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Theme Overview: Transitions in Agriculture

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JEL Classifications: N25, Q12, Q14, Q15, Q18, J26
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Farmers, policy makers, researchers, and extension educators have long noted the growing concentration of agricultural land ownership among older landowners. Increasingly, those landowners may not live on the farm, or even in the same community or state, as the farm. At the same time, the barriers faced by beginning farmers continue to draw attention. Taken together, these issues raise a number of concerns as rising demand for agricultural commodities indicates our industry needs "all hands on deck."

Our agricultural institutions have grappled with the issues of farm succession and beginning farmer barriers for some time, generating a number of legislative and programming responses. Many of these responses treated the issues as completely separate. Some programs sought to integrate approaches by trying to match exiting and beginning operators or by providing incentives for exiting producers to lease land to beginners. Lessons learned from both integrated and non-integrated approaches illuminated the need to address these farm life-cycle issues from a holistic view.

With this perspective in mind, the U.S. Department of Agriculture Economic Research Service and Oklahoma State University collaborated to organize a meeting of agricultural professionals from a broad range of institutions to examine the transitions issue from a number of angles and to identify priorities for research and data collection to best inform the future decisions of agricultural decision-makers. Held in Washington, D.C., on March 20 and 21, 2013, the "Transitions in Agriculture" conference brought together over 50 professionals from government, universities, public and private sector lenders, and farm organizations. A number of these delegates presented information about some of the unique challenges of agricultural transition from their own personal and professional experiences, followed by roundtable discussions of how to draw on these experiences. As a result, a broad array of new research questions emerged and ideas for new policies and programs sprang forth.

The conference organizers wanted to sustain and broaden the transitions conversation. Thus, we hope this theme issue of *Choices* will draw the reader into that very conversation. A number of presenters at the conference have been invited to share their insights with you in this issue.

Our issue begins with Derrell Peel, Damona Doye, and Mary Ahearn examining the drivers of agricultural

Articles in this Theme:

transition. The future structure of America's agriculture industry will be shaped not only by demographic trends, but by a changing global marketplace. The authors examine how these forces are creating an environment where creative and holistic approaches to farm transitions will be critical.

"Transitions in Agriculture" implies that as one generation exits the farm operation, another will come to take its place. In our second article, Joy Kirkpatrick explores that implication. Are our farm operators willing, or indeed able, to leave the operation while they are alive, or are farm transitions events that can only take place after the founding generation has passed away?

Assuming a founding generation wants to gradually shift operation of the farm to the next generation before that passage, does our current policy and legal environment provide them the means to do so? Shannon Ferrell, Rodney Jones, and Michael Boehlje examine the tools currently available for transitioning the farm to the next generation in our third article.

An important part of the founding, growth, maintenance, and transition of any business is its tax environment. In our fourth article, James Williamson looks at the tax code and the implications some current reform proposals could have on the farm tax burden, and, indeed, on the farm life-cycle.

Having covered several issues relevant to those exiting agriculture, we turn our attention to the barriers confronting those looking to enter it. Nathan Kauffman reviews the impacts of the "Great Recession" on credit markets, the challenges of beginning farmers in securing credit, and the possible effects these credit conditions may have on the "buy or lease" decision faced by beginning farmers.

Finally, any discussion of transition issues would be incomplete without examining the social and cultural forces that shape our farms and the rural communities they form. In our last article, Shoshanah Inwood explains the importance of farmers' demographic and cultural backgrounds in how they view transition decisions. She also reviews how personal life-cycle issues such as access to child care and healthcare drive these business life-cycle decisions.

Our hope is that you will examine these authors' work and join us in our discussion on how we can create policies and programs that can facilitate the transition of our farms to the next generation while supporting the development of our rural communities and keeping our industry at peak efficiency as we strive to meet the food, fiber, and fuel needs of a growing world.

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Drivers of Agricultural Transition

Derrell Peel, Damona Doye, and Mary Ahearn

JEL Classifications: Q12, Q15, Q18
Keywords: Agricultural Policy, Assets, Beginning Farmers, Entry/Exit, Farmland, Markets, Transitions

The United Nations estimates that today's population of 7 billion will increase to 8 billion by the year 2025 and further increase to 9 billion by the year 2043 (United Nations, 2011). Feeding the growing world population remains a major challenge for governments and governmental institutions. Half of the U.S. land area of 2.3 billion acres is currently in agricultural uses (e.g., cropland, pasture, and rangeland) and agricultural land use is expected to change little over time. U.S. agriculture currently accounts for 8% of the world's exports and is vital to meeting the challenges of a nearly 30% increase in population in the next three decades. Consequently, the transition of U.S. agriculture into the future remains an important public policy issue (Executive Office of the President, 2012).

Major features of U.S. agriculture for at least the past six decades have been rising productivity and an increase in the concentration of production on a relatively small share of farms. In 2007, 32,886 farms, or 1.5%, accounted for half of the production on the 2.2 million U.S. farms (U.S. Department of Agriculture (USDA), National Agricultural Statistics Service (NASS), 2009), driven, in part, by economies of size. As one indicator of their efficiency, farms produced half of this product on only 10% of the land in operation (USDA, NASS, 2009). The number of U.S. farms began declining in 1936, but has stabilized since 1978. The stabilization of farm numbers comes from increases in the number of the very smallest farms, as the number of mid-sized farms continues to decline. Currently, 60% of farms have sales under $10,000.

Because food is such a basic human need, many individuals and groups are invested in and concerned about our agricultural and food systems. For example, over the past decade, groups that have become more vocal are those less concerned with feeding the growing world population in an efficient manner and more concerned with producing agricultural commodities in the context of other objectives, such as animal welfare, food safety, and minimizing adverse environmental impacts. How these multiple objectives trade off with production objectives and develop with time will help to determine U.S. agriculture's transition into the future.

In light of the multiple objectives associated with contemporary agriculture, it is very difficult to predict how many farmers and ranchers our country might need or have in the future. Global as well as domestic agricultural supply and demand forces will play major roles in shaping the structure of agriculture, as will public policy choices. However, it is also important to keep in mind the preferences and choices of the many individuals engaged in agriculture—farm families and farmland owners.

Changing U.S. and Global Agricultural Markets

U.S. and global agricultural markets have changed dramatically in recent years. The combination of increased industrial demand for grain along with growing global food demand has led to higher crop and livestock prices, and increased demand and prices for agricultural inputs. Beginning in late 2006, rapid growth in U.S. biofuel production resulted in sharply higher and more volatile crop prices. This new demand for corn, combined with a backdrop of accelerating global food demand, has resulted in dramatic price increases from the 2005 crop year to the 2011 crop

year for all major crops including corn (up 210%) and grain sorghum (up 228%); to wheat (up 111%), soybeans (up 119%), barley (up 111%), and oats (up 114%); to rice (up 84%), cotton (up 91%), and alfalfa hay (up 88%). Many crop producers have experienced profitability despite the fact that input prices have also jumped sharply with big increases in fuel, fertilizer, and other input prices.

Livestock industries have endured enormous shocks to adjust to feed prices that are double to triple historical levels. These shocks spawned adjustments in the beef, pork, dairy, and poultry industries that continue to this day and have precipitated long-term structural change in the beef and perhaps other livestock sectors that will take many years to complete. The increased competition for crop production not only results in reallocation of land among crops (corn acreage has increased over 20% since 2006, while most other crops are down in acreage), but is also inducing regional shifts of pasture and hay production out of major cropping areas of the Midwest and surrounding regions. The result is a measurable shift of beef cattle production out of the Midwest and into rangeland and more marginal cropland areas in the Great Plains and West.

The dramatic increase in crop prices is being reflected in increased cropland rental rates and land values. The jump in land values is most pronounced and widespread in the Midwest, which is the epicenter of increased crop production, but is spreading to other regions of the country and will eventually affect all agricultural land, including rangeland in the western United States.

Several factors from the previous discussion are important to the question of agricultural producer transition. First, the new higher plateau for agricultural product values appears to be permanent. While drought and a number of other short-term factors are part of the current agricultural market situation, the increased food and industrial demands for agricultural products are fundamental and permanent. U.S. agriculture evolved over the last 60 years in an environment of cheap energy that deeply affected the structure and function of agriculture. Agriculture in the future will adjust to operate in a higher energy cost climate that is significantly different from the past. While biofuel demand has been the catalyst of change in the past few years and will continue to be part of the agricultural market landscape, it is likely that growing global food demand will be more important in the long run. Emerging economic power and population growth in several developing countries, but especially China and India, will likely ensure that agricultural product values will remain elevated.

Increased volatility of product and input prices and the associated risk is the second major factor that makes future agricultural markets fundamentally different from the past. Resource demands from emerging economies will not only keep agricultural product values high but will also continue to push up input values as long as global incomes are increasing. Energy, fertilizer, feed, and other agricultural inputs will be increasingly demanded in global markets. While expanding global agricultural markets and high product values represent new opportunities, the associated risk implies new challenges for agricultural producers and the need for new approaches to business. Agricultural markets are increasingly subject to more shocks from external macroeconomic and global market factors compared to the past where internal market fundamentals were the biggest drivers of product prices. Many older agricultural producers, recognizing both the opportunities and challenges of this changing global market environment, may be unable or unwilling to make the managerial and business changes necessary to continue production.

Decisions by Farm Families

The most basic decisions about transition, of course, are made by individual farm families—including both business and family decisions, often inter-related. Decisions about entry, expanding or shrinking operations, and whether or how to pass on the business or farm assets (including farmland) led to our current industry structure. Likewise, how the older generation plans for income for the surviving spouse and inheritances for off-farm children impacts asset ownership and use. Not unlike the general population, farm family structures are changing as are income needs in retirement for health care. At the same time, individual farm viability is threatened by age-old challenges such as death, disease, disability, or divorce of a principal operator.

The life-cycle of a farm business is closely linked to the life-cycle of the farm operators. It is widely recognized that farmers are an aging population. More than 30% of principal farm operators are age 65 or older. The average age of operators has been greater than 50 since at least the 1974 Census of Agriculture, and in 2011, was 58. In some regions of the country and in some types of agricultural production, these demographic trends are much more pronounced. For example, the proportion of older producers is higher in the South and West and among beef cattle producers. As farmers choose to remain actively farming longer, the succession issue may be exacerbated as opportunities for direct heirs may be limited; generation-skipping could become more prevalent. In some cases, no family successor is apparent and finding an interested party, particularly one with farm experience, is a challenge. Likewise, generating income sufficient for both parties to enjoy a certain lifestyle from the beginning of the transfer can be problematic.

