Western Economics Forum
A Journal of the Western Agricultural Economics Association
WEF

# Transitioning Representative Ranches to the Next Generation

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## Introduction

Significant diversity exists among strategies and tools used to transfer a ranching operation from one generation to the next. The "right" strategy is highly dependent on specific characteristics of an operation and the family managing it. Transition planning considerations include how to keep the ranch intact, who will own and operate the ranch, timing of transfer, retirement income for the older generation, compensation of off-farm heirs, and estate tax planning (Ferrell, Jones and Hobbs 2015). To facilitate the transfer of a ranch, producers may utilize tools such as business structures, wills, trusts, transfer on death deeds, and retirement accounts. Usefulness of these tools varies across operations and is dependent on family dynamics, asset base, goals, and other operation-specific factors. Previous studies have evaluated numerous farm transfer considerations and modeled the use of various strategies to address these considerations. This study will analyze specific transition plans—developed from personal correspondence with producers—on representative ranches and illustrate the diverse outcomes of the same plan applied to different operations.

### *Research Objective*

The objective of this study is to take "real-world" transition planning scenarios, impose them on representative ranches, and simulate financial outcomes to determine which scenario is the most favorable and whether each ranch prefers the same scenario.

## Literature Review

Through years of experience and observation of successful and failed ranch transitions, consultants stress the need for specificity and documentation of transition plans for family agricultural operations (Ferrell, Jones and Hobbs 2016, Wittman and Radakovich 2009). In the early stages of transition planning, producers define goals, document ranch assets, and determine how to transfer ranch assets. A successful transition maintains a viable ranching operation and continuity in management in addition to the successful transferal of wealth. The factors to consider in ranch transitions are numerous: timing of transfer, retirement of senior generation, taxes, suitable choice of successor(s), business structure, "fair" and equitable treatment of heirs, and family dynamics and conflict.

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There are valid reasons producers name "time" as a roadblock to transition planning—it can be a complicated process with many steps. The transition planning process should begin with setting goals for the operation, so the plan can be designed to achieve those goals. If the goal is for the ranch to remain a viable operation and in the family, the plan should include strategies and provisions to support that goal. Ranch stakeholders should then determine the current financial standings of the business and evaluate financial feasibility to answer questions like, "how many people can the business support?" (Ferrell, Jones and Hobbs 2015). Many decisions follow these first steps:

- Who will be involved in the ranch?
- What roles will each person play?
- How will the older generation be provided for in retirement?
- What business structure will best facilitate the transition of the ranch?
- How and when will ownership of assets be transferred to the younger generation?
- Will ranch assets be transferred only to on-farm heirs? Will off-farm heirs be compensated with other assets?

The transition planning process is made more complex by the "family" component of a family ranch. There is no one-size-fits all approach to navigating the relational side of transition planning. Farm transitions hinge on the willingness of the older generation to transfer the operation. Literature on farmer identity and retirement shows some producers are reluctant to retire and hand over the reins to the younger generation, often discouraging the younger generation to stay on the farm (Kirkpatrick 2013, Lange, et al. 2016).

*Previous Analyses of Considerations in Transition Planning*

Boehlje and Eisgruber (1972) conducted a dynamic analysis of farm transfer and found the highest performing transfer plans were those which included large amounts of annual gifts during the life of parents. In an analysis of the choice of successor in family farms, Kimhi (1995) highlights challenges families face in successor decisions, one being the timing of management succession. Ideally, the operator is willing to yield power and the successor is prepared to run the farm at the same time. However, these events often do not line up.

Several studies evaluate the use of business structures to facilitate farm transfers. Leonard, et. al (2017) encourages farm partnerships to incentivize early succession and as a natural mechanism for gradual transfer. They provide the important caveat that the farm size and asset values matter; the farm must be able to support both partners. Hachfeld, et al. (2014), Hawbaker (n.d.), O'Donoghue, et al. (2011), and Salamon and Markan (1984) all highlight organization of family farms into a business entity to facilitate transfer of farm assets and management control. Business entities, such as a limited liability company (LLC) and corporations, keep farm assets together and allow ownership shares to be sold, gifted, or passed through an estate to the next generation. Formation of business entities can also be a method of including off-farm heirs while giving full management control to the on-farm heir, e.g., different classes of ownership shares (voting versus non-voting) can be created. Tauer (1985) illustrates another form of asset-balancing between heirs with the use of life insurance to fund the farm purchase from heirs—the on-farm heir has a life-insurance policy on their parent(s) and upon their death, proceeds are used to purchase the business from off-farm heirs. In other studies, life insurance is alternatively used by the parents to provide an asset to the off-farm heir equal to the farm assets given to the on-farm heir (Reed, et al. 2021).

