%
2006	940	61%	76%	77%	72%	75%
2007	539	59%	74%	79%	61%	73%
2008	980	63%	75%	82%	69%	77%
2009	922	67%	78%	82%	69%	79%

Source: Illinois FBFM

**Table 3.6 Farm Assets by Percentage, All FBFM Farms, 2003-2009**

		34 & Younger Age Group			35-49 Age Group			50-64 Age Group			65 & Older Age Group		
Year	n	Current Assets	Intermediate Assets	Fixed Assets	Current Assets	Intermediate Assets	Fixed Assets	Current Assets	Intermediate Assets	Fixed Assets	Current Assets	Intermediate Assets	Fixed Assets
2003	1048	29%	32%	40%	24%	33%	44%	20%	29%	51%	17%	21%	62%
2004	1164	32%	33%	34%	25%	33%	43%	22%	29%	49%	16%	21%	63%
2005	1100	31%	30%	39%	23%	32%	44%	20%	29%	50%	17%	22%	61%
2006	1072	28%	28%	43%	25%	30%	45%	22%	29%	50%	18%	21%	61%
2007	626	37%	28%	35%	29%	26%	45%	25%	28%	46%	20%	17%	63%
2008	1119	42%	22%	35%	31%	27%	42%	29%	27%	44%	21%	19%	60%
2009	1066	32%	31%	37%	26%	29%	44%	25%	29%	46%	20%	20%	61%

Source: Illinois FBFM

**Table 3.7 Average Farm Assets, All FBFM Farms, 2003-2009**

		34 & Younger Age Group			35-49 Age Group			50-64 Age Group			65 & Older Age Group		
Year	n	Current Assets	Intermediate Assets	Fixed Assets	Current Assets	Intermediate Assets	Fixed Assets	Current Assets	Intermediate Assets	Fixed Assets	Current Assets	Intermediate Assets	Fixed Assets
2003	1048	\$ 190,770	\$ 209,733	\$ 264,848	\$ 274,189	\$ 377,183	\$ 501,936	\$ 287,370	\$ 417,119	\$ 745,418	\$ 275,414	\$ 348,460	\$ 1,008,041
2004	1164	\$ 249,198	\$ 253,798	\$ 264,612	\$ 319,364	\$ 419,283	\$ 550,484	\$ 341,050	\$ 458,498	\$ 779,388	\$ 295,807	\$ 383,869	\$ 1,166,821
2005	1100	\$ 235,619	\$ 233,440	\$ 296,880	\$ 315,340	\$ 436,204	\$ 598,010	\$ 333,844	\$ 477,895	\$ 820,891	\$ 313,535	\$ 417,695	\$ 1,141,641
2006	1072	\$ 219,769	\$ 222,725	\$ 340,299	\$ 394,797	\$ 468,575	\$ 701,463	\$ 385,348	\$ 513,063	\$ 889,851	\$ 377,882	\$ 438,607	\$ 1,283,687
2007	626	\$ 387,241	\$ 297,119	\$ 367,485	\$ 533,186	\$ 482,388	\$ 816,927	\$ 502,638	\$ 566,081	\$ 927,028	\$ 465,397	\$ 402,661	\$ 1,485,236
2008	1119	\$ 596,889	\$ 313,734	\$ 494,287	\$ 583,053	\$ 514,322	\$ 792,699	\$ 657,981	\$ 618,535	\$ 1,018,442	\$ 524,377	\$ 470,057	\$ 1,508,554
2009	1066	\$ 409,043	\$ 391,796	\$ 480,211	\$ 531,190	\$ 586,619	\$ 894,341	\$ 581,992	\$ 667,065	\$ 1,080,966	\$ 512,630	\$ 523,633	\$ 1,591,296

Source: Illinois FBFM

**Table 3.8 Farm Assets by Percentage, FBFM Sole Proprietorship Grain Farms, 2003-2009**

		34 & Younger Age Group			35-49 Age Group			50-64 Age Group			65 & Older Age Group		
Year	n	Current Assets	Intermediate Assets	Fixed Assets	Current Assets	Intermediate Assets	Fixed Assets	Current Assets	Intermediate Assets	Fixed Assets	Current Assets	Intermediate Assets	Fixed Assets
2003	883	29%	32%	39%	24%	33%	43%	20%	29%	51%	16%	22%	62%
2004	978	32%	33%	35%	24%	33%	43%	21%	30%	49%	16%	22%	62%
2005	945	31%	30%	39%	23%	33%	44%	20%	30%	50%	17%	23%	60%
2006	940	30%	32%	38%	25%	30%	44%	22%	29%	49%	18%	21%	61%
2007	539	39%	31%	30%	29%	26%	45%	26%	29%	46%	20%	17%	63%
2008	980	42%	22%	35%	32%	27%	42%	29%	27%	44%	21%	19%	60%
2009	922	32%	28%	41%	28%	29%	43%	25%	29%	46%	19%	20%	60%

Source: Illinois FBFM

**Table 3.9 Average Farm Assets, FBFM Sole Proprietorship Grain Farms, 2003-2009**

		34 & Younger Age Group			35-49 Age Group			50-64 Age Group			65 & Older Age Group		
Year	n	Current Assets	Intermediate Assets	Fixed Assets	Current Assets	Intermediate Assets	Fixed Assets	Current Assets	Intermediate Assets	Fixed Assets	Current Assets	Intermediate Assets	Fixed Assets
2003	883	\$ 191,616	\$ 215,318	\$ 263,103	\$ 269,243	\$ 374,203	\$ 475,978	\$ 288,170	\$ 426,939	\$ 748,922	\$ 246,001	\$ 330,702	\$ 921,671
2004	978	\$ 234,863	\$ 238,691	\$ 254,958	\$ 313,654	\$ 421,097	\$ 558,289	\$ 330,724	\$ 460,856	\$ 748,625	\$ 285,006	\$ 381,989	\$ 1,109,519
2005	945	\$ 247,929	\$ 246,855	\$ 315,604	\$ 308,645	\$ 437,321	\$ 580,733	\$ 324,507	\$ 479,101	\$ 814,684	\$ 305,684	\$ 424,236	\$ 1,101,644
2006	940	\$ 207,597	\$ 219,937	\$ 261,394	\$ 389,174	\$ 465,462	\$ 676,489	\$ 388,031	\$ 519,166	\$ 884,661	\$ 360,668	\$ 431,735	\$ 1,253,336
2007	539	\$ 416,667	\$ 323,173	\$ 315,506	\$ 528,523	\$ 480,228	\$ 835,068	\$ 519,593	\$ 577,348	\$ 928,112	\$ 459,908	\$ 403,091	\$ 1,466,319
2008	980	\$ 627,771	\$ 330,495	\$ 524,912	\$ 599,307	\$ 511,594	\$ 791,142	\$ 682,143	\$ 625,075	\$ 1,024,061	\$ 510,295	\$ 476,323	\$ 1,462,636
2009	922	\$ 426,895	\$ 370,667	\$ 546,958	\$ 558,753	\$ 592,080	\$ 857,190	\$ 593,593	\$ 672,592	\$ 1,066,298	\$ 503,207	\$ 535,927	\$ 1,579,839

Source: Illinois FBFM

**Table 3.10 Average Farm Liabilities, All FBFM Farms, 2003-2009**

		34 & Younger Age Group			35-49 Age Group			50-64 Age Group			65 & Older Age Group		
Year	n	Current Liabilities	Intermediate Liabilities	Long Term Liabilities	Current Liabilities	Intermediate Liabilities	Long Term Liabilities	Current Liabilities	Intermediate Liabilities	Long Term Liabilities	Current Liabilities	Intermediate Liabilities	Long Term Liabilities
2003	1048	\$ 126,357	\$ 49,509	\$ 149,263	\$ 192,714	\$ 68,595	\$ 170,325	\$ 180,625	\$ 63,635	\$ 175,237	\$ 93,156	\$ 19,219	\$ 122,630
2004	1164	\$ 159,887	\$ 68,270	\$ 128,128	\$ 208,260	\$ 71,699	\$ 177,873	\$ 200,060	\$ 68,920	\$ 185,884	\$ 104,522	\$ 25,619	\$ 122,008
2005	1100	\$ 148,389	\$ 47,806	\$ 155,097	\$ 210,521	\$ 74,842	\$ 191,884	\$ 211,318	\$ 64,471	\$ 180,596	\$ 119,074	\$ 36,475	\$ 133,585
2006	1072	\$ 140,725	\$ 49,542	\$ 139,210	\$ 247,020	\$ 78,247	\$ 223,244	\$ 213,632	\$ 65,195	\$ 186,098	\$ 127,222	\$ 35,740	\$ 157,880
2007	626	\$ 201,686	\$ 72,590	\$ 194,575	\$ 268,601	\$ 82,451	\$ 230,529	\$ 219,778	\$ 74,302	\$ 185,227	\$ 142,743	\$ 38,322	\$ 174,711
2008	1119	\$ 363,196	\$ 90,980	\$ 262,376	\$ 275,835	\$ 87,075	\$ 235,467	\$ 278,814	\$ 81,713	\$ 197,099	\$ 152,771	\$ 34,026	\$ 164,346
2009	1066	\$ 223,393	\$ 84,352	\$ 209,471	\$ 272,850	\$ 90,218	\$ 250,363	\$ 288,204	\$ 90,115	\$ 220,799	\$ 161,387	\$ 39,550	\$ 145,534

Source: Illinois FBFM

**Table 3.11 Average Farm Liabilities, FBFM Sole Proprietorship Grain Farms, 2003-2009**

		34 & Younger Age Group			35-49 Age Group			50-64 Age Group			65 & Older Age Group		
Year	n	Current Liabilities	Intermediate Liabilities	Long Term Liabilities	Current Liabilities	Intermediate Liabilities	Long Term Liabilities	Current Liabilities	Intermediate Liabilities	Long Term Liabilities	Current Liabilities	Intermediate Liabilities	Long Term Liabilities
2003	883	\$ 117,483	\$ 53,806	\$ 155,141	\$ 191,943	\$ 68,346	\$ 163,673	\$ 177,679	\$ 60,930	\$ 172,244	\$ 90,485	\$ 20,669	\$ 132,603
2004	978	\$ 144,943	\$ 57,096	\$ 134,339	\$ 215,388	\$ 74,339	\$ 176,754	\$ 193,801	\$ 67,706	\$ 180,112	\$ 101,764	\$ 25,845	\$ 121,781
2005	945	\$ 149,691	\$ 49,288	\$ 162,666	\$ 212,751	\$ 78,353	\$ 185,771	\$ 206,958	\$ 65,166	\$ 182,309	\$ 114,959	\$ 37,103	\$ 126,759
2006	940	\$ 140,795	\$ 50,068	\$ 140,969	\$ 249,748	\$ 79,613	\$ 215,353	\$ 215,329	\$ 66,490	\$ 184,028	\$ 106,964	\$ 33,338	\$ 139,910
2007	539	\$ 223,381	\$ 87,082	\$ 178,150	\$ 260,077	\$ 82,352	\$ 238,144	\$ 225,246	\$ 78,130	\$ 188,318	\$ 143,367	\$ 39,060	\$ 179,333
2008	980	\$ 384,547	\$ 96,128	\$ 276,038	\$ 289,048	\$ 90,059	\$ 240,276	\$ 279,489	\$ 83,133	\$ 192,530	\$ 152,073	\$ 33,886	\$ 169,007
2009	922	\$ 227,386	\$ 89,192	\$ 231,414	\$ 269,312	\$ 92,728	\$ 241,146	\$ 285,412	\$ 91,740	\$ 213,592	\$ 161,158	\$ 38,285	\$ 154,420

Source: Illinois FBFM

**Table 3.12 Average Return on Assets and Return on Equity, All FBFM Farms, 2003-2009**

		34 & Younger Age Group		35-49 Age Group		50-64 Age Group		65 & Older Age Group	
Year	n	ROA	ROE	ROA	ROE	ROA	ROE	ROA	ROE
2003	1048	9.03	23.35	7.32	138.23	5.25	8.17	2.36	1.05
2004	1164	15.48	383.29	10.14	16.23	7.30	11.79	3.78	6.65
2005	1100	6.45	88.03	5.96	-6.94	3.52	-11.15	1.21	4.33
2006	1072	12.79	26.09	9.58	13.87	6.99	7.11	3.98	3.53
2007	626	18.99	42.09	18.49	14.88	14.80	22.94	8.29	7.71
2008	1119	21.00	15.69	14.26	23.17	12.55	18.24	7.36	4.36
2009	1066	5.58	2.61	3.99	0.99	3.42	2.06	1.97	2.28

Source: Illinois FBFM

**Table 3.13 Average Return on Assets and Return on Equity, FBFM Sole Proprietorship Grain Farms, 2003-2009**

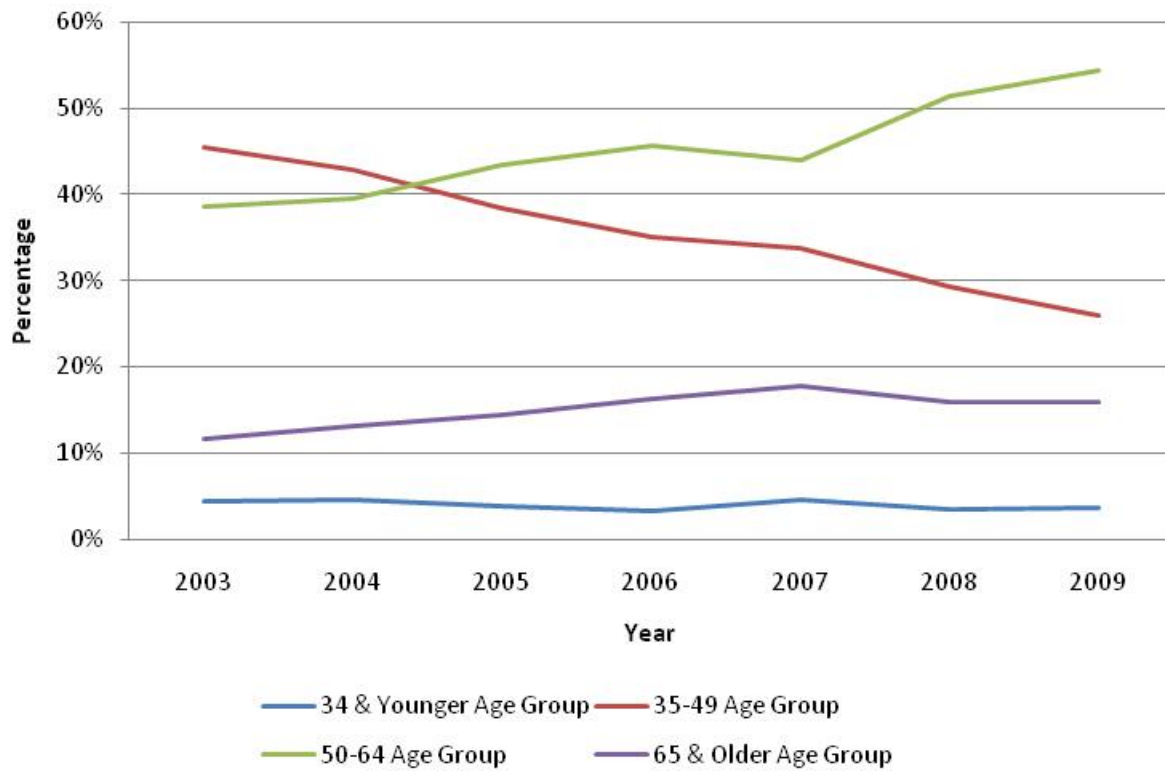
		34 & Younger Age Group		35-49 Age Group		50-64 Age Group		65 & Older Age Group	
Year	n	ROA	ROE	ROA	ROE	ROA	ROE	ROA	ROE
2003	883	11.05	34.42	7.41	165.39	5.31	6.22	1.92	0.21
2004	978	16.86	475.27	9.69	16.66	6.93	12.47	3.76	7.03
2005	945	7.41	124.02	5.55	-9.16	3.40	-5.35	1.07	4.63
2006	940	13.02	10.32	9.46	14.41	7.11	6.83	3.96	2.99
2007	539	30.77	60.47	19.79	15.02	15.53	23.13	8.85	8.18
2008	980	20.86	10.98	14.94	24.68	13.32	19.79	7.55	4.21
2009	922	6.62	2.51	4.86	2.16	3.57	2.21	2.02	2.53

Source: Illinois FBFM

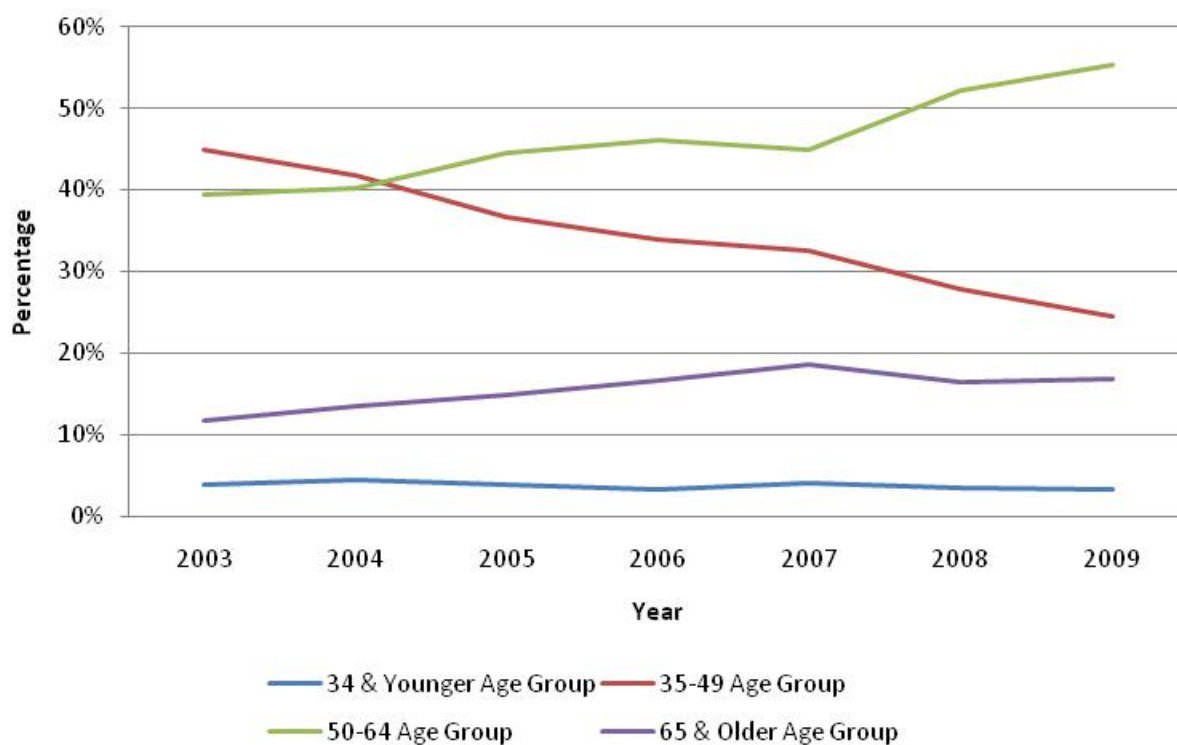


### 3.8 Figures

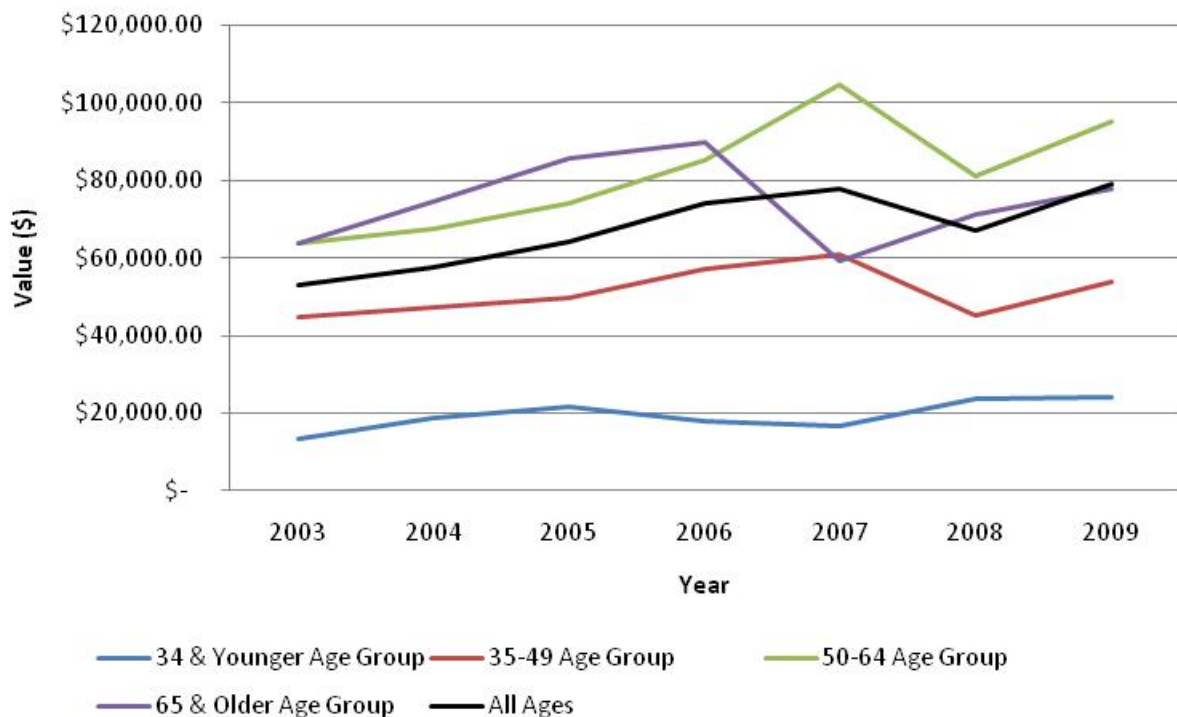
Figure 3.1 Percentage of Farmers by Age Group, All FBFM Farms, 2003-2009



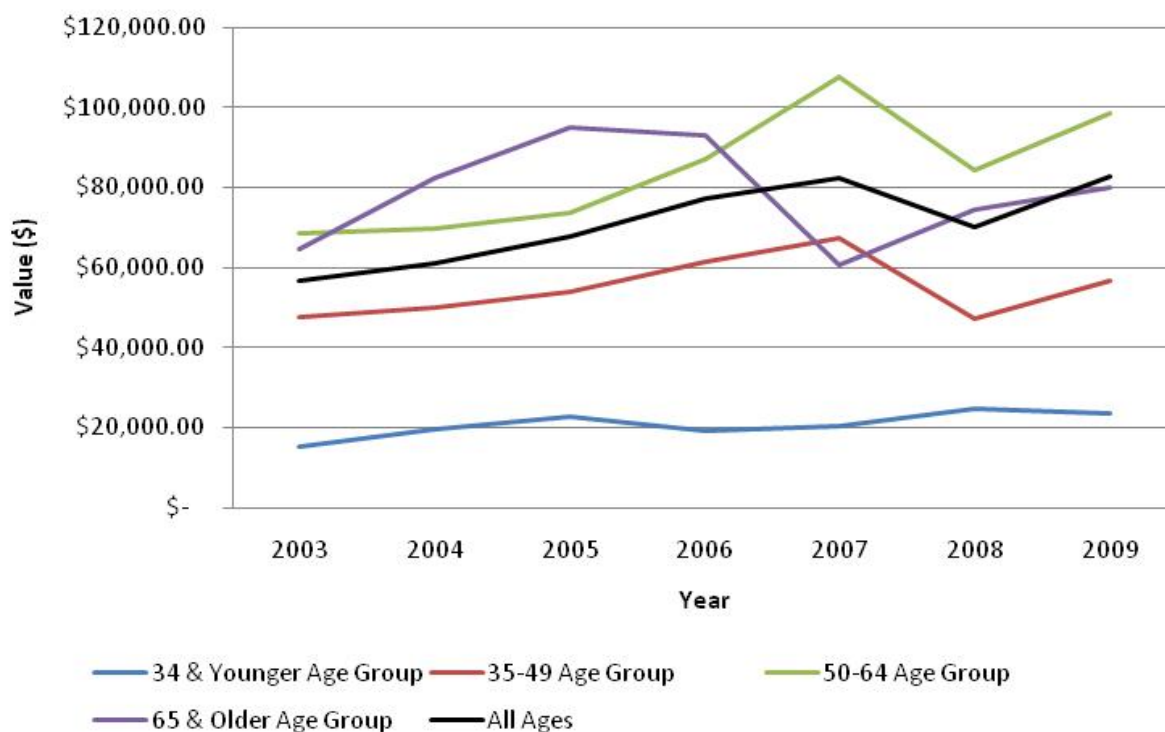
**Figure 3.2 Percentage of Farmers by Age Group, FBFM Sole Proprietorship Grain Farms, 2003-2009**