Table 1: Characteristics of principal farm operator households, by age of principal operator, 2011

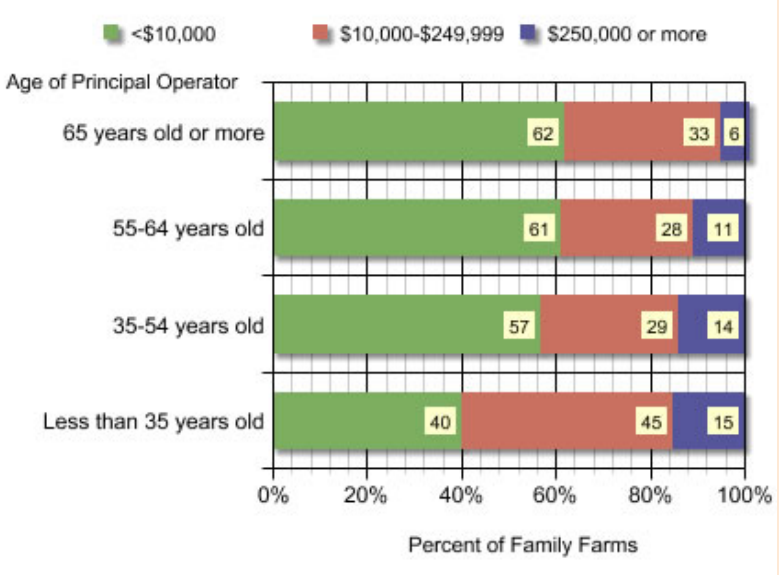
Item	Age of principal operator				
	Less than 35 years old	35-54 years old	55-64 years old	65 years old or more	All
Number of family farms	83,741	667,208	683,845	679,874	2,114,668
Percent of family farms	4	32	32	32	100
Average age, principal operator	30	47	59	73	58
Percent of principal operators retired from farming	2	4	11	38	17
Percent of total value of production	6	41	35	18	100
Average farm size (operated acres)	390	422	397	332	384
Percent of acres	4	35	33	28	100
			Percent		
Share of beginning farms	76	33	17	8	22
Farm household finances			*Dollars*		
Farm income, average	16,426	16,608	18,816	8,237	14,623
Off-farm income, average	51,503	83,352	75,736	61,696	72,665
Total income, average	67,929	99,959	94,552	69,933	87,289
Total income, median	56,310	70,186	59,602	43,610	57,050
Net worth, mean	527,969	857,296	1,140,142	1,092,453	1,011,326
Net worth, median	263,558	491,932	663,914	675,990	597,767

Source: 2011 USDA Agricultural Resource Management Survey.

Only 4% of farm operators are under 35 years and they account for 6% of production on U.S. family farms. While a small share of the total farms, young operators are more likely than older operators to operate large farms—15% of young operators had farms that grossed $250,000 or more in 2011. This is in contrast to the 32% of senior farmers (65 years old or more) who accounted for 18% of production and only 6% of farms that grossed $250,000 or more in 2011. The senior-operated farms had half of the farm income, on average, of the young farmers but more than double the net worth.

Most agricultural producers place a very high value on owning the assets they use for production. Indeed, asset ownership is very often viewed as a principal measure of success for farmers and their peers and is reflected in the high net worth of senior farmers.

Figure 1: Size of Farm (Measured as Gross Sales) by Age of Principal Operator of Family Farms, 2011



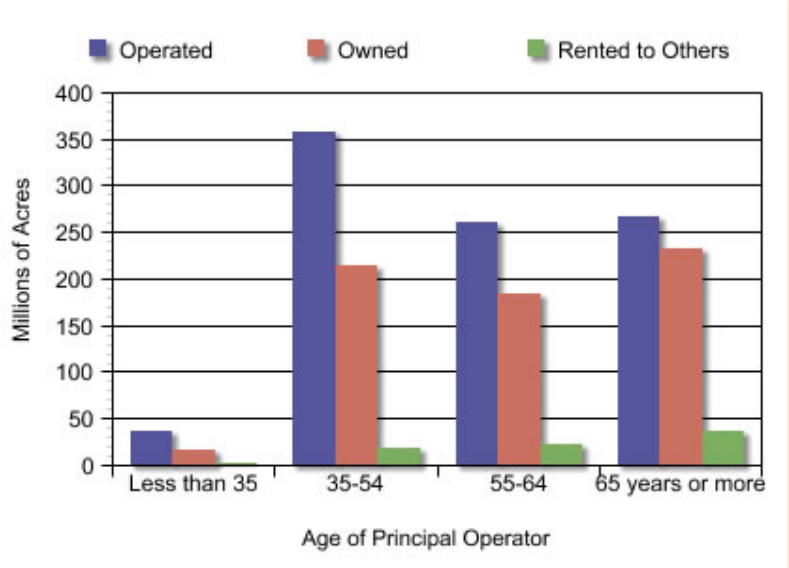
Source: United States Department of Agriculture, Economic Research Service, 2011 Agricultural Resource Management Survey

However, the drive to own assets can be counterproductive in generating cash returns. According to the 2007 Census of Agriculture, there were 922 million acres of land in farms, and farm operators owned 646 million of those acres. The population of senior farmers owned 36% of the farmland owned by operators. But rents on pastureland, for instance, provide relatively low cash returns on investment, limiting potential retirement income. For beginning operators, too, the cultural preference for asset ownership can be limiting. While common in some enterprises or geographic regions, leasing or custom farming is not the preferred mode of entry, even if it offers the beginning operator better cash flow prospects and risk-sharing opportunities.

A successful farming career can result in a barrier to exit in senior years. Farmers often find that, having spent a lifetime accumulating wealth in agricultural assets, it is difficult and costly to withdraw equity or to provide for succession to heirs. These farmland owners currently have few financial incentives to transfer the control of their farmland to others who may be interested in actively farming the land, such as new entrants into farming or established farmers who may be interested in expanding their operations. Market uncertainties, as well as the tax and legal uncertainties and complexities, have compounded senior farmers' challenges in developing their succession plans. Moreover, since 2008, farming investments have been very lucrative in most regions, compared to nonfarm investment options. For example, while the median net worth of U.S. families declined by nearly 40% from 2007-2010 (Bricker et al., 2012), farm net worth was at record levels (USDA, 2013).

Another reason for the advanced age structure of farmers is the farm's status as the family home. Agriculture is a way of life for many producers and, very often, the thought of leaving the farm or ranch is not even a consideration. Nearly 20% of farm operators report they are retired, even while they continue to farm, albeit at reduced levels of production in many cases. Farmers often abhor the thought of having neighbors right next door but are nevertheless strongly attached to close knit, if widely spaced, rural communities. Living anywhere else and doing anything else is unthinkable for many farmers. For them, the challenge of separating the home and lifestyle from the business is very great indeed.

Figure 2: Acres Operated, Owned, and Rented to Others, by Age of Principal Operator, 2007



Source: United States Department of Agriculture, National Agricultural Statistics Service, 2007 Census of Agriculture

History of Piecemeal Policies, Research, and Education

For eight decades, government policies have been focused on the performance of the agricultural sector—supporting incomes, managing the volatility in supply, and otherwise offering protection from the various risks of agriculture, as well as reducing agriculture's environmental impacts. Other policies have addressed tax and legal issues to foster agricultural performance. Collectively, though, these policies have generally not provided incentives for senior farmers to transition out of agriculture and may have even provided incentives to hold assets. Similarly, economic research has focused on narrow aspects of the transition issue, such as measuring economies of size, without considering the linkages to the larger question of the implications of structural change. In addition, the Extension community within the land grant university system has extensive expertise on succession planning, and, more broadly, transition planning, but is focused on advising the farming clientele, rather than drawing public policy implications regarding the larger transition issue. Grants to support beginning farmer educational programs have sometimes focused on encouraging farm ownership, which some would argue is not the most viable means of entry.

Since 1992, the government began targeting loans to beginning farmers and various programs have

been included in farm legislation (Ahearn, 2013). One small, but innovative, program was included in the 2008 farm legislation that recognized the link between entering and exiting farmers: the Conservation Reserve Program (CRP)-Transition Incentive Program, or TIP. The CRP was established in 1985 and provided an opportunity for farmland owners to receive rental payments for maintaining land in conserving uses. Consequently, the program is especially attractive to senior farmers with eligible land who are interested in retiring from full-time production activities. In 2011, principal farm operators who owned land enrolled in the CRP were more likely to be 65 years old or older (44%), compared to the general farmer population. Under the 2008 TIP provisions, retiring farmers are eligible to receive extended rental payments if they sell or rent their land to beginning farmers. The future use of land currently enrolled in the CRP will likely continue to be of interest since the current cap on CRP enrollment of 32 million acres is likely to be reduced. For example, U.S. Senate bill 3240—the Agriculture Reform, Food and Jobs Act of 2012 (reintroduced as S. 954 in 2013) —proposed to reduce the cap on CRP acres to 25 million by 2017, and many producer and processor groups are calling for even lower caps on the program. The National Oilseed Processors Association has called for a 15-million-acre cap. As further evidence of interest in investing in the next generation of farmers and in anticipation of a 2013 Farm Bill, a bipartisan and bicameral bill, the Beginning Farmer and Rancher Opportunity Act, was passed in April 2013 to address the needs of beginning farmers and ranchers (United States Congress, 2013).

Looking to the Future

While structural change appears to move slowly over time according to aggregate statistics, the transition is likely not going to always be smooth, particularly for some farmers in some regions. An example of this is in the Southern Plains in 2011 which experienced a severe drought, forcing significant liquidation of beef cattle. A more widespread drought occurred in 2012, somewhat less severe in the Southern Plains, but causing significant crop losses and some livestock liquidation over a much larger proportion of the country. Successive droughts caused many older beef cattle producers in the Southern Plains to sell their herds, thus forcing a decision that was looming large for many in the near future even in the absence of a drought. While livestock were sold, land typically was not.

Shifts in land ownership, possibly to nonfarm investors (Kauffman and Akers, 2012), are likely to be extensive in the next decade as senior operators (65 years or older) who operate nearly 270 million acres, or 30% of land in farms, transition out of agriculture. More land is likely to come out of CRP as well, given market demands and policy shifts. Who will invest in and control (either through ownership or rental markets) this valuable, but expensive, asset?

A final unknown involves breakthroughs in technology made possible by investments in public and private research. Will society choose to invest in public research and development in the face of competing demands on government revenues? The importance of productivity-enhancing technologies is critical, given the projected growth in world population and the potential for climate change impacts on agriculture. The structure and productivity of U.S agriculture will be profoundly impacted by transition decisions that will be made in the coming years. Those decisions will be influenced by market forces, cultural preferences, and public policies.

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Retired Farmer – An Elusive Concept

Joy Kirkpatrick

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Keywords: Beginning Farmers, Farm Succession, Generational Transitions, Retired Farmers, Retirement, Retirement Planning

Retirement planning is essential to developing a sustainable family farm. U.S. Census of Agriculture data may obscure true retirement patterns because of the U.S. Department of Agriculture (USDA) definition of a farm and the phenomena of retiring to farming in the United States. Retiring farmers must answer the questions of where to live, what to do, how to fund it, and put the answers against the backdrop of the farm business continuing for the entering generation. Farmers must acknowledge that retirement stirs feelings about loss of control and identity and their mortality. Confronting these feelings and designing a retirement plan tailored to acknowledge and address them can pave the way to the financial planning aspects of retirement. It can also assist in planning for true transfer of managerial responsibilities and decision-making and provide the owner generation a legacy of a sustainable farm business well managed by the next generation.

Increasing Age of Farmers and Retirement Plans

The increasing average age of farmers reported by the USDA Census of Agriculture seems to indicate that farmers are delaying retirement, but the data do not provide definitive answers for the increasing average age, retirement decisions or attitudes, or the sources of income farmers are considering in retirement.

FARMTRANSFERS is a collaborative effort around a common research instrument that assembles information on farmer succession and retirement planning, the speed at which management decisions are shared, with whom they are shared, and how quickly they are finally fully delegated to the successor(s) (Lobley, Baker and Whitehead, 2012). In 1991, researchers began using the *FARMTRANSFERS* questionnaire to ask farmers important questions about farm succession, retirement, and asset transfer. This survey has since been replicated in 10 countries and seven states in the United States and has been completed by over 15,600 farmers. The data collected provide a platform for international comparisons of the results and identifies widespread issues of succession plans. It also provides a basis for farmer educational needs around farm succession, retirement, and inheritance (Lobley, Baker and Whitehead, 2012). The survey asks questions about retirement plans: whether the farmer plans to fully retire, semi-retire, or never retire; sources of retirement income; and if the farmer plans to retire, where he or she will live in retirement.