Reed, et al. (2021) combines many of these ideas by simulating five farm transition alternatives on a representative farm in Oklahoma. The most favorable alternative included separate entities for the land and the operating assets (i.e., equipment, livestock). The on-farm heir gradually purchased shares in the operating entity during the parents' lifetime, and the land entity was split between on-farm and off-farm heirs at the time of the second parents' death. They concluded equitable, but unequal, division of assets had higher probabilities of success.

## Methodology and Data

*Methods*

In this study, the financial performance of two representative ranches is simulated for four scenarios to represent four different generational transition strategies. Since 1983, the Texas A&M University Agricultural and Food Policy Center (AFPC) has maintained a farm-level policy simulation model (FLIPSIM), developed by Richardson and Nixon, for analyzing the impact of proposed policy changes on U.S. farms and ranches. AFPC currently uses a next generation simulation model—Farm Economics and Solvency Projector (FarmESP)—developed by Dr. Henry Bryant, that moves to the Python platform. FarmESP incorporates risk on price and yield variables and simulates 500 iterations of stochastic output variables, including net cash farm income (NCFI), ending cash, real net worth, probability of negative ending cash, probability of declining real net worth, and debt-to-asset ratio. These output variables are used to summarize overall financial health of the representative operations.

Data to simulate ranching operations in this study comes primarily from the AFPC database of representative farms and ranches. Information to describe and simulate these operations comes from panels of producers (typically 4–6 producers per location) located in major agricultural production regions in 30 states across the United States. The panels are reconvened frequently to update their representative farm or ranch's data.

#### Assumptions

The following assumptions are made for each representative ranch:

1. The ranch is family-owned and operated. The family consists of a mom, a dad, and two children: On-Farm Heir and Off-Farm Heir.
2. On-Farm Heir works on the ranch full-time. Off-Farm Heir is not involved in the ranch.
3. The parents are alive throughout the simulation and are older than average retirement age. Whether they retire and transfer management is scenario dependent.
4. Prior to retirement and transfer of management, the parents receive a salary, or owner's draw, from the ranch.
5. On-Farm Heir is considered the ranch's full-time employee and receives an employee salary until the transfer of management occurs.
6. If parents retire and On-Farm Heir becomes the operator, On-Farm Heir is paid the owner's draw and hires a full-time employee (ranch still requires two full-time people).

#### Scenarios

The four ranch transfer scenarios analyzed in this study were developed based on phone interviews with AFPC representative ranch panel members regarding ongoing succession and estate planning practices in their own operations. They answered questions about the transfer of ranch management and ownership, operational structure, compensation of off-farm heirs, retirement of the older generation, family dynamics, and formality of their transition plan. The

following scenarios are modeled after the interviewees' responses. The assumed goal of each transition scenario is to maintain a viable ranching operation where ownership and management remain in the family.

### SCENARIO 1

In scenario 1, the representative ranch is organized into an LLC. An 80% interest in the LLC is gifted to On-Farm Heir, and On-Farm Heir is given full control of day-to-day management decisions. The parents retain a 20% interest in the LLC and receive a retirement income from the ranch. There are three classes of ownership: non-voting, voting on day-to-day operations, and voting on major decisions. The bulk of the ownership is non-voting interest, which can be discounted substantially from a gift tax standpoint (Heiser 2023). On-Farm Heir, mom, and dad each have a 1% voting interest for major decisions. Only On-Farm Heir has voting interest for day-to-day operations. The parents' interest in the LLC is put into an irrevocable living trust, of which On-Farm Heir is the beneficiary. Use of an irrevocable trust can reduce estate taxes, and assets in a trust avoid the probate process. An irrevocable living trust is also used in this scenario to prevent the parents from changing their mind about leaving all ranch assets to only one child, giving On-Farm Heir peace of mind that the plan will not change.