**Figure 3.3 Average Retirement Savings, All FBFM Farms, 2003-2009**

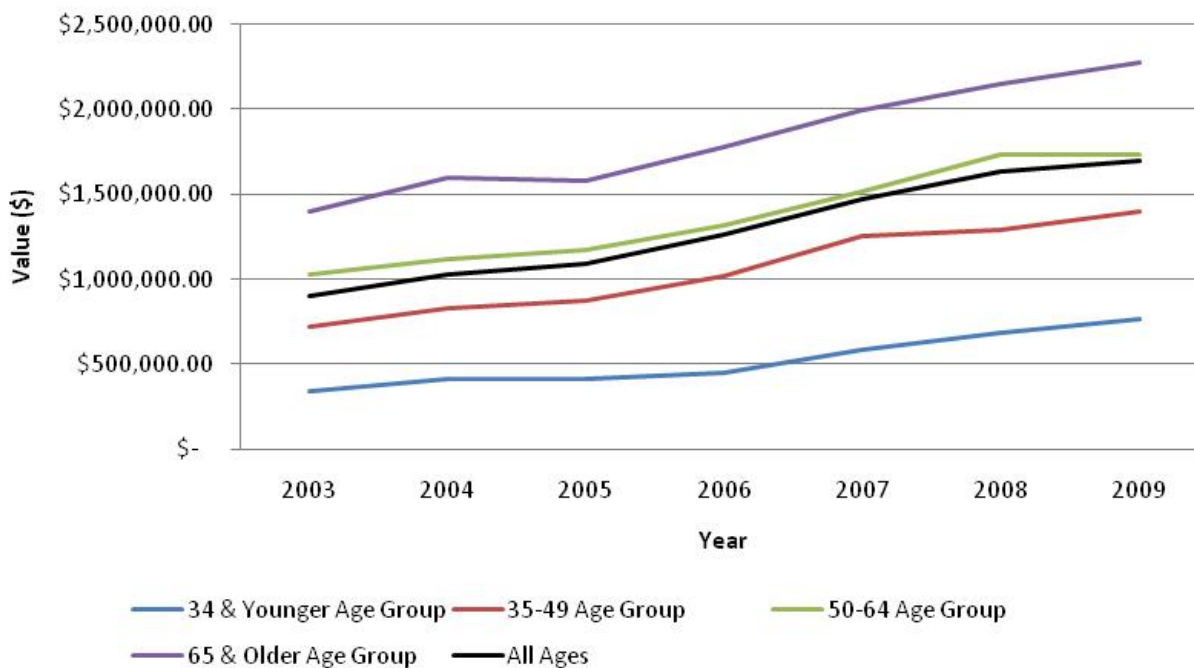


**Figure 3.4 Average Retirement Savings, FBFM Sole Proprietorship Grain Farms, 2003-2009**



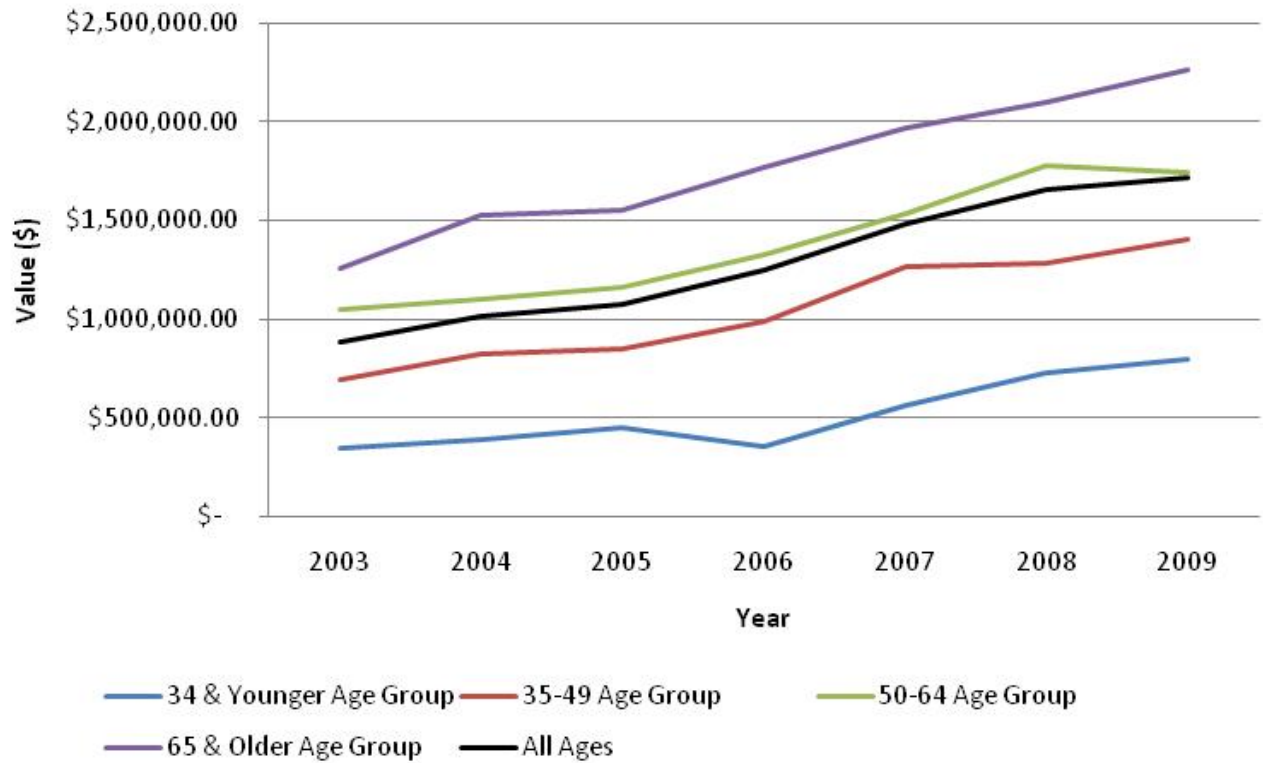
Source: Illinois FBFM

**Figure 3.5 Average Net Worth, All FBFM Farms, 2003-2009**

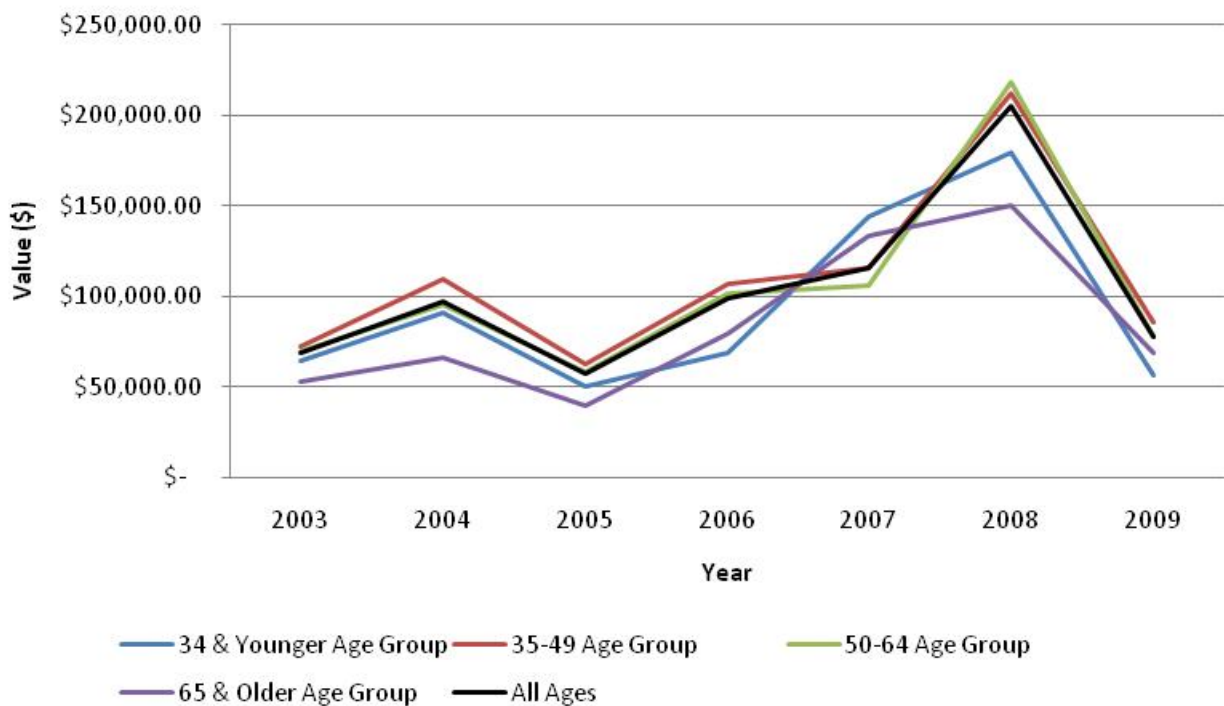


Source: Illinois FBFM

**Figure 3.6 Average Net Worth, FBFM Sole Proprietorship Grain Farms, 2003-2009**



**Figure 3.7 Average Net Farm Income, All FBFM Farms, 2003-2009**



**Figure 3.8 Average Net Farm Income, FBFM Sole Proprietorship Grain Farms, 2003-2009**



Source: Illinois FBFM

## **4 METHODOLOGY**

The tool resulting from this research is based on the farm attributes and objectives described in the previous chapter and is meant to describe potential succession implications for the operator. The succession framework assumes the operator will require income in excess of current retirement savings for retirement, and will retain at least partial ownership of the farm to receive income to meet this requirement. Some circumstances, such as estate value above the exclusion limit, suggest selling or gifting assets may be beneficial. Tax minimization and wealth maximization are treated as motivations affecting the succession process. The dynamic and complex nature of tax legislation prevents specific calculations for unique operations, but general tax minimization principles described in the literature are applied. The way in which an operation is taxed may be influenced by the operation's tax or financial advisor who is familiar with what is best for the individual operation in question. Building the framework based on broad principles allows the user to take the ideas presented in the tool and adapt the succession plan according to what is best for a specific operation.

### **4.1 Development of Succession Framework**

This research blends the approaches to succession planning described by Jones (2005), Keating and Munro (1989), and Spafford (2006). Transition steps for this succession tool include identifying a successor, determining if succession is feasible given the current state of the business, developing a business plan for moving forward, deciding the best way to implement succession measures based on retirement needs and estate considerations, and then carrying out those actions. It is assumed that a successor has been identified and the operator and successor are ready to begin the succession planning process. The transition elements used in this tool

include determining the timeframe over which the succession plan will occur, the feasibility of succession, the role of the successor in the operation, the order in which management will be transferred, the way in which the successor will be compensated, retirement needs, and estate considerations. Decisions at any step affect subsequent decisions. Some sections present information for comparison with FBFM farms to provide an assessment of the farm to be transferred while other sections serve as a worksheet for assembling information that affects decisions. While much of the framework addresses ownership transfer, elements for monitoring the progress of management transition are also included in the tool.

Literature about farms likely to undertake succession planning was used in determining for whom the succession tool is intended, Mishra et al. found that commercial grain farms with 2001 net worth greater than \$1 million were more likely to form a succession plan (2003). Factors considered to impact succession planning for this tool include owner's age, farm size, net worth, and gross sales. The tool is not intended for farms relatively small in size or that serve a specialty or niche market. The succession planning tool developed in this research is meant for large, profitable grain farms.

Microsoft Excel was used to construct a succession planning framework for this research. The framework was built to address the motivations and needs identified in the literature that most commonly applied to a typical succession case as described in the previous chapter. The purpose of the tool is to provide a platform for gathering the information needed for a succession plan. It is meant to include a description of various options available and possible implications based on entered scenarios, thereby providing information that informs the succession planning process to make that process flow more smoothly. The information provided by the tool can be used to facilitate succession planning thoughts and decisions by those directly involved on the

farm, as well as provide information about the operation to the team of professionals assembled to assist the transition. The nature of succession planning and farming operations prevents construction of an exhaustive set of succession rules. Therefore, the framework was built to address farm attributes most commonly associated with succession planning in the literature and is not meant to be applicable to all farm succession scenarios.

The succession planning tool developed includes sections for general farm information, financial information, business planning, retirement planning, estate planning, and transition planning. These components all interact to determine the options available and succession planning points to consider presented in a section labeled reports. A flow chart of the tool is shown in figure 4.1. The succession planning tool resulting from this research incorporates elements of tools developed for the Farm Analysis Solution Tools (*FAST*) suite of programs. Incorporating tools *FAST* users are already familiar with contributes to the ease of use of the succession tool as well as prevents duplication of effort. The format of the resulting tool is intended to be similar in design to other *FAST* products.

## **4.2 General Information**

General farm information identifies who is involved in the succession plan and what role they play. The contents of the general information tab of the tool can be seen in figure 4.2. Listing the date the plan was created or updated provides documentation so that it can be revised periodically to reflect updated laws, asset values, and wishes. Including the ages of those involved in the succession plan and the anticipated retirement age of the older generation provides awareness of the timeframe over which the transition will take place. The successor and inactive heirs present the number of people who must be taken into consideration when long term plans are made. The succession planning tool is built to include one successor for simplicity



of construction. Also included is a checklist for marking what is included in the succession plan as well as monitoring the progress made toward a complete plan. The listed succession steps include identifying a successor; determining the feasibility of succession; developing a business plan; setting up transition goals taking retirement and estate considerations into account; deciding what the owner wants to happen based on information provided and ideas presented; discussing wishes and possibilities with those involved and with professionals who will be involved such as an attorney, accountant, or financial planner; drawing up appropriate documents to implement the plan and make sure that plans are carried out (trusts funded, etc.); and updating worksheets and reviewing plans periodically to monitor transition progress and reflect updated asset values, wishes, and laws. It is also noted that succession planning is not a onetime experience. After an initial plan is implemented, it must be reviewed and updated over time.

### **4.3 Financial Information**

The financial information tab provides space for the user to enter relevant data used in calculations in other tool tabs. Historical gross revenue, interest expense, depreciation expense, operating expense, labor or management fee, net farm income from operations, net farm income, current assets, noncurrent assets, current liabilities, noncurrent liabilities, and net worth are entered by the user in the format shown in figure 4.3 to be used in ratio calculation and farm comparison in the business tab. A balance sheet and income statement, displayed in figures 4.4 and 4.5, are also provided for completion by the user. Financial statement formats come from the Balance Sheet and Historical Financial Statements *FAST* tool. Consequently, the user can calculate unknown items in the preexisting *FAST* tool and transfer entries to the succession tool. The balance sheet summarizes the resources and obligations of the business as it currently operates. Completion of a balance sheet can assist the operator in determining savings from

investments that may be used for retirement and liabilities that will contribute to retirement expenses. The income statement provides the user with a more in depth look at the current position of the operation.

#### **4.4 Business Plan**

Text boxes as presented in figure 4.6 are provided for business planning ideas that must be elaborated on. These business planning ideas allow the operator and successor to articulate specific ideas that are beyond the scope of the common goals this research is based on and influence succession planning decisions. The mission statement should provide a summary of the current purpose and guiding principles of the farm business. The vision statement should reflect the long-term goals of the business as it seeks to carry on for at least another generation. The business goals text box is an area for goals specific to the operation to be listed for consideration as succession decisions are made.

Income trends and ratio analyses are also provided in the business section to provide information regarding strengths and weaknesses of the business, show trends, and allow for benchmarking against similar FBFM farms. Ratio and net farm income trends over time can illustrate the direction the farm is heading as well as show how the farm has done compared to similar farms in the same year. Figure 4.7 displays the format in which ratio and net farm income trends are included in the tool. Ratios are calculated for return on assets, return on equity, current ratio, working capital, working capital to gross revenue, debt to equity, debt to assets, asset turnover, operating expense, interest expense, and net farm income from operations for 2003 to 2010. Benchmark ratio ranges come from the benchmarks used in the Summary Ratios section of the Balance Sheet and Historical Financial Statements *FAST* tool. Conditional formatting is used to generate a green, yellow, or red cell color dependent on how the calculated ratio compares to

the given benchmarks. The numbers for net farm income, return on assets, and return on equity comparison come from averaged FBFM data for operators in the same age group as the operator of the farm undertaking succession planning.

The business tab also contains graphs depicted in figure 4.8 of the transitioning farm's net farm income plotted with the FBFM net farm income average for similar operations over the given time period as well as the farm's ROA and ROE plotted together. The inclusion of these graphs is useful in visibly showing whether or not the farm meets the goals of having net farm income above the industry average and an ROE greater than ROA over time.

#### **4.5 Retirement Plan**

The retirement planning portion of the succession planning tool includes information for calculating the future value of current retirement savings, creating a budget for anticipated retirement needs, and determining savings goals for retirement. The retirement section also displays the number of years left before the operator plans to retire and a copy of the balance sheet as entered in the financial tab to remind the user of the timeframe they have to plan for retirement as well as the current interests of the business. The projected annual retirement budget is shown in figure 4.9. The budget allows the user to evaluate their expected income versus expenses for retirement. The operator can compare retirement savings to anticipated needs to help assess level of preparedness for retirement. By determining where they are at and where they need to be for retirement savings and income, the operator can evaluate various savings scenarios as well as determine sources of income throughout retirement, particularly how much income the older generation anticipates needing from the farm. The expenses and income sources used in the projected annual retirement budget include items typical of a farm household such as farm income, social security, savings, loan payments, and living expenses (Ready Set Retire,

2002; Spafford, 2006). The retirement budget allows the user to vary the amount of income received from farm operations to assist in determining an amount that is both fair to the successor and permits the parents to have the income they need for retirement. Potential taxable retirement income is calculated in the retirement budget using the standard tax deduction for a married couple filing jointly and allowing 85% of social security income to be taxable.

Time value of money concepts, specifically sinking fund deposit, uniform series compound amount, and single payment compound amount, are used to calculate the savings necessary for retirement given previous retirement savings as well as user-defined estimated rate-of-return on savings, expected length of retirement, inflation, and percent of pre-retirement income needed for retirement. The retirement savings needs section of the tool provides the average of previous years' net farm income to account for the variability of farm income as well as the percentage of historic farm income needed to cover the expected retirement expenses. The user enters the preferred percentage of historic farm income for retirement, estimated inflation rate, rate of return on investment, and expected length of time for which retirement funds are needed. The yearly savings necessary to achieve the given income requirements are then computed based on income from retirement savings needs and what has already been saved for retirement. The user may then adjust expectations or the budget, such as income required from the farm or percentage of historic farm income needed, based on the feasibility of saving the computed amount. Figure 4.10 shows the annual retirement savings section of the worksheet. A table of yearly savings requirements based on varied rate of return on savings and percentage of pre-retirement income needed is included for comparison when considering feasibility of expectations. If the farmer has actively saved for retirement, it is possible they may not require farm income.

## 4.6 Estate Plan

There are myriad estate planning instruments available to fit the needs of any particular operation and an attorney should be sought to provide advice regarding strategies optimal for the operation or family in question. As such, the estate planning element of this tool focuses on providing information for valuing the estate and introducing concepts that may affect the operator when designing an estate plan. Many estate plans are designed to take advantage of the marital deduction to reduce or eliminate estate taxes when the first spouse dies. Asset distribution methods discussed in conjunction with estate planning in the developed tool assume that the asset is going to the next generation and is necessary for farm operation. The number of heirs to be considered in the estate plan is displayed at the top of the worksheet. The user is also asked whether or not inactive heirs will receive farm assets. Whether or not inactive heirs are to inherit farm assets may be determined by the type of wealth held by the older generation as entered in the balance sheet and may affect what concepts become relevant as an estate plan is formed.

A model as shown in figure 4.11 is provided in the estate planning section to demonstrate the potential tax implications of bequeathing versus gifting versus selling assets to the next generation for a married couple filing jointly. The asset distribution section of the tool also shows how the estate would be divided if the operator was to die intestate and the state's method of distribution was not contested. Also included are places to record information on previous gifting to compare to lifetime gift and estate tax exemption limits. Net worth is entered in the estate planning section based on information entered into the balance sheet. Net worth is combined with amount of exemption previously used by gifts to determine potential estate tax liability. Tax percentages, brackets, and exclusions are based on federal and Illinois laws in place

for 2011 (Illinois Attorney General, 2011; Sullivan, 2010). Estimated taxable retirement income is entered from the retirement budget to determine the federal income tax bracket applicable. The user enters the original value of the asset to be transferred, the fair market value of the asset, the asset's basis, and federal and state estate exclusion amounts. If the asset is passed on as a gift, the adjustments to the estate value and exclusion amount are calculated as well as the potential tax on the gift and estate given Illinois and federal estate exclusions. Tax implications of selling an asset are separated into personal property and capital gains categories. If the asset is sold, the adjustment to the estate value and possible income, capital gains, depreciation recapture, and estate tax implications are calculated. If the asset is passed to the next generation through a bequest, the potential estate tax amounts are calculated based on the value of the estate and the stepped up basis of the asset is noted. The stepped up basis provided is the fair market value of the asset but the new basis could be the IRC Sec. 2032A special land use valuation depending on the type of asset and if the qualifying criteria is met. The potential costs for each method of transfer and estate value after asset distribution are calculated for comparison. The asset distribution model does not take into account whether or not the senior generation will require income from the asset for retirement or the valuation implications for the party receiving the asset.

Figure 4.12 depicts the checklist of estate planning documents included in the tool (Park & Couchman, 2009). The estate planning checklist is included as a means of encouraging comprehensive estate planning and allows the user to include the location of important documents. Estate planning is important for all estates, particularly the large estates this tool is intended for, to assist in avoiding costs associated with probate, reduce the time it takes to settle the estate, and help the operator achieve intended outcomes.

## 4.7 Transition Plan

Much of the developed framework focuses on the transfer of ownership. This research focuses mainly on distributing assets through the estate. Ultimately, when and how assets will be distributed is the decision of the owner. The transition plan portion of the tool presents various points of consideration regarding transition of management and ownership that must be considered in the succession planning process. The role in which the successor will enter the business, whether or not the operator and successor will farm together, the order of management transfer, what portions of the business will be transferred, and how the successor will be compensated are all questions that are presented in the transition plan section of the tool. Figures 4.13 and 4.14 depict the contents of the transition tab.

If the operator is not constrained by estate taxes and can afford to retire, succession planning ultimately becomes a matter of what the involved parties want to happen. The transition planning section of the tool displays the number of years until the older generation expects to retire. The user is asked to define the current role of the successor in the farm, how long the successor will be involved with the operation before fully taking over, and how the successor will be compensated for farm work. The user is also asked whether the farm will have to support multiple families. If the farm will have to support both the older generation and the successor, the amount entered for income from the farm in the retirement budget is automatically entered in the transition tab. The user enters expected farm income amounts necessary for the successor and equity growth. The approximate gross farm income necessary to sustain income and equity needs is calculated based on user expectations and the farm's average net farm income from operations ratio entered in the business plan section (Jones, 2005). The approximate asset base necessary to generate the appropriate amount of income is then calculated using the approximate gross farm

income necessary and average asset turnover ratio from the business plan tab (Jones, 2005).

These calculations can prove useful in determining the true feasibility of succession.

The user is then asked to detail the percentage of each portion of the operation that is controlled by the operator and the successor. The management components included are livestock, production, marketing, financial decisions, equipment and land (Keating & Munro, 1989). The user is also asked to rank the successor's ability to manage each component on a scale of one to five; one being unprepared and five being well-prepared with 0 or N/A being entered for skills not required in the operation. Text boxes are provided for development goals for both the current operator and successor to make sure the successor has the abilities necessary to take over the farm and the operator continues to provide the successor with new responsibilities and move towards retirement. Space is also provided to detail the current percentage of ownership in the farm assets by the successor and operator as well as what the desired percentage of ownership will be when the operator retires. Rate of ownership transfer needed to reach ownership goals by retirement is calculated based on the entered values and the assumption that ownership will be transferred in equal increments. Transferring ownership incrementally can spread out tax implications, cash flow needs of the successor if purchasing part of the farm, and can create flexibility given the uncertainty of future legislation and farm yields and prices. The farm assets to be transferred are grouped into categories including livestock, crop production, machinery, buildings, inventory, and land (Keating & Munro, 1989).

#### **4.8 Reports**

The reports tab provides an explanation of various tools and concepts that may be useful for the operator based on information entered in each of the other tabs. Boxes for buy/sell agreements, option agreements, estate exclusions, "sweat equity" bonuses, life insurance,



business entity, farm rental, estate planning, feasibility, inactive heirs, ownership transfer and professional help are displayed. Information is presented based on whether inactive heirs will inherit farm assets, income is needed from the farm for retirement, how long the successor will be involved on the farm before taking over, and the value of the estate as it currently exists.

Figure 4.15 shows the format of the reports tab as well as messages that appear regardless of user entries.

A “sweat equity” bonus is suggested if the successor will be farming with the operator for some length of time before the operator retires to reward the successor for years of service and value added to the operation beyond that of other heirs. A “sweat equity” bonus would provide a greater share of farm assets to the successor as compared to inactive heirs based on number of years active in the operation. It may assist the successor in obtaining a majority ownership in the operation, compensate the successor for assuming risk associated with farming, as well as demonstrate commitment to ensuring farm resources remain available to the successor. The concept of renting farm assets to the successor to provide the operator with income for retirement and then passing assets on through the estate to allow them to receive a step up in basis is also discussed.

An option agreement and buy/sell agreement are described if the user indicates that inactive heirs will inherit farm assets. First right of refusal, rental terms, and sale terms are discussed in association with option agreements as tools to assist in structuring the working relationship and transactions between the successor and inactive heirs. A buy/sell agreement is described as a tool which could be used to organize the buyout of inactive heirs if they wish to sell their interests but the successor considers those assets necessary for farm operation. A buy/sell agreement could also be beneficial in facilitating ownership transfer based on triggering

events, such as the retirement, death, divorce, or disability of another owner. Life insurance is described as a possible tool for funding a buyout of inactive heirs or as a way to generate non-business inheritance for inactive heirs. A list of expenses to consider when determining life insurance requirements is also included. A note on the importance of communication regarding the way in which assets will be held between active and inactive heirs is included to stress the importance of clear goals, operational structure, and understanding.

If the value of the estate is greater than the exclusion amount for one person, a message appears stating that it may be advisable to title assets to take advantage of the full exclusion amount available to both the husband and wife. A marital trust may also be used to ensure that the spouse does not have to pay an estate tax when the first spouse dies. If the value of the estate is greater than the exclusion amount for a couple, a message appears indicating it may be advisable to reduce the size of the estate, though valuation and tax implications from sale of assets still exist. In these cases, gifting part of the estate may be beneficial. If the value of the estate is above the exclusion, the possibility of changing the business entity to something other than a sole proprietorship is introduced. Changing the business entity or creating multiple entities and gifting shares to the heirs may be useful in discounting the value of the business because of reduced marketability resulting from having multiple owners. This could also be a practical method of limiting liability. The importance of working with an attorney to effectively form and implement an estate plan is discussed in the estate planning note.