Using this common survey design, Baker and Epley (2009) found more Iowa farmers describe their plans as never retiring than those with plans to fully retire. A *FARMTRASFERS* survey conducted in the four southwestern counties of Wisconsin with 589 responses (23% response rate), found that 73% of respondents plan to either never retire or to only semi-retire from farming (Kirkpatrick, 2006).

Foskey (2002) describes Australian farmer retirement patterns with three terms: *retirement in farming*, with the operator providing management, labor or both to the operation which is similar to semi-retirement; *retirement from farming* (full-retirement); or *retirement to farming*. Retirement *to* farming is a form of retirement described as a farm operator who enters into farming later in life after retiring from a full-time job, or, as the farm grows and becomes sufficient, or debt is reduced, the operator can afford to leave

an off-farm occupation.

Efforts to study farmer retirement and succession trends are complicated by challenges of current data. One factor is the definition of a farm for Agriculture Census purposes. A farm is defined as a business that sold or normally has potential to sell $1,000 of agricultural products during the year. This low threshold may skew average-age data due to the many farmers retiring *to* farming and may be one factor in the increasing average age of farmers. Farmers who are retiring *to* farms may not be as dependent on farm income for their family living needs because of social security, pensions, or other retirement savings garnered from their previous occupation. For farms where the older generation retired *to* farming, the tie and desire to farm may not be instilled in a child to become the successor operator. Even if the retired *to* farming operator is willing to allow the land to move outside the family, the farm may not have the profit potential to entice a successor from outside the family. This type of farm has more potential of being a last generation farm, posing a greater risk of the land being converted from of agricultural production. The retiring *to* farming phenomena may drive land prices to extremely competitive levels. This can make land unaffordable for younger beginning farmers with little capital who seek farming as a primary occupation.

This sector of retiring *to* farming raises its own set of issues, but statistics also support the view that the traditional farmer's average age is increasing. According to the 2006 Iowa survey (Baker and Epley, 2009), the average age of retirement or semi-retirement for the respondents was 67 years, compared to 66 years for respondents in 2000. Respondents to the survey may base their intended retirement age on when they would be eligible for full social security retirement benefits, rather than on the basis of providing less labor or management to the operation. The increase in the average planned retirement age of farmers in Iowa between 2000 and 2006 supports this hypothesis because the eligibility age for full retirement benefits is gradually increasing, depending on birth year. The Social Security structure provides a disincentive for retiring early, regardless of occupation. Social Security participants can begin to receive retirement benefits as early as 62 years old, but benefits are reduced by approximately 30% of the full benefit if they retire at 62 rather than their full retirement age. In addition to receiving a reduced payment, benefit income is withheld if early retirement participants earn more than set income limits until participants reach full retirement age.

Where Will Farm Retirees Live?

Farms are one of the few businesses in which the family home and family memories are tied so closely together with the business. According to surveys in the United States (Baker and Epley, 2009; and Kirkpatrick, 2009) a majority of respondents (55% in Iowa and 60% in Wisconsin) who planned to retire do not plan to move from their current home. A farm operator's decision to remain in the current home can reduce housing expenses, since a retirement home need not be acquired. However, it can drastically limit the next generation's ability to fully manage the farm, if the successors have to live even a short distance away. The retiring generation must also consider its ability to relinquish control of the farm if it still lives there. The desire to remain in the family home must be balanced with the needs of the business. If retirement income is dependent on the business continuing, leaving the home may be a small price to pay for the farm to thrive and sustain multiple family living needs. If the retiring generation does plan to leave the farm home, the true costs of living off the farm must be calculated and factored into retirement income needs.

Retirement Income Sources

Social Security provides, on average, only about 13% of income for farmers who are receiving Social Security benefits (Mishra, Durst, and El-Osta, 2005). This small percentage of income derived from Social Security may be because the farm operators are still receiving a significant amount of income from farm operations, but it may also be attributed to the limited amount of self–employment tax the farmer paid over his working life. Farmers responding to the *FARMTRANSFERS* survey (Baker and Epley, 2009) indicated several sources for retirement income: Social Security was the most common, with income from the farm business, private retirement plans, sale of farm assets, and other investments also identified as sources. In 2011, U.S. farm households had an average net worth of $1,011,309. However, farm assets comprised, on average, a large percentage (76%) of that farm household wealth (USDA Economic Research Service, 2012). In many instances these farm assets are relatively illiquid and indivisible. Farmers with a majority of their total net worth in farm assets are more likely to use those assets as a source of retirement income either by receiving income from the intact business or by the sale or lease of the assets.

Obviously, retirement from farming is closely tied to decisions of farm succession. Survey respondents in a 2009 study of Wisconsin farmers who had recently transferred farm assets noted their top three goals in transfer planning were: long-term viability of the farm for the next generation, providing for the financial security for the older generation, and for keeping the farm or farmland in the family. These can be argued as fairly universal

goals of farm families considering succession. If these are the top goals for a farm owner, then identifying and mentoring a competent successor *should* be a priority. Having a chosen successor makes it easier for the farmer to reduce his or her involvement, and may also influence the continued capital investment the operator is willing to make (Potter and Lobley, 1992). Potter and Lobley (1996) refer to this as the "successor effect." This continued investment can make the operation vastly more attractive to the successor. It can also tie the retirement income of the older generation to a successful transition of management to the next generation.

Conversely, the "retirement effect" can be found if a successor is not identified. Operators often slowly disengage from farming by eliminating livestock to reduce labor requirements but continue the cropping enterprises. Eventually, the farmer may opt to let the livestock facilities deteriorate, rent out the cropland, and continue living in the farmhouse in hopes the land will eventually transfer to his or her heirs at his or her death, in spite of the fact the heirs will never farm the land themselves (Potter and Lobley, 1992). This process may severely impact the older generation's retirement income potential, considering that farm business investments may be the only retirement assets. The only way to realize the older generation's return on investment is to continue farming or sell the farm outside the family at a fair market value, either as a working farm, recreational land, or for development. The other concern with timely identification of a successor is the infusion of Social Security income when the older generation reaches an age to receive benefits. The monthly income from Social Security and the addition of health care benefits through Medicare can provide just enough financial security to allow the older generation to be less reliant on a successful transition to the younger generation. Income from the Conservation Reserve Program can have a similar affect, but goes one step further by taking land completely out of production that might have otherwise been rented to a beginning farmer or a farmer expanding his or her operation.

Emotional Ties to Farming

Research and quantitative data will do little to persuade farmers to change their attitudes about farming as a lifestyle, their aversion to full retirement, or the desire for the farmland to remain family owned. When asked what they would miss when they retire or semi-retire, the most common responses are connected with lifestyle. Iowa, Wisconsin, and Australian farmers all noted the loss of an active lifestyle, open spaces, and the independence that farming allowed them to experience (Baker and Epley, 2009; Barclay, Foskey and Reeve, 2005; and Kirkpatrick, 2009), with one respondent from Wisconsin replying that he would miss *"….breathing"* because he'll be dead when he gives up farming, which is the embodiment of the "dying with your boots on" creed of many farmers worldwide.

Too many farmers allow their inability or unwillingness to recognize, analyze, and discuss the emotional aspects of retirement and succession to perpetually stall their planning. Farm operations that would be considered financially sound, well-managed businesses can slowly collapse and fail because the older generation is unable or unwilling to face the contradicting desires of seeing the next generation succeed yet retain the independence and self-identity farming provides. Recognizing the long-term goals in terms of management and asset transfer, retirement decisions, and income needs—and analyzing where these goals intersect and contradict—can provide a platform for consensus among the farming partners.

What can Policy Makers and Cooperative Extension Services Do?

The lack of retirement and succession planning cannot be "fixed" by purely technical advice or financial management education. The broader question of what do we want rural America to look like in the future and the potential impacts of a lack of retirement and succession planning must be addressed. If the lack of planning does hinder the future envisioned, then what can policy makers do to encourage farmers to consider retirement and invest in the management training of the next generation of farmers? Policy considerations could include:

- Providing tax incentives to owner farmers who rent or sell assets to beginning farmers. There are state examples of this (Iowa, Nebraska, and Wisconsin are just three) and policy makers could consider expanding these incentives to the federal level.
- Considering ways to mitigate the taxes in the first year(s) of retirement when farmers no longer have their usual farm expenses to offset taxable income. Depreciation expenses carried forward in their first year(s) of retirement may alleviate some resistance to retirement.
- Allowing farmers higher yearly maximum investment limits for tax deductible retirement instruments. Farmers have many incentives to invest in depreciable capital assets. Providing greater incentive and education on investing in retirement vehicles can help lessen the financial expectations that the farm assets have to be both business and retirement assets.
- Providing a Social Security benefit incentive to farmers retiring earlier than their full retirement age rather than the current disincentive, and coupling the in-

centive with a requirement that a next generation/beginning farmer takes over the farm operation's management.

While tax and other incentives may address the common barriers many farmers identify as reasons to delay retirement and succession planning, they do not address the emotional issues of loss of control, loss of identity, and facing their own mortality. Cooperative Extension educators can assist farmers and farm families by facilitating the discussion and process of farm succession planning. This process starts with the farm operators and successors identifying their values, vision, and goals surrounding retirement and farm succession. Instead of focusing only on financial analysis, the merits of various business entities or estate planning tools educators can assist the farming partners in developing a plan that involves phases of transition, especially phases of transitioning management and decision-making responsibilities. Farmers who are highly dependent on a thriving farm business for income in their later years should view their successor as their portfolio manager. With this in mind, the older generation should do everything it can to mentor the successor to ensure the success of the farm operation for both generations. At the same time, the older generation can be encouraged to explore new opportunities to fill time with meaningful work or endeavors to mitigate the feelings of identity loss. This facilitation role is very different from the traditional expert role Extension educators have played in the past; however, it is an effective way to assist farm operations with their retirement and succession plans.

Conclusions: Farmers' Decisions

Farmers' decisions to never retire or only semi-retire and the increasing number of people retiring *to* farming are impacting the next generation's ability to embark on a true career path of full-time farming. The timing of identifying a successor is critical for the business cycle of the farm. If the successor is identified, the older generation can be motivated to continue capital investments to assist the financial viability of the farm for the next generation. Continued investment into the farm business makes it imperative the next generation is mentored to successfully manage the farm. If a successor is not identified at the critical time, the older generation may slowly deplete the investments, and the farm may decline in value. Policies can be developed and programs piloted to mitigate risks to the older generation's financial stability. These may work to encourage an earlier exit from farming, but may not be incentive enough to entice a significant percentage of farmers to completely retire. The value placed on lifestyle quality, the sense of place and a sense of purpose is far greater than can be quantified by an early retirement benefit. A concerted educational effort to address the emotional issues must also be implemented. No retirement benefit or government policy can compete with the sense of knowing and working a piece of land, seeing it shaped by your labor and decisions, and being satisfied by a life well done. Leaving a legacy of a competent successor managing a sustainable farm for future generations should be considered the final chapter.

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The Policy and Legal Environment for Farm Transitions

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JEL Classifications: N25, L21, H25, K22, K11
Keywords: Agriculture, Business and Securities Law, Business Objectives of the Firm, Business Taxes and Subsidies, Property Law

Farm asset ownership is growing increasingly concentrated, and that ownership continues to shift toward an increasingly aged group of producers and off-farm landowners. In addition to these issues, American farms and ranches face the same challenges as many other family businesses in trying to successfully shift from one generation to the next—a transition that research suggests only 30% of them will survive. Does the current policy and legal environment give producers the incentives and tools to both keep the farm in the family and the family on the farm? This article will examine the farm transition process, the policy and legal mechanisms that influence it, and the challenges and opportunities posed by the current policy and legal environment.