In this scenario, the ranch remains in one piece with simple ownership (ranch owners are its operators). This scenario requires the willingness of the parents to transfer ownership during their lifetime and only to one child and not the other. In an alternative to this scenario (Scenario 1B), the parents purchase a life insurance policy to create a financial asset for Off-Farm Heir equal to the value of assets received by On-Farm Heir.

### SCENARIO 2

In scenario 2, the representative ranch is split into two entities (LLCs). One entity holds the land, and the other serves as the operating entity. The operating entity holds all livestock and equipment. On-Farm Heir and Off-Farm Heir each own a 25% interest in the land entity (inherited from their grandparents). The parents maintain the remaining interest (50%) in the land entity which is held in a trust. The LLC operating agreement includes restrictions pertaining to the sale of interest in the land entity—interest must be offered to one of the other members first, and members have a specified amount of time to secure funding and close the sale. After both parents pass away, the parents' remaining interest in the land entity will be split evenly between On-Farm Heir and Off-Farm Heir. On-Farm Heir takes out a loan to purchase Off-Farm Heir's 25% interest in the land entity to prevent Off-Farm Heir from selling his or her interest to outside parties.

During their life, the parents gift a 50% interest in the operating entity to On-Farm Heir, and On-Farm Heir is given full control of day-to-day management decisions. The parents maintain the remaining 50% interest and receive a retirement income from the ranch. After both parents pass away, the parents' remaining interest in the operating entity will be passed to On-Farm Heir. This interest in the operating entity will be gifted to On-Farm Heir in recognition of the "sweat-equity" contributed to the operation; therefore, Off-Farm Heir is not provided with similar compensation. In an alternative to this scenario (Scenario 2B), the parents do not recognize sweat equity of On-Farm Heir and purchase a life insurance policy to create a financial asset for Off-Farm Heir equal to the value of assets received by On-Farm Heir.

This scenario allows for split ownership of land between heirs. This scenario requires the willingness of the parents to transfer ownership during their lifetimes.

SCENARIO 3

In scenario 3, the representative ranch is split into two entities (LLCs). One entity holds the land, and the other serves as the operating entity. The operating entity holds all livestock and equipment. The parents own the majority interest in the land entity, and On-Farm Heir owns the remaining interest (interest was not gifted to On-Farm Heir; On-Farm Heir has purchased additional land for the ranch). The parents maintain their ownership in the land entity until they pass away. After both parents pass away, their interest in the land entity will be divided between On-Farm Heir and Off-Farm Heir. The LLC operating agreement includes restrictions pertaining to sale of interest in the land entity—interest can only be gifted or sold to a blood relative.

The parents allow On-Farm Heir to begin purchasing interest in the operating entity. On-Farm Heir handles all day-to-day management, but the parents reserve the right to veto On-Farm Heir's decisions. The parents receive a retirement income from the ranch. After both parents pass away, their remaining interest in the operating entity will be split between On-Farm and Off-Farm Heir. This arrangement incentivizes On-Farm Heir to purchase as much interest in the operating entity as possible before the parents pass away.

In this scenario, the parents are unwilling to transfer any interest in the land entity during their lifetime and unwilling to gift any interest in the operating entity during their lifetime. They also plan to split remaining assets equally between heirs upon their passing.

SCENARIO 4

Scenario 4 relaxes the first assumption that there is one on-farm heir and one off-farm heir. In this scenario, both children work on the ranch and continue operating together after their parents pass away. The ranch is put into an LLC. The parents gift a 25% interest to each of their children. The parents maintain a 50% interest. The parents also begin investing in a retirement account. By the time the parents are 70 years old (rancher retirement age), the heirs have full control of day-to-day management decisions. When they are 70 years old, the parents gift the remaining 50% interest to their children, 25% to each, and begin to live off their retirement savings. This scenario requires the parents to be willing to completely step away from the ranch, giving up control of assets and management control.