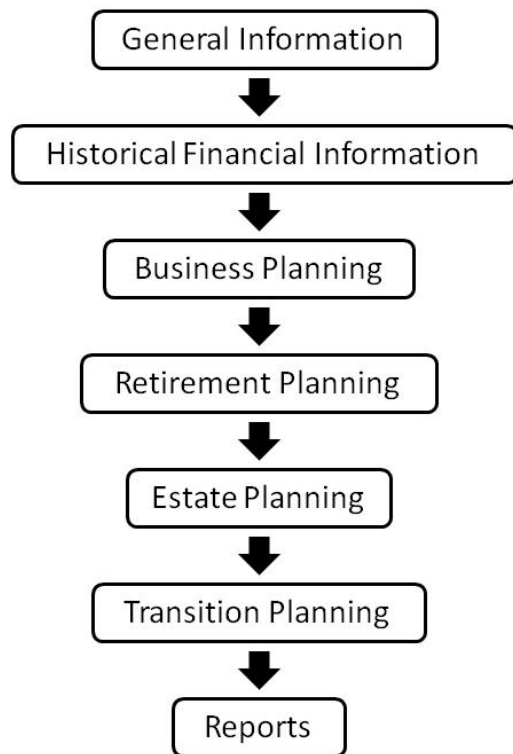
The section on feasibility shows a message regarding the practical ability of the business to meet the income expectations of the operator and successor. A message appears stating whether or not the farm has an adequate asset base to generate the income necessary to support multiple families based on entered values. A statement is also shown stating if the farm has

produced enough income on average to meet income and equity needs entered in the transition tab. If the user indicates a goal of increasing successor ownership of the operation in the transition tab, a message regarding method of ownership transfer appears in the reports tab.

Regardless of answers in previous sections, a note about the importance of including a team of professionals to ensure that the succession plan is implemented is included. A team of professionals comprised of consultants, accountants, and attorneys familiar with the farm and family can provide more detailed options specifically targeted to the goals of those involved. Mediators, insurance agents, and bankers may also be able to assist with succession plans. This plan assumes that a professional must be included at some point, particularly with regard to estate planning.

## 4.9 Figures

**Figure 4.1 Succession Tool Flow Chart**



**Figure 4.2 Information Tab**

	Month	Day	Year
Date of Plan			
Name (First & Last)			
Operator Birthdate	(mm/dd/yyyy)		
Operator Age			
Anticipated Retirement Age			
Successor Name (First & Last)			
Successor Birthdate	(mm/dd/yyyy)		
Successor Age			
Number of Inactive Heirs			
Inactive Heirs (First & Last Name)			Birthdate
			(mm/dd/yyyy)
			(mm/dd/yyyy)
			(mm/dd/yyyy)
			(mm/dd/yyyy)
			(mm/dd/yyyy)
			(mm/dd/yyyy)

Steps of Succession Plan:

- ☐ Identify successor
- ☐ Determine feasibility of succession
- ☐ Develop a business plan
- ☐ Set up transition goals taking retirement and estate considerations into account
- ☐ Decide what the owner wants to happen based on information provided and ideas presented
- ☐ Discuss wishes and possibilities with those involved and with professionals who will be involved such as an attorney, accountant, or financial planner
- ☐ Draw up appropriate documents to implement plan and make sure that plans are carried out (trusts funded,
- ☐ Update worksheets and review plans periodically to monitor transition progress and reflect updated asset values, wishes, and laws

\*Succession planning is not a once and done experience. After an initial plan is implemented, it must be reviewed and updated through time.

**Figure 4.3 Historical Financial Information, Financial Tab**

Next>>

	Gross Revenue	Interest Expense	Depreciation Expense	Operating Expense	Labor/Management Fee	NFIFO*	Net Farm Income	Current Assets	Noncurrent Assets	Current Liabilities	Noncurrent Liabilities	Net Worth
2003	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2004	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2005	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2006	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2007	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2008	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2009	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2010	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

\*Net Farm Income from Operations

\*\*Blank cell entries will be calculated based on information entered in the detailed balance sheet and income statement

**Figure 4.4 Balance Sheet, Financial Tab**

<<Return

BALANCE SHEET  
for  
Farmer Name

Next>>

As of: 12/31/2010

ASSETS		LIABILITIES AND OWNER EQUITY	
CURRENT ASSETS		CURRENT LIABILITIES	
Cash on Hand	\$ -	Accounts payable	\$ -
Cash in Savings and CD's	\$ -	Notes payable within one year	\$ -
Marketable securities (at market)	\$ -	Current portion of all term debt	\$ -
Accounts receivable	\$ -	Accrued interest	\$ -
Inventories:		Accrued expenses:	
Livestock	\$ -	Income and social security taxes	\$ -
Crops	\$ -	Accrued rents	\$ -
Feed	\$ -	Other accrued items	\$ -
Supplies and other	\$ -	Current portion-deferred taxes	\$ -
Cash investment in growing crops	\$ -	Other current liabilities - farm	\$ -
Prepaid expenses	\$ -	Other current liabilities - personal	\$ -
Other current assets - farm	\$ -		
Other current assets - personal	\$ -		
TOTAL CURRENT ASSETS	\$ -	TOTAL CURRENT LIABILITIES	\$ -
NONCURRENT ASSETS		NONCURRENT LIABILITIES	
Breeding livestock (at market)	\$ -	Noncurrent portion of term farm debt	
Machinery and equipment (at market)	\$ -	Nonreal estate farm debt:	
Investments in capital leased assets	\$ -	Notes with original maturity less than or equal to 10 years	\$ -
Investments in cooperatives	\$ -	Notes with original maturity greater than 10 years	\$ -
Investments in other entities	\$ -	Farm real estate debt:	
Retirement accounts	\$ -	Notes with original maturity less than or equal to 10 years	\$ -
Cash value life insurance	\$ -	Notes with original maturity greater than 10 years	\$ -
Face value life insurance	\$ -	Noncurrent portion-deferred taxes	\$ -
Long-term financial assets and nonmarketable securities	\$ -	Other noncurrent liabilities-farm	\$ -
Farm real estate (at market):		Other noncurrent liabilities-personal	\$ -
Land	\$ -		
Buildings and improvements	\$ -		
Other noncurrent assets-farm (at market)	\$ -	TOTAL NONCURRENT LIABILITIES	\$ -
Other noncurrent assets-personal (at market)	\$ -		
TOTAL NONCURRENT ASSETS	\$ -	TOTAL LIABILITIES	\$ -
TOTAL ASSETS		OWNER EQUITY	
	\$ -	Contributed capital	\$ -
		Retained earnings	\$ -
		Valuation/personal asset equity	\$ -
		TOTAL OWNER EQUITY	\$ -
		TOTAL LIABILITIES and OWNER EQUITY	\$ -

**Figure 4.5 Income Statement, Financial Tab**

<<Return

INCOME STATEMENT

for

Farmer Name

For the year ending: 12/31/2010

Item	Subtotal	Total
<b>FARM REVENUE</b>		
Crops and feed:		
Cash receipts	\$ -	
Inventory adjustments	\$ -	
Livestock and poultry:		
Cash receipts	\$ -	
Inventory adjustments	\$ -	
Cash sales of other livestock products	\$ -	
Change in value due to raised breeding stock	\$ -	
Gain/loss culled breeding stock sales	\$ -	
Gov't payments and other farm income	\$ -	
Change in accounts receivable	\$ -	
Gross revenue	\$ -	
Less:		
Purchases of market livestock	- \$ -	
Cost of purchased feed/grain & livestock	- \$ -	
Value of farm production	\$ -	\$ -
<b>FARM EXPENSES</b>		
Farm Operating Expenses:		
Cash operating expenses	+ \$ -	
Noncash adjustments to expenses:		
Change in accounts payable	+ \$ -	
Change in prepaid expenses	- \$ -	
Change in unused supplies	- \$ -	
Change in cash in growing crops	- \$ -	
Change in other accrued items	+ \$ -	
Depreciation	+ \$ -	
Total farm operating expenses	\$ -	
Interest Expense on Farm Loans:		
Amount of interest paid in cash	\$ -	
Change in accrued interest	\$ -	
Total interest expense	\$ -	
Total farm expenses	\$ -	- \$ -
Net income from operations	\$ -	\$ -
Gains/losses on sales of farm capital assets	\$ -	\$ -
Net farm income before taxes	\$ -	\$ -
<b>NONFARM ADJUSTMENTS</b>		
Wages	\$ -	
Interest and dividend income	\$ -	
Other nonfarm income net of expenses	\$ -	
Total nonfarm income	\$ -	+ \$ -
Income before taxes and extraordinary items	\$ -	\$ -
<b>INCOME and SOCIAL SECURITY TAXES</b>		
Amount of tax paid in cash	\$ -	
Change in income and social security tax accruals	\$ -	
Change in current portion of deferred taxes	\$ -	
Total income and social security tax expense	\$ -	- \$ -
Income before extraordinary items	\$ -	\$ -
Extraordinary items (after tax)	\$ -	\$ -
Net income	\$ -	\$ -



**Figure 4.6 Statements and Goals Text Boxes, Business Tab**

Next>>

Mission Statement

<Develop company mission statement here>

Vision Statement

<Develop company vision statement here>

Business Goals

<Develop goals specific to the company here>

**Figure 4.7 Income and Ratio Trends, Business Tab**

<<Return

Next>>

**FARM TRENDS & COMPARISONS**

**INCOME TRENDS**

	2003	2004	2005	2006	2007	2008	2009	2010	Average
Net Farm Income	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
FBFM Average Net Farm Income									

**RATIO TRENDS**

**PROFITABILITY**

	2003	2004	2005	2006	2007	2008	2009	2010
Farm Rate-of-return on farm assets	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Farm Rate-of-return on farm equity	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FBFM Rate-of-return on farm assets								
FBFM Rate-of-return on farm equity								

**RATIO BENCHMARKS**

Green	Yellow	Red
>5%	1% to 5%	<1%
Look at trends and compare to other farm and non-farm investments		

**LIQUIDITY**

Current ratio	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Working Capital	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Working Capital to Gross Revenue	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

> 1.50	1.00 to 1.50	< 1.00
Compare to business expenses, absolute amount depends on scope of operation		
> 0.30	0.10 to 0.30	<0.10

**SOLVENCY**

Farm debt-to-farm equity ratio	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Farm debt-to-farm asset ratio	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

<25%	25% to 150%	>150%
<20%	20% to 60%	>60%

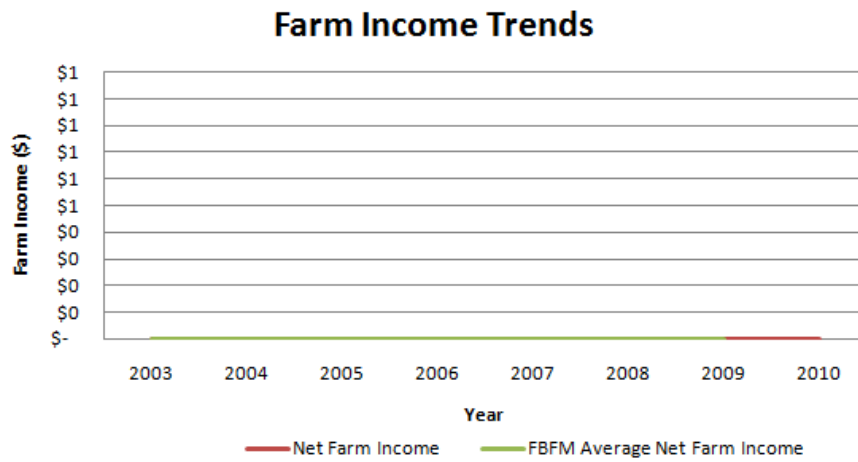
**FINANCIAL EFFICIENCY**

Asset turnover ratio	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Operating expense ratio	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Interest expense ratio	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NFI from operations ratio	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

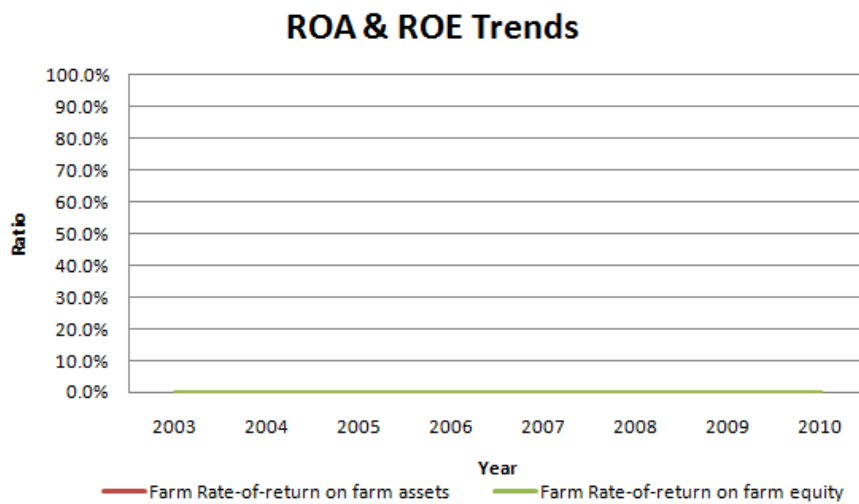
Depends heavily on type of operation and whether it is owned / leased		
<55%	55% to 65%	>65%
<10%	10% to 20%	>20%
Look at trends, varies due to cyclical nature of agricultural prices and incomes		

**Figure 4.8 Net Farm Income and ROA/ROE, Business Tab**

<<Return



\*Net farm income greater than the FBFM average for similar farms is preferred



\*ROE greater than ROA is preferred

**Figure 4.9 Annual Retirement Budget, Retirement Tab**

<<Return
Next>>

OPERATOR ANNUAL RETIREMENT BUDGET  
for  
Farmer Name

As of: 12/31/2011

<b>INCOME SOURCES</b>	
Savings Withdrawals	\$ -
<b>Retirement Accounts</b>	
Taxable Earnings & Withdrawals	\$ -
Nontaxable Earnings & Withdrawals	\$ -
Social Security	\$ -
Investment Interest	\$ -
Investment Dividends	\$ -
Annuities	\$ -
<b>Farm Income</b>	
Carryover Crop Sales	\$ -
Farm Rental	\$ -
Other	+ \$ -
<b>TOTAL INCOME</b>	<b>\$ -</b>
<b>EXPENSES</b>	
<b>Debt</b>	
Annual Farm Debt Payments	\$ -
Credit Card(s)	\$ -
Auto Loans	\$ -
Mortgage/Rent	\$ -
<b>Household Expenses</b>	
Cable/Satellite	\$ -
Electricity	\$ -
Garbage/Recycling	\$ -
Gardening/Landscaping	\$ -
Groceries	\$ -
Heating	\$ -
Homeowner's Association Fees	\$ -
Internet	\$ -
Property Repairs/Maintenance	\$ -
Telephone	\$ -
Water & Sewage	\$ -
<b>Insurance</b>	
Auto	\$ -
Casualty	\$ -
Health	\$ -
Homeowner/Renter	\$ -
Life	\$ -
Medical	\$ -
<b>Personal Expenses</b>	
Auto Repairs/Maintenance	\$ -
Clothing	\$ -
Charity/Gifts	\$ -
Elder Care	\$ -
Fuel	\$ -
License/Registration	\$ -
Medical Expenses	\$ -
Prescriptions	\$ -
Restaurant Meals	\$ -
Savings Deposits	\$ -
Travel/Entertainment	\$ -
<b>Taxes</b>	
<b>Income</b>	
State	\$ -
Federal	\$ -
Local	\$ -
<b>Property</b>	
Real Estate	\$ -
Personal Property	\$ -
Other	+ \$ -
<b>TOTAL EXPENSES</b>	<b>\$ -</b>
Potential Taxable Retirement Income	
	\$ -

**Figure 4.10 Retirement Needs Calculation, Retirement Tab**

<<Return

RETIREMENT SAVINGS NEEDS  
 for  
 Farmer Name

As of: 12/31/2011

	Expected inflation	
	Number of years retirement income is needed	
	Historical pre-retirement income	\$ -
	Projected expenses as percentage of pre-retirement income	\$ -
	Percent of pre-retirement income needed	
	Retirement income needed	\$ -
	Retirement income from non-retirement account sources	\$ -
	Income from retirement savings needed per year	\$ -
	Total retirement savings amount needed	\$ -
	Years until retirement:	--
	Estimated rate of return on savings	
	Current retirement savings	\$ -
	Value of retirement account at retirement	\$ -
	Total amount needed for retirement less future value of retirement savings	\$ -
	Amount needed to be saved each year until retirement	\$ -

**Figure 4.11 Asset Distribution, Estate Tab**

Number of Heirs:

Will inactive heirs inherit farm assets?  
☐ Yes  
☒ No

Year:

Current Estate Value: \$   
 Amount of exemption previously used by gifts: \$

Potential tax implications for current owner:  
 Estimated Taxable Retirement Income: \$   
 Original Value of Farm Asset: \$   
 Current FMV: \$   
 Basis: \$

Federal Estate Exclusion Limit: \$   
 Illinois Estate Exclusion Limit: \$

To Estate Planning Checklist>>

Method of Distribution:		Sale of Personal Property		Sale of Capital Gains Items		Bequest		No Plan/Intestate**	
<p><b>Gift</b></p> <p>Current FMV: \$ <input type="text" value="-"/></p> <p>Adjustment to Exemption Used: \$ <input type="text" value="-"/></p> <p>Adjustment to Estate Value: \$ <input type="text" value="-"/></p> <p>Tax on Gift: <input type="text" value="-"/></p> <p>Federal Estate Tax on Estate: <input type="text" value="-"/></p> <p>Illinois Estate Tax on Estate: <input type="text" value="-"/></p> <p>Total Costs: \$ <input type="text" value="-"/></p> <p>Estate Value After Asset Distribution: \$ <input type="text" value="-"/></p>	<p><b>Sale of Personal Property</b></p> <p>Federal Income Tax Rate: <input type="text" value="35%"/>          Illinois Income Tax Rate: <input type="text" value="5%"/></p> <p>Original Value: \$ <input type="text" value="-"/>          Sale Price: \$ <input type="text" value="-"/>          Basis: \$ <input type="text" value="-"/></p> <p>Federal Income Tax on Sale: \$ <input type="text" value="-"/>          Illinois Income Tax on Sale: \$ <input type="text" value="-"/>          Depreciation Recapture: \$ <input type="text" value="-"/>          Capital Gains Tax on Sale: <input type="text" value="-"/>          Federal Estate Tax on Estate: <input type="text" value="-"/>          Illinois Estate Tax on Estate: <input type="text" value="-"/></p> <p>Total Costs: \$ <input type="text" value="-"/></p> <p>Estate Value After Asset Distribution: \$ <input type="text" value="-"/></p>	<p><b>Sale of Capital Gains Items</b></p> <p>Federal Income Tax Rate: <input type="text" value="35%"/>          Illinois Income Tax Rate: <input type="text" value="5%"/></p> <p>Sale Price: \$ <input type="text" value="-"/>          Basis: \$ <input type="text" value="-"/></p> <p>Federal Income Tax on Sale: \$ <input type="text" value="-"/>          Illinois Income Tax on Sale: \$ <input type="text" value="-"/>          Capital Gains Tax on Sale: <input type="text" value="-"/>          Federal Estate Tax on Estate: <input type="text" value="-"/>          Illinois Estate Tax on Estate: <input type="text" value="-"/></p> <p>Total Costs: \$ <input type="text" value="-"/></p> <p>Estate Value After Asset Distribution: \$ <input type="text" value="-"/></p>	<p><b>Bequest</b></p> <p>Current FMV: \$ <input type="text" value="-"/>          Stepped Up Basis*: \$ <input type="text" value="-"/></p> <p>Federal Estate Tax on Estate: <input type="text" value="-"/>          Illinois Estate Tax on Estate: <input type="text" value="-"/></p> <p>Estate Value After Estate Tax: \$ <input type="text" value="-"/></p> <p>Less Claims Against Estate: \$ <input type="text" value="-"/></p> <p>Estate Value After Debts Paid: \$ <input type="text" value="-"/></p> <p>Share to Surviving Spouse: \$ <input type="text" value="-"/>          Share to Each Descendant: \$ <input type="text" value="-"/></p>	<p><b>No Plan/Intestate**</b></p> <p>Federal Estate Tax on Estate: <input type="text" value="-"/>          Illinois Estate Tax on Estate: <input type="text" value="-"/></p> <p>Estate Value After Estate Tax: \$ <input type="text" value="-"/></p> <p>Less Claims Against Estate: \$ <input type="text" value="-"/></p> <p>Estate Value After Debts Paid: \$ <input type="text" value="-"/></p> <p>Share to Surviving Spouse: \$ <input type="text" value="-"/>          Share to Each Descendant: \$ <input type="text" value="-"/></p>					

Values are calculated for a married couple filing jointly.  
 Assumes the asset recipient will be someone other than the spouse and distribution is therefore potentially taxable.  
 Does not take into account valuation implications for asset recipient.  
 Does not take into account if owner needs income from asset for retirement.  
 \*Stepped up basis given is the FMV of the asset but could be the 2032A valuation  
 \*\*Intestate option considers the distribution of the estate in accordance with Illinois intestacy statutes. Values do not reflect costs associated with contesting the distribution of assets.

**Figure 4.12 Estate Planning Checklist, Estate Tab**

<<Return

Estate Planning Information & Document Checklist:

Location *Check when documentation is completed and location noted*

	<input type="checkbox"/> Will			
	<input type="checkbox"/> Durable Power of Attorney (Healthcare)			
	<input type="checkbox"/> Durable Power of Attorney (Finances)			
	<input type="checkbox"/> Insurance Policies	Policy #:	Company:	Purpose:
	<input type="checkbox"/> Life			
	<input type="checkbox"/> Property			
	<input type="checkbox"/> Other			
	<input type="checkbox"/> Personal Documents			
	<input type="checkbox"/> Birth Certificates			
	<input type="checkbox"/> Marriage Licenses			
	<input type="checkbox"/> Social Security			
	<input type="checkbox"/> Military Records			
	<input type="checkbox"/> Other			
	<input type="checkbox"/> Contracts			
	<input type="checkbox"/> Retirement Plan Information & Beneficiaries			
	<input type="checkbox"/> Investment Information & Beneficiaries			
	<input type="checkbox"/> List of Properties Owned			
	<input type="checkbox"/> Deeds & Titles			
	<input type="checkbox"/> Leases			
	<input type="checkbox"/> Financial & Legal Advisors			
	<input type="checkbox"/> Letter of Last Instruction			
	<input type="checkbox"/> Cemetery Records			
	<input type="checkbox"/> Accounts Receivable			
	<input type="checkbox"/> Accounts Payable			
	<input type="checkbox"/> Lockbox/Saftey Deposit Box Location			

**Figure 4.13 Successor Inclusion and Farm Needs, Transition Tab**

Years until retirement:

Define current role of the successor in the operation.

- ☐ Farm employee
- ☐ Farming separately
- ☐ Not involved

How long will the successor be involved with the operation before the older generation retires?

How will the successor be compensated for work on the operation up until the time of transition?

- ☐ Wage
- ☐ Salary
- ☐ Percentage of farm income
- ☐ Share of equity in operation

Will the farm have to support multiple families?

- ☐ Yes
- ☐ No

Operator's Anticipated Retirement Needs from the Farm:

Successor's Anticipated Farm Income Needs:

Estimated Amount Wanted for Equity Growth:

Approximate Gross Farm Income Necessary:

Approximate Asset Base Necessary:

Current Operator Goals

<Develop goals specific to the current operator here>

Successor Goals

<Develop goals specific to the successor here>



**Figure 4.14 Management and Ownership Transfer, Transition Tab**

Current % of Management by Operator	Current % of Management by Successor		Rank on a scale of 1 to 5 the successor's current ability to manage each portion of the farm business; 1 being unprepared and 5 being well-prepared. Enter 0 or N/A for skills not required by operation.
		Livestock	
		Production	
		Marketing	
		Financial Decisions	
		Equipment	
		Land	

Current:

% of Ownership by Operator	% of Ownership by Successor
----------------------------	-----------------------------

		Livestock
		Crop Production
		Machinery
		Buildings
		Inventory
		Land

Goal:

% of Ownership by Operator	% of Ownership by Successor	% of Ownership Change per Year to Reach Goal
----------------------------	-----------------------------	--


**Figure 4.15 Reports Tab**

"Sweat Equity" Bonus	N/A	Life Insurance	N/A	Feasibility	N/A
Option Agreement	N/A	Business Entity	Creating multiple entities for the operation may prove useful in limiting liability. An attorney familiar with the operation could describe options available and the benefits and costs of those options.	Professional Team	A team of professionals comprised of consultants, accountants, and attorneys familiar with the farm and family can provide more detailed options specifically targeted to the goals of those involved. Mediators, insurance agents, and bankers may also be able to assist with succession plans.
Buy/Sell Agreement	N/A	Rent	N/A	Estate Exclusion	The value of the estate is below the exclusion amount. Owners should discuss what they want to happen regarding estate and succession decisions.
Note on Inactive Heirs	N/A	Estate Planning	Working with an attorney to effectively implement an estate plan and ensure that asset ownership is properly titled in accordance with estate and transfer wishes is essential in making sure the long term succession plan comes to completion.	Ownership Transfer	N/A

## **5 RESULTS**

Three FBFM farms containing data for all years considered were identified as meeting the criteria for the prototypical succession planning farm. The information for each farm was further developed into a farm succession scenario using farm attributes identified as typical in the literature. Each farm's information was then entered into the succession planning tool to demonstrate potential outcomes. Operator age for succession scenarios ranged from 54 to 67 with varying levels of net worth. Only information directly related to succession outcomes was entered for the prototypic cases. Textbox information, such as mission statement and goals, were not entered. The same asset values were used for all scenarios of the asset distribution model for demonstrative purposes of how income and net worth affect tax implications. The same values for successor income and equity expectations were also used in approximating gross income and asset base needs to show the impact of operator retirement needs and the farm's historical performance on succession feasibility. The tool allows the user to evaluate the sensitivity of calculated amounts by changing input values.