What is Involved in Farm Transition?

"Farm transition" is the process of transferring a farm or ranch operation to the next generation. While simple to articulate, this process can be quite complicated as it involves three complex and inter-related factors. First, there must be a transfer of the ownership (or possession, in the case of leased assets) of assets such as land, equipment, and, in the case of farms organized as business entities, ownership of the entity. Second, there must be a transfer of asset control or management (or perhaps both). Third, there may be a desire to allow economic participation in the farm business by those that who may (or may not) have ownership or control stakes, such as an off-farm heir. Transition planning is also distinguished from "estate planning" in that transition planning focuses on the gradual shifting of these three factors during the life of the founding generation while estate planning generally focuses on the transfer of these factors only after the death of the founding generation.

Policy Issues Surrounding Transition Planning

Three dimensions of federal agricultural policy have important implications for the transition of farms between generations and the success of new beginning farmers. First, crop and livestock prices and income support programs that mitigate the consequences of low prices, low incomes, or both, provide a safety net that is particularly important for those early in their farming career who are often more highly leveraged and have not yet built up strong financial reserves. For example, direct payments for a southern plains wheat farmer might cover approximately $14 per acre of the roughly $200 to $250 total annual costs per acre. Countercyclical price programs were designed to provide a safety net when prices fell below a certain level, though the low "trigger" price levels have meant the programs have provided little safety in recent years. Newer federal program options evolved that provide "revenue" protection when the combination of yields and prices fall well short of recent averages, such as the Average Crop Revenue Election (ACRE) program.

Second, crop insurance can be an important tool for beginning farmers, but it may present some unique challenges for them. To obtain the most effective coverage for crop insurance, farmers must provide proven yields (APH) for the past five years; if proven yields aren't available, they must use typically lower county yield averages. It has been suggested that beginning farmers be given more flexibility to determine yields for crop insurance coverage so as to obtain more effective insurance protection. An interesting

issue with price support programs, income support programs, and federally subsidized crop insurance is the potential impact that these programs might have on land rents. Many argue that farmers bid the risk-reducing benefits of these programs into land values and cash rents. This increases costs and cash flow vulnerability for beginning farmers. Consequently, beginning farmers may be less competitive in land acquisition markets compared to large-scale, well-established farmers because of the potential unintended consequences of these programs.

It is important to note the future of price and revenue programs and crop insurance is uncertain; at the time of this writing, Farm Bills have passed the Senate and the House, and many elements of these programs may change as the bill continues to be considered.

The third dimension of agricultural policy impacting farm transitions is comprised of the credit and finance programs for beginning farmers. Legislation underlying the Farm Credit System (FCS) as well as current FCS policies encourages Farm Credit lenders to provide targeted programs and services to young and beginning farmers. More explicitly, the U.S. Department of Agriculture (USDA) Farm Service Agency has a number of programs that offer both direct and guaranteed loans to "qualified beginning farmers" and other farm borrowers who do not qualify for credit from conventional commercial lenders. A mainstay of the current Farm Services Agency programs (as well as their predecessors) are loans to purchase farmland, in most cases with lower interest rates as well as lower down payments than are typically available from conventional lenders. At the same time, though, the current credit and bank regulatory environment poses challenges for beginning farmers, at least if they seek ownership of farm real estate. For more on this issue, see the article by Kauffman also appearing in this issue.

Although land control is critical to success for many beginning farmers, it is less clear that buying land (even with subsidized costs and favorable loan terms) is a wise allocation of the very limited capital of most beginning farmers. Farm land generates very low gross sales as well as cash earnings per dollar of capital invested compared to other farm investments such as machinery or livestock facilities, and highly leveraged purchases of any asset (much less farmland with low cash flow generation) makes the borrower very vulnerable to default on debt servicing with even a small reduction in income or increase in cost. It is not clear that public policy that intended to incentivize cash-strapped beginning farmers to make such investments and take such risks is good for the farmer-borrower, let alone a desirable use of public funds.

A potential fourth branch of policy affecting farm transitions comes from state programs. States have taken a number of approaches including "matchmaking" programs to pair exiting producers with beginning ones, educational and facilitation services for those wishing to engage in transition planning, linked-deposit and interest incentives for banks lending to beginning farmers, and tax credits for retiring producers who lease agricultural land to beginning farmers.

Federal Tax Policy

Elements of federal tax policy affecting the transitions of farmland have been discussed in the most recent *Choices* theme issue regarding the American Taxpayer Relief Act of 2012 as well as in the article by Williamson in this theme issue. This article will, thus, avoid going into much detail about current federal tax policy. However, it should be observed that recent changes moving the unified estate and gift tax credit to a level that allows $5.25 million dollars (inflation indexed) of property to be passed tax-free means approximately 98-99% of all estates will no longer be subject to an estate tax. This frees many producers to focus on substantive elements of their transition plan rather than undertaking measures solely to mitigate potential estate tax burdens. The potential capital drain in family business transitions of payments to non-business heirs—who want to receive their "inheritance" in cash or similar form—will remain, and it has been and likely will continue to be the most significant challenge in maintaining the capital structure of family businesses during the transition process.

Legal Issues Surrounding Transition Planning

The laws that govern the ownership, control, and economic participation of the assets that comprise the farm necessarily define the parameters within which that ownership may be changed. As a result, the mechanisms available to transfer the farm are largely a function of the state laws that govern the ownership of real property, goods, financial assets, and businesses.

In discussing transition tools it is logical to start with those tools that have been traditionally used to transfer completely (more or less) ownership, control, and participation at death. Wills and trusts naturally come to mind first among these tools, but a number of other alternatives are also available in this category. A "will" is simply a binding set of instructions for the distribution of a person's property upon his or her death. Wills can be highly flexible in that there are very few restrictions on parties to whom property can be given under the will. They pose some disadvantages, though. A will must go through the probate process to have any legal effect. This process can be lengthy, expensive, and, by necessity, is also public. This can add cost

and delay to the disposition of farm property, meaning that the operation may be "tied up" for a longer period, threatening its viability.

Trusts are often touted as overcoming the disadvantages of wills. In counterpoint to the will, the trust and the assets it owns need not pass through probate, allowing for the relatively rapid transfer of control, ownership, and participation in the revenues generated by farm assets, and this has been a main selling point for many attorneys in encouraging their clients to form trusts. Trusts can be constructed to last long after the passing death of the producer founding generation which means they can enable the founders to exercise control over the operation long after their deaths.

Wills and trusts may be well-suited to a number of *estate* planning objectives, but they have disadvantages as *transition* planning tools that often go overlooked. Perhaps the most important disadvantages of wills and trusts as estate planning or transition tools are the inverse of their advantages. While highly *flexible* during the life of the trustor, they become highly *inflexible* after death. The Claflin Rule prohibits the modification (or termination) of a trust if doing so would defeat or frustrate a "material purpose" of the trustor, which means that the restrictions of a trust become frozen at the death of the trustor. Thus, the trustor's "dead hand" may restrict how subsequent generations can use or dispose of farm assets and may actually defeat the purpose of the trust's creation—to "keep the farm in the family."

Beyond estate planning tools, some forms of real property ownership and transfer can also have transition-planning effects. For example, the joint tenancy with right of survivorship (JTWROS) and life estate are frequently used to provide for the transition of property ownership upon the death of one party. JTWROS places ownership of real estate in a co-tenancy between two or more parties (frequently, but not always, a husband and wife); when one of the co-tenants dies, his or her interest in the property is redistributed among the surviving tenants and does not have to pass through probate. A life estate gives lifetime rights to real estate to one party, with ownership transferring to another party upon the death of that owner, again without going through probate. Although these forms have advantages, they can trigger some unintended consequences as well, particularly if parties do not die in the sequence anticipated by the producers involved. To avoid some of these consequences, some landowners turn to Transfer on Death Deeds (TODDs), which have been adopted by a growing number of states. TODDs leave ownership with the producer until his or her death, and transfer title to the property to a designated recipient; such property, thus, avoids the need for probate. It should also be noted that TODDs do not have any estate tax advantages over the gift of property through a will or trust.

To this point, the discussion has focused on those tools associated with "estate planning" —mechanisms that serve primarily to transfer property only upon the death of the decedent. For a number of reasons, though, the successful transition of a farm or ranch may need to take place during life to provide the maximum chance of survival for that operation. Thus, the discussion now turns to business forms that may allow for a smoother transfer of ownership, control, and participation in life.

Limited partnerships (sometimes called LPs) have at least one "limited partner" with limited liability—his or her liability for the debts and obligations of the partnership are limited to his or her investment. Conversely, the "general partner(s)" have personal liability for the debts and obligations of the partnership, meaning both his or her investment in the partnership and his or her personal assets may be at risk for the partnership's liabilities. The limited partnership can separate control and participation from the ownership of the business, allowing added flexibility when balancing the interests of on-farm and off-farm heirs. The obvious disadvantage of the limited partnership form (in contrast to the corporate and limited liability company (LLC) forms) is the liability exposure of the general partner(s). Another question surrounding limited partnerships is whether the limited partners can actively participate in the management of the business without losing their limited liability protection. For many years, participation in management meant the loss of the limited partner's liability protections. This rule is being reexamined and changed in some jurisdictions; indeed, it has been abolished in the Uniform Limited Partnership Act itself.

In a corporation, the liability of any owner for the debts and obligations of the business is limited to the owner's investment in the business; he or she holds no personal liability. A corporation can also create multiple classes of stock with each class holding different rights of control and participation in revenues. One consideration for producers considering the use of the corporate form is that some states (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota, and Wisconsin) restrict corporate ownership of farm assets.

The LLC is a relatively new entity form in the United States, first authorized in 1977 and now recognized by almost every state. In its comparatively short time as a business entity form, the LLC has grown rapidly in popularity. There are a number of reasons for this, but this growth stems primarily from the fact that the LLC

offers the same liability protection as a corporation for all of its owners (in contrast to the limited partnership) while offering even greater flexibility in who can own interests in the entity and how its management can be structured.

There are yet newer business entity forms including the limited liability partnership (LLP), the statutory business trust, and the family limited partnership (FLP). More recently, the "series LLC" has emerged, which allows an umbrella LLC to have "series" or "cells" underneath it with their own liability protection from each other. This form may eventually prove to be a flexible tool for farmers and ranchers specifically looking to give some heirs greater control over operating decisions while still affording other heirs the opportunity to participate in the revenues generated by the farm, all under one overarching entity.

Perhaps the most important advantage of corporations, LLCs, and some other business entities in transition planning is they can facilitate the transfer of ownership, control, and economic participation in a farm business. If a producer wanted to transfer ownership of property over time, and such property were owned individually or in cotenancy, he or she would have to gradually convey a series of direct interests in the property, which would raise a number of title and liability issues. If the property were placed into a business entity, such as a corporation or LLC, the producer would simply convey shares of the corporation. Depending on the producer's goals, the gradual buildup of ownership could include growth of management rights through voting share ownership, or could be completely decoupled. Similarly, economic participation rights could be retained by the producer as a retirement income source or could be conveyed to an off-farm heir who did not wish to actively participate in farm operations.

Conclusions: Challenges and Opportunities

Federal tax policy and farm programs frame the challenges and opportunities for transitioning farm businesses from current to future generations. Current federal estate tax policy need not result in serious capital drains from the business during the transition process for most farms given the small number of farms likely to face the tax. Compensating non-farm heirs who want their inheritance in a more liquid form still presents a potential capital drain for the on-going farm business, but, in many cases, can be at least reduced with proper planning. Federal farm programs that provide a safety net for farms are particularly important to beginning farmers, but may have unintended consequences if they encourage larger, well-established operators to be more aggressive in their land rental and buying behavior and bid prices above those that beginning farmers can afford to pay. Highly subsidized credit programs to purchase farmland may actually increase the financial risk and vulnerability of beginning farmers because the programs encourage the beginning farmers to use their limited capital to purchase an asset that generates relatively little cash but demands substantial cash flow to service the debt.