*Representative Ranch Data*

AFPC currently maintains 11 representative ranches (the representative farms with beef cattle as their primary source of receipts)—8 are in Western states: Colorado, Montana, New Mexico, Nevada, Texas, and Wyoming. Texas and Nevada each have two representative ranch locations. The two Nevada ranches are used in this study; while similar in operation, they differ significantly in land assets. These two ranches were chosen to illustrate the difference in transition planning considerations between operations with different asset levels. The Nevada ranches are denoted "NVB650" and "NVSB550" to distinguish between the Nevada ranch and the Southern Nevada ranch, respectively. The "B" describes the type of farm (beef cattle), and the number indicates the number of mature cows. AFPC's representative ranches are assumed to be full-time, commercial-scale family operations. Results of this analysis are expected to vary by ranch depending on each ranch's asset base. Table 1 provides the net worth of NVB650 and NVSB550, the number of cropland and pastureland acres, and the percent of each ranch's land that is owned. The other Western representative ranches are also included in Table 1 to allow for a comparison of ranch size and asset base. All AFPC representative ranches have assumed initial debt levels of 1% for land and 5% for cattle and machinery.

Table 1. Real Net Worth and Land Size of Western Representative Ranches

| | 2022 Real Net Worth | Cropland | | Pastureland | |
|---|---|---|---|---|---|
| | ($1000) | Acres | Percent Owned | Acres | Percent Owned |
| NVB650 | 10,776 | 1,300 | 100% | 10,725 | 81% |
| NVSB550 | 3,613 | 125 | 100% | 375 | 100% |
| COB250 | 15,321 | 650 | 69% | 2,850 | 81% |
| MTB600 | 7,706 | 900 | 100% | 20,700 | 63% |
| NMB210 | 6,544 | 0 | 0% | 12,333 | 82% |
| TXRB400 | 13,177 | 0 | 0% | 20,000 | 50% |
| TXSB300 | 8,945 | 100 | 100% | 1,575 | 51% |
| WYB475 | 2,651 | 330 | 100% | 2,200 | 68% |

Projected prices, policy variables, and input inflation rates are from the Food and Agricultural Policy Research Institute (FAPRI) 2024 Baseline. Table 2 shows the baseline livestock prices from 2022–2030 (FAPRI 2024). Projected values (2024–2030) are mean stochastic values. Rates of change in input prices are used by the simulation model to annually inflate input cost data provided by panels of ranchers over the simulation period. Each time panels are reconvened, data is collected for the most recent year—this is the "data year." The simulation model applies FAPRI rates of change data to appropriately inflate deterministic "data year" values in simulations of future stochastic values.

Table 2. FAPRI August 2024 Baseline Livestock Prices, 2022–2030

| | **2022** | **2023** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** | **2030** |
|---|---|---|---|---|---|---|---|---|---|
| Feeders ($/cwt) | 181.5 | 243.0 | 283.7 | 289.7 | 291.7 | 289.5 | 277.9 | 260.8 | 241.6 |
| Fed Cattle ($/cwt) | 144.4 | 175.5 | 188.0 | 191.5 | 191.0 | 190.0 | 184.3 | 175.4 | 165.2 |
| Cull Cows ($/cwt) | 76.3 | 95.8 | 114.7 | 118.1 | 117.5 | 116.5 | 111.4 | 103.7 | 95.0 |

**Nevada Ranch Baseline**

The Nevada Representative Ranch (NVB650 or NVB) is a cow-calf operation in Elko County, Nevada. NVB maintains 650 mature cows on 10,725 acres of pastureland. NVB owns 1,300 acres of hay meadow and 8,725 pastureland acres. NVB leases 2,000 additional pastureland acres that is supplemented by 3,560 AUMs (animal unit months) of public land. NVB is operated by two full-time people, the owner-operator and one employee.

**South Nevada Ranch Baseline**

The South Nevada Representative Ranch (NVSB550 or NVSB) is a 550-cow operation in Lincoln County, Nevada. NVSB consists of 125 acres of owned hay meadow and 375 acres of owned pastureland. The ranch does not lease any land but is supplemented by 7,600 AUMs of public land. NVSB is operated by two full-time people, the owner-operator and one employee.

