

# SRR Socio-Economic Assessment Indicators

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# Social and Economic Indicators

- Introduction: Why these indicators?
- Indicators
- Assessing the indicators



# Why These Indicators?

- Social and Economic
- 2 legs of the 3 legged stool
- Economic – Staying in business
- Social – Wanting to stay in business
- Social – Way-of-Life



# Ranch-Level Indicators

- Cost of livestock production
- Itemized income and expenses
- Visitor use information for appropriate enterprises



# Social Indicators

- The ranch-level indicators are all economic
- Social is determined in the ranch planning process
  - Family
  - Workers
  - Relationship to public



# Economic Indicators

- Livestock production
- Benefits from other ecosystem services
- Creating new enterprises





# Cost of Livestock Production

- Unit cost of production
  - Variable inputs and costs
  - Fixed inputs and costs
- Programs such as Standardized Production Analysis (SPA)
- Seeking those items that can be reduced or used more efficiently
- Lower cost of production reduces breakeven price



# Example

- Identify all costs of producing cattle
  - Variable costs
  - Fixed costs
  - Charge ranch-produced inputs (i.e., hay) at market value
- Variable costs change with each cow
- Fixed costs/cow are inverse to number of cows
  
- Find break-even price (weighted average)

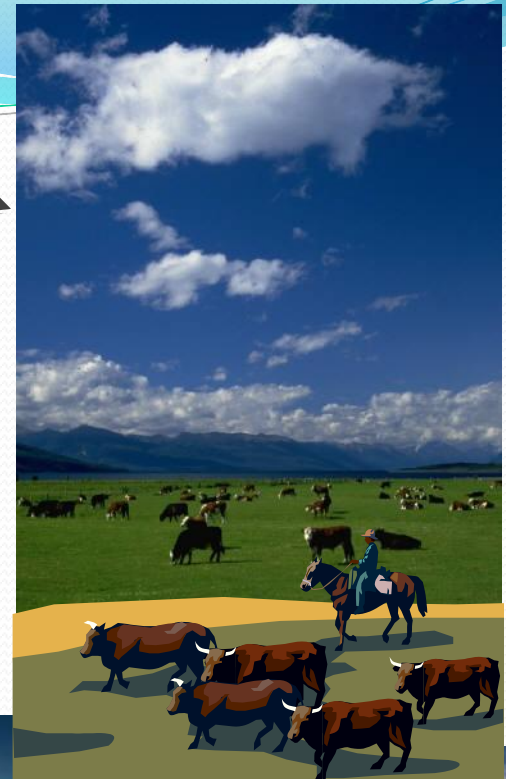






# Variable Costs

- 1 COW, 2 COWS, ... , 1,000 COWS
- What changes?



# Fixed Costs

- Manager
- Land



# Confounding Factors

- Herd size varies
- Production varies
- Changes in production or management practices
- Not every year is the same
- Continuous monitoring of changes and new break-even prices
- What is sold for income?



# Itemized Income/Expenses

- Enterprise budgeting for each product
- Can help in allocating fixed costs





# Enterprise Budgets

- Sources of Income
- Sources of Variable Costs
- Allocate gross margin to fixed costs