The current legal environment provides a wide range of tools to deal with both estate and transition planning issues. The challenges of succession planning, then, may be in the ability and willingness of both producers and consulting professionals to confront the difficult questions inherent to transitioning farms to the next generation. For their part, governments and universities can rededicate themselves to educational efforts about the importance of transition planning and in providing producers with an array of plain-English tools and materials that enable them to evaluate their options and to engage in deep, meaningful dialogue with the stakeholders of their farm or ranch.

The solutions for transferring the farm business to another generation will likely not be as simple as producers envision. Producers and the consultant community need to examine ways they can create true "business succession" plans. While this is something about which all owners of small or closely-held businesses should be thinking, such issues take on even greater importance for the farms and ranches that produce the food, fiber, and fuel for a growing world.

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Agriculture, the Tax Code, and Potential Tax Reform

James M. Williamson

JEL Classifications: Q14, H24, H25.
Keywords: Agriculture, Farm Business, Life Cycle, Tax Reform

The Internal Revenue Code (IRC) plays a large role in the management of the farm business and the well-being of the farm household. The IRC can affect farm businesses at every stage of a farm's life cycle, including influencing decisions about investments, their character, amount, and timing of their acquisition or sale. By its treatment of respective business entity types, the IRC can affect farm business formation. Because farm income and income from other sources are almost always combined in a farm household for tax purposes, the treatment of farming activity can affect off-farm labor and investment decisions as well. Finally, the tax treatment of land and other farm assets in estates affects dissolution or succession decisions.

Policymakers and stakeholders are once again calling for reform, citing a tax code that is difficult to administer and comply with, inefficient, and inequitable. To accomplish such goals, reform proponents often refer to "broadening the tax base" or amending the IRC to include more income as taxable by eliminating tax expenditures or preferences. Tax expenditures are defined as federal revenue losses attributable to special tax exclusions, exemptions, and deductions, as well as preferential tax rates, credits, and deferrals of tax liability (Office of Management and Budget, 2012). Tax expenditures are sometimes known as "tax preferences," evoking an image that the benefits accrue to a small group or a narrowly defined activity. However, in many cases, an individual tax expenditure benefits a large proportion of taxpayers. The exclusion from income allowed for the employer contribution toward health insurance is one example.

Despite recent tax legislation that amended, extended, or made permanent key pieces of the IRC, proponents of tax reform still see a need for a comprehensive overhaul of the tax system. Published reform plans differ in specifics, but all are predicated on limiting or eliminating deductions, restructuring or creating new credits, and changing statutory marginal rates for ordinary income, capital gains, and dividends. Proponents of reform argue that tax preferences for certain activities or types of income complicate the federal tax system and create differences in tax liability between taxpayers with similar incomes and filing status—a violation of the principle of horizontal equity—as well as reduce the progressivity of the tax system because its value depends on the taxpayer's marginal tax rate, generally reducing tax liability more for a high-income taxpayer than for a low-income taxpayer.

Broadening the tax base by eliminating tax expenditures could reduce complexity and computational burden, and perhaps increase efficiency and equity, and, as this article will show, have a significant effect on investment, management, and production decisions in the agricultural sector at each stage of the farm life-cycle (Kay, Edwards and Duffy, 2011).

Background

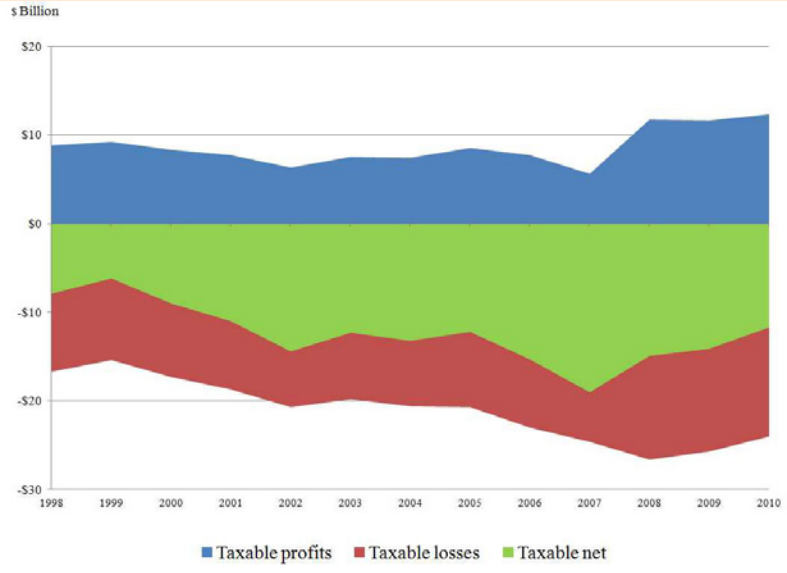
From the perspective of farmers, the individual income tax is significantly more important than the corporate income tax for understanding how taxes affect most farm businesses. According to the 2007 Census of Agriculture (U.S. Department of Agriculture (USDA), National Agricultural

Statistics Service (NASS)), sole proprietorships accounted for 86.5% of all farms and 50% of total sales. Partnerships comprise 7.9% of farms and 20% of sales. Sole proprietorships and partnerships are taxed at the individual level, as are partnerships and subchapter S corporations. Farms organized as subchapter C corporations are taxed under the corporate system and account for less than 4% of all farms, though they account for about 30% of farm sales. In all, more than 96% of all farms and over 75% of farm sales are taxed under the provisions of the individual income tax.

Farm households may receive income from farm earnings and off-farm labor, as well as other business or investment activities, and, in fact, income sources other than farming account for a significant share of the farm household's total income. Because the family is the typical unit of taxation for a farm business, farm and nonfarm income are combined for the purpose of computing federal income taxes for farm households. In 2011, the average farm household income reported in the USDA Agricultural Resource Management Survey (ARMS) was $87,289, and off-farm sources accounted for a majority of the income (84.3%). Since 1980, farm sole proprietors, as a group, have reported negative aggregate net farm income for tax purposes, and, over the last decade, both the share of farmers reporting losses and the amount of losses reported have increased. In 2010 (the last year for which complete IRS data is available), nearly three of every four farm sole proprietors reported a farm loss. For those who reported a loss, the average loss was $18,079 for a total of $24 billion.

Because only about 30% of farm sole proprietors report a profit, and with just 60% of those reporting a farm profit owing any federal income taxes, only about 19% of farm sole proprietors paid any federal income tax on their schedule F farm income in 2010. Consequently, despite farm sole proprietors reporting an average gross income and taxes of $85,021 and $12,664, respectively, they also reported a net farm loss of $6,064. Further, because taxes on farm income are paid at the individual level, under the proposed changes to the individual income tax system, farm households could experience significant changes to their after-tax incomes. Proposed changes to the system of deductions and credits will expand the taxpayer's tax base, and proposed changes to tax rates on dividends and capital gains, in particular, will raise current tax rates for some farmers, even if the plan is designed to be revenue neutral.

Figure 1: Total Taxable Net Farm Income/Loss for Farm Sole Proprietors Reported on Form 1040 Schedule F, 1998-2010



Source: USDA, Economic Research Service; tax data are compiled from the Internal Revenue Service.

Investing in Capital Assets

Starting a farm operation can be an expensive endeavor, particularly if the farmer chooses an asset ownership model. Startup requires access to land and capital equipment, and these costs are particularly prohibitive for beginning or low-equity farmers. In 2010, the average farm (with "farm" defined as any place from which $1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the year) operated 416 acres and held just under $1 million in assets, the vast majority of which was in land and structures.

Established farmers also routinely make capital purchases, and in 2010, 43% of U.S. farms made a capital investment of $32,000 on average, for a total of $29 billion. In general, the size of the capital purchase varied with the size of the operation; the greater the sales revenue of the operation, the more likely it was to make a capital investment in a given year. Based on 2010 ARMS data, 83% of very large commercial farms—farms with at least $500,000 in annual sales—reported they made such an investment in 2010, while only 36% of farms classified as rural residences (less than $250,000 in sales and a reported major occupation other than farming) made a capital investment.

Under the current tax system, much of those costs may be expensed immediately, with the remainder capitalized and depreciated over time. This reduces the income subject to tax. The amount that can be expensed is subject to a limit, and the investment amount above the limit must be depreciated over a specified recovery period, generally seven years for farm machinery and equipment.

The tax treatment of these investments is of considerable importance to the farm sector, especially to established commercial farms (farm sales above $250,000). Over the last decade, the amount that a farmer could immediately expense has changed. Beginning with the Economic Growth and Taxpayer Relief Reconciliation Act of 2001 (2001 Act), which set the expensing amount at $25,000, the amount of capital purchases eligible for immediate expensing has steadily increased. The amount was raised from $25,000 to $100,000 in 2003, and then again in 2008 to $250,000 through stimulus legislation. The Small Business Jobs Act of 2010 doubled the expensing amount to $500,000 for property placed into service in 2010 and 2011. Recently, the American Taxpayer Relief Act of 2012 temporarily reinstated the amount to $500,000 for 2013.

Along with the expensing provision, the ability to take an additional first-year depreciation deduction also benefits farmers making capital purchases. When combined with the expensing amount, the ability to accelerate depreciation has meant that much of the capital purchases made during the past decade have been completely deducted in the first year, offering a substantial tax savings. For tax years 2012 and 2013, the first-year depreciation allowance is 50%.

Under current law, the expanded expensing and accelerated first-year depreciation allowances are considered tax expenditures and are candidates for reform. The impact of tax reform on U.S. agriculture will depend on how the expensing and depreciation provisions change. Currently, less than 1% of farmers annually invest more than the 2013 annual expensing limit of $500,000. Investments above this amount are eligible for the 50% additional first-year depreciation, so nearly all capital investment by farmers can be written off in the current year. The expensing allowance reduces the effective tax rate on income from farm capital and simplifies the recordkeeping burden associated with the depreciation of capital purchases, with commercial farmers the primary beneficiaries. Eliminating or lowering the expensing amount would raise the cost of capital purchases for some farms.

As well as raising the cost of capital investment, lowering or eliminating expensing and additional first-year depreciation could increase the farm's tax base, potentially increasing its taxable income. On average, farmers reported depreciation expenses of $21,259 in 2010. Farms with $500,000 or more of annual sales had an average depreciation expense of $94,000. Farmers who had previously been able to write off most or all of their capital investment in the first year due to the expensing and first-year depreciation provisions will find that their taxable incomes are higher with the scaling back or elimination of these provisions, whether they adjust their investment levels or not, and this could result in higher tax burdens.

The IRC also offers assistance to some first-time farmers with their purchasing of land and equipment. An "Aggie Bond," as it is sometimes called, is another source of financing for farmers who wish to establish or expand an operation. Aggie Bond programs currently operate in 16 states and the program is authorized through a provision in the IRC covering *private activity bonds* (National Council of State Agricultural Finance Programs). Such programs rely on private lenders to make loans to eligible farmers; in return, the lender receives a tax exemption on the interest received from the loan. The benefit to beginning farmers is that the tax-exempt status of the loan is an incentive to lenders to provide access to credit they might not otherwise provide and at rates that may be below the market rate.