## Results

As a means of summarizing the economic efficiencies, liquidity positions, and solvency positions of the representative farms and ranches, FarmESP classifies each operation as being in a good (green), marginal (yellow), or poor (red) position (Outlaw, et al. 2024). AFPC considers a farm to be in a good financial position when it has less than a 25% chance of a negative ending cash position and less than a 25% chance of losing real net worth through the end of the simulation. If the probability of a negative ending cash position and loss of real net worth is between 25% and 50%, the farm is classified as marginal. Probabilities greater than 50% place the farm in a poor financial condition. Results are simulated from 2022 to 2030; 2024 to 2030 is the projection period and historical data from 2022 and 2023 are included for model calibration. The overall goal for each representative ranch is to maintain viability in the transition to the next generation. Ideally, the transition will not weaken the financial position of the ranch relative to the baseline.

### *Results for Nevada Representative Ranch—NVB*

In the baseline, NVB is in good overall financial condition. NVB expects average annual NCFI of $292,954 over the simulation period. Ending cash is positive and increasing over the simulation period; expected 2030 ending cash is $709,268 with a 0% chance of negative ending cash. Real net worth in 2030 is $12,564,054 with a 0% chance of decreasing real net worth by 2030. The debt-to-asset ratio is 0.01. Table 3 shows the financial condition of NVB under each scenario using the green, yellow, and red classification. Under scenarios 1 and 4, NVB is green; under scenarios 1B, 2, 2B, and 3, NVB is red.

Table 3. Financial Condition of NVB under Each Scenario

| | **Average NCFI ($1000)** | **Ending Cash ($1000)** | **P(Negative Ending Cash)** | **Real Net Worth ($1000** | **P(Real Net Worth Declines)** | **Debt-to-Asset Ratio** |
|---|---|---|---|---|---|---|
| | 2022–2030 | 2030 | 2030 | 2030 | 2030 | 2030 |
| Baseline | 292.95 | 709.27 | 0 | 12,564.05 | 0 | 0.01 |
| Scenario 1 | 237.99 | 349.84 | 0.02 | 12,223.75 | 0 | 0.01 |
| Scenario 1B | -2.42 | -1,482.50 | 1 | 10,488.85 | 0.58 | 0.13 |
| Scenario 2 | 45.57 | -2,634.78 | 1 | -897.31 | 1 | 1.53 |
| Scenario 2B | 5.67 | -2,972.24 | 1 | -1,216.82 | 1 | 1.73 |
| Scenario 3 | 187.10 | -465.08 | 1 | 1,157.00 | 0.29 | 0.32 |
| Scenario 4 | 376.85 | 558.53 | 0 | 12,421.33 | 0 | 0.01 |

1. Viability is classified as good (green), moderate (yellow), and poor (red) based on the probabilities: <0.25 (green), 0.25-0.50 (yellow), and >0.50 (red).
2. P(Negative Ending Cash) is the probability the farm will have a cash flow deficit.
3. P(Real Net Worth Declines) is the probability that the farm will have a loss in real net worth relative to beginning net worth.
4. Overall classification is represented in the first column.

In scenario 1, operation and viability of NVB is very similar to the baseline—the ranch incurs some minor additional costs, i.e., additional legal and accounting fees and a retirement salary for parents. Viability of NVB is unraveled in scenario 1B when the cost of a life insurance policy is added to create an asset for Off-Farm Heir. Scenarios 2 and 3 split the land and operation into separate entities. Under these scenarios, new costs include additional legal and accounting fees, retirement salary for parents, and payments on a new loan. In scenario 2, the loan is used to buy out Off-Farm Heir's interest in the land entity, and in scenario 3, the loan is used to buy into the operating entity. The added cost of a life insurance policy in scenario 2B does not help matters. In scenarios 2 and 2B, the debt-to-asset ratio increases to 1.53 and 1.73,

respectively because of the added land debt. The additional debt in Scenario 3 brings the debt-to-asset ratio to 0.32. Scenario 4 is like the baseline—the only additional cost of a second owner's draw is almost offset by the removal of the full-time employee since siblings operate the ranch together and parents do not require retirement income from the ranch.

*Results for Southern Nevada Representative Ranch—NVSB*

In the baseline, NVSB is in good overall financial condition. The expectation of average annual NCFI for NVSB is $233,423 over the simulation period. Expected 2030 ending cash is $899,732 with a 0% chance of negative ending cash. Real net worth in 2030 is $4,879,722 with a 0% chance of decreasing real net worth by 2029. The debt-to-asset ratio is 0.03. Table 4 shows the financial condition of NVSB under each scenario over the simulation period using the green, yellow, and red classification. Under scenarios 1, 1B, and 4, NVSB is green; under scenarios 2, 2B, and 3, NVSB is yellow.