### **5.1 Case 1 Outcomes**

The first case considered was the farm of a 54 year old operator with a 25 year old successor. In the developed scenario the operator intends to retire at age 66. There are two inactive heirs that must be considered in the formation of an estate plan. The operator's 2009 net worth was \$5,358,020 with \$490,000 in retirement savings.

Business tab ratio and income trends calculated from information in the financial tab and illustrated by figure 5.1 show that the farm's average net farm income is above the FBFM average for the 50 to 64 age group in every year except one for 2003 through 2009 and the

farm's ROE is greater than ROA in every year information is entered. Figures 5.2 and 5.3 illustrate the net farm income and ROA/ROE comparisons for this operation. Net farm income should be at or above average and ROE should be greater than ROA to show that the business is profitable and therefore more likely to achieve a successful transition.

Values entered in the financial tab balance sheet are displayed again in the retirement tab for ease of reference when planning retirement savings and budget needs. The annual retirement budget was used to record anticipated income throughout retirement. Figure 5.4 shows the entered values and calculations for retirement savings needs for the first transition case. When calculating retirement needs, a default inflation rate of 3% was used. Twenty years was entered for expected number of retirement years. The farmer's average pre-retirement income was \$165,033 with 80% entered as the amount of pre-retirement income needed, meaning the farmer will need approximately \$132,027 each year of retirement. In the developed transition scenario's retirement budget, \$65,000 will come from non-retirement account sources. The remainder of income needs must come from retirement savings or income and source expectations must be adjusted. The operator's current retirement savings are \$490,000 and should be worth \$1,537,830 at retirement given that the farmer has 12 years until retirement and expects a 6% rate of return on retirement savings. The total retirement savings needed based on entered information is \$1,801,030 so \$48,314 will have to be saved each year until retirement to achieve the necessary savings. The retirement savings table shown in figure 5.5 depicts how yearly savings requirements change with various rates of return on savings and percentage of pre-retirement income necessary for retirement given the entered timeframes and current savings. For example, if the user were to require 77% of pre-retirement income and received a 4% rate of return on savings, yearly savings of \$45,913 would be necessary.

Entries and calculations for the estate tab are shown in figure 5.6. Information entered by the user in the estate tab indicates that inactive heirs will not inherit farm assets. The value of the estate is calculated by subtracting total liabilities from total assets as entered in the balance sheet. The estate value for this farm is \$5,358,020, resulting in estate tax concerns at the Illinois level and federal level. An estimated taxable retirement income of \$53,500 is entered from the retirement budget. The entered values for original asset value, fair market value of the asset, and basis are \$500,000, \$750,000, and \$400,000, respectively. The potential impacts of gifting, selling, or bequeathing the asset are calculated based on the entered values and 2011 tax levels. The possible taxes resulting from gifting or bequeathing the asset are \$413,330 while the potential tax impact of selling the asset is \$498,330 if it is personal property and \$483,330 if the asset is a capital gain item. These values are merely potential tax impact for the farmer and do not take into account valuation and basis implications for the asset recipient. Also, the stepped up basis noted as a result of bequeathing an asset is the fair market value. Land may be valued using the IRC Sec. 2032A special land use valuation if certain criteria are met, resulting in a reduced value. The tax calculations show that from a tax minimization objective, it is less advisable to sell assets that have appreciated in value and it may be beneficial to the heir if they receive the asset through the estate rather than as a gift. However, in this farm case the high value of the estate may warrant forgoing some immediate tax considerations to reduce the overall value of the estate. The operator's net worth is above the Illinois estate exclusion for a couple and the federal estate exclusion for one person.

Figures 5.7 and 5.8 display the transition tab information for this farm transition scenario. It is stated in the transition tab that the successor will be involved in the operation for 12 years before the current operator retires and income from the farm will have to support multiple

families post-retirement. Based on the operator's retirement budget, \$30,000 in farm income is expected by the older generation for retirement. The successor's expectations of \$42,000 in farm income needs as well as an estimated \$15,000 for equity growth are entered in the spreadsheet. User income expectations are summed and divided by the farm's average net farm income from operations ratio to get an approximate gross farm income of \$189,281 needed. The estimated gross farm income necessary divided by farm's average asset turnover ratio to determine the approximate asset base necessary to make enough farm income is \$2,257,902. User entered information in the transition tab shows that the operator currently owns all of the resources used on the farm but the successor shares some of the management responsibilities. Categories the farm does not have an interest in, such as livestock, are left blank. The successor's ability to manage each aspect of the farm is ranked on a scale of 1 to 5 with a higher number corresponding to a greater level of competence. The successor in this farm scenario received a ranking of three or higher in every category. The user enters percentage goals for ownership division by the time they retire in addition to entering the current division of ownership in the business. The farmer wishes to reduce ownership in crop production, machinery, and inventory by retirement in this farm scenario. In order to achieve the desired level of ownership, 4% of ownership in crops and machinery should be transferred per year while 8% of ownership in inventory should be transferred each year until retirement.

The reports tab as shown in figure 5.9 offers information based on entered data and calculations in the previous tabs. A note on the possibility of using a "sweat equity" bonus to compensate the successor for years of service and value added to the operation is included because the user indicated the successor would be involved in the farm operation for 12 years prior to the operator's retirement. A message is displayed stating that the value of the estate is

above the exclusion amount for a couple and it may be advisable to reduce the size of the estate though valuation and tax implications still exist. A tax professional is recommended to determine what is best for the specific needs of the family and the operation. Since there will be inactive heirs to consider, the possibility of using life insurance as a tool to generate non-farm inheritance is included. However, it is noted that this may be an option that is difficult to cash flow. Changing the type of business entity away from sole proprietorship and transferring shares of ownership now is suggested as a method of reducing the value of the business due to reduced marketability from having multiple owners. Rent is presented as a possible way for the operator to receive income from the farm without having to be involved in the farm operation after retirement. The feasibility box indicates that this farm has a sufficient asset base to achieve the income necessary to support multiple families and has an average gross farm income greater than the amount needed to support multiple families based on information entered in the business, retirement, and transition tabs. Methods for transferring ownership to the successor are mentioned as the user indicated a goal of increasing successor ownership before retirement. Also included in the reports tab is information stating the importance of estate planning and utilizing professionals, such as financial advisors and attorneys, when constructing a succession plan.

## **5.2 Case 2 Outcomes**

The second farm scenario developed for the succession tool presents the information of a 59 year old farmer with a 25 year old successor. The operator intends to retire at age 70. The 2009 net worth of the operator was \$1,340,348 and the farmer does not have any savings set aside for retirement. This farm case has one inactive heir.

Figure 5.10 shows the ratio and net farm income trends for the second farm transition case. Historical farm information entered in the financial tab and calculated in the business tab

shows that this farm's net farm income is below the average net farm income of similar Illinois farms from 2003 to 2009 except in 2006 and 2009 as shown in figure 5.11. However, the ROE is greater the ROA every year except 2003 and 2005 as depicted in figure 5.12. The net farm income trend could indicate some profitability issues on the operation but could also be a result of how the farm's income is managed for tax purposes. ROE trending higher than ROA in recent years is a positive indicator of profitability.

Balance sheet information indicates that the farmer does not have savings invested for retirement. Figure 5.13 shows the retirement savings needs calculations for this farm case. The operator will need \$81,475 per year for retirement if 85% is entered as the amount of pre-retirement income needed based on projected retirement expenses. The operator in this scenario relies more heavily on income from other sources, such as the farm, for retirement income. Consequently, if there is a 6% rate of return, the farmer will have to save approximately \$2,647 per year for the next 11 years to make up the difference between income expectations from other sources and desired level of retirement income. Figure 5.14 of the retirement savings table shows that the user could potentially have sufficient retirement account savings with the entered timeframe and current retirement budget if only 83% of pre-retirement income is necessary.

Information in the estate tab notes that there are two heirs that must be considered and the inactive heir will inherit farm assets. The value of the estate as calculated from the balance sheet is \$1,340,348. The estate value is below the federal and state exclusion amount so estate taxes are not a concern given current legislation. However, the operator's estimated taxable retirement income is \$63,500, leading to a federal income tax rate of 15% and Illinois income tax of 5 percent. If an asset that was purchased for \$500,000 is sold for its fair market value of \$750,000 and has a basis of \$400,000, there are currently no estate or gift tax concerns but there is the



possibility of \$85,000 in taxes resulting from the sale if the asset is considered a personal property item or \$70,000 if the asset is a capital gains item. Gifting the asset would decrease the size of the estate, but based on the entered information there is no tax incentive to reduce the estate value. Giving the asset to the heir would also remove the chance of obtaining a step up in basis. The values of this farm scenario's asset distribution case are displayed in figure 5.15.

Transition tab information, as shown in figures 5.16 and 5.17, indicates the operation in this scenario will have to support multiple families and the successor will be involved with the operation for five years before the older generation retires. The retirement budget indicates that the operator expects \$45,000 in farm income during retirement. User entered information shows that the successor anticipates needing \$42,000 in farm income and \$15,000 is expected to be needed for equity growth. The sum of income and equity expectations is divided by the operations average net farm income from operations ratio and an estimated \$403,730 in gross farm income is needed. Dividing the gross farm income by the farm's average asset turnover ratio provides the asset base necessary to produce adequate income. The approximate asset base necessary for this succession case is \$1,818,279. This operation does not have livestock to be transferred and given that the successor is not yet involved on the farm, all aspects of the farm are owned and operated by the older generation. The successor in this transition scenario ranks a two or three in current ability to manage each portion of the farm, suggesting a lower level of preparedness to take over the farm at this time. The operator wishes to reduce ownership interest in crop production, machinery, and inventory while maintaining full ownership of land and buildings. If an incremental transfer of farm ownership is what the family wants, the operator will have to transfer 20% of machinery ownership, 15% of inventory ownership, and 10% of

ownership in crop production per year after the successor joins the operation to achieve ownership goals by retirement.

The reports tab presents several succession concepts as a result of information provided in other sections of the tool. The possibility of providing a “sweat equity” bonus to the successor is presented as a method of compensation to the heir for time spent working on the farm and a way to provide the heir with majority ownership due to active farm participation. The use of buy/sell and option agreements is presented as a way to structure the business relationship between active and inactive heirs. These agreements could be used to structure rental and sale terms if an heir does not wish to participate in the business or trigger a buyout based on predetermined terms if a triggering event, such as divorce or disability, occurs. Life insurance is mentioned as a means of generating inheritance for inactive heirs with the disclaimer that it may be an expensive option. The estate exclusion of the report generates a message for this set of circumstances stating that the value of the estate is below the exclusion amount. Therefore the involved parties should discuss what they want to happen regarding ownership and succession decisions given income constraints and business goals. Rent is listed as a way of providing income to the operator after retirement. Although estate taxes are not a current concern of the business, renting assets to the successor and distributing them through the estate would allow the assets to receive a step up in basis or possibly special valuation thereby reducing the potential tax burden to heirs. The report area for feasibility states that the operation has the estimated asset base necessary to generate the gross income needed but has not historically produced the approximate gross income calculated as sufficient to support multiple families based on entered expectations. The reports section is concluded with notes on the importance of estate planning, incorporating the help of professionals when setting up a succession plan, methods for

transferring ownership to the successor, and communication regarding the way in which the operation will function when owned by active and inactive heirs. A copy of the reports tab produced for this farm transition case is shown in figure 5.18.

### **5.3 Case 3 Outcomes**

The final prototypic case entered into the succession planning tool was the information for a 66 year old farmer with a 33 year old successor. The anticipated retirement age for the operator is 70. The operator's net worth was \$2,442,601 in 2009 with \$69,223 in retirement savings. There are two inactive heirs to be considered in the presented transition case.

Farm data entered in the financial tab and displayed in the business tab shows the farm's net income has averaged above that of FBFM farms of similar type in the 65 and older age group every year from 2003 to 2009 except 2007 and 2009. ROE was greater than ROA for the operation in every year considered except 2003, 2005, and 2009. Ratio information is shown in figure 5.19 while net farm income and ROE/ROA trends for this farm are shown in figures 5.20 and 5.21. Net farm income was negative in 2007 and both ROA and ROE were negative in 2009. The profitability of the business in recent years is varied. However, net farm income, ROA, and ROE all decreased for FBFM farms similar in structure and operator age to the farm in this example in 2009. Profitability variation in other years may indicate a need to further examine potential areas of weakness in the business.

The balance sheet shows that the operator has \$2,582,218 in total assets with \$69,233 in retirement savings. There are \$139,617 in current liabilities with no noncurrent liabilities. If the farmer wants to have 85% of pre-retirement income for retirement, \$77,154 will be needed each year of retirement. Retirement budget information shows the operator will not rely heavily on retirement savings, but will use other income sources for the majority of retirement income

needs. The retirement calculations depicted in figure 5.22 show that approximately \$10,435 will have to be saved each year until retirement if the farmer anticipates needing retirement income for 15 years, a 3% inflation rate, and 6% rate of return. The retirement savings table shows that if the operator were to only receive a 4% rate of return on savings but still wanted to receive 85% of pre-retirement income \$10,782 per year would need to be saved in retirement accounts to meet needs of the entered budget. This is illustrated in figure 5.23.

Operator intentions in the estate tab shown in figure 5.24 indicate inactive heirs will inherit farm assets in this transition case. The estimated taxable retirement income for this operator is \$47,000. The estate value is \$2,442,601, putting the farm above the Illinois estate exclusion limit for one person but not a married couple filing jointly. Sale of an asset with an original value of \$500,000, currently worth \$750,000, with a basis of \$400,000 could potentially generate \$70,000 in taxes if it is a capital gains item or \$85,000 in taxes if the asset is personal property given the entered information. If assets are titled between the operator and spouse to take advantage of the estate exclusion available to each, there are no estate taxes for any method of transferring the asset. Basis implications for the recipient of the asset still exist if the asset is given to an heir as opposed to being passed on through the estate.

The transition tab information shown in figures 5.25 and 5.26 indicate that the operator has four years before planning to retire, the successor will have been active on the farm for 14 years before taking over, and farm income will be needed by both the operator and successor. Successor income expectations of \$42,000, equity growth needs of \$15,000, and post-retirement operator needs of \$25,000 per year mean that the farm will need approximately \$354,376 in gross farm income based on the operation's average net farm income from operations ratio. Approximately \$2,005,106 in assets will be necessary to generate the needed level of income.

The division of management is varied between successor and operator with the operator in charge of 25% of the livestock, 70% of production, 75% of marketing, 80% of financial decisions, 25% of equipment, and 50% of land. The successor's competency to successfully run each aspect of farm management is rated three or higher. Operation ownership is also varied between the farmer and successor with the farmer owning 30% of the livestock, 75% of crop production, 50% of the machinery, 100% of the buildings, 50% of the inventory and 75% of the land in the operation. Ten percent of livestock, 8% of crop production, 17% of machinery, and 13% of inventory ownership should be transferred each year in order to reach the desired balance of ownership between the farmer and successor by retirement.

Reports tab information for this operation includes notes on "sweat equity" bonuses, option agreements, buy/sell agreements, estate exclusion, life insurance, rent, feasibility, estate planning, and professionals as shown in figure 5.27. A "sweat equity" bonus is suggested as a way for the farmer to give an extra portion of assets to the successor in recognition of extra work done on the farm over the years and as a way to ensure the active heir has majority ownership of the business. Option agreements are listed as a potential method of establishing rental and sale terms for active and inactive heirs while buy/sell agreements could be used to organize the buyout of inactive heirs or provide a contingency plan for unexpected events, such as disability or death. Life insurance is also mentioned as a possible source for generating non-farm inheritance for inactive heirs. Retaining ownership of assets and renting them to the successor is discussed as a potential source of retirement income for the operator while allowing the heirs to receive them through the estate with a stepped up basis. The estate exclusion box notes that the estate value is greater than the Illinois exclusion for one person and it may be beneficial to ensure that assets are titled in such a manner that both individuals can take advantage of the full

estate exclusion available to them. The feasibility section notes that the operation has a sufficient asset base to generate the necessary gross farm income as calculated in the transition tab and its average gross farm income is above the estimated required gross farm income. A note on ownership transfer to the successor is included as information in the transition tab indicates an intention of increased successor ownership. The importance of communication with active and inactive heirs to promote understanding and unity regarding the future of the business is highlighted in the note on inactive heirs. Suggestions of professionals to include in the succession planning process are included in the professional team section. Working with an attorney to successfully construct and implement an estate plan tailored to the needs of the family and farm is stressed in the section on estate planning.

#### **5.4 Discussion of Results**

The first case presented is one with a net worth higher than the Illinois estate exclusion for a couple, creating incentive to reduce the size of the estate to avoid an estate tax. An attorney or tax advisor may suggest reducing the size of the estate through gifts of less than \$13,000 per year to recipients to avoid the need to file a gift tax return. However, the value of most percentage ownership change per year goals will exceed this \$13,000 yearly threshold. Changing the form of business entity from sole proprietorship to one in which shares may be given to heirs, thereby creating multiple owners and reducing the value of the business through reduced marketability may be advised. A marital trust may be used to avoid estate tax for the surviving spouse given the lack of portability of Illinois estates. The farm has been profitable over time and should be able to meet the income and equity expectations of the operator and successor post-retirement with the asset base it currently possesses. The operator's retirement savings and incentive to reduce net worth to avoid estate tax allow flexibility in planning the transfer of

ownership. Calculations for ownership transfer required per year until retirement are provided based on the assumption that ownership will be transferred in equal increments. Transferring ownership gradually can spread out tax consequences, cash flow needs of the successor if purchasing part of the farm, and can create flexibility given the uncertainty of future legislation and farm yields and prices.

The second farm scenario entered into the succession tool has the lowest net worth of the three cases considered and no reported retirement savings. There is no motivation to reduce the size of the estate for tax purposes given current estate tax legislation. The farm's trend of net income below that of similar farms raises a profitability concern. However, ROA and ROE measures indicate that the operation is profitable. Calculations indicate the farm has the asset base necessary to earn the gross farm income to support the income and equity needs of the involved parties but its average gross income is less than the amount necessary to meet income expectations. Operational restructuring of assets or changes in income expectations may be necessary to make succession feasible. Inactive heirs receipt of farm assets in this succession scenario bring up discussion of possible use of option agreements and buy/sell agreements to set up the working relationship between active and inactive heirs as well as provide a viable way for the inactive heirs to sell their ownership share should they choose to do so. The successor has not yet returned to the farm and currently does not have the ability to successfully manage all aspects of the farm indicating a need for professional development and communication regarding the commitment of the successor to return to the farm.

The third case considered has a net worth greater than the estate exemption for one person in Illinois but not a couple. The operator and spouse would benefit from making certain assets are titled in such a way to allow them each to utilize the full exclusion amount available to

them. A marital trust may be used to ensure the surviving spouse does not owe estate taxes upon the death of the first spouse. Farm profitability appears to have fluctuated over time indicating that further business analysis may be needed to address any business practices that negatively impact the farm's future viability. As with the first farm case, the farm holds sufficient assets to meet successor and operator retirement needs and has produced enough gross income on average to meet expectations under the entered set of circumstances. The successor has been involved on the farm for several years and is rated as well-prepared to manage the farm when the operator retires. Ownership of farm assets by inactive heirs brings up the need for option and buy/sell agreements to promote the sustainability of the farm as well as provide a level of fairness to all heirs.



## 5.5 Figures

Figure 5.1 Case 1 Farm Trends and Comparisons

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### FARM TRENDS & COMPARISONS

INCOME TRENDS	2003	2004	2005	2006	2007	2008	2009	2010
Net Farm Income	\$ 97,004	\$ 116,004	\$ 94,246	\$ 91,069	\$ 138,834	\$ 257,963	\$ 218,146	\$ 307,000
FBFM Average Net Farm Income	\$ 70,507	\$ 90,635	\$ 55,131	\$ 103,468	\$ 101,619	\$ 233,955	\$ 82,449	Unavailable

Average
\$ 165,033

### RATIO TRENDS

PROFITABILITY	2003	2004	2005	2006	2007	2008	2009	2010
Farm Rate-of-return on farm assets	6.7%	7.0%	5.5%	4.6%	10.2%	9.8%	7.9%	6.0%
Farm Rate-of-return on farm equity	7.0%	7.2%	5.7%	4.7%	10.5%	10.0%	8.0%	6.1%
FBFM Rate-of-return on farm assets	5.31	6.93	3.40	7.11	15.53	13.32	3.57	Unavailable
FBFM Rate-of-return on farm equity	6.22	12.47	-5.35	6.83	23.13	19.79	2.21	Unavailable

### RATIO BENCHMARKS

Green	Yellow	Red
>5%	1% to 5%	<1%
Look at trends and compare to other farm and non-farm investments		

### LIQUIDITY

Current ratio	1.95	2.62	2.70	2.18	4.64	6.55	3.75	3.75
Working Capital	\$ 120,402	\$ 151,546	\$ 169,818	\$ 168,792	\$ 357,147	\$ 519,238	\$ 394,604	\$ 394,604
Working Capital to Gross Revenue	0.55	0.62	0.75	0.67	0.90	1.01	0.81	0.876897778

> 1.50	1.00 to 1.50	< 1.00
Compare to business expenses, absolute amount depends on scope of operation		
> 0.30	0.10 to 0.30	<0.10

### SOLVENCY

Farm debt-to-farm equity ratio	9.9%	7.9%	6.3%	4.8%	3.0%	2.0%	2.7%	2.7%
Farm debt-to-farm asset ratio	9.0%	7.3%	5.9%	4.5%	2.9%	2.0%	2.6%	2.6%

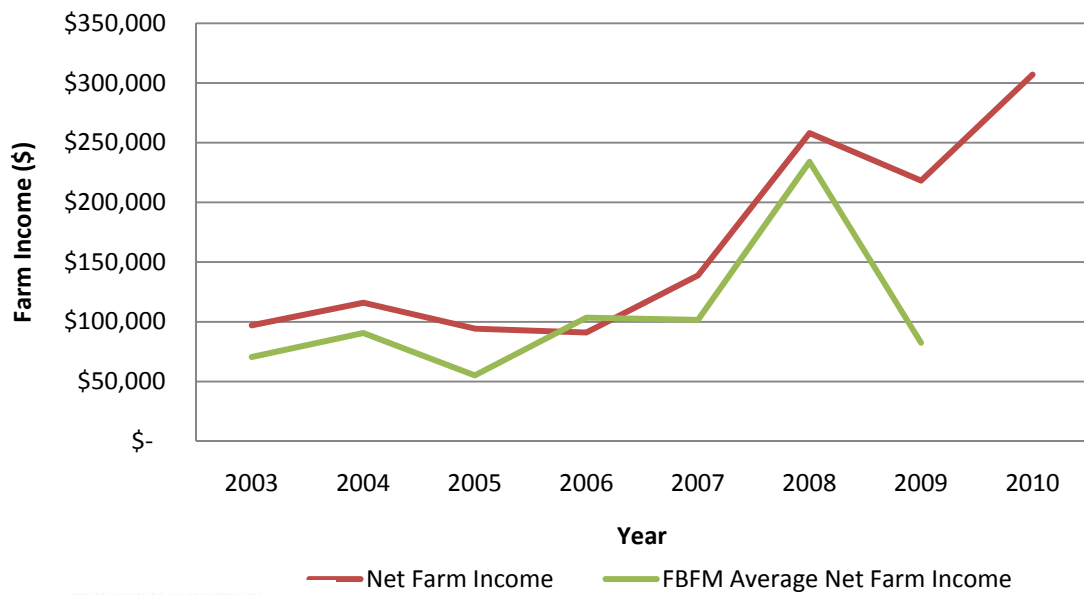
<25%	25% to 150%	>150%
<20%	20% to 60%	>60%

### FINANCIAL EFFICIENCY

Asset turnover ratio	0.08	0.08	0.07	0.07	0.09	0.11	0.09	0.08
Operating expense ratio	48.1%	45.5%	50.0%	54.4%	40.8%	44.6%	47.7%	26.7%
Interest expense ratio	3.9%	3.9%	2.5%	2.4%	0.6%	0.1%	0.4%	0.7%
NFI from operations ratio	44.3%	47.5%	41.6%	36.1%	35.0%	50.2%	44.8%	68.2%

Depends heavily on type of operation and whether it is owned / leased		
<55%	55% to 65%	>65%
<10%	10% to 20%	>20%
Look at trends, varies due to cyclical nature of agricultural prices and incomes		

**Figure 5.2 Case 1 Farm Income Trends**



**Figure 5.3 Case 1 ROA & ROE Trends**



Figure 5.4 Case 1 Retirement Needs Calculation

<<Return

RETIREMENT SAVINGS NEEDS

for

A

As of: 5/2/2011

Expected inflation	3%
Number of years retirement income is needed	20
Historical pre-retirement income	\$ 165,033
Projected expenses as percentage of pre-retirement income	0%
Percent of pre-retirement income needed	80%
Retirement income needed	\$ 132,027
Retirement income from non-retirement account sources	\$ 65,000
Income from retirement savings needed per year	\$ 67,027
Total retirement savings amount needed	\$ 1,801,030
Years until retirement:	12
Estimated rate of return on savings	6%
Current retirement savings	\$ 490,000
Value of retirement account at retirement	\$ 985,976
Total amount needed for retirement less future value of retirement savings	\$ 815,054
Amount needed to be saved each year until retirement	\$ 48,314