Limiting the value of the interest deduction could affect Aggie Bond loans. Currently the value of the bond to the bondholder is a function of their marginal tax rate—the tax liability saved on the last dollar earned—and limiting or removing the exemption of interest income from such bonds would effectively raise the rates on loans made through Aggie Bonds because bondholders would require a higher rate in return for the reduced value of the deduction.

Capital Gains

Reform would likely alter the tax treatment of capital gains. The federal income tax system has historically taxed gains on the sale of assets held for investment and certain business purposes at lower rates than on other sources of income. The current tax rate on capital gains is zero for taxpayers in the 10% and 15% income tax brackets; 15% for taxpayers in the 25%, 28%, 33%, and 35% income tax brackets; and 20% (plus an additional 3.8% surtax) for those in the 39.6% income tax bracket.

Many of the assets used in farming or ranching are eligible for capital gains treatment. For example, raised cattle used for breeding, dairy, draft, or sporting purpose, as well as certain other livestock, are gain property and their sale may generate income eligible for treatment as a capital gain for tax purposes. Furthermore, capital gain income is a nontrivial and important source of income to some farmers, particularly established farms. In 2010, about 38% of U.S. farmers reported income in the form

of capital gains—nearly three times the share for all other taxpayers—totaling $28.4 billion. For those who reported capital gains, this accounted for 21.5% of their total taxable income. The average amount of capital gain reported by farmers was also more than double the average capital gain reported by other taxpayers. In 2010, the last year for which complete IRS data is available, farmers reported capital gains of $28.4 billion.

Deduction for Hired Labor and Self-employed Health Insurance

Two important deductions that are likely to affect established farm businesses are for domestic production activities and self-employment health insurance. The domestic production activities deduction allows famers to deduct the lesser of 9% of adjusted gross income for domestic production activities income or 50% of wages paid to produce such income. While the wages-paid limitation reduces the deduction for many smaller farms that hire little or no labor, farm sole proprietors deducted nearly $1.25 billion in 2010. The average deduction for eligible farm households was $8,926. Among farms, commercial farm households are the primary beneficiaries since they are more likely to report positive farm income and wages paid to hired labor.

Since 2003, farmers and other self-employed taxpayers have been allowed to deduct 100% of the cost of providing health insurance for themselves and their families as long as they are not eligible for any employer-sponsored plan. Among the general population of taxpayers, few use the deduction, but IRS tax data show about one out of seven farmers use the deduction in any given year, deducting an average of $6,173 for a total of $1.684 billion in health insurance premiums.

Estate and Land Management

Farmers often wish to pass the farm business to their heirs or otherwise preserve the nature of their farm and the IRC contains provisions that help do this in an orderly manner, while reducing the estate tax liability. Special provisions in the Federal estate tax, such as a rule that allows farm assets of an estate to be valued at their farm-use value rather than a higher market value, facilitate the transfer of farm estates from one generation to the next.

The estate tax has never affected a large percentage of taxpayers, including farmers. In fact, in no year since 1916 has the percentage of adult deaths generating a taxable estate surpassed 8% (Jacobson, Raub, and Johnson, 2012). A number of targeted provisions help to reduce the burden of the estate tax on farms and small businesses and facilitate the transfer of a farm or other small business to the next generation.

Farmers can choose to preserve farmland by making a donation of a qualified conservation easement, and this can be done while the farm is still an active operation. The deduction provision allows the farmer to create a separate, special right on the designated land stipulating that it will be used only for certain purposes, such as agricultural production. The farmer or rancher can continue to use the land for production, knowing that in the future, it will continue to be used in the same manner. In return for placing the land into a qualified conservation easement, the landowner may deduct the value of the easement from his or her income for tax purposes.

Tax Reform from a Farm Life-Cycle Perspective

Renewed calls for tax reform have highlighted a tax system that, while complex, offers substantial benefits to farm businesses at every stage of the farm life-cycle. Reform could reduce the after-tax income of many farm households. In particular, reducing or eliminating deductions for capital purchases and raising capital gains taxes could increase the farmers' tax base and raise the tax rate paid on a significant portion of their income. These effects will vary by farm size and type. Offsetting these effects, though, is the proposed reform of the marginal tax rate structure. A reduced number of brackets and lower rates will mitigate the effect of a potentially larger tax base for U.S. farm households.

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Credit Markets and Land Ownership for Young and Beginning Farmers

Nathan S. Kauffman

JEL Classifications: Q14, H24, H25.
Keywords: Agricultural Credit, Land Ownership, Young and Beginning Farmers

Access to agricultural credit for young and beginning farmers is shaped by lenders' perceptions of the trade-off between risk and returns. Strong returns are generated when loan repayment rates are consistently high. Although the 2008 financial crisis caused repayment rates to dip somewhat, rising commodity prices following the crisis drove farm incomes higher, boosting repayment rates and keeping returns at agricultural banks relatively high.

Young and beginning farmers, however, present greater risk to commercial lenders because of lower farm equity and fewer assets. Lower equity levels lead to greater risk because of the lack of assets that could be liquidated, if necessary, to meet loan obligations. Fewer assets can also limit farm incomes, possibly accentuating the risk. Farmers presenting greater risks to loan portfolios are often required to provide higher levels of collateral when securing farm loans. These requirements, when combined with surging farmland prices, lead to higher fixed costs and cash outlays for young and beginning farmers trying to purchase land, which may serve as a barrier to entry into land-ownership agricultural production.

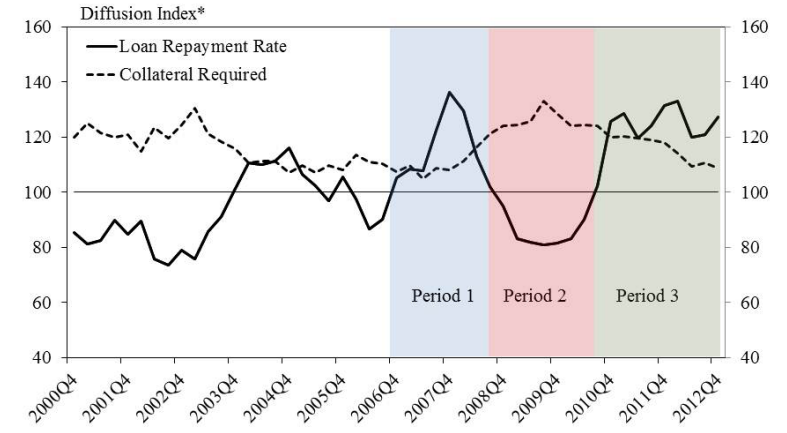
By balancing risks and returns, credit markets are operating as expected. Bankers typically perceive young and beginning farmers as greater risks and are responding by requiring more collateral, making land purchases more difficult. Many farmers aspire to own the land they operate. However, given the higher capital requirements and the more stringent lending standards, high levels of land ownership may not be a viable model for young and beginning farmers, raising the question of whether facilitating land purchases is the best approach for transitioning to a new generation of farmers.

Agricultural Credit Conditions in Recent Years

Agricultural credit markets over the past seven years can be separated into three distinct time periods in relation to the 2008 financial crisis. Prior to the crisis, conditions had improved significantly with surging agricultural commodity prices and land values. In the wake of the financial crisis and ensuing recession, loan standards tightened as repayment rates began falling with sharply lower commodity prices. This period of deteriorating conditions, beginning at the end of 2008, lasted until the end of 2010. With the crisis and recession over, credit conditions have rebounded once again with loan repayment rates following commodity prices and land values higher. In contrast to the period before the crisis, however, loan demand has remained relatively soft despite record low interest rates and adequate fund availability.

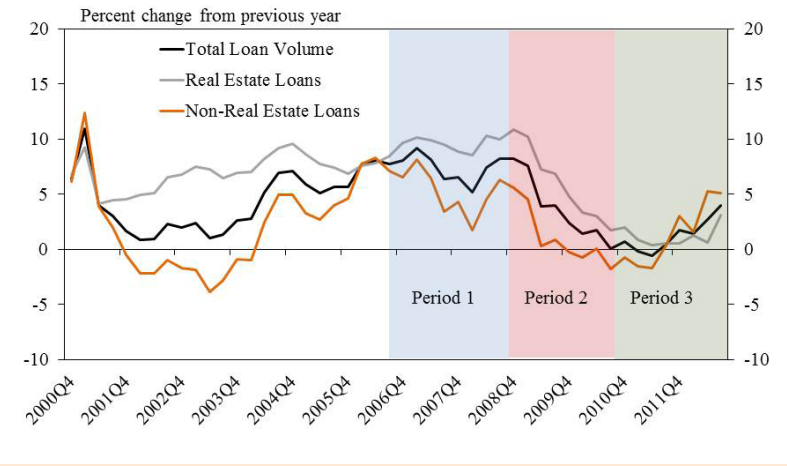
It can be argued that agricultural finance entered a new era beginning in late 2006. Sharp rises in ethanol production and burgeoning export demand, particularly from China, pushed agricultural commodity prices higher. Higher commodity prices boosted farm incomes. As shown in Figure 1, the loan repayment capacity of farm enterprises improved dramatically with higher incomes as the farm sector began building significant equity in their operations. Figure 2 indicates that after a prolonged period of weak loan demand in the early 2000s, particularly for non-real estate purposes, volumes of both real estate and non-real estate loans began to accelerate in 2006. Year-over-year growth in real estate loan volumes hovered around 10% between 2006 and 2008.

Figure 1: Loan Repayment Rates and Collateral Required
Average of Federal Reserve District Surveys



Source: Agricultural Finance Databook, Federal Reserve Bank of Kansas City
*Commercial bankers responded by indicating whether conditions during a given quarter were higher than, lower than, or the same as in the year-earlier period. The index numbers are computed by subtracting the percentage of bankers who responded "lower" from the percentage who responded "higher" and adding 100.

Figure 2: Agricultural Loan Volume at Commercial Banks



Source: Agricultural Finance Databook, Federal Reserve Bank of Kansas City

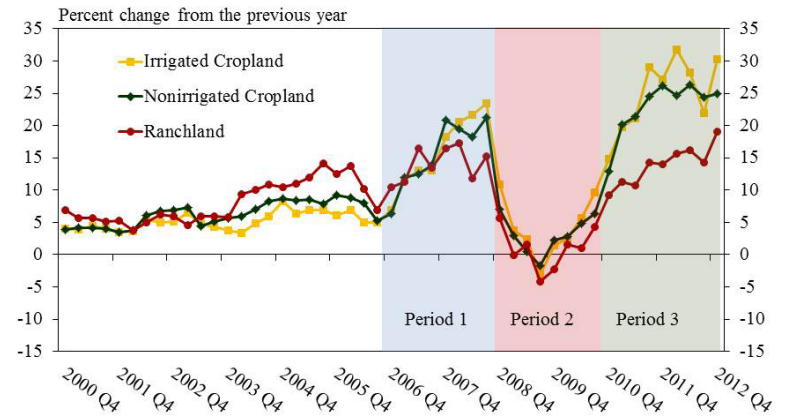
Land values shown in Figure 3 began a sharp ascent between 2006 and 2008, strengthening farm balance sheets. From 2000 to 2007, year-over-year cropland value gains for the 10th Federal Reserve District (which includes Colorado, Kansas, Nebraska, Oklahoma, Wyoming, and portions of western Missouri and northern New Mexico) did not reach double digits in any given quarter. From 2007 until the fourth quarter of 2008, both non-irrigated and irrigated cropland values rose by an average of about 17%. Other districts with a heavy agricultural composition experienced similar rises in farmland values. This surge in farmland values generated significant appreciation in wealth for farming operations that owned land. Commercial banks with sizable agricultural loan portfolios benefited from strong repayment rates.