Table 4. Financial Condition of NVSB under Each Scenario

| | **Average NCFI ($1000)** | **Ending Cash ($1000)** | **P(Negative Ending Cash)** | **Real Net Worth ($1000** | **P(Real Net Worth Declines)** | **Debt-to-Asset Ratio** |
|---|---|---|---|---|---|---|
| | 2022–2030 | 2030 | 2030 | 2030 | 2030 | 2030 |
| Baseline | 269.08 | 899.73 | 0 | 4,879.72 | 0 | 0.03 |
| Scenario 1 | 226.97 | 629.51 | 0 | 4,623.87 | 0 | 0.03 |
| Scenario 1B | 153.18 | 128.31 | 0.15 | 4,149.33 | 0 | 0.03 |
| Scenario 2 | 199.51 | 69.36 | 0.29 | 1,347.44 | 0.01 | 0.10 |
| Scenario 2B | 169.99 | -130.35 | 0.81 | 1,158.35 | 0.08 | 0.18 |
| Scenario 3 | 198.40 | 11.33 | 0.44 | 1,292.49 | 0.01 | 0.11 |
| Scenario 4 | 337.07 | 785.38 | 0 | 4,771.45 | 0 | 0.03 |

1. Viability is classified as good (green), moderate (yellow), and poor (red) based on the probabilities: <0.25 (green), 0.25-0.50 (yellow), and >0.50 (red).
2. P(Negative Ending Cash) is the probability the farm will have a cash flow deficit.
3. P(Real Net Worth Declines) is the probability that the farm will have a loss in real net worth relative to beginning net worth.
4. Overall classification is represented in the first column.

Like NVB, NVSB maintains good economic viability under scenario 1, but unlike NVB, NVSB remains in good condition under scenario 1B when the cost of the life insurance policy is added. This is because the asset created by the life insurance policy for NVSB's Off-Farm Heir is much smaller than the asset required to compensate NVB's Off-Farm Heir. The loan payments incurred by NVSB under scenarios 2 and 3 put strain on NVSB's viability. However, the lower asset base of NVSB compared to NVB means smaller loans, and NVSB experiences marginal condition rather than poor. For NVSB, the highest debt-to-asset ratio reached is 0.18 (Scenario 2B) compared to 1.73 for Scenario 2B applied to NVB. Scenario 2B places the ranch in marginal condition; like in scenario 1B, the cost of the life insurance policy has a less drastic effect on NVSB relative to NVB. In scenario 4, NVSB maintains good financial condition as siblings replace their parents as ranch operators.

## Conclusion

The two representative ranches chosen for this study are similar in terms of operating practices and assets but diverse in terms of land assets. The ranches were analyzed under 4 transition plan implementation scenarios to evaluate their ability to remain viable under each plan, a requirement if a ranch is to survive to the next generation. Results indicate the optimal ranch

transition plan depends on factors specific to each operation: asset base, income, number of operators, ideas of "fair" and equitable treatment of off-farm heirs, willingness of the senior generation to pass on management and ownership to the successor, and initiative by the senior generation in planning for retirement.

Transfer of all ranch assets to on-farm heir(s) (scenarios 1 and 4) provided the highest likelihood of viability. However, parents may not be willing to transfer all ranch assets to one child like in scenario 1. They also may not have two children willing to operate together or have an operation that can support two operators like in scenario 4. In most cases, the representative ranches could not afford to buy out assets from the off-farm sibling (scenarios 1B, 2, 2B, and 3). Buyout scenarios made the ranches worse off, and in the case of NVB, placed the ranch in a poor financial position. Use of a life insurance policy to make the off-farm heir whole also left the ranches worse off and challenged financial conditions of the operations (scenarios 1B and 2B). Again, this was more evident for NVB since it would take more to make the NVB off-farm heir whole compared to NVSB. Dividing ownership between heirs (with restrictions to protect the ranch from sale through trusts or operating agreements of a business structure) could produce a desirable outcome for those determined to treat heirs equitably, like in scenario 2, especially under a better-case scenario where the on-farm heir did not feel the need to buy the off-farm heir's interest.

