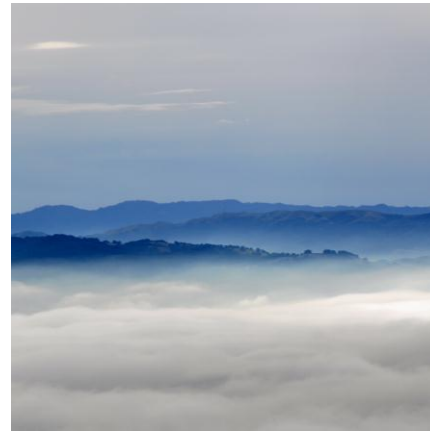


Value Chains in North Bay Agriculture

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Value Chains as Strategy Tools



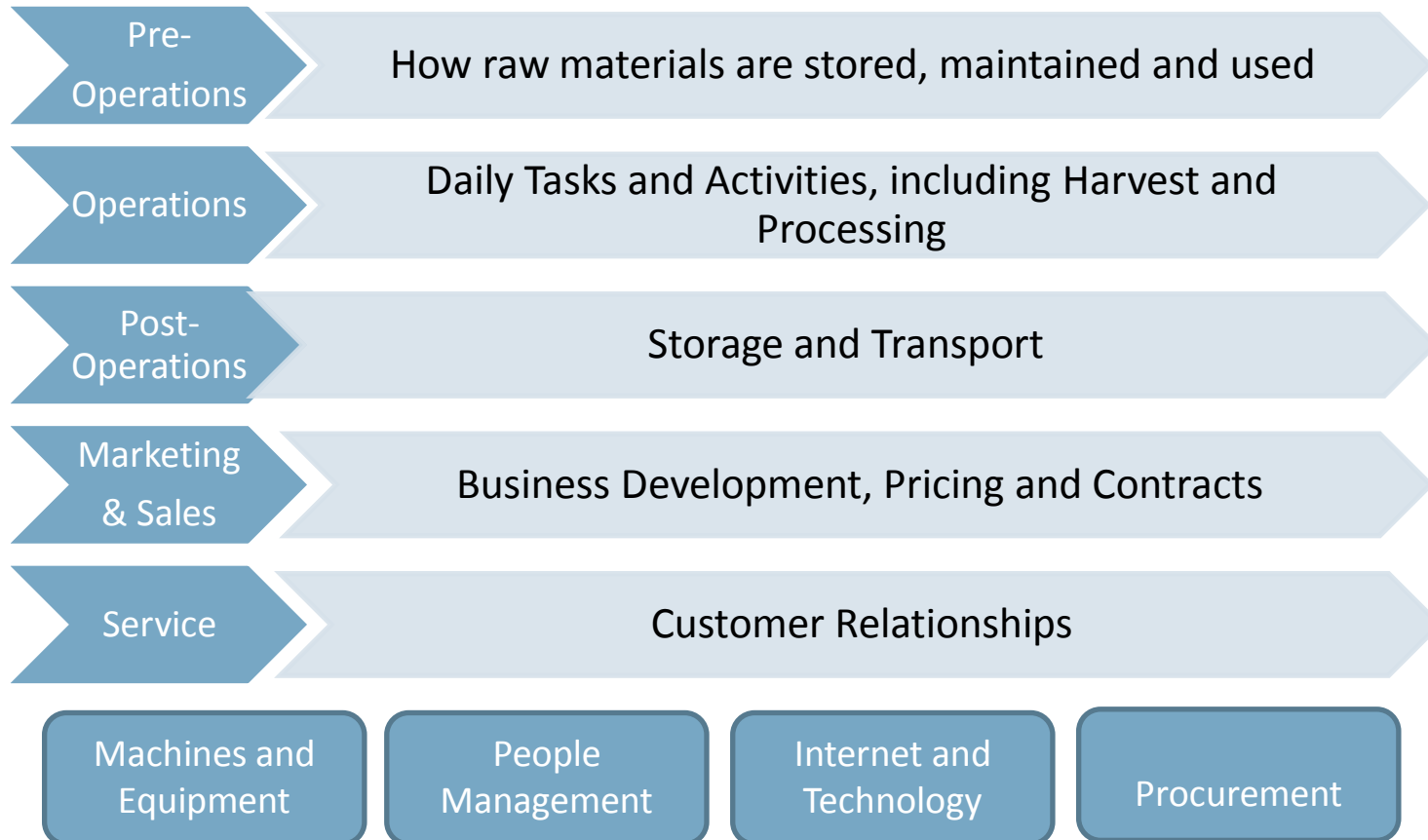
- Value chains show how each activity adds value to a good
 - Measured as “activities”
 - Can come directly from tax or accounting documents
 - Can compare to industry benchmarks, neighbors, regional farms to see where farmers need help
 - Can show where a farmer, industry or region has **competitive advantage** over others
 - Different than supply chains in subtle, important ways
- We investigated dairies, grass-fed beef ranching, and grain farming