Commercial banks also benefited from a jump in non-real estate lending activity prior to the financial crisis. In 2007, combine and four-wheel-drive farm tractor sales rose 15% and 22%, respectively. The trend continued in 2008, with further gains of 19% and 21%, respectively.

The 2008 financial crisis, however, significantly impacted agricultural credit markets. From the third quarter to the fourth quarter in 2008, average corn prices plummeted 35%. Average soybean prices fell 33% over the same time period. Weaker commodity prices caused farm incomes to drop 26% from 2008 to 2009. Whereas rising commodity prices and incomes drove loan repayment rates higher prior to the financial crisis, falling incomes drove repayment rates substantially lower throughout the crisis and recession. Growth in farmland values in the 10th District also slowed considerably and average values even contracted somewhat in the third quarter of 2009 for all types of farmland.

Deteriorating economic conditions and regulatory concerns throughout the 2008-2009 recession caused banks to tighten lending standards. Lower farm incomes created cash flow difficulties for some agricultural enterprises, causing loan repayment rates to fall. In an effort to maintain strong loan portfolios and ease heightened concerns of bank regulators, commercial banks began tightening lending standards by raising collateral requirements. As a result of tighter standards and weaker incomes, agricultural lending activity slowed throughout this recessionary period. After rising more than 20%

Figure 3: 10th Federal Reserve District Farmland Values—Annual Gains



Source: Survey of Agricultural Credit Conditions, Federal Reserve Bank of Kansas City

each of the previous two years, farm tractor sales rose only 2% in 2009.

With the post-financial crisis recovery well underway in late 2010, the last three years have seen a tremendous boom in the U.S. agricultural sector. Despite some concerns about how long the boom will last, crop prices and farmland values have soared over the past three years. U.S. farmers have enjoyed near-record incomes during the latest boom, although livestock producers have recently endured steep losses due to persistently high feed and forage costs following periods of drought. Loan repayment rates have rebounded from their post-recession pace, particularly for crop producers, and have been hovering at historically high levels.

Despite dramatic improvements in agricultural credit conditions and relatively strong profits in agricultural bank loan portfolios, loan demand has remained soft. Accommodative monetary policy has pushed short-term interest rates nearly to zero. Federal Reserve large-scale asset purchases and quantitative easing have also driven long-term interest rates to record lows. These lower interest rates have led to record-low farm loan interest rates and strong competition for high quality farm loans. Flush with cash and high levels of wealth supported by surging farmland values, however, farmers have been reluctant to finance their operations with debt, even as commercial banks compete aggressively for new loans with plenty of funds available.

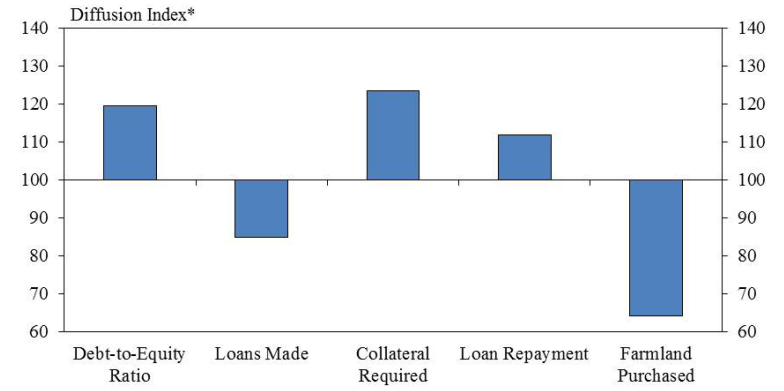
Young and Beginning Farmer Credit Conditions

Surging commodity prices and farmland values appear to have accentuated a gap in agricultural credit markets between experienced farmers and young and beginning farmers. With less experience, typically smaller farms, and lower levels of overall net worth, young and beginning farmers present greater risks to commercial banks that balance risk with the potential for long-term returns. Higher volatility in agricultural commodity markets over the past several years may have compounded these risks. Rising land prices, combined with the need to provide high levels of collateral to compensate for greater risks, make the purchase of farmland difficult for young and beginning farmers. However, small businesses in other sectors of the economy also face difficulties financing large capital purchases, raising the question of whether a high percentage of land ownership is a tenable model for young and beginning farmers.

Along with less experience, young and beginning farmers typically have less farm equity. In 2011, farmers under the age of 35 held more than 20% less equity per farm than the average across all farms (U.S. Department of Agriculture (USDA), 2012). As a share of total assets, farm liabilities of these younger farmers were more than twice those of all farmers in 2011. As indicated in Figure 4, a recent survey of banks in the 10th Federal Reserve District shows that commercial bankers have also reported higher debt-to-equity ratios for young and beginning farmers compared with those of other farmers. Non-real estate debt is a primary contributor, and is about three times higher on average for younger farm operators when compared with other farms. Real estate debt presents younger farmers with higher debt burdens as well.

With lower levels of equity and fewer assets, young and beginning farmers are a greater risk for lenders. One of the primary concerns with respect to loan portfolios at commercial banks is the risk of default. Since 2010, farm incomes have been historically high. However, incomes are more limited for young and beginning farmers with fewer assets, making economies of size or scale difficult to achieve. Moreover, incomes are projected to decline over the next 10 years. The USDA currently projects net farm incomes in 2022 to be 26% below the forecast for 2013. Since they have less capacity to repay loans in the event of a downturn in incomes, it is not surprising that young and beginning farmers are perceived as a more risky group on average. A risk premium, in the form of higher interest rates or increased collateral, is consequently required from borrowers who present greater risks to compensate for potential losses through default.

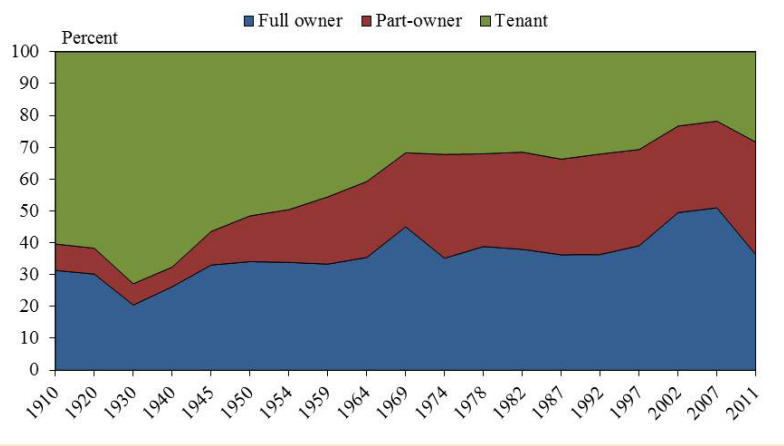
Figure 4: Credit Conditions for Young and Beginning Farmers Compared with Other Farmers



Source: Survey of Agricultural Credit Conditions, Federal Reserve Bank of Kansas City

* Bankers responded by indicating whether conditions in the fourth quarter of 2012 are typically higher than, lower than, or the same for young and beginning farmers relative to other farmers. The index numbers are computed by subtracting the percentage of bankers who responded "lower" from the percentage who responded "higher" and adding 100.

Figure 5: U.S. Farm Ownership Structure for Farmers Under Age 35



Source: Data through 2007 obtained from the USDA Census of Agriculture. Data for 2011 obtained from USDA, Economic Research Service, Agricultural Resource Management Survey.

Since 2006, grain markets have become significantly more volatile. From 1994 to 2006, there was just one quarter (the fourth quarter of 1996) when average corn prices swung in either direction by more than 30% from the previous quarter. Since then, there have been four such occurrences in half the time. Daily price volatility has also been 50% higher since 2006 compared with the average of the previous 12 years. Higher volatility—characterized by greater price fluctuations—results in more risk. This new era of greater volatility compounds the risk that young and beginning farmers already present to their lenders.

Credit markets and bankers are responding rationally by requiring higher levels of collateral and taking greater precautions when originating new loans. With large fixed costs involved in agricultural production, high collateral requirements present young and beginning farmers with a significant barrier to entry. As land prices continue rising, this barrier to entry is becoming even more pronounced. Many sources, including contacts at the Federal Reserve Bank of Kansas City (FRB KC), have indicated that young farmers often require assistance from family members to get started.

According to FRB KC contacts, young and beginning farmers struggle to compete in today's farmland real estate market and are choosing to lease instead. The run-up in farmland values has made land unaffordable for many of these farmers, with fewer young and beginning farmers purchasing farmland. In contrast to the previous decade, an increasing share of young farmers is choosing partial ownership or lease arrangements when evaluating potential farm management strategies. As recently as 2007, 51% of farmers under the age of 35 fully owned the farms they operated (USDA, 2012). Throughout most of the 20th century, only 30% to 40% were full owners, as shown in Figure 5. By 2011, full ownership had dropped back to 36%. Renting assets, including land, could be emerging as a more important component of the business model for young and beginning farmers.

It should be noted that it is possible the share of land rented, rather than owned, by farmers under the age of 35 differs from the share of farmers who rent. In particular, large commercial farms may be renting a higher percentage of operated farmland, which would keep the share of land rented relatively lower.

In addition to high farmland prices, farm consolidation and delayed retirement compound the difficulties young and beginning farmers face. Although relatively stable over the past 20 years, the number of U.S. farms has fallen from more than six million a century ago to just over two million today. Farm operations have become significantly larger on average, taking advantage of economies of size and scale. Thus, today's new farmers face the additional challenge of needing to acquire even more land to be competitive in modern agriculture. However, many older farmers are delaying retirement. Not only are they often reluctant to sell their land, but ageing farmers are also frequently reluctant to pass on farm management responsibilities, limiting the availability of land for either purchase or rent.

Similar to young and beginning farmers, small businesses in other sectors of the economy also face tight credit conditions. In a recent survey of small businesses conducted by the Federal Reserve Bank of New York, only 13% of loans were approved for the full amount requested (Federal Reserve Bank of New York, 2012). Moreover, insufficient levels of collateral accounted for 28% of loan denials. In a 2012 survey conducted by the National Small Business Association (NSBA), 31% of respondents indicated a reliance on friends and family for financing. These examples of tight credit and a reliance on family members in small businesses echo the comments of agricultural bankers in surveys conducted by FRB KC.

Although many farmers seek to own the land they operate, leasing may be a more viable option for young and beginning farmers. The Equipment Leasing and Finance Association reports that approximately 80% of U.S. companies lease some or all of their equipment (Entrepreneur Magazine, 2012). With farm incomes expected to drop in 2014, and with some concerns about the sustainability of soaring farmland prices, leasing a larger share of land might also be a less risky proposition for young and beginning farmers, notwithstanding the perception of risk from a creditor's perspective. Today's young and beginning farmers may need to recognize the tools and strategies being used in other sectors of the economy and adopt those that have proven effective. Although various federal and state policies currently offer support for young and beginning farmers to purchase land, these policies may also be better geared toward leasing, particularly if fixed costs in agricultural production continue rising.

Outlook for New Farm Ownership

Agricultural credit terms and conditions for young and beginning farmers are different from those for experienced farmers. Terms of credit are different because this group of new farmers presents greater risks to commercial lending institutions. As might be expected, banks are responding by requiring higher levels of collateral. In addition to greater collateral requirements, soaring farmland values make entry more difficult for young and beginning farmers, challenging the conventional business model of land ownership in agricultural production.

Greater risk, higher land prices, and tighter credit markets for young and beginning farmers point to the reality that owning a high percentage of the land operated may not be a tenable path in transitioning to a new generation of farmers. Similar to small businesses in other sectors of the economy, leasing assets may be a more viable option. A shift in farm management strategies toward leasing farmland will require refocusing and refining the skill set needed to compete in modern agriculture. This skill set includes various aspects of long-term planning, marketing, and negotiating in rental markets. For family farms, stronger communication surrounding plans for succession and including younger farmers in management responsibilities earlier would help foster these valuable skills. Federal, state, or local policies could also be designed with these skills in mind, recognizing the need for a smooth transition to a new generation of U.S. farmers.