A clear limitation of this study is the analysis of four transition plan scenarios on two representative ranches; meanwhile, there are countless ways to construct a ranch transition plan which are highly dependent on the operation they are applied to. The goal of this study was to illustrate potential ranch transition scenarios and show their differing effects on the viability of diverse representative ranches. The results of this analysis show that the same scenarios applied to different operations have different outcomes. When developing a transition plan, ranchers should consider the potential implications of transition strategies on their specific operation with an understanding that there is no one-size-fits-all approach.

**References**

Boehlje, Michael D., and Ludwig M. Eisgruber. 1972. "Strategies for the Creation and Transfer of the Farm Estate." *American Journal of Agricultural Economics* 54(3).

FAPRI. 2024. *2024 Baseline Update for U.S. Agricultural Markets.* Data Table, Columbia, MO: Food and Agricultural Policy Research Institute, University of Missouri.

Ferrell, Shannon L., Rodney Jones, and J.C. Hobbs. 2016. "Farm Transition Planning: Helping Clients with the Expected and the Unexpected." *10th Annual John Huffaker Agricultural Law Course.*

Ferrell, Shannon L., Rodney Jones, and J.C. Hobbs. 2015. *Farm Transitions Workbook.* U.S. Deparment of Agriculture, National Institute of Food and Agriculture; Southern Extension Risk Management Education Center; Oklahoma State University Extension.

Hachfeld, Gary A., David B. Bau, and C. Robert Holcomb. 2014. "Preparing to Transfer the Farm Business." *University of Minnesota Extension: Tranferring the Farm Series* #1.

Hawbaker, Joe M. n.d. *Ownership Structures for Your Farm or Ranch: Some Basic Considerations.* Center for Rural Affairs, North Central Risk Management Education Center, University of Nebraska – Lincoln.

Heiser, Larry. 2023. *Personal Communication* (September 6).

Kimhi, Ayal. 1995. "Differential Human Capital Investments and the Choice of Successor in Family Farms." *American Journal of Agricultural Economics* 77(3):719–724.

Kirkpatrick, Joy. 2013. "Retired Farmer–An Elusive Concept." *Choices* 28 (2).

Lange, Kelly, Jeff Johnson, Phillip Johnson, Darren Hudson, Chenggang Wang, and A. William Gustafson. 2016. "Farm Succession in Texas: A Qualitative Approach." *International Journal of Agricultural Management* 5(3):58–69.

Leonard, Brian, Marie Mahon, Anne Kinsella, Cathal O'Donoghue, Maura Farrell, Thomas Curran, and Thia Hennessy. 2017. "The Potential of Farm Partnerships to Facilitate Farm Succession and Inheritance." *International Journal of Agricultural Management* 6(1):4–19.

O'Donoghue, Eric J., Robert A. Hoppe, David E. Banker, Robert Ebel, Keith Fuglie, Penni Korb, Michael Livingston, Cynthia Nickerson, and Carmen Sandretto. 2011. "The Changing Organization of U.S. Farming." *USDA ERS Economic Information Bulletin* 88.

Outlaw, Joe L., Bart L. Fischer, George M. Knapek, Brian K. Herbst, J. Marc Raulston, Henry L. Bryant, David P. Anderson, et al. 2024. "AFPC Representative Farm Economic Outlook for the 2024 FAPRI Baseline." March. Accessed December 5, 2024. https://afpc.tamu.edu/research/publications/files/726/BP-24-2.pdf.

Reed, Garret, Shannon Ferrell, Eric A. DeVuyst, and Rodney Jones. 2021. "A Model of Farm Transition Planning for the U.S. Plains." *Journal of Applied Farm Economics* 59–72.

Salamon, Sonya, and Kathleen K. Markan. 1984. "Incorporation in the Family Farm." *Journal of Marriage and Family* 46(1):167–178.

Tauer, Loren W. 1985. "Use of Life Insurance to Fund the Farm Purchase from Heirs." *American Journal of Agricultural Economics* 67(1):60–69.

Wittman, Dick, and J. D. Radakovich. 2009. "Positioning Your Ranch for Business Succession." *King Ranch Institute for Ranch Management, Texas A&M University–Kingsville.*