Value vs. Supply Chains

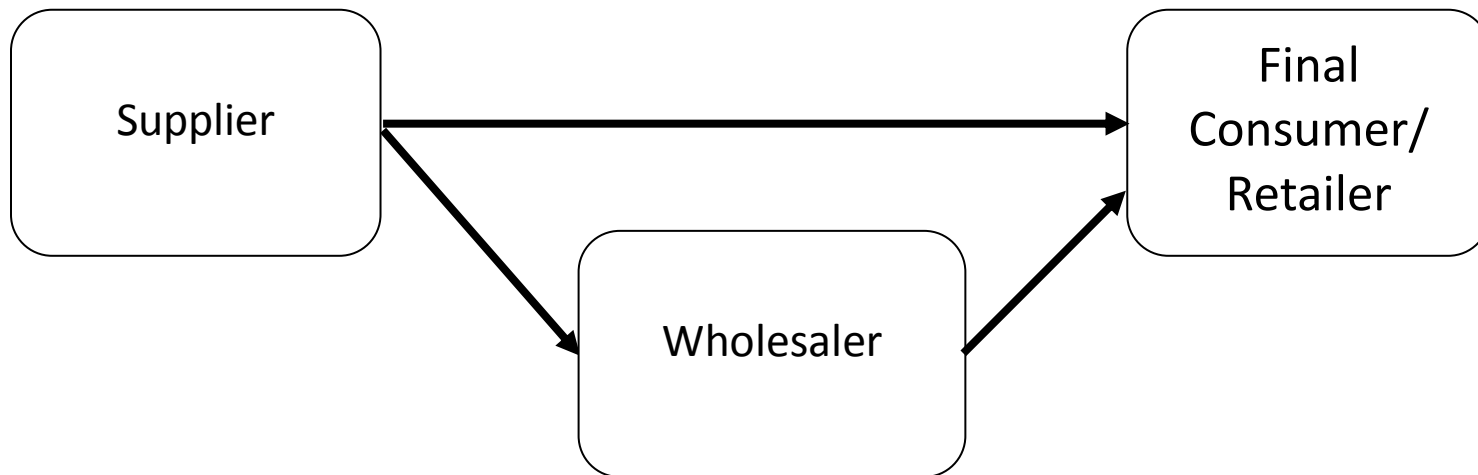


- Value chains link activities financially **within** a production process for a good or service
- Supply chains link activities financially **between** suppliers, wholesalers and final consumers
- Each firm in the supply chain will have its own value chain
 - Each part of the supply chain affects other parts add value to a good or service
 - Hence the confusion: the sum of the supply chain is the “value-added” from raw material to final consumer.