**Figure 5.5 Case 1 Yearly Retirement Savings Necessary**

YEARLY RETIREMENT SAVINGS NECESSARY															
PERCENT OF PRE- RETIREMENT INCOME NEEDED		ESTIMATED RATE OF RETURN ON SAVINGS													
			1%		2%		3%		4%		5%		6%		7%
		75%	\$ 48,099	\$	45,243	\$	42,525	\$	39,942	\$	37,492	\$	35,171	\$	33,168
		76%	\$ 51,694	\$	48,624	\$	45,703	\$	42,928	\$	40,295	\$	37,799	\$	35,647
		77%	\$ 55,289	\$	52,005	\$	48,881	\$	45,913	\$	43,097	\$	40,428	\$	38,126
		78%	\$ 58,884	\$	55,387	\$	52,060	\$	48,898	\$	45,899	\$	43,057	\$	40,605
		79%	\$ 62,479	\$	58,768	\$	55,238	\$	51,884	\$	48,701	\$	45,685	\$	43,084
		80%	\$ 66,073	\$	62,150	\$	58,416	\$	54,869	\$	51,503	\$	48,314	\$	45,563
		81%	\$ 69,668	\$	65,531	\$	61,594	\$	57,854	\$	54,305	\$	50,943	\$	48,042
		82%	\$ 73,263	\$	68,912	\$	64,773	\$	60,839	\$	57,108	\$	53,571	\$	50,521
		83%	\$ 76,858	\$	72,294	\$	67,951	\$	63,825	\$	59,910	\$	56,200	\$	53,000
		84%	\$ 80,453	\$	75,675	\$	71,129	\$	66,810	\$	62,712	\$	58,829	\$	55,479
		85%	\$ 84,048	\$	79,057	\$	74,307	\$	69,795	\$	65,514	\$	61,457	\$	57,958
			\$ 54,633	\$	51,477	\$	48,483	\$	45,647						

**Figure 5.6 Case 1 Asset Distribution**

Number of Heirs

Will inactive heirs inherit farm assets?  
☐ Yes  
☒ No

Year   
 Current Estate Value   
 Amount of exemption previously used by gifts

Potential tax implications for current owner:  
 Estimated Taxable Retirement Income   
 Original Value of Farm Asset   
 Current FMV   
 Basis

Federal Estate Exclusion Limit   
 Illinois Estate Exclusion Limit

**Method of Distribution:**

Gift	Sale of Personal Property	Sale of Capital Gains Items	Bequest
Current FMV <input type="text" value="\$ 750,000"/>	Federal Income Tax Rate <input type="text" value="15%"/> Illinois Income Tax Rate <input type="text" value="5%"/>	Federal Income Tax Rate <input type="text" value="15%"/> Illinois Income Tax Rate <input type="text" value="5%"/>	Current FMV <input type="text" value="\$ 750,000"/> Stepped Up Basis** <input type="text" value="\$ 750,000"/>
Adjustment to Exemption Used <input type="text" value="\$ 750,000"/> Adjustment to Estate Value <input type="text" value="\$ 4,608,020"/> Tax on Gift <input type="text" value="\$ -"/>	Original Value <input type="text" value="\$ 500,000"/> Sale Price <input type="text" value="\$ 750,000"/> Basis <input type="text" value="\$ 400,000"/>	Sale Price <input type="text" value="\$ 750,000"/> Basis <input type="text" value="\$ 400,000"/>	
Federal Estate Tax on Estate <input type="text" value="\$ -"/> Illinois Estate Tax on Estate <input type="text" value="\$ 413,330"/>	Federal Income Tax on Sale <input type="text" value="\$ 52,500"/> Illinois Income Tax on Sale <input type="text" value="\$ 17,500"/> Depreciation Recapture <input type="text" value="\$ 15,000"/> Capital Gains Tax on Sale <input type="text" value="\$ -"/> Federal Estate Tax on Estate <input type="text" value="\$ -"/> Illinois Estate Tax on Estate <input type="text" value="\$ 413,330"/>	Federal Income Tax on Sale <input type="text" value="\$ 52,500"/> Illinois Income Tax on Sale <input type="text" value="\$ 17,500"/> Capital Gains Tax on Sale <input type="text" value="\$ -"/> Federal Estate Tax on Sale <input type="text" value="\$ -"/> Federal Estate Tax on Estate <input type="text" value="\$ 413,330"/> Illinois Estate Tax on Estate <input type="text" value="\$ -"/>	Federal Estate Tax on Estate <input type="text" value="\$ -"/> Illinois Estate Tax on Estate <input type="text" value="\$ 413,330"/>
Total Costs <input type="text" value="\$ 413,330"/> Estate Value After Asset Distribution <input type="text" value="\$ 4,194,690"/>	Total Costs <input type="text" value="\$ 498,330"/> Estate Value After Asset Distribution <input type="text" value="\$ 4,859,690"/>	Total Costs <input type="text" value="\$ 483,330"/> Estate Value After Asset Distribution <input type="text" value="\$ 4,874,690"/>	Total Costs <input type="text" value="\$ 413,330"/> Estate Value After Asset Distribution <input type="text" value="\$ 4,944,690"/>

**No Plan/Intestate\*\***

Federal Estate Tax on Estate	<input type="text" value="\$ -"/>
Illinois Estate Tax on Estate	<input type="text" value="\$ 413,330"/>
Estate Value After Estate Tax	<input type="text" value="\$ 4,944,690"/>
Less Claims Against Estate	<input type="text" value="\$ 143,300"/>
Estate Value After Debts Paid	<input type="text" value="\$ 4,801,390"/>
Share to Surviving Spouse	<input type="text" value="\$ 2,400,695"/>
Share to Each Descendant	<input type="text" value="\$ 800,232"/>

[To Estate Planning Checklist>>](#)

\*Values are calculated for a married couple filing jointly.

\*Assumes the asset recipient will be someone other than the spouse and distribution is therefore potentially taxable.

\*Does not take into account valuation implications for asset recipient.

\*Does not take into account if owner needs income from asset for retirement.

\*\*Stepped up basis given is the FMV of the asset but could be the 2032A valuation

\*\*Intestate option considers the distribution of the estate in accordance with Illinois intestacy statutes. Values do not reflect costs associated with contesting the distribution of assets.

**Figure 5.7 Case 1 Successor Inclusion and Farm Needs**

Years until retirement:

Define current role of the successor in the operation.

- ☒ Farm employee
- ☐ Farming separately
- ☐ Not involved

How long will the successor be involved with the operation before the older generation retires?

How will the successor be compensated for work on the operation up until the time of transition?

- ☒ Wage
- ☐ Salary
- ☐ Percentage of farm income
- ☐ Share of equity in operation

Will the farm have to support multiple families?

- ☒ Yes
- ☐ No

Operator's Anticipated Retirement Needs from the Farm:

Successor's Anticipated Farm Income Needs:

Estimated Amount Wanted for Equity Growth:

Approximate Gross Farm Income Necessary:

Approximate Asset Base Necessary:

**Figure 5.8 Case 1 Management and Ownership Transfer**

Current % of Management by Operator	Current % of Management by Successor		Rank on a scale of 1 to 5 the successor's current ability to manage each portion of the farm business; 1 being unprepared and 5 being well-prepared. Enter 0 or N/A for skills not required by operation.		
		Livestock			0
75%	25%	Production			4
80%	20%	Marketing			3
100%	0%	Financial Decisions			3
50%	50%	Equipment			5
100%	0%	Land			3

Current:			Goal:		
% of Ownership by Operator	% of Ownership by Successor		% of Ownership by Operator	% of Ownership by Successor	% of Ownership Change per Year to Reach Goal
		Livestock			
100%	0%	Crop Production	50%	50%	4%
100%	0%	Machinery	50%	50%	4%
100%	0%	Buildings	100%	0%	0%
100%	0%	Inventory	0%	100%	8%
100%	0%	Land	100%	0%	0%

**Figure 5.9 Case 1 Reports Tab**

"Sweat Equity" Bonus	A "sweat equity" bonus in the estate may be considered to compensate the successor for years of service and value added to the operation beyond that of other heirs. A "sweat equity" bonus would provide a greater share of farm assets to the successor as compared to inactive heirs based on number of years active in the operation. It may assist the successor in obtaining a majority ownership in the operation.	Life Insurance	Life insurance can be purchased to leave non-business asset inheritance to inactive heirs or to fund buyout of inactive heirs if farm assets are left to all heirs. However, purchasing a sufficient amount of life insurance may prove costly. Final expenses, debts, special needs, income replacement, estate tax and transfer costs, administrative expenses, and business overhead are some costs to consider when determining how much insurance is needed.	Feasibility	On average, gross farm income has been greater than the amount necessary to support multiple families given the entered information. The operation currently has a sufficient asset base to achieve the necessary income based on the information provided.
Option Agreement	N/A	Business Entity	Changing the form of business entity and transferring a portion of the business ownership to heirs now may be beneficial in discounting the value of the operation because of reduced marketability resulting from having multiple owners. Creating multiple entities for the operation may prove useful in limiting liability. However, self-employment tax concerns may exist. An attorney familiar with the operation could describe options available and the benefits and costs of those options.	Professional Team	A team of professionals comprised of consultants, accountants, and attorneys familiar with the farm and family can provide more detailed options specifically targeted to the goals of those involved. Mediators, insurance agents, and bankers may also be able to assist with succession plans.
Buy/Sell Agreement	N/A	Rent	It may be beneficial to rent farm assets to the successor since farm income is necessary for retirement. Assets may then be distributed by the estate and receive a stepped up basis. Tax implications may exist if the operator "participates materially" in the production of income from the assets after retirement	Estate Exclusion	The value of the estate is greater than the exclusion amount for a couple. It may be advisable to reduce the size of the estate through gifts or sales, though valuation and tax implications still exist. A tax professional can provide more specific advice based on the needs of the family and operation.
Note on Inactive Heirs	N/A	Estate Planning	Working with an attorney to effectively implement an estate plan and ensure that asset ownership is properly titled in accordance with estate and transfer wishes is essential in making sure the long term succession plan comes to completion.	Ownership Transfer	Transition goals indicate at least partial ownership will transfer to the successor before the operator retires. Methods to accomplish this include gifts, sales, or private annuities.



**Figure 5.10 Case 2 Farm Trends and Comparisons**

<<Return

Next>>

**FARM TRENDS & COMPARISONS**

INCOME TRENDS	2003	2004	2005	2006	2007	2008	2009	2010
Net Farm Income	\$ 12,501	\$ 71,367	\$ 8,297	\$ 124,041	\$ 56,511	\$ 171,466	\$ 180,638	\$ 142,000
FBFM Average Net Farm Income	\$ 70,507	\$ 90,635	\$ 55,131	\$ 103,468	\$ 101,619	\$ 233,955	\$ 82,449	Unavailable

Average
\$ 95,853

**RATIO TRENDS**

PROFITABILITY	2003	2004	2005	2006	2007	2008	2009	2010
Farm Rate-of-return on farm assets	4.6%	9.1%	3.4%	11.9%	8.4%	12.3%	11.9%	9.0%
Farm Rate-of-return on farm equity	4.0%	11.3%	2.7%	15.6%	9.2%	16.3%	15.3%	12.1%
FBFM Rate-of-return on farm assets	5.31	6.93	3.40	7.11	15.53	13.32	3.57	Unavailable
FBFM Rate-of-return on farm equity	6.22	12.47	-5.35	6.83	23.13	19.79	2.21	Unavailable

**RATIO BENCHMARKS**

Green	Yellow	Red
>5%	1% to 5%	<1%
Look at trends and compare to other farm and non-farm investments		

**LIQUIDITY**

Current ratio	1.21	1.55	1.18	1.30	1.77	2.05	2.15	2.15
Working Capital	\$ 32,901	\$ 88,861	\$ 34,148	\$ 62,259	\$ 187,690	\$ 253,782	\$ 262,538	\$ 262,538
Working Capital to Gross Revenue	0.15	0.30	0.14	0.18	0.41	0.54	0.55	0.875126667

> 1.50	1.00 to 1.50	< 1.00
Compare to business expenses, absolute amount depends on scope of operation		
> 0.30	0.10 to 0.30	<0.10

**SOLVENCY**

Farm debt-to-farm equity ratio	55.2%	43.6%	42.7%	57.2%	58.3%	50.9%	41.3%	41.3%
Farm debt-to-farm asset ratio	35.6%	30.4%	29.9%	36.4%	36.8%	33.7%	29.2%	29.2%

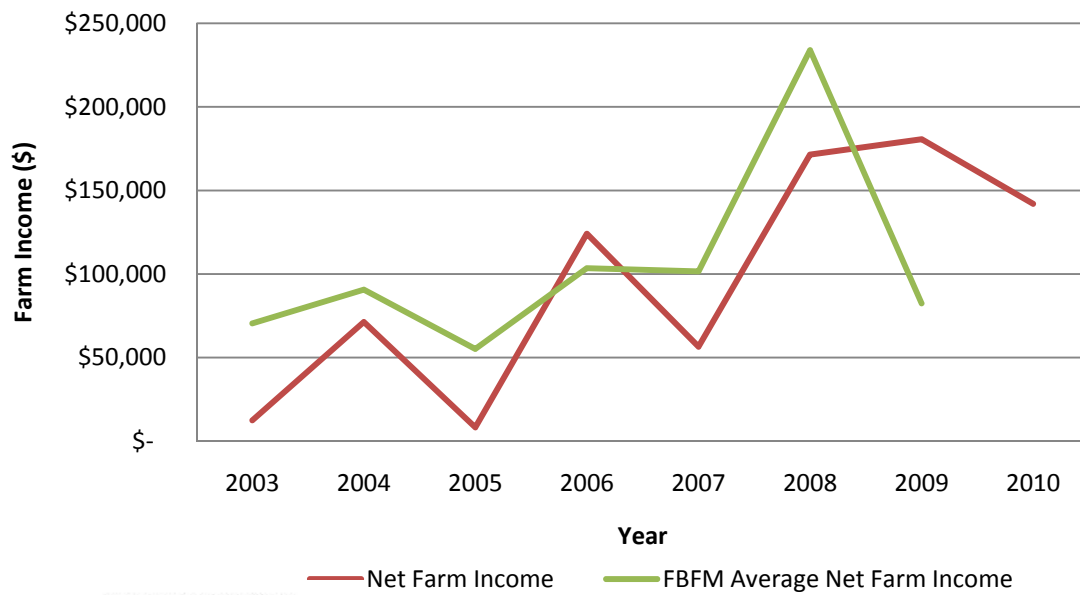
<25%	25% to 150%	>150%
<20%	20% to 60%	>60%

**FINANCIAL EFFICIENCY**

Asset turnover ratio	0.19	0.24	0.18	0.24	0.27	0.25	0.25	0.16
Operating expense ratio	73.9%	63.2%	78.9%	50.4%	48.8%	52.0%	52.4%	43.3%
Interest expense ratio	10.4%	5.1%	8.2%	8.2%	9.8%	5.8%	4.3%	2.7%
NFI from operations ratio	5.5%	24.0%	3.5%	34.9%	12.2%	36.7%	37.9%	47.3%

Depends heavily on type of operation and whether it is owned / leased		
<55%	55% to 65%	>65%
<10%	10% to 20%	>20%
Look at trends, varies due to cyclical nature of agricultural prices and incomes		

**Figure 5.11 Case 2 Farm Income Trends**



**Figure 5.12 Case 2 ROA & ROE Trends**

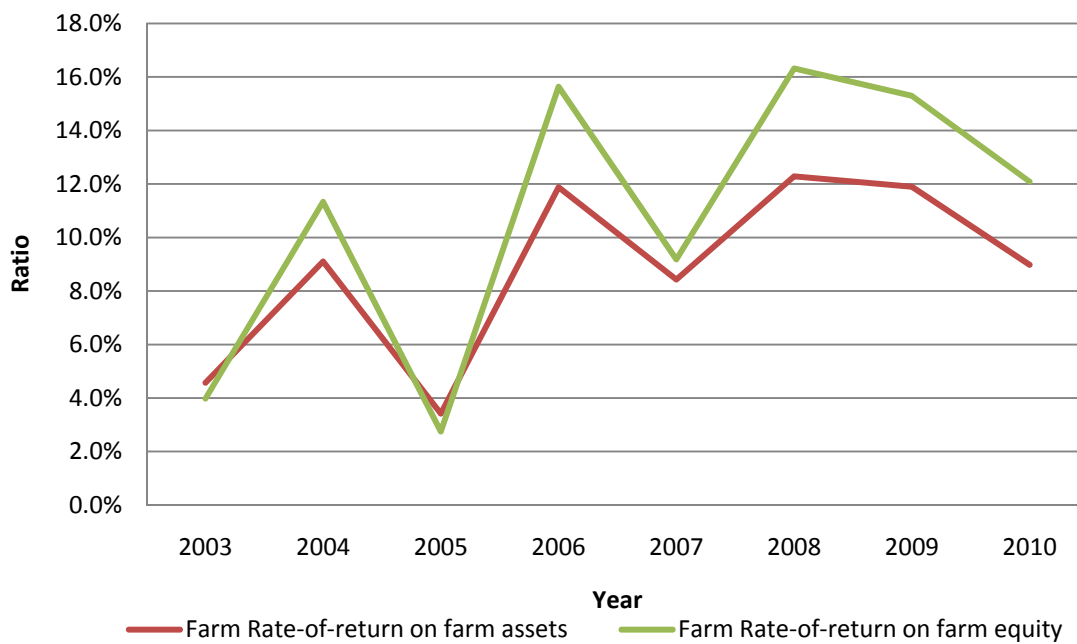


Figure 5.13 Case 2 Retirement Needs Calculation

<<Return

RETIREMENT SAVINGS NEEDS  
for  
B

As of: 5/2/2011

Expected inflation	3%
Number of years retirement income is needed	20
Historical pre-retirement income	\$ 95,853
Projected expenses as percentage of pre-retirement income	0%
Percent of pre-retirement income needed	85%
Retirement income needed	\$ 81,475
Retirement income from non-retirement account sources	\$ 80,000
Income from retirement savings needed per year	\$ 1,475
Total retirement savings amount needed	\$ 39,627
Years until retirement:	11
Estimated rate of return on savings	6%
Current retirement savings	\$ -
Value of retirement account at retirement	\$ -
Total amount needed for retirement less future value of retirement savings	\$ 39,627
Amount needed to be saved each year until retirement	\$ 2,647

**Figure 5.14 Case 2 Yearly Retirement Savings Necessary**

**YEARLY RETIREMENT SAVINGS NECESSARY**

		ESTIMATED RATE OF RETURN ON SAVINGS											
		1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	
PERCENT OF PRE- RETIREMENT INCOME NEEDED	80%	\$ (7,904)	\$ (7,477)	\$ (7,069)	\$ (6,679)	\$ (6,308)	\$ (5,955)	\$ (5,648)	\$ (5,356)	\$ (5,077)	\$ (4,811)	\$ (4,558)	
	81%	\$ (5,621)	\$ (5,317)	\$ (5,027)	\$ (4,750)	\$ (4,486)	\$ (4,234)	\$ (4,017)	\$ (3,809)	\$ (3,610)	\$ (3,421)	\$ (3,241)	
	82%	\$ (3,337)	\$ (3,157)	\$ (2,985)	\$ (2,820)	\$ (2,663)	\$ (2,514)	\$ (2,385)	\$ (2,261)	\$ (2,144)	\$ (2,031)	\$ (1,924)	
	83%	\$ (1,054)	\$ (997)	\$ (942)	\$ (890)	\$ (841)	\$ (794)	\$ (753)	\$ (714)	\$ (677)	\$ (641)	\$ (608)	
	84%	\$ 1,230	\$ 1,163	\$ 1,100	\$ 1,039	\$ 981	\$ 926	\$ 879	\$ 833	\$ 790	\$ 749	\$ 709	
	85%	\$ 3,513	\$ 3,323	\$ 3,142	\$ 2,969	\$ 2,804	\$ 2,647	\$ 2,511	\$ 2,381	\$ 2,257	\$ 2,138	\$ 2,026	
	86%	\$ 5,797	\$ 5,483	\$ 5,184	\$ 4,899	\$ 4,626	\$ 4,367	\$ 4,142	\$ 3,928	\$ 3,723	\$ 3,528	\$ 3,342	
	87%	\$ 8,080	\$ 7,644	\$ 7,226	\$ 6,828	\$ 6,449	\$ 6,087	\$ 5,774	\$ 5,475	\$ 5,190	\$ 4,918	\$ 4,659	
	88%	\$ 10,364	\$ 9,804	\$ 9,268	\$ 8,758	\$ 8,271	\$ 7,808	\$ 7,406	\$ 7,023	\$ 6,657	\$ 6,308	\$ 5,976	
	89%	\$ 12,647	\$ 11,964	\$ 11,311	\$ 10,688	\$ 10,094	\$ 9,528	\$ 9,038	\$ 8,570	\$ 8,123	\$ 7,698	\$ 7,292	
	90%	\$ 14,931	\$ 14,124	\$ 13,353	\$ 12,617	\$ 11,916	\$ 11,248	\$ 10,670	\$ 10,117	\$ 9,590	\$ 9,088	\$ 8,609	

**Figure 5.15 Case 2 Asset Distribution**

Number of Heirs

Will inactive heirs inherit farm assets?  
☒ Yes  
☐ No

Year   
 Current Estate Value   
 Amount of exemption previously used by gifts

Potential tax implications for current owner:  
 Estimated Taxable Retirement Income   
 Original Value of Farm Asset   
 Current FMV   
 Basis

Federal Estate Exclusion Limit   
 Illinois Estate Exclusion Limit

**Method of Distribution:**

Gift	Sale of Personal Property	Sale of Capital Gains Items	Bequest
Current FMV <input type="text" value="\$ 750,000"/>	Federal Income Tax Rate <input type="text" value="15%"/> Illinois Income Tax Rate <input type="text" value="5%"/>	Federal Income Tax Rate <input type="text" value="15%"/> Illinois Income Tax Rate <input type="text" value="5%"/>	Current FMV <input type="text" value="\$ 750,000"/> Stepped Up Basis** <input type="text" value="\$ 750,000"/>
Adjustment to Exemption Used <input type="text" value="\$ 750,000"/> Adjustment to Estate Value <input type="text" value="\$ 590,348"/> Tax on Gift <input type="text" value=""/>	Original Value <input type="text" value="\$ 500,000"/> Sale Price <input type="text" value="\$ 750,000"/> Basis <input type="text" value="\$ 400,000"/>	Sale Price <input type="text" value="\$ 750,000"/> Basis <input type="text" value="\$ 400,000"/>	
Federal Estate Tax on Estate <input type="text" value=""/> Illinois Estate Tax on Estate <input type="text" value=""/>	Federal Income Tax on Sale <input type="text" value="\$ 52,500"/> Illinois Income Tax on Sale <input type="text" value="\$ 17,500"/> Depreciation Recapture <input type="text" value="\$ 15,000"/> Capital Gains Tax on Sale <input type="text" value=""/> Federal Estate Tax on Estate <input type="text" value=""/> Illinois Estate Tax on Estate <input type="text" value=""/>	Federal Income Tax on Sale <input type="text" value="\$ 52,500"/> Illinois Income Tax on Sale <input type="text" value="\$ 17,500"/> Capital Gains Tax on Sale <input type="text" value=""/> Federal Estate Tax on Estate <input type="text" value=""/> Illinois Estate Tax on Estate <input type="text" value=""/>	Federal Estate Tax on Estate <input type="text" value=""/> Illinois Estate Tax on Estate <input type="text" value=""/>
Total Costs <input type="text" value="\$ -"/> Estate Value After Asset Distribution <input type="text" value="\$ 590,348"/>	Total Costs <input type="text" value="\$ 85,000"/> Estate Value After Asset Distribution <input type="text" value="\$ 1,255,348"/>	Total Costs <input type="text" value="\$ 70,000"/> Estate Value After Asset Distribution <input type="text" value="\$ 1,270,348"/>	Total Costs <input type="text" value="\$ -"/> Estate Value After Asset Distribution <input type="text" value="\$ 1,340,348"/>

**No Plan/Intestate\*\***

Federal Estate Tax on Estate	<input type="text" value=""/>
Illinois Estate Tax on Estate	<input type="text" value=""/>
Estate Value After Estate Tax	<input type="text" value="\$ 1,340,348"/>
Less Claims Against Estate	<input type="text" value="\$ 553,397"/>
Estate Value After Debts Paid	<input type="text" value="\$ 786,951"/>
Share to Surviving Spouse	<input type="text" value="\$ 393,476"/>
Share to Each Descendant	<input type="text" value="\$ 196,738"/>

[To Estate Planning Checklist>>](#)

\*Values are calculated for a married couple filing jointly.  
 \*Assumes the asset recipient will be someone other than the spouse and distribution is therefore potentially taxable.  
 \*Does not take into account valuation implications for asset recipient.  
 \*Does not take into account if owner needs income from asset for retirement.  
 \*\*Stepped up basis given is the FMV of the asset but could be the 2032A valuation  
 \*\*Intestate option considers the distribution of the estate in accordance with Illinois intestacy statutes. Values do not reflect costs associated with contesting the distribution of assets.

**Figure 5.16 Case 2 Successor Inclusion and Farm Needs**

Years until retirement:

Define current role of the successor in the operation.

- ☐ Farm employee
- ☐ Farming separately
- ☒ Not involved

How long will the successor be involved with the operation before the older generation retires?

How will the successor be compensated for work on the operation up until the time of transition?