## EM 8470 Enterprise Budget

COW/CALF COSTS and RETURNS  
High Desert Area  
350-Cow Herd

<u>GROSS REVENUE by Type</u>	<u>Quantity/Unit</u>	<u>\$/Unit</u>	<u>Total</u>	<u>Per Cow</u>	<u>Your Cost</u>	
Cull Bulls	2.8 hd @ 15.0 owt	51.00	2,140.00	6.11	_____	
Cull Cows	45 hd @ 9.5 owt	42.00	17,791.00	50.83	_____	
Cull Horse	50 hd @ 1.0 hd	600.00	300.00	0.88	_____	
Heifer Calves	33 hd @ 4.75 owt	74.00	11,603.00	33.15	_____	
Yearling Heifers	57 hd @ 8.5 owt	67.00	32,475.00	92.79	_____	
Steer Calves	143 hd @ 5.25 owt	61.00	81,083.00	174.52	_____	
<b>Total GROSS Revenue</b>			<b>\$125,392.00</b>	<b>\$358.28</b>	_____	
<u>CASH COST by Type</u>	<u>Quantity</u>	<u>Unit</u>	<u>\$/Unit</u>	<u>Total</u>	<u>Per Cow</u>	<u>Your Cost</u>
Pasture Irrigation and Fertilizer	720.00	aum	7.00	5,040.00	14.40	_____
Native Hay	596.00	tn	60.00	35,784.00	102.24	_____
Alfalfa Hay	118.00	tn	85.00	9,880.00	28.17	_____
Public Land Grazing Fee	1,480.00	aum	1.83	2,672.00	7.63	_____
Salt				1,120.00	3.20	_____
Minerals (custom mix)				840.00	2.40	_____
Fuel & Lube, Machinery & Equipment				3,363.00	9.61	_____
Interest - Operating Capital (10% for 8 mo.)				2,706.00	7.73	_____
Hired Labor				6,001.00	22.68	_____
Repairs, Machinery & Equipment				4,539.00	12.97	_____
Fence Repair Materials				1,000.00	2.88	_____
Supplies				1,050.00	3.00	_____
Utilities				900.00	2.57	_____
Vet & Medicine				3,500.00	10.00	_____
Brand Inspection				525.00	1.50	_____
Bull Purchase	2.80	hd	2,000.00	5,600.00	16.00	_____
Horse Purchase	0.50	hd	2,000.00	1,000.00	2.88	_____
Marketing Fees				3,791.00	10.83	_____
Accounting				1,201.00	3.43	_____
Legal and Related Expenses				1,001.00	2.86	_____
Family Labor				12,000.00	34.29	_____
Miscellaneous				1,502.00	4.29	_____
<b>Total VARIABLE Cost</b>				<b>\$106,983.00</b>	<b>\$305.69</b>	_____
<b>GROSS REVENUE minus VARIABLE Cost</b>				<b>\$18,400.00</b>	<b>\$52.57</b>	_____
<u>CASH FIXED Cost</u>						
Machinery & Equipment Insurance & Taxes (Tables 1 & 3)				2,369.00	6.77	_____
Property Taxes				2,500.00	7.14	_____
<b>Total CASH FIXED Cost</b>				<b>\$4,869.00</b>	<b>\$13.91</b>	_____
<b>Total VARIABLE and CASH FIXED Costs</b>				<b>\$111,862.00</b>	<b>\$319.61</b>	_____
<u>OTHER COSTS and RETURNS</u>				<u>Total</u>	<u>Per Cow</u>	<u>Your Cost</u>
<b>NET PROJECTED RETURNS OVER VARIABLE and CASH FIXED Costs</b>				<b>\$13,531.00</b>	<b>\$38.68</b>	_____
Noncash Fixed Cost of Depr. & Interest (10%) on Machinery & Equip. (Tables 1 & 3)				\$13,367.00	\$38.25	_____
<b>NET PROJECTED RETURNS TO LAND &amp; LIVESTOCK OWNERSHIP</b>				<b>\$144.00</b>	<b>\$0.41</b>	_____
Opportunity Cost of Land Ownership (\$1,750/oww-unit x 350 units @ 2.5%)				\$15,312.00	\$43.75	_____
Opportunity Cost of Livestock Ownership (Table 2)				\$5,853.00	\$16.15	_____
<b>PROJECTED RETURNS NET OF ALL ECONOMIC COSTS</b>				<b>-\$20,821.00</b>	<b>-\$52.64</b>	_____
<b>PROJECTED RETURNS TO LAND &amp; LIVESTOCK OWNERSHIP, &amp; FAM LAB</b>				<b>\$12,144.00</b>	<b>\$34.70</b>	_____

# Modified Income Statement

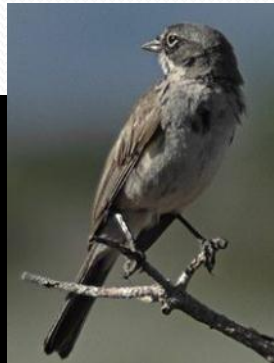
- “Will the ranch produce enough *net income* for the family to *live on*?”
- “How much net ranch income (including real estate appreciation) is available to compensate investment of owned capital (equity)?”

Workman, J.P. 1981. Analyzing Ranch Income Statements—A Modified Approach. *Rangelands* 3:146-148.



# Visitor Use Information

- If ranch is in hunting or fishing leases or other recreational activities
- If ranch is used by people for any activity
- Identify enterprises that may have profit potential
- Monitor how much use occurs each year for each recreational use





# Summary – Economic Indicators

- Need to monitor every enterprise
- Need to determine the family (ranch) goals for each enterprise
- Is it profit maximization, opportunity to educate public, just like doing it, or what?
- Monitoring over time may provide information on needed changes (stop doing that enterprise, expand others, modify how things are done)