Value Chain Example



Supply Chain Example

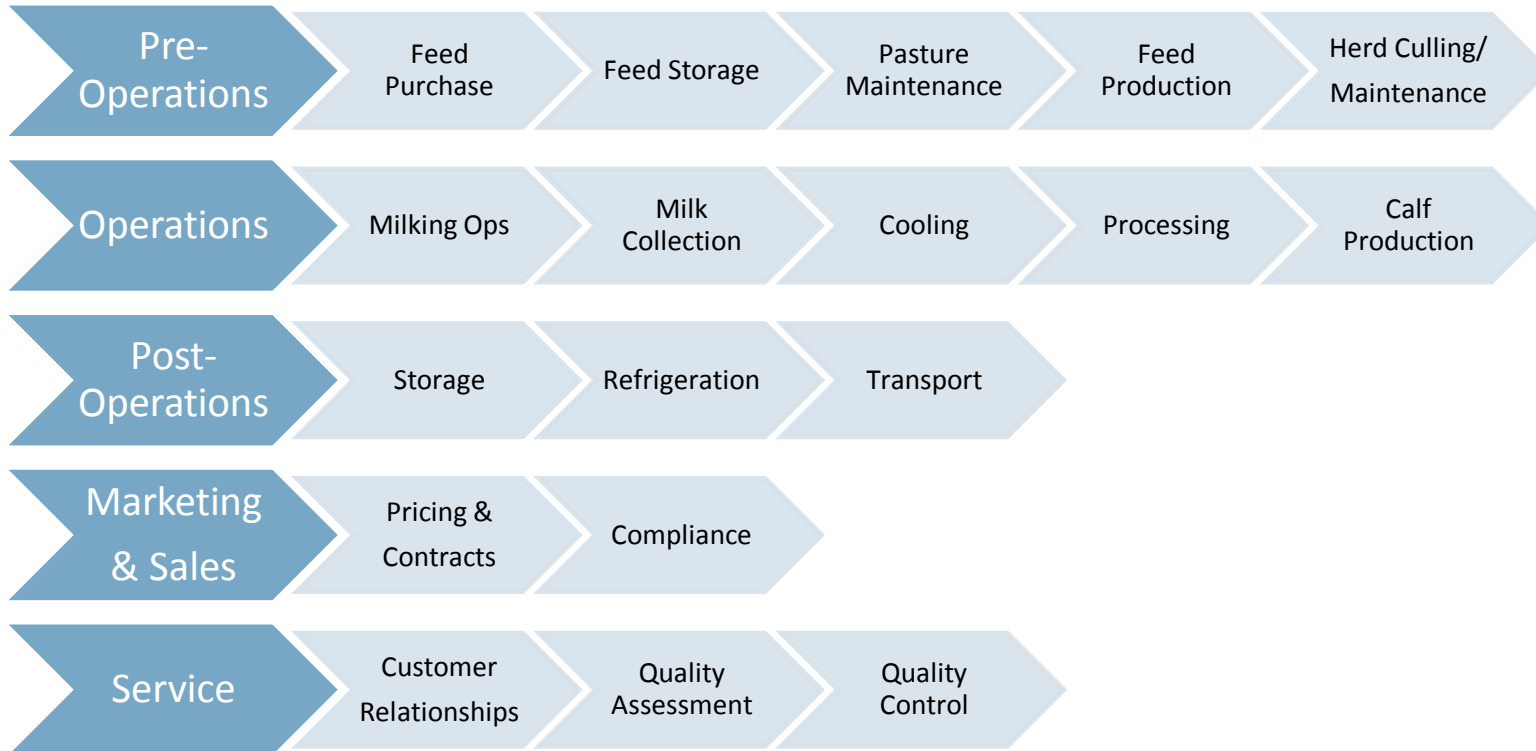


Dairy Value Chains, Sonoma and Marin



- Dairies produce fluid milk
 - Dairies may be able to expand to other, value-add operations
 - Such expansions create new value chains
 - If on the same farm, cheese becomes a step in the supply chain with a new value chain
- North Bay dairies show lack of competitive advantage in feed costs
 - High feed costs (pre-operations) versus industry benchmark signals this
 - Transportation costs can also rise quickly