- ☒ Wage
- ☐ Salary
- ☐ Percentage of farm income
- ☐ Share of equity in operation

Will the farm have to support multiple families?

- ☒ Yes
- ☐ No

Operator's Anticipated Retirement Needs from the Farm:

Successor's Anticipated Farm Income Needs:

Estimated Amount Wanted for Equity Growth:

Approximate Gross Farm Income Necessary:

Approximate Asset Base Necessary:

**Figure 5.17 Case 2 Management and Ownership Transfer**

Current % of Management by Operator	Current % of Management by Successor		Rank on a scale of 1 to 5 the successor's current ability to manage each portion of the farm business; 1 being unprepared and 5 being well-prepared. Enter 0 or N/A for skills not required by operation.		
		Livestock			0
100%	0%	Production			3
100%	0%	Marketing			2
100%	0%	Financial Decisions			2
100%	0%	Equipment			3
100%	0%	Land			2

Current:			Goal:		
% of Ownership by Operator	% of Ownership by Successor		% of Ownership by Operator	% of Ownership by Successor	% of Ownership Change per Year to Reach Goal
		Livestock			
100%	0%	Crop Production	50%	50%	10%
100%	0%	Machinery	0%	100%	20%
100%	0%	Buildings	100%	0%	0%
100%	0%	Inventory	25%	75%	15%
100%	0%	Land	100%	0%	0%

**Figure 5.18 Case 2 Reports Tab**

"Sweat Equity" Bonus	A "sweat equity" bonus in the estate may be considered to compensate the successor for years of service and value added to the operation beyond that of other heirs. A "sweat equity" bonus would provide a greater share of farm assets to the successor as compared to inactive heirs based on number of years active in the operation. It may assist the successor in obtaining a majority ownership in the operation.	Life Insurance	Life insurance can be purchased to leave non-business asset inheritance to inactive heirs or to fund buyout of inactive heirs if farm assets are left to all heirs. However, purchasing a sufficient amount of life insurance may prove costly. Final expenses, debts, special needs, income replacement, estate tax and transfer costs, administrative expenses, and business overhead are some costs to consider when determining how much insurance is needed.	Feasibility	The average income of the farm is below the income level necessary for multiple families given the entered information. The operation currently has a sufficient asset base to achieve the necessary income based on the information provided.
Option Agreement	An option agreement is a contract between parties that allows one the right but not the obligation to buy or sell an asset sometime in the future. If inactive heirs will inherit farm assets, an option agreement can provide the active heir with the first right to buy the asset(s) and can specify a price should inactive heirs wish to sell them. Option agreements can also be used to establish rental and sale terms to structure the working relationship and transactions between active and inactive heirs.	Business Entity	Creating multiple entities for the operation may prove useful in limiting liability. However, self-employment tax concerns may exist. An attorney familiar with the operation could describe options available and the benefits and costs of those options.	Professional Team	A team of professionals comprised of consultants, accountants, and attorneys familiar with the farm and family can provide more detailed options specifically targeted to the goals of those involved. Mediators, insurance agents, and bankers may also be able to assist with succession plans.
Buy/Sell Agreement	A buy/sell agreement is a formal agreement facilitating ownership transfer based on triggering events. It could be used to obligate the successor to buy all or a portion of the business upon the retirement, death, divorce, or disability of another owner. A buy/sell agreement could also be used to structure the buyout of inactive heirs if they wish to sell their interests but the successor considers those assets necessary for farm operations.	Rent	It may be beneficial to rent farm assets to the successor since farm income is necessary for retirement. Assets may then be distributed by the estate and receive a stepped up basis. Tax implications may exist if the operator "participates materially" in the production of income from the assets after retirement	Estate Exclusion	The value of the estate is below the exclusion amount. Owners should discuss what they want to happen regarding estate and succession decisions.
Note on Inactive Heirs	It is important to communicate regarding the way in which assets will be held by inactive and active heirs so that clear goals, operational structure, and understanding may be established.	Estate Planning	Working with an attorney to effectively implement an estate plan and ensure that asset ownership is properly titled in accordance with estate and transfer wishes is essential in making sure the long term succession plan comes to completion.	Ownership Transfer	Transition goals indicate at least partial ownership will transfer to the successor before the operator retires. Methods to accomplish this include gifts, sales, or private annuities.



**Figure 5.19 Case 3 Farm Trends and Comparisons**

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**FARM TRENDS & COMPARISONS**

INCOME TRENDS	2003	2004	2005	2006	2007	2008	2009	2010
Net Farm Income	\$ 75,131	\$ 114,254	\$ 60,444	\$ 133,729	\$ (32,500)	\$ 234,101	\$ 15,995	\$ 125,000
FBFM Average Net Farm Income	\$ 43,844	\$ 60,924	\$ 40,026	\$ 79,982	\$ 121,419	\$ 151,520	\$ 68,581	Unavailable

Average
\$ 90,769

**RATIO TRENDS**

PROFITABILITY	2003	2004	2005	2006	2007	2008	2009	2010
Farm Rate-of-return on farm assets	4.9%	7.5%	2.9%	6.3%	8.0%	9.6%	-0.1%	5.2%
Farm Rate-of-return on farm equity	4.8%	8.0%	2.8%	6.7%	8.2%	10.1%	-0.2%	5.3%
FBFM Rate-of-return on farm assets	1.92	3.76	1.07	3.96	8.85	7.55	2.02	Unavailable
FBFM Rate-of-return on farm equity	0.21	7.03	4.63	2.99	8.18	4.21	2.53	Unavailable

**RATIO BENCHMARKS**

Green	Yellow	Red
>5%	1% to 5%	<1%
Look at trends and compare to other farm and non-farm investments		

**LIQUIDITY**

Current ratio	1.40	2.13	2.51	2.10	3.40	5.72	4.05	4.05
Working Capital	\$ 71,528	\$ 189,087	\$ 142,762	\$ 193,990	\$ 391,212	\$ 520,792	\$ 426,359	\$ 426,359
Working Capital to Gross Revenue	0.23	0.51	0.42	0.54	0.79	0.95	0.99	1.22

> 1.50	1.00 to 1.50	< 1.00
Compare to business expenses, absolute amount depends on scope of operation		
> 0.30	0.10 to 0.30	<0.10

**SOLVENCY**

Farm debt-to-farm equity ratio	26.6%	12.6%	9.2%	11.3%	8.8%	5.3%	5.7%	5.7%
Farm debt-to-farm asset ratio	21.0%	11.2%	8.4%	10.2%	8.1%	5.0%	5.4%	5.4%

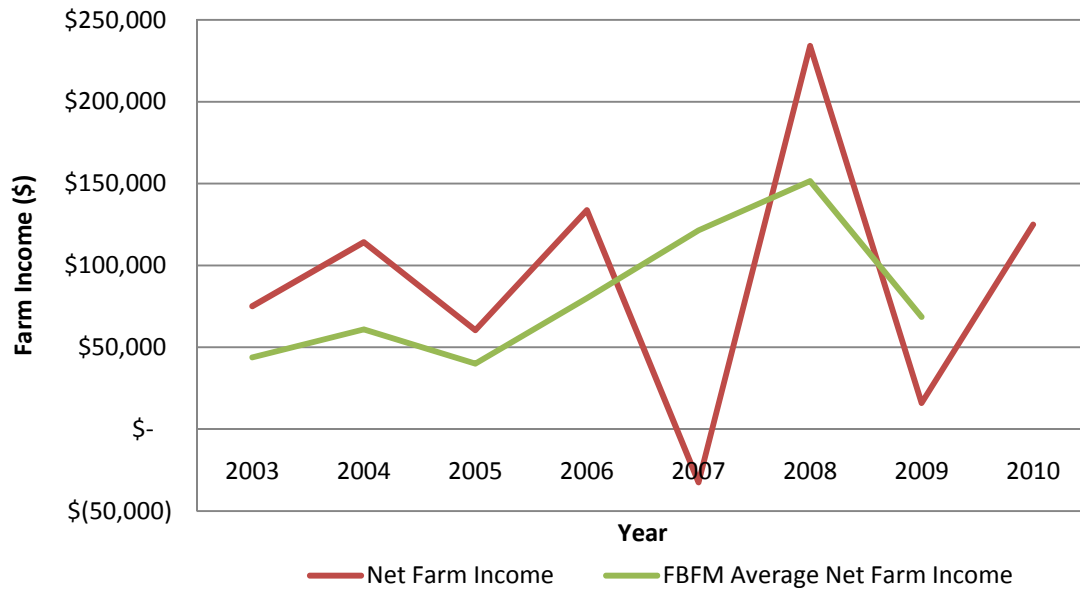
<25%	25% to 150%	>150%
<20%	20% to 60%	>60%

**FINANCIAL EFFICIENCY**

Asset turnover ratio	0.17	0.19	0.17	0.16	0.20	0.21	0.17	0.14
Operating expense ratio	66.3%	63.4%	80.4%	54.4%	50.1%	53.5%	90.6%	57.1%
Interest expense ratio	6.7%	2.3%	1.6%	2.0%	2.1%	0.2%	0.1%	1.4%
NFI from operations ratio	23.9%	30.9%	17.6%	37.1%	-6.5%	42.8%	3.7%	35.7%

Depends heavily on type of operation and whether it is owned / leased		
<55%	55% to 65%	>65%
<10%	10% to 20%	>20%
Look at trends, varies due to cyclical nature of agricultural prices and incomes		

**Figure 5.20 Case 3 Farm Income Trends**



**Figure 5.21 Case 3 ROA & ROE Trends**



Figure 5.22 Case 3 Retirement Needs Calculation

<<Return

RETIREMENT SAVINGS NEEDS  
for  
C

As of: 5/2/2011

Expected inflation	3%
Number of years retirement income is needed	15
Historical pre-retirement income	\$ 90,769
Projected expenses as percentage of pre-retirement income	0%
Percent of pre-retirement income needed	85%
Retirement income needed	\$ 77,154
Retirement income from non-retirement account sources	\$ 70,000
Income from retirement savings needed per year	\$ 7,154
Total retirement savings amount needed	\$ 133,054
Years until retirement:	4
Estimated rate of return on savings	6%
Current retirement savings	\$ 69,233
Value of retirement account at retirement	\$ 87,405
Total amount needed for retirement less future value of retirement savings	\$ 45,649
Amount needed to be saved each year until retirement	\$ 10,435

**Figure 5.23 Case 3 Yearly Retirement Savings Necessary**

**YEARLY RETIREMENT SAVINGS NECESSARY**

		ESTIMATED RATE OF RETURN ON SAVINGS											
		1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	
PERCENT OF PRE- RETIREMENT INCOME NEEDED	80%	\$ (9,618)	\$ (9,461)	\$ (9,307)	\$ (9,155)	\$ (9,006)	\$ (8,861)	\$ (8,730)	\$ (8,602)	\$ (8,476)	\$ (8,352)	\$ (8,230)	
	81%	\$ (5,429)	\$ (5,340)	\$ (5,253)	\$ (5,168)	\$ (5,084)	\$ (5,001)	\$ (4,928)	\$ (4,855)	\$ (4,784)	\$ (4,714)	\$ (4,646)	
	82%	\$ (1,240)	\$ (1,220)	\$ (1,200)	\$ (1,180)	\$ (1,161)	\$ (1,142)	\$ (1,126)	\$ (1,109)	\$ (1,093)	\$ (1,077)	\$ (1,061)	
	83%	\$ 2,949	\$ 2,901	\$ 2,854	\$ 2,807	\$ 2,762	\$ 2,717	\$ 2,677	\$ 2,637	\$ 2,599	\$ 2,561	\$ 2,523	
	84%	\$ 7,138	\$ 7,021	\$ 6,907	\$ 6,795	\$ 6,684	\$ 6,576	\$ 6,479	\$ 6,384	\$ 6,290	\$ 6,198	\$ 6,108	
	85%	\$ 11,327	\$ 11,142	\$ 10,960	\$ 10,782	\$ 10,607	\$ 10,435	\$ 10,281	\$ 10,130	\$ 9,982	\$ 9,836	\$ 9,692	
	86%	\$ 15,516	\$ 15,263	\$ 15,014	\$ 14,769	\$ 14,530	\$ 14,294	\$ 14,084	\$ 13,877	\$ 13,674	\$ 13,474	\$ 13,277	
	87%	\$ 19,705	\$ 19,383	\$ 19,067	\$ 18,757	\$ 18,452	\$ 18,153	\$ 17,886	\$ 17,623	\$ 17,365	\$ 17,111	\$ 16,862	
	88%	\$ 23,894	\$ 23,504	\$ 23,120	\$ 22,744	\$ 22,375	\$ 22,012	\$ 21,688	\$ 21,370	\$ 21,057	\$ 20,749	\$ 20,446	
	89%	\$ 28,083	\$ 27,624	\$ 27,174	\$ 26,732	\$ 26,298	\$ 25,871	\$ 25,491	\$ 25,116	\$ 24,748	\$ 24,386	\$ 24,031	
	90%	\$ 32,272	\$ 31,745	\$ 31,227	\$ 30,719	\$ 30,220	\$ 29,730	\$ 29,293	\$ 28,863	\$ 28,440	\$ 28,024	\$ 27,615	

**Figure 5.24 Case 3 Asset Distribution**

Number of Heirs

Will inactive heirs inherit farm assets?  
☒ Yes  
☐ No

Year   
Current Estate Value   
Amount of exemption previously used by gifts

Potential tax implications for current owner:  
Estimated Taxable Retirement Income   
Original Value of Farm Asset   
Current FMV   
Basis

Federal Estate Exclusion Limit   
Illinois Estate Exclusion Limit

**Method of Distribution:**

Gift	Sale of Personal Property	Sale of Capital Gains Items	Bequest
Current FMV <input type="text" value="\$ 750,000"/>	Federal Income Tax Rate <input type="text" value="15%"/> Illinois Income Tax Rate <input type="text" value="5%"/>	Federal Income Tax Rate <input type="text" value="15%"/> Illinois Income Tax Rate <input type="text" value="5%"/>	Current FMV <input type="text" value="\$ 750,000"/> Stepped Up Basis** <input type="text" value="\$ 750,000"/>
Adjustment to Exemption Used <input type="text" value="\$ 750,000"/> Adjustment to Estate Value <input type="text" value="\$ 1,692,601"/> Tax on Gift <input type="text" value=""/>	Original Value <input type="text" value="\$ 500,000"/> Sale Price <input type="text" value="\$ 750,000"/> Basis <input type="text" value="\$ 400,000"/>	Sale Price <input type="text" value="\$ 750,000"/> Basis <input type="text" value="\$ 400,000"/>	
Federal Estate Tax on Estate <input type="text" value=""/> Illinois Estate Tax on Estate <input type="text" value=""/>	Federal Income Tax on Sale <input type="text" value="\$ 52,500"/> Illinois Income Tax on Sale <input type="text" value="\$ 17,500"/> Depreciation Recapture <input type="text" value="\$ 15,000"/> Capital Gains Tax on Sale <input type="text" value=""/> Federal Estate Tax on Estate <input type="text" value=""/> Illinois Estate Tax on Estate <input type="text" value=""/>	Federal Income Tax on Sale <input type="text" value="\$ 52,500"/> Illinois Income Tax on Sale <input type="text" value="\$ 17,500"/> Capital Gains Tax on Sale <input type="text" value=""/> Federal Estate Tax on Estate <input type="text" value=""/> Illinois Estate Tax on Estate <input type="text" value=""/>	Federal Estate Tax on Estate <input type="text" value=""/> Illinois Estate Tax on Estate <input type="text" value=""/>
Total Costs <input type="text" value="\$ -"/> Estate Value After Asset Distribution <input type="text" value="\$ 1,692,601"/>	Total Costs <input type="text" value="\$ 85,000"/> Estate Value After Asset Distribution <input type="text" value="\$ 2,357,601"/>	Total Costs <input type="text" value="\$ 70,000"/> Estate Value After Asset Distribution <input type="text" value="\$ 2,372,601"/>	Total Costs <input type="text" value="\$ -"/> Estate Value After Asset Distribution <input type="text" value="\$ 2,442,601"/>

**No Plan/Intestate\*\***

Federal Estate Tax on Estate	<input type="text" value=""/>
Illinois Estate Tax on Estate	<input type="text" value=""/>
Estate Value After Estate Tax	<input type="text" value="\$ 2,442,601"/>
Less Claims Against Estate	<input type="text" value="\$ 139,617"/>
Estate Value After Debts Paid	<input type="text" value="\$ 2,302,984"/>
Share to Surviving Spouse	<input type="text" value="\$ 1,151,492"/>
Share to Each Descendant	<input type="text" value="\$ 383,831"/>

[To Estate Planning Checklist>>](#)

\*Values are calculated for a married couple filing jointly.  
\*Assumes the asset recipient will be someone other than the spouse and distribution is therefore potentially taxable.  
\*Does not take into account valuation implications for asset recipient.  
\*Does not take into account if owner needs income from asset for retirement.  
\*\*Stepped up basis given is the FMV of the asset but could be the 2032A valuation  
\*\*Intestate option considers the distribution of the estate in accordance with Illinois intestacy statutes. Values do not reflect costs associated with contesting the distribution of assets.

**Figure 5.25 Case 3 Successor Inclusion and Farm Needs**

Years until retirement:

Define current role of the successor in the operation.

- ☐ Farm employee
- ☒ Farming separately
- ☐ Not involved

How long will the successor be involved with the operation before the older generation retires?

How will the successor be compensated for work on the operation up until the time of transition?

- ☐ Wage
- ☐ Salary
- ☒ Percentage of farm income
- ☐ Share of equity in operation

Will the farm have to support multiple families?

- ☒ Yes
- ☐ No

Operator's Anticipated Retirement Needs from the Farm:

Successor's Anticipated Farm Income Needs:

Estimated Amount Wanted for Equity Growth:

Approximate Gross Farm Income Necessary:

Approximate Asset Base Necessary:

**Figure 5.26 Case 3 Management and Ownership Transfer**

Current % of Management by Operator	Current % of Management by Successor		Rank on a scale of 1 to 5 the successor's current ability to manage each portion of the farm business; 1 being unprepared and 5 being well-prepared. Enter 0 or N/A for skills not required by operation.
25%	75%	Livestock	5
70%	30%	Production	4
75%	25%	Marketing	3
80%	20%	Financial Decisions	3
25%	75%	Equipment	5
50%	50%	Land	4

Current:	Goal:
----------	-------

% of Ownership by Operator	% of Ownership by Successor		% of Ownership by Operator	% of Ownership by Successor	% of Ownership Change per Year to Reach Goal
30%	70%	Livestock	0%	100%	8%
75%	25%	Crop Production	50%	50%	6%
50%	50%	Machinery	0%	100%	13%
100%	0%	Buildings	100%	0%	0%
50%	50%	Inventory	10%	90%	10%
75%	25%	Land	75%	25%	0%

**Figure 5.27 Case 3 Reports Tab**

"Sweat Equity" Bonus	A "sweat equity" bonus in the estate may be considered to compensate the successor for years of service and value added to the operation beyond that of other heirs. A "sweat equity" bonus would provide a greater share of farm assets to the successor as compared to inactive heirs based on number of years active in the operation. It may assist the successor in obtaining a majority ownership in the operation.	Life Insurance	Life insurance can be purchased to leave non-business asset inheritance to inactive heirs or to fund buyout of inactive heirs if farm assets are left to all heirs. However, purchasing a sufficient amount of life insurance may prove costly. Final expenses, debts, special needs, income replacement, estate tax and transfer costs, administrative expenses, and business overhead are some costs to consider when determining how much insurance is needed.	Feasibility	On average, gross farm income has been greater than the amount necessary to support multiple families given the entered information. The operation currently has a sufficient asset base to achieve the necessary income based on the information provided.
Option Agreement	An option agreement is a contract between parties that allows one the right but not the obligation to buy or sell an asset sometime in the future. If inactive heirs will inherit farm assets, an option agreement can provide the active heir with the first right to buy the asset(s) and can specify a price should inactive heirs wish to sell them. Option agreements can also be used to establish rental and sale terms to structure the working relationship and transactions between active and inactive heirs.	Business Entity	Creating multiple entities for the operation may prove useful in limiting liability. However, self-employment tax concerns may exist. An attorney familiar with the operation could describe options available and the benefits and costs of those options.	Professional Team	A team of professionals comprised of consultants, accountants, and attorneys familiar with the farm and family can provide more detailed options specifically targeted to the goals of those involved. Mediators, insurance agents, and bankers may also be able to assist with succession plans.
Buy/Sell Agreement	A buy/sell agreement is a formal agreement facilitating ownership transfer based on triggering events. It could be used to obligate the successor to buy all or a portion of the business upon the retirement, death, divorce, or disability of another owner. A buy/sell agreement could also be used to structure the buyout of inactive heirs if they wish to sell their interests but the successor considers those assets necessary for farm operations.	Rent	It may be beneficial to rent farm assets to the successor since farm income is necessary for retirement. Assets may then be distributed by the estate and receive a stepped up basis. Tax implications may exist if the operator "participates materially" in the production of income from the assets after retirement	Estate Exclusion	The value of the estate is greater than the exclusion amount for one person. It may be advisable to title assets to take advantage of the full exclusion amount available to both the husband and wife. A marital trust may also be used to ensure that the spouse does not have to pay an estate tax when the first spouse dies.
Note on Inactive Heirs	It is important to communicate regarding the way in which assets will be held by inactive and active heirs so that clear goals, operational structure, and understanding may be established.	Estate Planning	Working with an attorney to effectively implement an estate plan and ensure that asset ownership is properly titled in accordance with estate and transfer wishes is essential in making sure the long term succession plan comes to completion.	Ownership Transfer	Transition goals indicate at least partial ownership will transfer to the successor before the operator retires. Methods to accomplish this include gifts, sales, or private annuities.



## **6 SUMMARY AND CONCLUSIONS**

### **6.1 Summary**

The objective of this research is to identify attributes characteristic of a farm likely to undertake succession planning and establish a succession planning framework to assist the succession planning process. Establishment of succession planning steps and potential succession outcomes are included in conjunction with the development of a succession tool. The work in this thesis is meant to be built on the goals and objectives that most commonly motivate succession planning for a family. The succession planning tool is intended to serve as a platform for gathering objective information needed to make subjective decisions. The intended user of this research is an advisor working with a farm family to establish the feasibility and intended outcomes of succession.

Succession planning is the integration of many factors, particularly business, estate, and retirement planning. While there is little research focused on the entire process related to transition planning, there are studies regarding particular elements of farm succession as well as the demographics of farms likely to form a succession plan. Most studies specifically devoted to succession planning focus on conflict arising from intergenerational transfer. Surveys have found that most farmers wish to pass the farm on to the next generation (Finck, 2010). However, most farmers retain at least some ownership in the farm until death (Kimhi & Lopez, 1999). Utilizing the help of professionals, such as financial planners and attorneys, to ease the transition process as well as help preserve family relationships is encouraged by several authors (Branan, 2009; Jones, 2005; Spafford, 2006).

This thesis incorporates benchmark and farm needs suggestions presented by Jones (2005). Areas of operator withdrawal from the farm are developed from the manner in which farmers phase out of the business as described by Keating and Munro (1989). Succession planning steps and special considerations are included based on succession information presented by Jones (2005) and Spafford (2006). The succession planning tool is intended for the prototypical farm transition scenario as developed based on common characteristics of farms identified in the data. It is targeted towards large, commercial grain farms with high net worth. The tool developed for this thesis is not intended for small or specialty farms and only allows for one successor. The transition steps in this research include identifying a successor, determining if succession is feasible given the current state of the business, developing a business plan for moving forward, deciding the best way to implement succession measures based on retirement needs and estate considerations, and then carrying out those actions.

The succession tool built for this research is a Microsoft Excel tool with tabs for general information, financial information, business planning, retirement planning, estate planning, and transition planning culminating in a report section that discusses various concepts relevant to the succession process. The general information tab provides a space to document operator and successor information. The financial tab provides space for the user to enter historical farm financial information as well as complete a balance sheet and income statement. The business plan tab includes space for business goal-setting, net farm income and ratio trend analysis. The retirement planning tab contains a balance sheet, retirement budget, and savings model for determining yearly retirement savings requirements. The estate planning section includes an asset distribution model to show the potential tax impact of gifting, selling, or bequeathing an asset, as well as a checklist of documents to be included when setting up an estate plan. The

transition plan tab of the tool asks the user to specify how long and in what capacity the successor will be involved on the farm before the operator retires. Space to calculate farm income and asset base needs, rate the successor's current ability to manage farm activities, specify current division of management duties, and detail current and future division of farm ownership are also included in the transition section. The reports tab provides a brief description of buy/sell agreements, option agreements, estate exclusions, "sweat equity" bonuses, life insurance, farm rental, estate planning, business entity, feasibility, inactive heirs, ownership transfer, and professional assistance based on answers in other sections of the tool.

Three FBFM cases were identified and developed into stylized succession scenarios to demonstrate the application of the developed tool. Cases used were those of Illinois grain farms with net worth varied to show the implications of estate size and exemption limits when forming an estate plan and transitioning the farm. Each case had differing time frames, motivations, retirement savings, and expectations. Financial information from 2009 was entered into the succession planning tool for each succession scenario.

The first case considered had a net worth over \$5 million, sizeable retirement savings, and two inactive heirs. The second transition scenario presented a farmer with no retirement savings, net worth below the Illinois exclusion limit, and an inactive heir. The third farm case had a net worth greater than the Illinois estate exemption amount for one person, some retirement savings, and two inactive heirs. Length of successor involvement on the farm and successor competence varied with each farm scenario. Successor income and equity expectations in the transition tab, as well as asset values in the estate tab were left constant for each transition case to demonstrate the impact of farm performance and operator needs on succession outcomes.