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Social Forces and Cultural Factors Influencing Farm Transition

Shoshanah Inwood

JEL Classifications: Q22; Q120; Q150; J210; J240; J280.
Keywords: Beginning Farmers, Child Care, Culture Diversification, Gender, Health Care, Succession, Values

Numerous studies demonstrate that farm transitions are influenced by farm family dynamics, socio-cultural values, land tenure, succession, and community factors in addition to economic conditions. While researchers and policy makers may inherently know that social forces and cultural factors are important to farm household survival and succession, it is often difficult to pinpoint what the issues are and how to address them.

In order to address the social and cultural factors impacting farm transition, it is important to recognize the demographic, social, and cultural differences among producers and examine how well current policies and programs respond to these differences. American farmers and ranchers may operate large, medium or small farms; they may be multi-generation or first-generation producers. The U.S. Census of Agriculture recognizes the demographic characteristics of producers by collecting information on: age, gender, race, ethnicity, and number of years farming. A producer's cultural and historical legacy influences broader motivations and values which can directly influence how a farm is structured and how transition decisions are made. Likewise, social issues such as the cost of health care and the cost of child care influence farm household economics that directly impact the farm business.

Social and Cultural Factors

Race, Ethnicity, and Gender

A large body of research has demonstrated that household-level motivations, cultural and social values, and socialization have a primary influence on farm structure, management, and adaptation (Gasson and Errington, 1993; Lobley and Potter, 2004; Salamon, 1992; Bennett, 1982). Studies have found social fulfillment through farming and ranching consistently ranks as a primary motivation to continue ranching despite low profits and development pressure. All farmers must balance economic and non-economic goals, which have historically benefited agriculture and ensured the persistence of family farms and ranches.

Social and cultural factors are influenced by farmer race and ethnicity. The increasing ethnic diversity of farmers (Hispanic, Asian, Native American, and African Americans) (National Agricultural Statistics Service (NASS), 2007) and increasing focus on programs such as New Americans New Farmers, reinforce the need to understand how the role of culture influences farm structure and transition. Each ethnic group has unique historical and cultural legacies that influence their goals, motivations, values, access to land, and resources, which, in turn, influence the way each group structures their farms and envision the future.

Likewise, farm transition policies and programs need to address the differences between male and female farmers, as women now account for 14% of principal farm operators (NASS, 2007). Surveys of the wider female farm population have found women emphasize not only the environmental and economic benefits of sustainable agriculture, but are also more likely to emphasize the link between agriculture and community sustainability and well-being (Chiappe and Flora, 1998; Trauger et al., 2008). Some of these gendered values have been correlated with specific farm

structures, including the prevalence of and preference for low-input production, cooperative farm markets, direct marketing, value-adding, and craft development. These differences directly impact current and future farm structure and land management decisions.

Multi-Generation vs. First-Generation Farmers: Motivations and Values

Multi-generation farmers (MG) and first-generation farmers (FG) (farmers who do not come from a farm family; the term FG is distinct from "Beginning Farmer" which is defined by the U.S. Department of Agriculture (USDA) as an individual farming 10 years or less) are two sub-groups of farmers that embody different motivations for farming. On the surface, MG and FG farmers demonstrate similar economic motivations for achieving and maintaining a livelihood (Inwood and Sharp, 2012). However, each group embodies a distinct set of economic and non-economic values that underlay the strategies MG and FG farmers use to structure their farm operations. Differences in goals can have nuanced, but profound, effects on the socialization of future heirs to farm life and the investments made to accommodate the next generation.

Many MG farms are able to pass down wealth in the form of knowledge, equipment, land, capital, and credit. These families may also socialize heirs to replicate family tradition and carry on farm legacies (Jonovic and Messick, 1986; Salamon, 1992). This process can lead to intense specialization and overcapitalization in one specific production system which can make adaptation to new production and marketing systems difficult (Clark, Munroe, and Mansfield, 2010). However, part of the development of a farm can also result from taking advantage of a future heir's off-farm work experience, knowledge, and skills and can increase the chance of creating a successful farm operation that revitalizes the operation (Jonovic and Messick, 1986; Gasson and Errington 1993).

FG farmers have been found to struggle to access capital, land, credit, and information (Mailfert, 2006). Yet, Barbieri and Mahoney (2009) found that younger farmers, especially those new to farming, were more entrepreneurial and willing to tolerate risks associated with innovation because they were not restricted by previous investments in traditional farming assets. However, in addition to the high barriers to entry, FG farmers can face great obstacles if they have limited farming skills. Additionally, many new entrants start farming later in life after they acquire the monetary resources needed to purchase land and equipment. At the time of entry, older FG farmers most likely have older children. Developmentally, it can be more difficult to socialize older children into a new way of life. If socialization is a key process, the question is "will FG farmers be able to socialize their children into agriculture, and what values will they pass on?"

Implications of Farm Diversification for Farm Transition

To reduce risk and maximize income, farmers are encouraged to simultaneously grow and diversify their operations. Farms can grow through expanding the land base, intensifying production and revenue on the existing land base, or a combination of the two. In land-constrained environments, families can also expand by diversifying their enterprise by incorporating new production and marketing systems of varying size and intensity to allow more family members to earn a living from the farm and accommodate different life-stages and abilities (Inwood and Sharp, 2012). As the business becomes more complex, and the number of individuals with specific skill-sets grows, the farm's legal structure in combination with the strategies families have for managing internal conflicts have serious implications for the future of the enterprise. When it comes time to transition, how are different skills valued, for example is one child's knowledge about soil fertility and animal nutrition valued the same as another child's knowledge about marketing?

Researchers and policy makers need to better understand how production systems intersect with the farmer life-cycle and the farm business-cycle. An individual's role and responsibility in the farm household and farm business change as they age. The way farm families organize and manage both the division of labor in the household and the farm enterprise have important implications for farm adaptation and persistence. In highly diversified operations, for example, the older generation may be the primary producer(s) while the younger generation may be more engaged with the marketing aspects of the business. This division of labor raises questions about the long term-viability of the production function of the farm enterprise. Will the younger 'marketing' generation eventually transition into a producer role? Or will he or she take on a manager role, employing labor to manage production and raise the crops? Future research should include long-term panel studies to understand how generational roles can shape agricultural change.

Health Care and Child Care Policies: Barriers or Opportunities for Farm Transitions?

The needs of the farm family change along the life cycle. At first glance, institutional theories of workforce development do not appear to fit with farm policy, but, in fact, health care and child care needs may limit both the ability of new farmers to enter agriculture and the ability of existing farm families to grow or even maintain viability.

Health Insurance

Health care costs have been cited as a significant problem for farmers. Studies consistently show farmers purchasing private insurance pay more than those obtaining benefits through an off-farm job (Jones et al., 2009; Mishra, El-Osta, and Ahearn, 2012). The Health Insurance Survey of Farm and Ranch Operators in the Midwest found that, while most respondents had health insurance, one in five had outstanding debt from medical bills with one in four reporting health care expenses contributed to their financial problems (Lottero et al., 2007). Insurance costs and high rates of underinsured farmers can have severe consequences for farm productivity, welfare, and transitions. Farmers tend to be cash poor and land rich, and transfer experts note that farmers are reluctant to transfer their land to a new generation for fear of giving up any assets that can be used for retirement and future medical costs (Parsons, 2013). This scenario paints a conundrum for young farmers who then have no equity upon which to build their operation.

In a study examining agricultural change in urbanizing environments, 66% of commercial farmers reported the cost of health insurance as a serious problem for their farm business (Inwood, Sharp, and Jackson-Smith, 2009). Interviews demonstrated how the cost of health insurance limits a farm's number of employees, especially in labor-intensive operations. This complicates agriculture creating a new economy with high-quality jobs that enhance employer and employee quality of life. Additionally, farm operators or their spouse often have an off-farm job for health care benefits (Ahearn, El-Osta, and Mishra, 2013), decreasing the amount of time available for farming and marketing. Resources are being re-directed towards health insurance rather than being reinvested. Ironically, in labor-intensive operations, farmers who have a spouse working off the farm to collect benefits may have to hire additional part-time labor that does not receive any health insurance benefits.

Child Care

Farms are idealized to be wonderful places to grow up; the reality is, they are hazardous places. In 2009, approximately 16,100 youths were injured on farms, only 3,400 of these injuries were directly related to farm work (Centers for Disease Control (CDC) 2012). The availability, quality, and cost of daycare is a particularly salient issue for farm families and farm transition planning, yet has received relatively little attention. Many parents (including farm families) seek to save money on childcare by keeping young children at home as the average cost of center-based care is $11,666 per year, with prices ranging from $3,582 to $18,773 a year (National Association of Child Care Resources and Referral Agencies (NACCRRA, 2011)). However,taking care of young children full time leaves limited time for business and household activities. This issue is exacerbated if one parent works off the farm.

These challenges are of particular concern for women, who can have multiple roles including: primary child caregiver, wage earner through off-farm employment, and farmer. According to the 2007 Census of Agriculture, there was a 30% increase in the number of women who were principal operators of a farm or ranch from 2002 (NASS, 2007). Nationally, 64% of all mothers return to work within the first year of giving birth (NACCRRA, 2011); however, without reliable, high-quality childcare options, women and farm families face significant challenges. This issue can also significantly impact FG farmers who move to a community to start farming but have no family and limited social support networks in the area. Farmers often cite the desire to live and work on a farm with their children. However, Extension and farm-based, non-profit organizations are reporting young families (especially new women farmers) are increasingly challenged to support both household and business needs. Unaddressed, childcare poses a serious obstacle for building a young, vibrant farm population.

National, state, and local policy makers are increasingly recognizing the contribution of childcare to child development, parental labor force mobilization, and regional economic development (Warner, 2006). While the benefits, availability, and cost of childcare have gained national attention, there has been no large-scale research examining how this issue impacts farm families, or how a federal rural development initiative coupled with state and community efforts addressing affordability and accessibility (such as by increasing the quality and affordability of in-home childcare providers in low density, rural areas) could impact the farm sector.

Future Policy and Research Directions

The persistence and growth of agriculture is partially dependent on policy and community environments that can provide the social and economic infrastructure farm families need (Sureshwaran and Ritchie, 2011). A responsive policy environment must include the social and cultural factors that influence farm economics and farm structure. There is a need to develop farm transition policies and technical assistance programs that are aligned with the values and needs of different types of farmers and their households. For MG farmers, policies can be oriented toward succession and quality of life in addition to programs assisting farms in transitioning and adapting to new market opportunities. There is a need to develop programs that encourage younger FG farmers with young children to develop meaningful attachments to

the land supported by their ability to make a meaningful livelihood off their farm.

Enterprise structure and succession models need to be created that better account for farm diversification by reflecting the different roles and skills each family member contributes towards production, marketing, and household functions. Policies and programs should be more responsive to the cultural, ethnic, and gender diversity of producers as they influence farmer and rancher goals, values, motivations, and technical assistance needs. Finally, we must examine how well rural development policies coordinate with farm transition and market infrastructure policies to ensure there are vibrant communities to which farm heirs want to return and to which new farmers want to move. Health care and childcare are key parts of this discussion.

To build a more vibrant and resilient farm economy that enhances the quality of life of farm and ranch families, it is necessary to expand our approach to farm transition at the federal, state, and community levels to include the social forces and cultural factors that impact producers.

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