Dairy Industry Value Chain Example

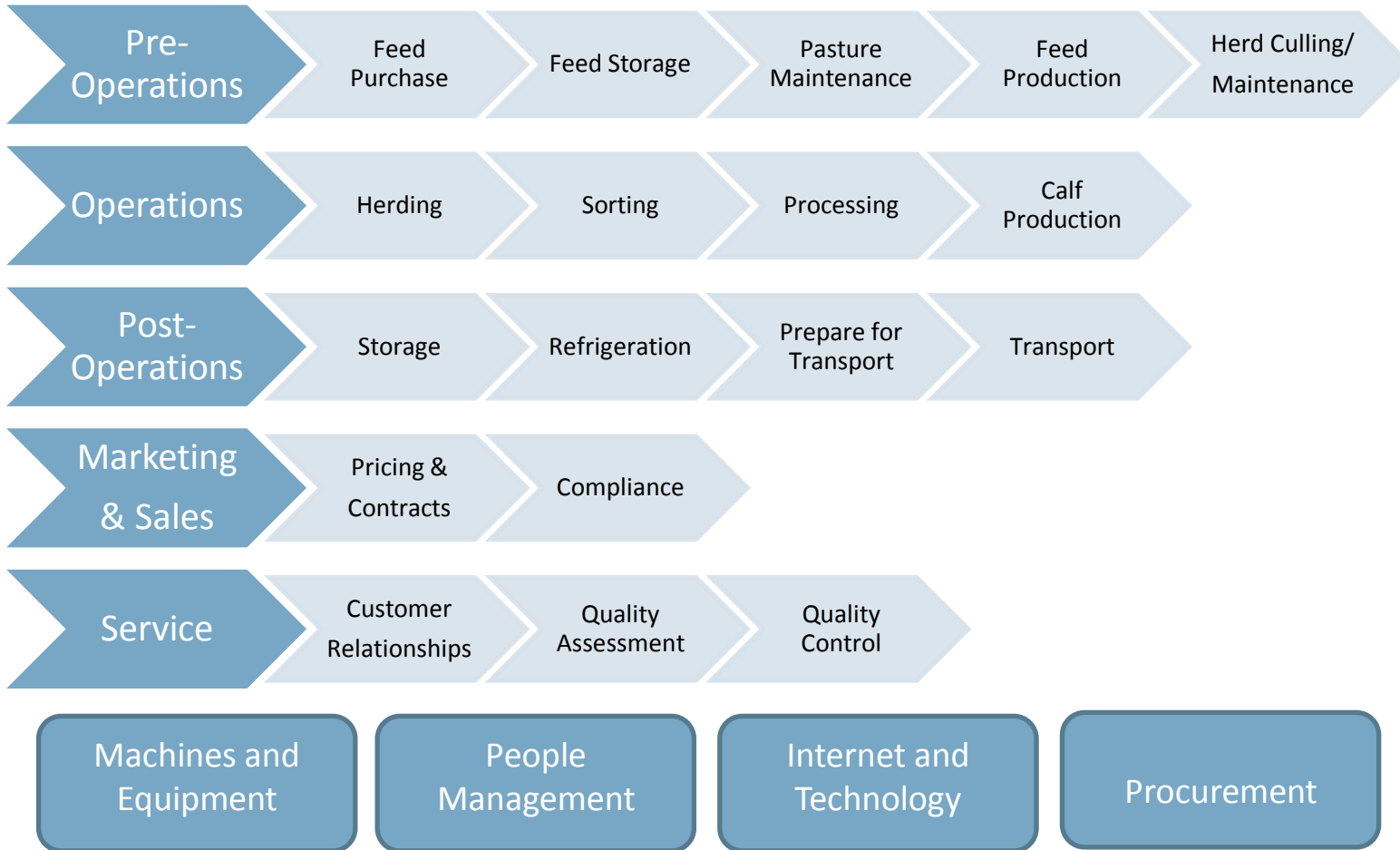


Grass-Fed Beef Value Chains



- Need for a regional kill/hang/cut/wrap facility
 - Aging process in demand by final consumers
 - Need to have custom cuts and wraps
 - Inability for the rancher to add value onsite at low cost (not profitable)
- Question of regional resources and solutions
 - Cooperative kill facility?
 - Cooperative hang/cut/wrap?
 - Strategic arrangement with current facilities?