The information entered and calculated in the succession tool for each case show that while values and objectives may change, the methods used to achieve succession goals often remain the same. Plans and documents are used in different ways to achieve the desired result. The tool also demonstrates the integrated nature of business, retirement, and estate planning when forming a succession plan.

## **6.2 Implications**

The research developed in this thesis demonstrates the complexity of succession planning and the individual nature of forming a plan for each business. This tool can be used to assist in establishing what a family setting up a succession plan wants to happen as well as areas of potential concern for business continuity. Of key importance is communication, finding adequate professional assistance the family is comfortable with, and periodic revision of the plan.

## **6.3 Limitations and Suggestions for Further Research**

As acknowledged, the succession planning framework developed in this research is not intended to be an exhaustive set of succession guidelines for all farms. Although ideas pertinent to all farms involved in succession planning are discussed, the application of this research is intended for Illinois commercial grain farms with a high net worth relative to other grain farms. The tool is meant to be applied to sole proprietorships whose operator is age 50 or older.

Only two generations are considered in the formation of succession plans in this research. Given longer expected life spans, it is possible for three generations to be involved in a family farm and affected by succession. The research also only considers scenarios in which there will be one successor.

Research related to succession plan formation is difficult given the individual characteristics of operations and unique motivations of farm families. Research is further hampered by uncertainty regarding tax legislation that plays a role in motivating succession planning. Further succession planning research could include a model for implications of transferring an asset in differing years. Future research could also develop more transition scenarios for farms other than the prototypical case developed in this thesis to establish a more definitive and exhaustive set of succession guidelines. Scenarios beyond that of the typical succession case could include business entities other than sole proprietorships, other types of farms, or cases with more than one successor. Further research could also examine the resilience of succession plans to family shocks such as divorce or disability.

## APPENDIX A

### Tables

**Table A.1 Number of Farms, All FBFM Farms, 2003-2009**

Year	34 & Younger Age Group	35-49 Age Group	50-64 Age Group	65 & Older Age Group	Total Farms
2003	45	477	405	121	1048
2004	54	498	459	153	1164
2005	42	422	477	159	1100
2006	34	375	489	174	1072
2007	29	211	275	111	626
2008	38	328	576	177	1119
2009	39	277	580	170	1066

Source: Illinois FBFM

**Table A.2 Number of Farms, FBFM Sole Proprietorship Grain Farms, 2003-2009**

Year	34 & Younger Age Group	35-49 Age Group	50-64 Age Group	65 & Older Age Group	Total Farms
2003	35	396	349	103	883
2004	44	408	394	132	978
2005	37	347	420	141	945
2006	31	319	434	156	940
2007	22	175	242	100	539
2008	35	272	511	162	980
2009	30	226	511	155	922

Source: Illinois FBFM

**Table A.3 Average Asset Value by Type of Asset, All FBFM Farms, 2003-2009**

Year	n	Intermediate			
		Current Assets	Assets	Fixed Assets	
2003	1048	\$ 275,843	\$ 382,110	\$ 644,283	
2004	1164	\$ 321,564	\$ 422,414	\$ 708,499	
2005	1100	\$ 320,059	\$ 443,865	\$ 761,741	
2006	1072	\$ 382,190	\$ 476,207	\$ 870,445	
2007	626	\$ 500,985	\$ 496,434	\$ 962,975	
2008	1119	\$ 612,811	\$ 554,152	\$ 1,011,997	
2009	1066	\$ 551,402	\$ 613,217	\$ 1,091,878	

Source: Illinois FBFM

**Table A.4 Average Asset Value by Type of Asset, FBFM Sole Proprietorship Grain Farms, 2003-2009**

Year	n	Intermediate			
		Current Assets	Assets	Fixed Assets	
2003	883	\$ 270,936	\$ 383,674	\$ 627,408	
2004	978	\$ 313,119	\$ 423,630	\$ 695,721	
2005	945	\$ 312,876	\$ 446,480	\$ 752,054	
2006	940	\$ 377,927	\$ 476,563	\$ 854,645	
2007	539	\$ 507,218	\$ 503,111	\$ 972,751	
2008	980	\$ 628,803	\$ 558,468	\$ 1,014,086	
2009	922	\$ 564,434	\$ 620,058	\$ 1,084,476	

Source: Illinois FBFM

**Table A.5 Average Total Asset Value, All FBFM Farms, 2003-2009**

Year	n	34 & Younger		35-49		50-64		65 & Older		All Ages
		Age Group		Age Group		Age Group		Age Group		
2003	1048	\$ 665,351	\$	1,153,308	\$	1,449,907	\$	1,631,915	\$	1,302,235
2004	1164	\$ 767,608	\$	1,289,131	\$	1,578,936	\$	1,846,497	\$	1,452,477
2005	1100	\$ 765,938	\$	1,349,554	\$	1,632,629	\$	1,872,871	\$	1,525,665
2006	1072	\$ 782,793	\$	1,564,834	\$	1,788,262	\$	2,100,176	\$	1,728,842
2007	626	\$ 1,051,845	\$	1,832,501	\$	1,995,746	\$	2,353,294	\$	1,960,395
2008	1119	\$ 1,404,910	\$	1,890,073	\$	2,294,959	\$	2,502,988	\$	2,178,960
2009	1066	\$ 1,281,051	\$	2,012,150	\$	2,330,023	\$	2,627,560	\$	2,256,497

Source: Illinois FBFM

**Table A.6 Average Total Asset Value, FBFM Sole Proprietorship Grain Farms, 2003-2009**

Year	n	34 & Younger		35-49		50-64		65 & Older		All Ages
		Age Group		Age Group		Age Group		Age Group		
2003	883	\$ 670,037	\$	1,119,423	\$	1,464,031	\$	1,498,375	\$	1,282,018
2004	978	\$ 728,512	\$	1,293,041	\$	1,540,204	\$	1,776,514	\$	1,432,470
2005	945	\$ 810,388	\$	1,326,699	\$	1,618,292	\$	1,831,564	\$	1,511,410
2006	940	\$ 688,927	\$	1,531,125	\$	1,791,858	\$	2,045,739	\$	1,709,135
2007	539	\$ 1,055,345	\$	1,843,819	\$	2,025,054	\$	2,329,317	\$	1,983,081
2008	980	\$ 1,483,178	\$	1,902,043	\$	2,331,279	\$	2,449,254	\$	2,201,357
2009	922	\$ 1,344,520	\$	2,008,024	\$	2,332,483	\$	2,618,973	\$	2,268,968

Source: Illinois FBFM

**Table A.7 Average Retirement Savings, All FBFM Farms, 2003-2009**

Year	n	34 & Younger Age Group	35-49 Age Group	50-64 Age Group	65 & Older Age Group	All Ages
2003	1048	\$ 13,445	\$ 44,736	\$ 63,658	\$ 63,578	\$ 52,880
2004	1164	\$ 18,807	\$ 47,405	\$ 67,466	\$ 74,366	\$ 57,533
2005	1100	\$ 21,805	\$ 49,636	\$ 74,089	\$ 85,577	\$ 64,372
2006	1072	\$ 18,086	\$ 57,168	\$ 85,252	\$ 89,883	\$ 74,049
2007	626	\$ 16,728	\$ 61,001	\$ 104,543	\$ 59,052	\$ 77,732
2008	1119	\$ 23,577	\$ 45,081	\$ 81,207	\$ 71,225	\$ 67,082
2009	1066	\$ 24,238	\$ 53,726	\$ 95,292	\$ 77,810	\$ 79,104

Source: Illinois FBFM

**Table A.8 Average Retirement Savings, FBFM Sole Proprietorship Grain Farms, 2003-2009**

Year	n	34 & Younger Age Group	35-49 Age Group	50-64 Age Group	65 & Older Age Group	All Ages
2003	883	\$ 15,444	\$ 47,782	\$ 68,473	\$ 64,704	\$ 56,652
2004	978	\$ 19,590	\$ 49,889	\$ 69,716	\$ 82,554	\$ 60,922
2005	945	\$ 22,938	\$ 54,108	\$ 73,845	\$ 95,196	\$ 67,790
2006	940	\$ 19,211	\$ 61,268	\$ 87,035	\$ 93,174	\$ 77,073
2007	539	\$ 20,481	\$ 67,393	\$ 107,680	\$ 60,523	\$ 82,292
2008	980	\$ 24,636	\$ 47,349	\$ 84,326	\$ 74,340	\$ 70,280
2009	922	\$ 23,708	\$ 56,887	\$ 98,504	\$ 80,104	\$ 82,776

Source: Illinois FBFM

**Table A.9 Average Net Worth, All FBFM Farms, 2003-2009**

Year	n	34 & Younger Age Group	35-49 Age Group	50-64 Age Group	65 & Older Age Group	All Ages
2003	1048	\$ 340,223	\$ 721,560	\$ 1,029,212	\$ 1,396,662	\$ 901,932
2004	1164	\$ 411,323	\$ 831,053	\$ 1,122,327	\$ 1,594,152	\$ 1,026,743
2005	1100	\$ 414,646	\$ 871,987	\$ 1,174,812	\$ 1,583,737	\$ 1,088,721
2006	1072	\$ 453,315	\$ 1,016,323	\$ 1,321,659	\$ 1,778,156	\$ 1,261,403
2007	626	\$ 582,994	\$ 1,249,980	\$ 1,515,873	\$ 1,997,517	\$ 1,468,438
2008	1119	\$ 688,357	\$ 1,291,697	\$ 1,736,203	\$ 2,150,546	\$ 1,635,866
2009	1066	\$ 763,833	\$ 1,398,718	\$ 1,729,612	\$ 2,279,648	\$ 1,696,012

Source: Illinois FBFM



**Table A.10 Average Net Worth, FBFM Sole Proprietorship Grain Farms, 2003-2009**

Year	n	34 & Younger Age Group	35-49 Age Group	50-64 Age Group	65 & Older Age Group	All Ages
2003	883	\$ 343,608	\$ 695,239	\$ 1,051,788	\$ 1,254,326	\$ 887,441
2004	978	\$ 392,135	\$ 826,262	\$ 1,097,672	\$ 1,526,896	\$ 1,010,636
2005	945	\$ 448,743	\$ 849,637	\$ 1,163,366	\$ 1,552,744	\$ 1,078,284
2006	940	\$ 357,095	\$ 986,411	\$ 1,325,740	\$ 1,764,213	\$ 1,251,408
2007	539	\$ 566,732	\$ 1,262,112	\$ 1,532,716	\$ 1,967,557	\$ 1,486,105
2008	980	\$ 726,465	\$ 1,282,660	\$ 1,775,930	\$ 2,092,868	\$ 1,653,933
2009	922	\$ 796,528	\$ 1,404,837	\$ 1,741,277	\$ 2,263,529	\$ 1,715,866

Source: Illinois FBFM

**Table A.11 Average Net Farm Income, All FBFM Farms, 2003-2009**

Year	n	34 & Younger Age Group	35-49 Age Group	50-64 Age Group	65 & Older Age Group	All Ages
2003	1048	\$ 64,426	\$ 72,736	\$ 69,556	\$ 52,480	\$ 68,811
2004	1164	\$ 90,981	\$ 109,937	\$ 95,411	\$ 65,750	\$ 97,521
2005	1100	\$ 50,314	\$ 62,660	\$ 58,220	\$ 39,840	\$ 56,965
2006	1072	\$ 68,482	\$ 106,549	\$ 101,910	\$ 79,886	\$ 98,897
2007	626	\$ 143,953	\$ 115,479	\$ 106,388	\$ 133,607	\$ 116,019
2008	1119	\$ 179,141	\$ 212,501	\$ 218,853	\$ 150,724	\$ 204,866
2009	1066	\$ 56,352	\$ 85,254	\$ 77,716	\$ 68,886	\$ 77,485

Source: Illinois FBFM

**Table A.12 Average Net Farm Income, FBFM Sole Proprietorship Grain Farms, 2003-2009**

Year	n	34 & Younger Age Group	35-49 Age Group	50-64 Age Group	65 & Older Age Group	All Ages
2003	883	\$ 72,247	\$ 73,547	\$ 70,507	\$ 43,844	\$ 68,829
2004	978	\$ 91,195	\$ 102,126	\$ 90,635	\$ 60,924	\$ 91,444
2005	945	\$ 57,707	\$ 59,739	\$ 55,131	\$ 40,026	\$ 54,670
2006	940	\$ 64,761	\$ 104,254	\$ 103,468	\$ 79,982	\$ 98,560
2007	539	\$ 128,076	\$ 117,475	\$ 101,619	\$ 121,419	\$ 111,520
2008	980	\$ 186,318	\$ 222,346	\$ 233,955	\$ 151,520	\$ 215,404
2009	922	\$ 75,670	\$ 95,393	\$ 82,449	\$ 68,581	\$ 83,070

Source: Illinois FBFM

**Table A.13 Percentage of Farmers by Age Group, All FBFM Farms, 2003-2009**

<b>Year</b>	<b>n</b>	<b>34 &amp; Younger Age Group</b>	<b>35-49 Age Group</b>	<b>50-64 Age Group</b>	<b>65 &amp; Older Age Group</b>
2003	1048	4%	46%	39%	12%
2004	1164	5%	43%	39%	13%
2005	1100	4%	38%	43%	14%
2006	1072	3%	35%	46%	16%
2007	626	5%	34%	44%	18%
2008	1119	3%	29%	51%	16%
2009	1066	4%	26%	54%	16%

Source: Illinois FBFM

**Table A.14 Percentage of Farmers by Age Group, FBFM Sole Proprietorship Grain Farms, 2003-2009**

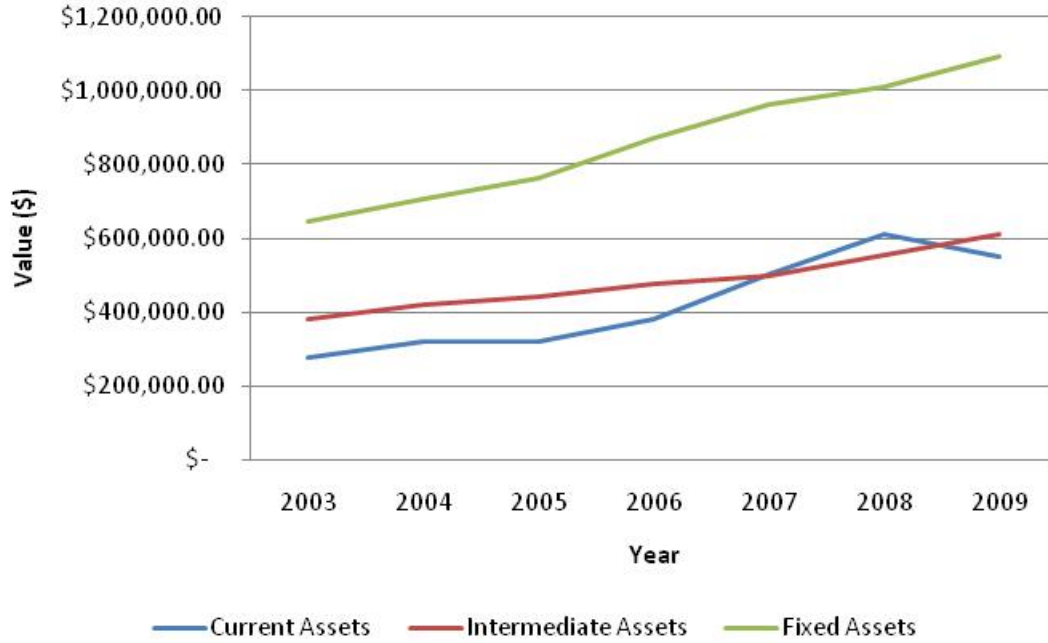
<b>Year</b>	<b>n</b>	<b>34 &amp; Younger Age Group</b>	<b>35-49 Age Group</b>	<b>50-64 Age Group</b>	<b>65 &amp; Older Age Group</b>
2003	883	4%	45%	40%	12%
2004	978	4%	42%	40%	13%
2005	945	4%	37%	44%	15%
2006	940	3%	34%	46%	17%
2007	539	4%	32%	45%	19%
2008	980	4%	28%	52%	17%
2009	922	3%	25%	55%	17%

Source: Illinois FBFM

## APPENDIX B

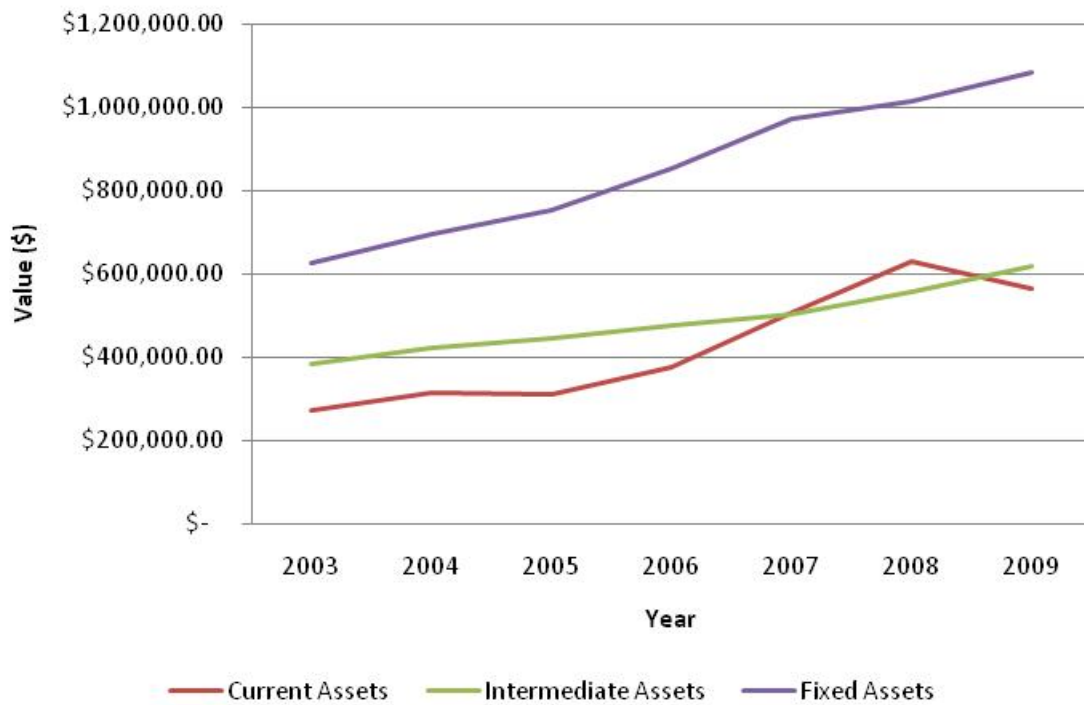
### Figures

Figure B.1 Average Asset Value by Type of Asset, All FBFM Farms, 2003-2009

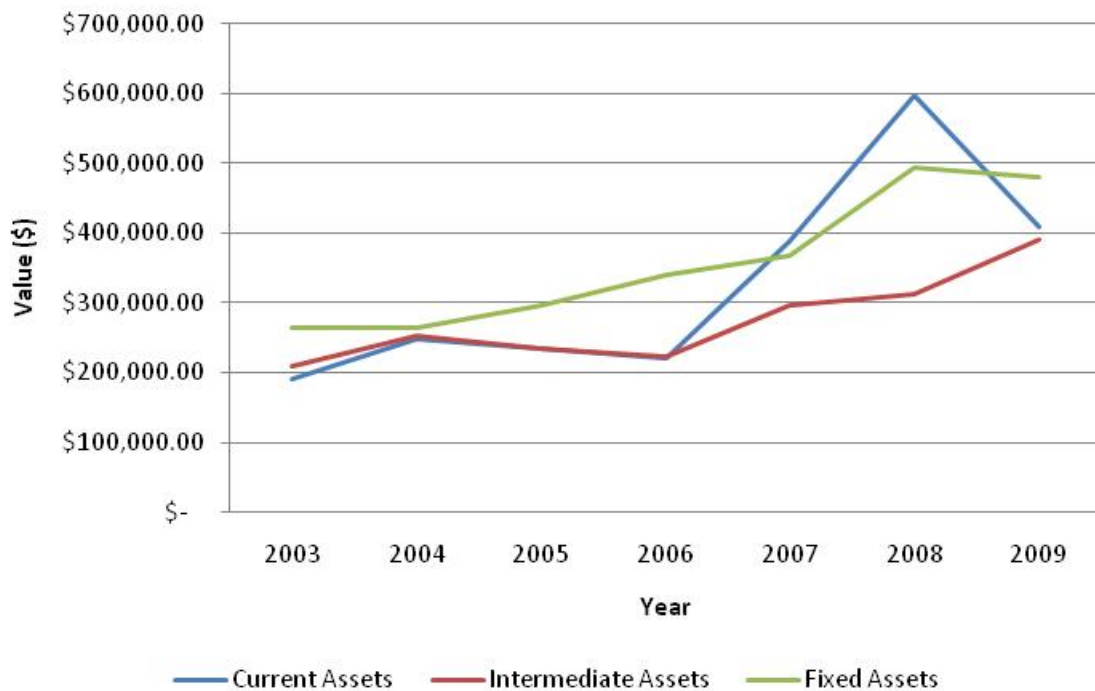


Source: Illinois FBFM

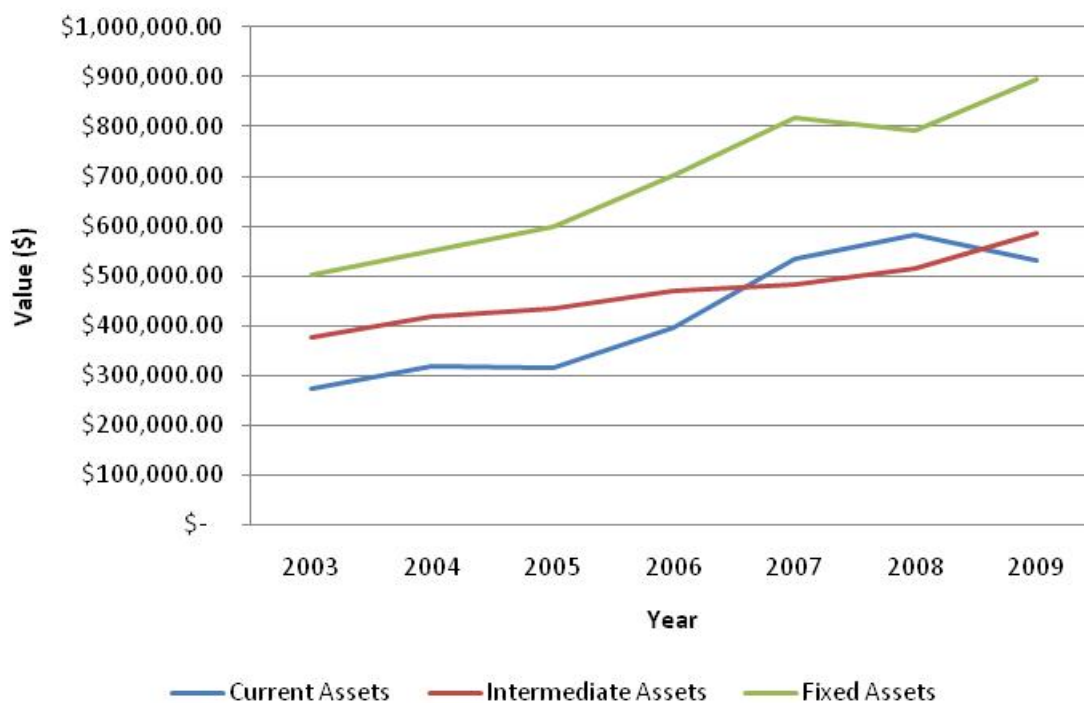
**Figure B.2 Average Asset Value by Type of Asset, FBFM Sole Proprietorship Grain Farms, 2003-2009**



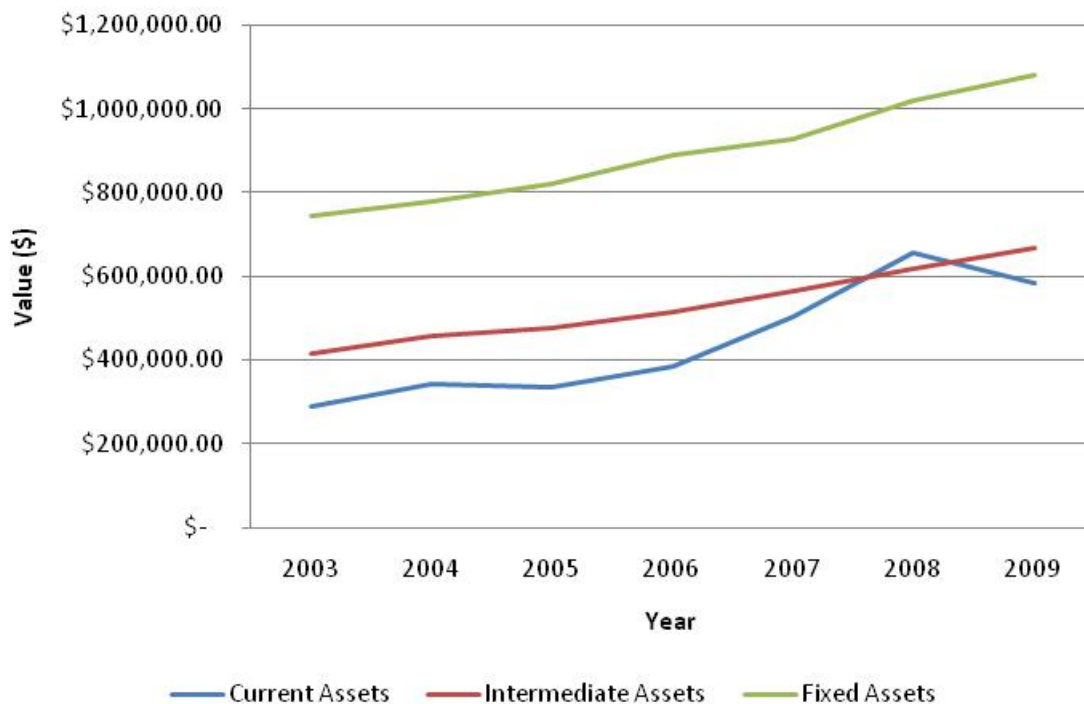
**Figure B.3 Average Asset Value by Type of Asset for 34 & Younger Age Group, All FBFM Farms, 2003-2009**