Grass-Fed Beef Value Chain Example

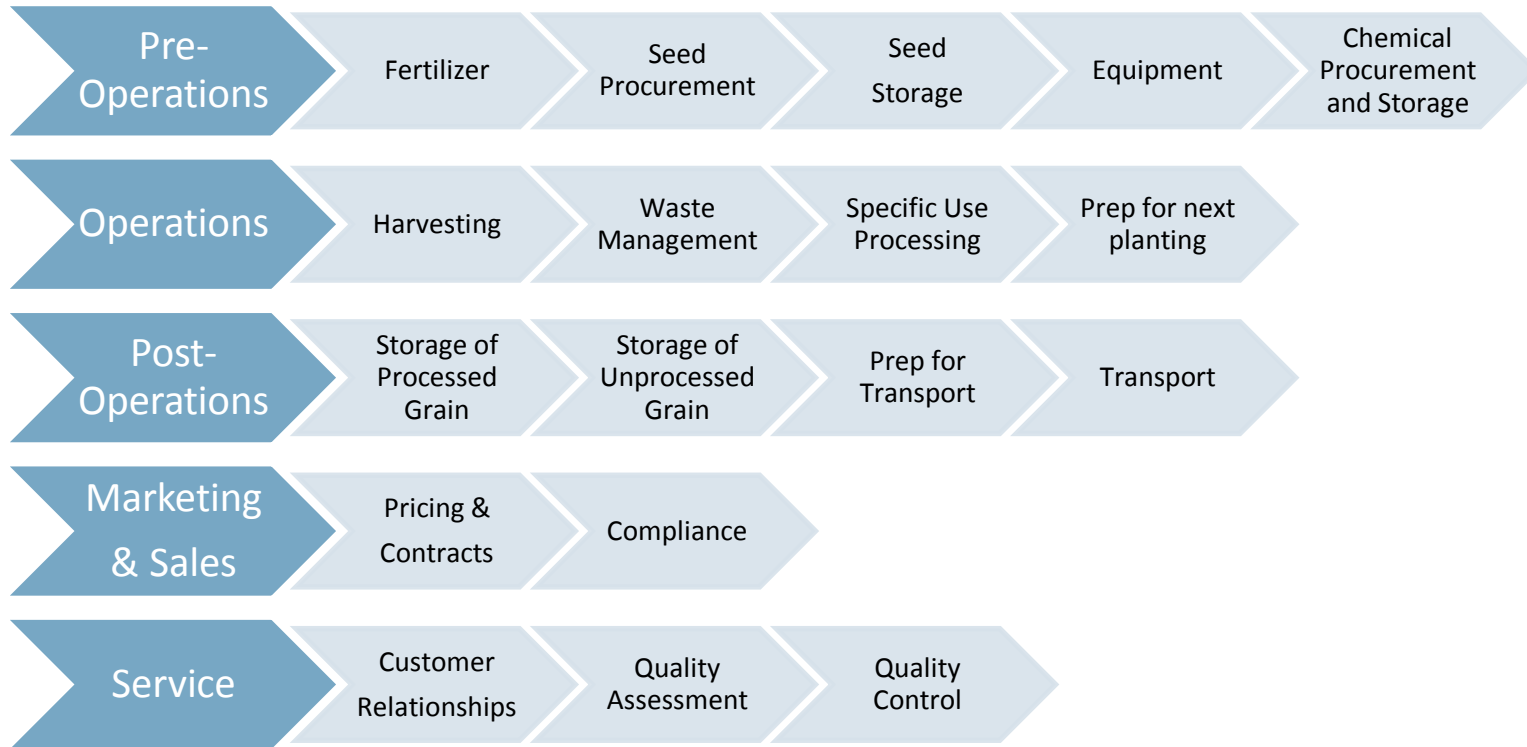


Grain Farming Value Chains



- Value chains show that most operations are capital intensive
 - Need to add machines, tractors
 - May not be profitable for each farmer to make an individual purchase
 - Irrigation not an issue as most are dry farming operations
 - This may be an issue for expansion in certain parts of North Bay
- Marketing and customer demands for customization a larger question for value added
 - Do custom grains and adding value to final product provide profit?

Grain Farm Value Chain Example



Machines and
Equipment

People
Management

Internet and
Technology

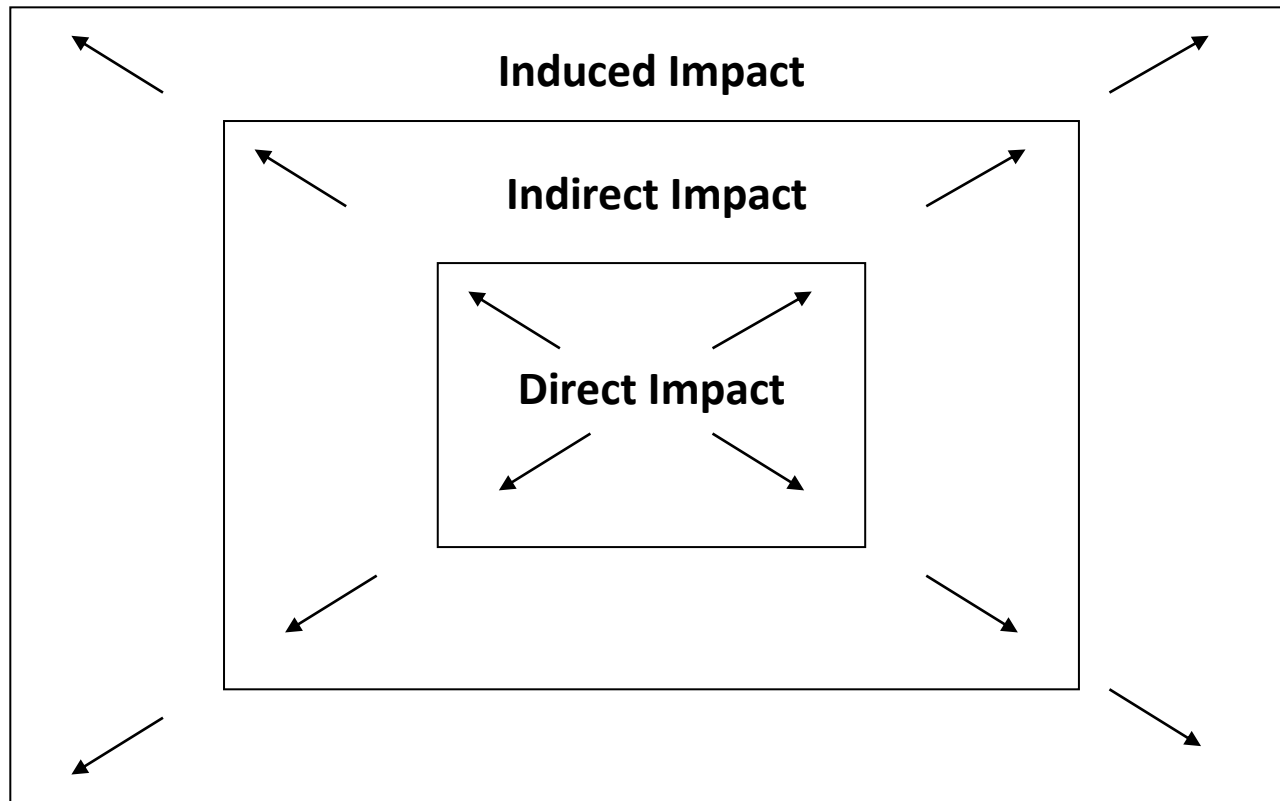
Procurement

Economic Impacts as Econ Development Data



- Show the broad effects of employment on multiple industries
- Provides insight into further income and tax receipts from industry existence and expansion
- Can forecast changes due to expansion or contraction
- Connects direct to allied industries (services provided to farmers that exist mainly due to farms)

The Economic Impact Concept



Economic Impacts: Dairy and North Bay



- Major Industries affected
 - Real estate agencies
 - All other crop farming
 - Wholesale trade businesses
 - Banks and Credit Unions
 - Cattle ranching and farming
 - Rental income for Property Owners
 - Accounting, tax preparation, and payroll services
 - Maintenance and repair construction: commercial
 - Bars and Restaurants

Data for Dairy (Summary)



Dairy	North Bay	Total Impact
Employment	100	131
Business Revenue	\$14,769,000	\$19,144,000
State and Local Tax Revenues		\$768,000

Economic Impacts: Grass-Fed Beef



- Major Industries Affected
 - Support activities for agriculture
 - Real estate agencies
 - All other crop farming
 - Grocery Stores
 - Wholesale trade businesses
 - Bars and Restaurants
 - Banks and Credit Unions
 - Investment Banking
 - Transport by truck

Data for Beef (Summary)



Grass-Fed Beef	North Bay	Total Impact
Employment	100	163
Business Revenue	\$12,340,000	\$20,995,000
State and Local Tax Revenues		\$582,000

Economic Impacts: Grain Farming



- Major Industries Affected
 - Real estate agencies
 - Support activities for agriculture
 - Banks and Credit Unions
 - Rental income for Property Owners
 - Wholesale trade businesses
 - Maintenance and repair construction: commercial
 - Other state and local government enterprises
 - Natural gas distribution
 - Bars and Restaurants

Data for Grain (Summary)



Grain Farming	North Bay	Total Impact
Employment	100	121
Business Revenue	\$4,832,000	\$7,529,000
State and Local Tax Revenues		\$212,000

Conclusions and Direction



- Dairies: feed cost as a major concern, organic versus conventional
- Grass-Fed Beef: hang/cut/wrap facility and use
- Grain Farming: equipment costs and marketing
- Economic impacts show broad community effects, and broad community support available
- Support industries the key for value-add activities
 - Can generate jobs off and on farms
 - Can solve regional problems locally (reduce need to transport)
- Value chains and economic impacts can help shape policy and support for farms and ranches
 - Provides comparison and forecast data