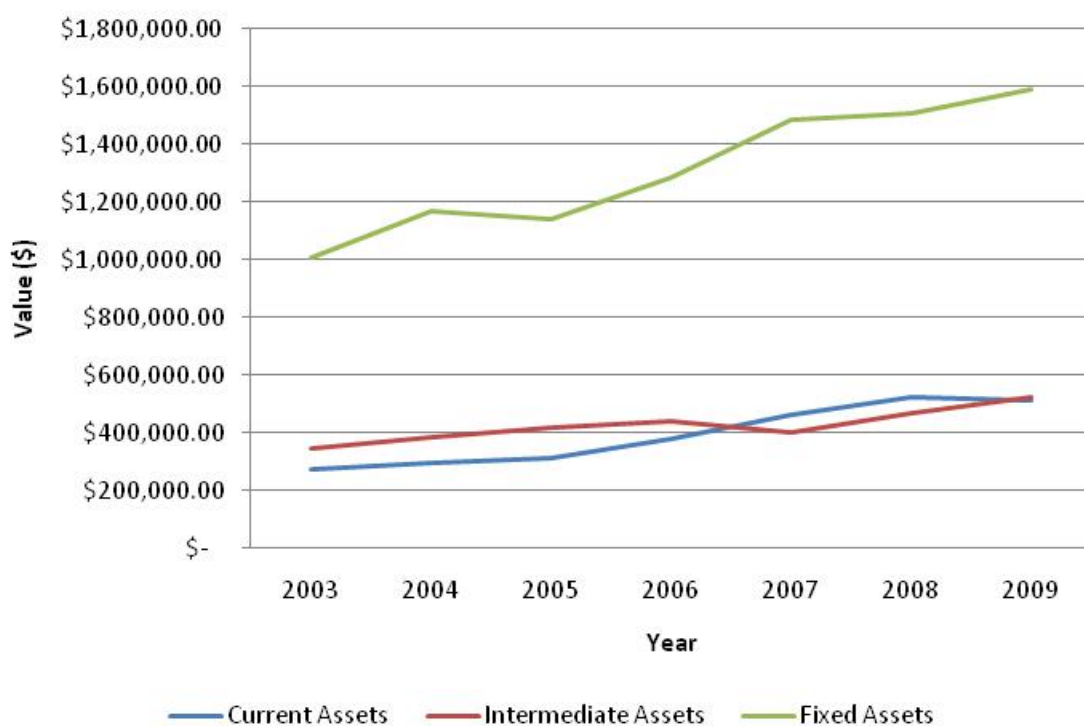
**Figure B.4 Average Asset Value by Type of Asset for 35 to 49 Age Group, All FBFM Farms, 2003-2009**



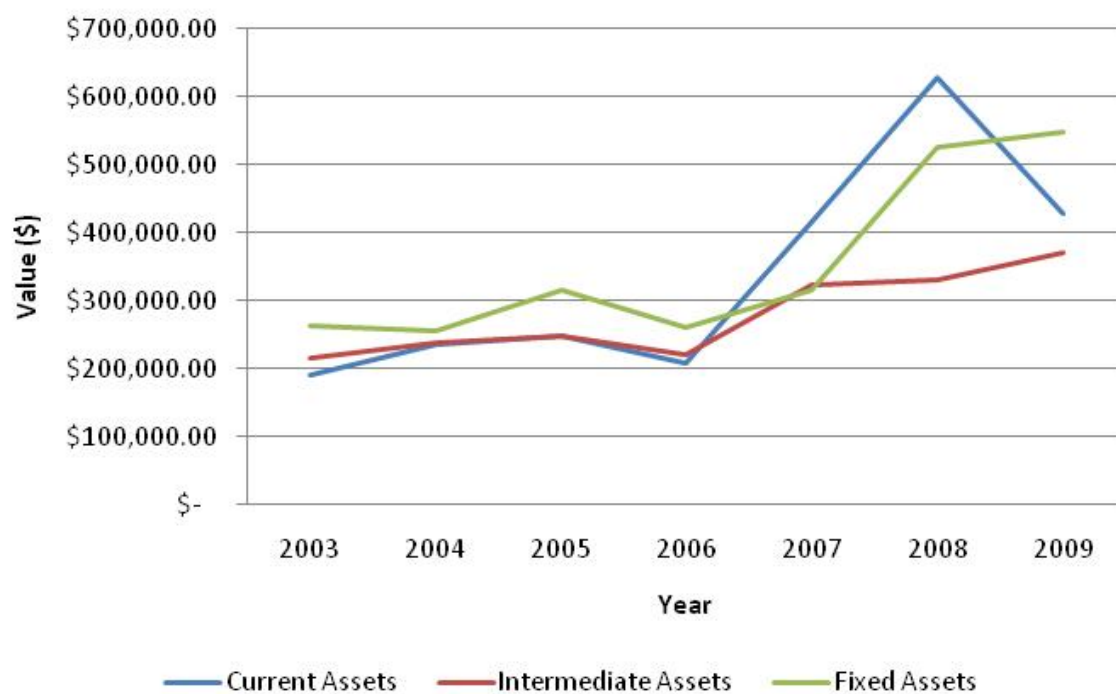
**Figure B.5 Average Asset Value by Type of Asset for 50 to 64 Age Group, All FBFM Farms, 2003-2009**



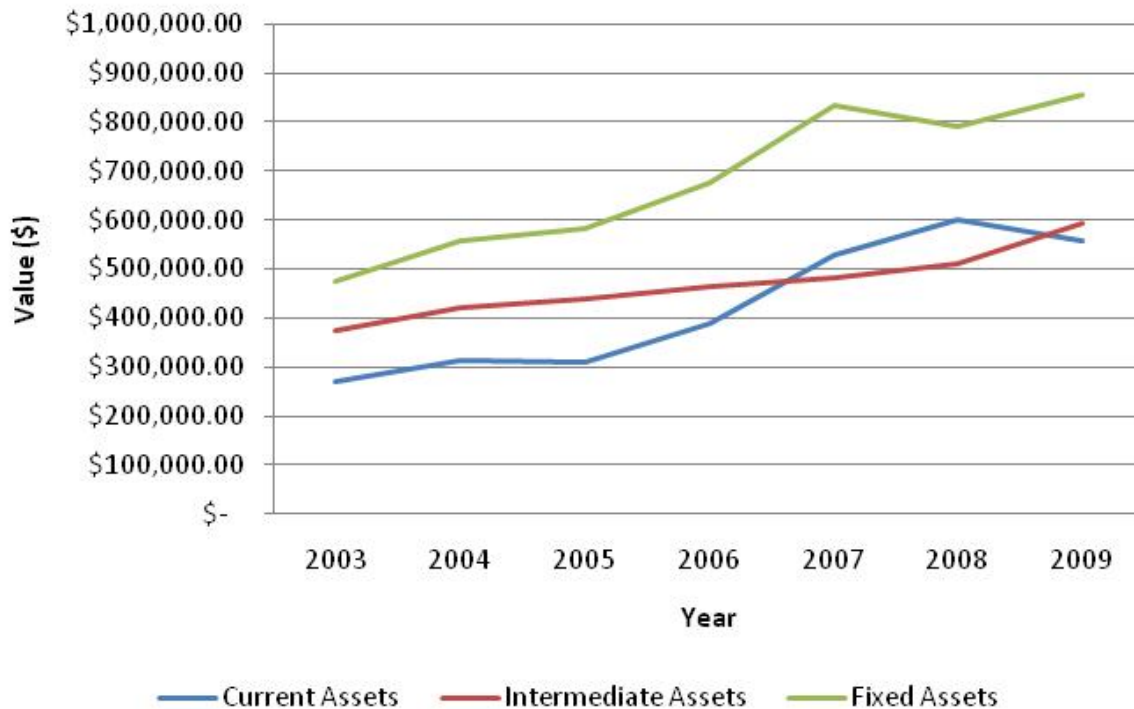
**Figure B.6 Average Asset Value by Type of Asset for 65 and Older Age Group, All FBFM Farms, 2003-2009**



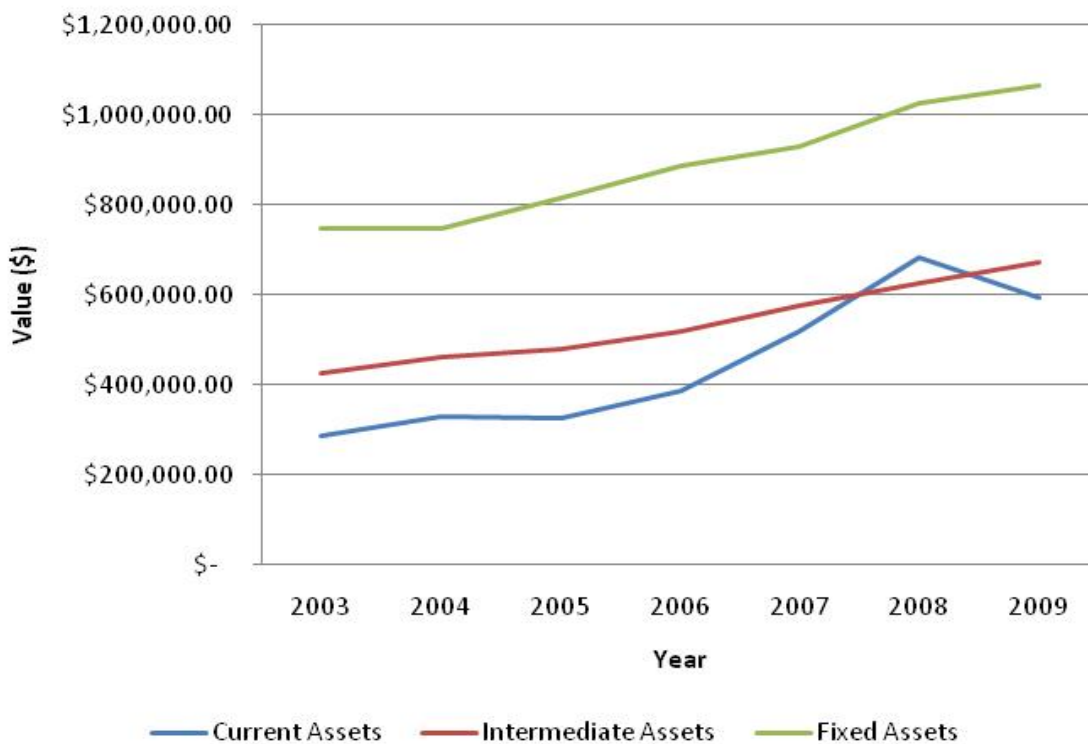
**Figure B.7 Average Asset Value by Type of Asset for 34 and Younger Age Group, FBFM Sole Proprietorship Grain Farms, 2003-2009**



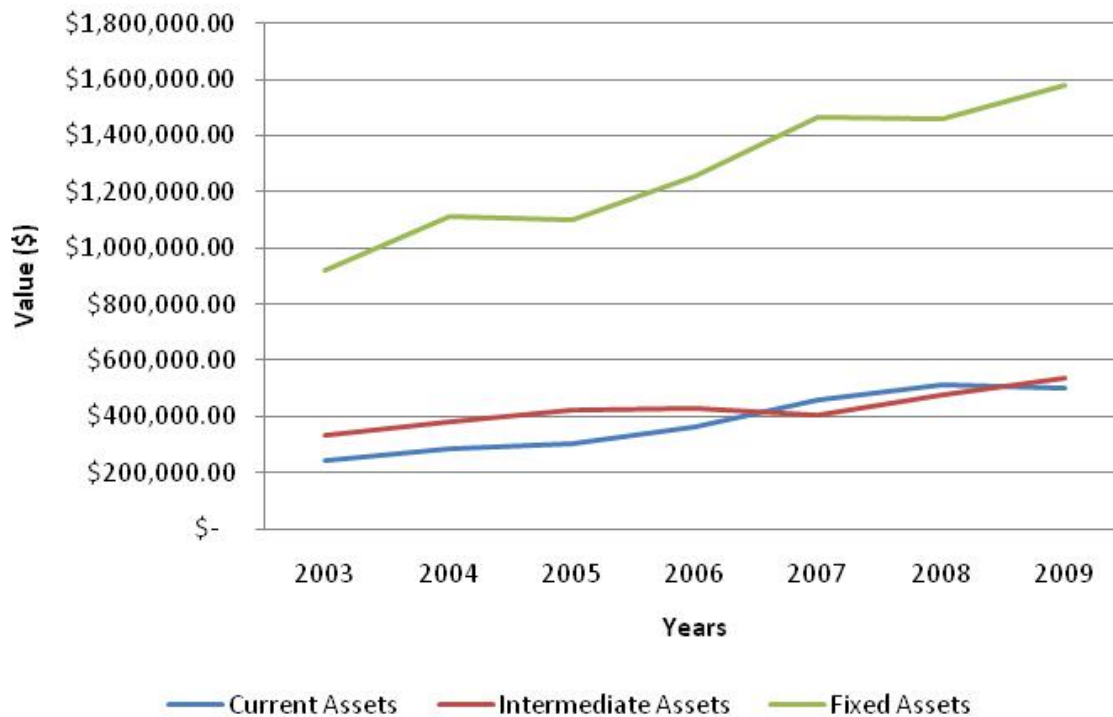
**Figure B.8 Average Asset Value by Type of Asset for 35 to 49 Age Group, FBFM Sole Proprietorship Grain Farms, 2003-2009**



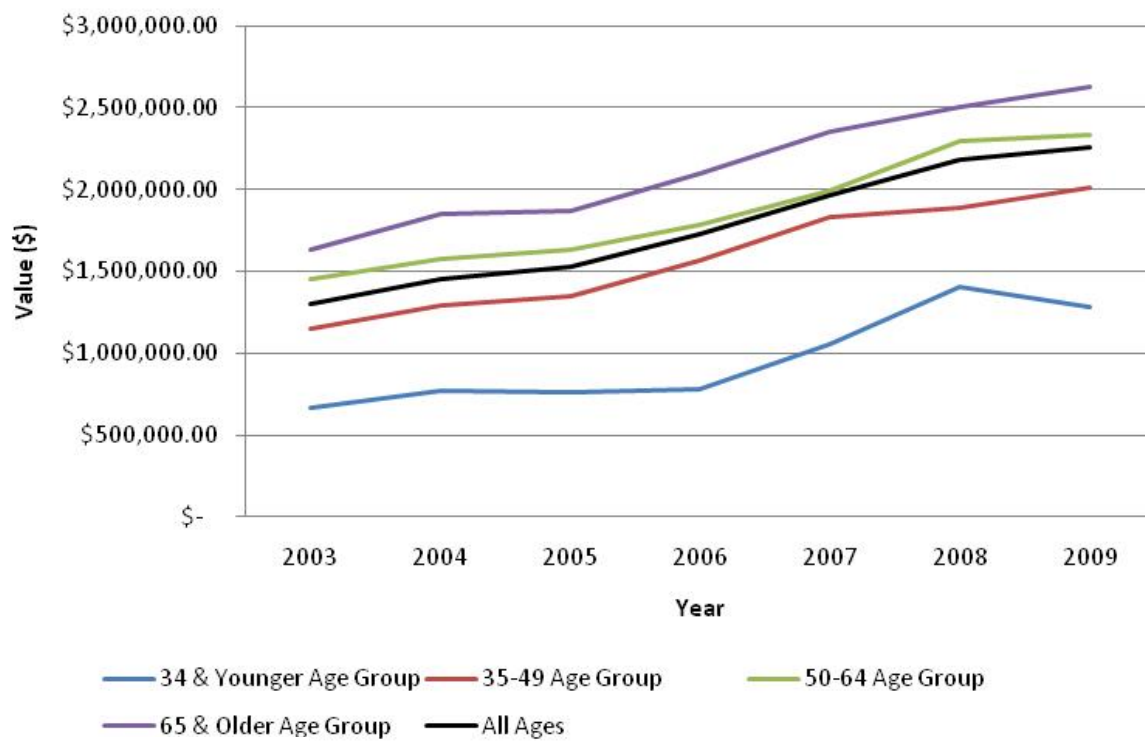
**Figure B.9 Average Asset Value by Type of Asset for 50 to 64 Age Group, FBFM Sole Proprietorship Grain Farms, 2003-2009**



**Figure B.10 Average Asset Value by Type of Asset for 65 and Older Age Group, FBFM Sole Proprietorship Grain Farms, 2003-2009**

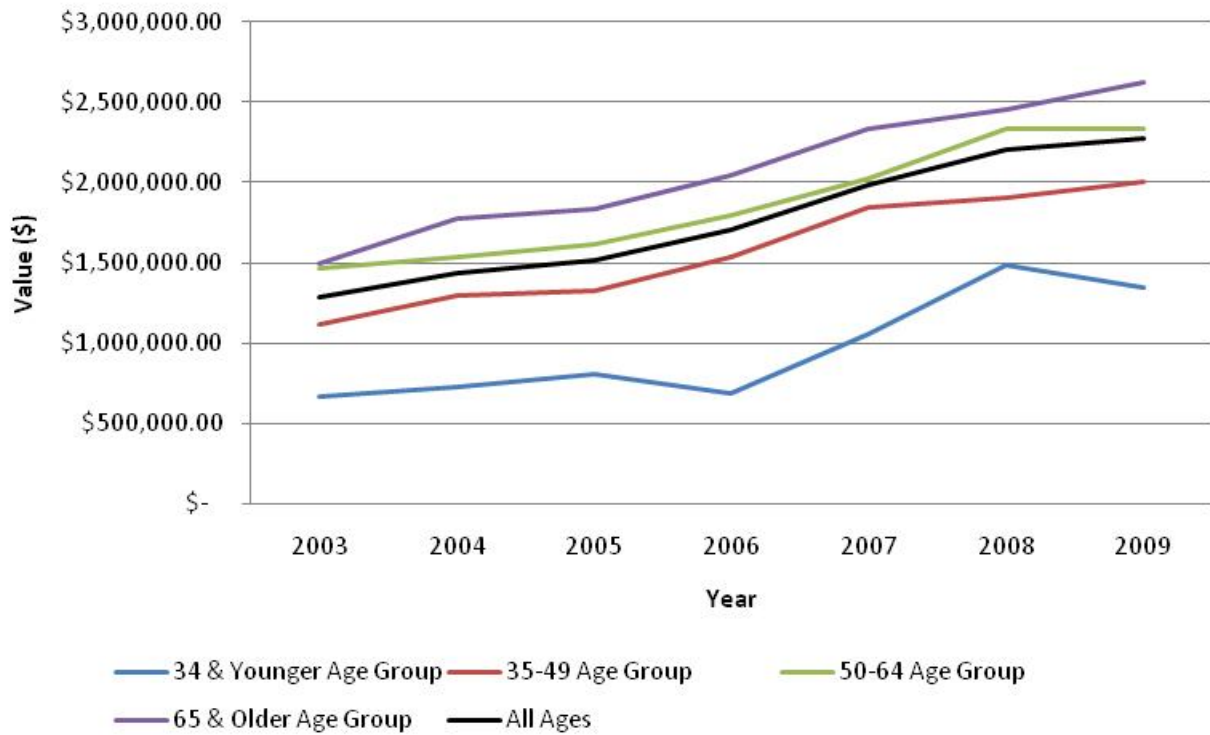


**Figure B.11 Average Total Asset Value, All FBFM Farms, 2003-2009**





**Figure B.12 Average Total Asset Value, FBFM Sole Proprietorship Grain Farms, 2003-2009**



## **APPENDIX C**

### **Succession Planning Microsoft Excel Tool**

The Microsoft Excel succession planning tool developed in conjunction with this research and presented in this thesis may be found in a supplemental file named **succession.xlsm**.

## GLOSSARY OF TERMS

**Basis-** the original purchase price of an asset less depreciation, improvements, and other previous tax deductions

**Book value-** the current value of an asset on a company's balance sheet according to its accounting conventions

**Business entity/organization** - the administrative, legal, and financial form a business takes based on desired management style; tax, transition, estate, liability, etc. objectives; and financing preferences

**Business plan-** an analysis of how the business operates to identify ways to improve the strength of the business through the reduction of weaknesses and growth in potential areas of competition and opportunity

**Buy/sell agreement-** a formal agreement facilitating ownership transfer based on triggering events; obligates business owner to buy all or a portion of the business upon the retirement, death, or disability of another owner

**Capital gains tax-** tax on the increase in value of an asset when an asset's selling price less its basis is greater than its original purchase price

**Corporation-** business that can be classified as a C corporation or an S corporation and is a separate legal entity incorporated under state law that keeps the business distinctly separate from the owners

**Discounting-** amount deducted from the selling price of a partial interest in an asset because it cannot be resold easily or because it represents a minority interest in the business

**Estate exclusion-** the maximum estate value exempt from estate tax; federal and state exclusion amounts may differ

**Estate plan-** strategy to transfer and distribute assets and business interests efficiently while minimizing estate taxes after death

**Estate tax-** the transfer tax that the government assesses on a person's right to transfer assets at the time of death; applies to taxable estates worth more than the applicable exclusion

**Fair market value-** the amount that a purchaser may pay for an asset from a seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of the facts

**Fair vs. equal concept-** the concept that all heirs should not be treated equally when considering division of business ownership and business assets due to differences in vested interests in the business, preferences in investment returns, and business continuity concerns

**Family limited partnership**- limited partnership in which partners must be family members

**Family security trust/bypass trust/family trust/credit shelter trust/exclusion trust/AB trust**- used by married couples at the first death for asset protection, probate avoidance, estate tax savings, financial management, controlled and deferred distribution of income and principal

**General partnership**- separate legal entity created by two or more people in which money and property are transferred to the partnership and liability is shared equally among all partners

**Gift tax**- a transfer tax that is assessed by the government when the value of a gift exceeds both the annual gift tax exclusion and the applicable gift tax exclusion amount

**Income tax**- annual charge on earned and unearned income

**Irrevocable life insurance trust**- used to hold life insurance policies so that life insurance proceeds payable on death will not be part of probate estate or subject to estate taxes

**Irrevocable trust**- a trust that cannot be terminated or modified by the grantor

**Joint tenancy**- two or more owners have separate but undivided interests in property; owners have rights of survivorship and interest is distributed equally to other owners upon the death of an owner; if one joint tenant sells their interest, the new owner becomes a tenant in common with the other owners

**Life insurance (as a tool)**- can be purchased to leave non-business asset inheritance to inactive heirs or to fund buyout of inactive heirs if business is left equally to all heirs

**Limited liability company (LLC)**- business entity for liability protection created under state law by two or more people; requires articles of organization, an operating agreement, and a definite length of time that the business will exist; owners may choose whether the LLC will be taxed as a partnership or corporation

**Limited partnership**- partnership which provides division of ownership and management through creation of general voting partners and limited non-voting partners, which have no control in the partnership but do have limited liability

**Mission statement**- a current outline of the basic purpose of the business and summary of what is done, who it is done for, and how the business conducts itself

**Option agreement**- contract between parties that allows one the right but not the obligation to buy or sell an asset sometime in the future

**Pour over trust**- a revocable trust commonly used to plan for incapacity; funds may be used to assist the trustee and may be distributed to beneficiaries should the trustee become incapacitated; trust terminates at the death of the donor/trustee and assets go back to the estate and must go through probate

**Pour over will-** document used with a living trust to transfer assets into the trust at the death of the owner

**Private annuities/self-cancelling installment notes-** asset is sold to successor, which removes it from the estate, and the note (or annuity) is canceled at the death of the out-transfer generation so the replacing asset (note/annuity) is effectively removed from the estate

**Probate-** a court proceeding in which the court reviews a will, assets are inventoried, notice is published inviting creditors to make claims, legitimate creditors are paid, and the balance is distributed to the persons named in the will

**Retirement plan-** strategy for out-transfer generation to meet financial needs based on projected living expenses, length of life, and retirement goals such as travel or a new business venture

**Return on assets-** measure of the profitability of a business; net farm income less interest expense less the value of operator labor and management, divided by the farm asset base

**Return on equity-** measure of the wealth of a business; net farm income less the value of operator labor and management, divided by the farm equity

**Revocable trust-** a trust that can be terminated or modified by the grantor

**Sole proprietorship-** business owned and controlled by one person; limited to the life of the owner and the individual is liable for all debts and obligations

**Special land use/IRC Sec. 2032A valuation-** used to value farmland as farmland, usually establishing a productive value that is less than the fair market value

**Succession/transition-** systematic transfer of labor, income, ownership and management to business successor while ensuring that the business has the resources to continue for multiple generations

**Tenancy in common-** two or more owners have separate but undivided interest in property; ownership interests do not have to be equal and can be transferred to another person

**Testamentary trust-** a trust that becomes effective upon death, the provisions of which are usually contained in a will

**Trust-** created when one holds property for the benefit of another and specifies the powers and duties of the trustee, the rights of the beneficiaries, and any rights retained by the grantor; used for such purposes as providing support for spouses and children, protecting assets from creditors, and avoiding probate

**Vision statement-** a long-term expression of the goals for the future of a business often reflecting core values and characteristics of the business

**Will-** a document that transfers property at a person's death to designated persons; becomes effective only upon the death of its maker and affects only property owned by a person at his or her death that does not transfer automatically to another

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