

# The Future of Meat Grading

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Can the sharp decline in domestic consumer demand in market share for beef be stabilized? What role can changing or privatizing the U.S. beef grading system play?

The following charts and data pertain to the subject of the major decline in domestic consumer demand and loss of market share for beef over the past 15 to 20 years.

## The Case for Privatizing and/or Substantially Changing the U.S. Beef Grading System

The top five quality concerns of purveyors, restaurateurs, and retailers found in the National Beef Quality Audit (NBQA) reported in 1995 were:

1. Low overall uniformity and consistency.
2. Inadequate tenderness.
3. Low overall palatability.
4. Excessive external fat.
5. Beef's price is too high for the value received.

The top five quality concerns in a response, reaction, and consensus panel in the NBQA were:

1. Low overall uniformity and consistency.
2. Low overall palatability.
3. Insufficient marbling.
4. Inadequate tenderness.
5. Excessive external, seam, and beef-trim fat.

## Defining Quality Relative to Palatability

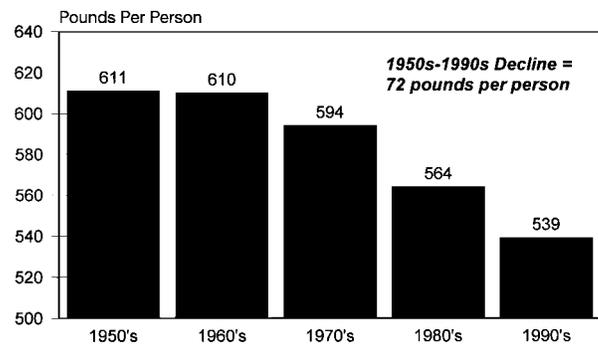
For purposes of this presentation, palatability means a high degree of consistency and a high level of predictability of quality beef from the consumers' perspective, relative to tenderness, taste, flavor, and juiciness of whole muscle and ground beef products. Palatability means a consistently high level of consumer eating satisfaction for beef with minimal variation in tenderness, taste, and juiciness from the perspective of the end consumer.

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FIGURE 1.

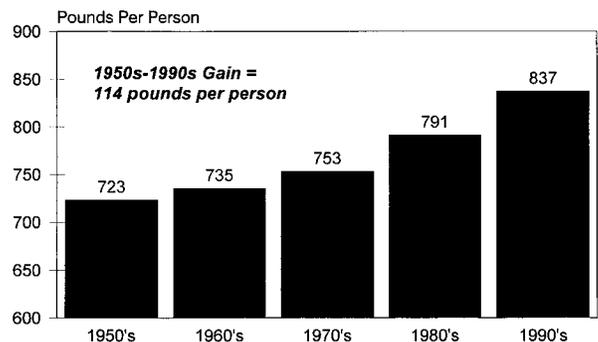
### Total Per Capita Food Consumption From Animal Foods (Retail Weight Averages By Decade)



Source: USDA and Dr. W.T. "Dub" Berry, Jr. (Consultant).

FIGURE 2.

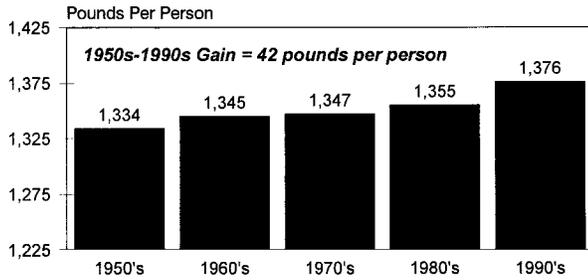
### Total Per Capita Food Consumption From Plant Foods (Retail Weight Averages By Decade)



Source: USDA and Dr. W.T. "Dub" Berry, Jr. (Consultant).

FIGURE 3.

**Total Per Capita Food Consumption From Animal and Plant Foods Combined**  
(Retail Weight Averages By Decade)



Source: USDA and Dr. W.T. "Dub" Berry, Jr. (Consultant).

FIGURE 4.

**Percentage Changes In Per Capita Consumption for Beef, Pork, Red Meat, Chicken, Turkey, Poultry, Total Red Meat and Poultry, and Seafood Over The Past 37 Years**  
1996 Compared To 1960

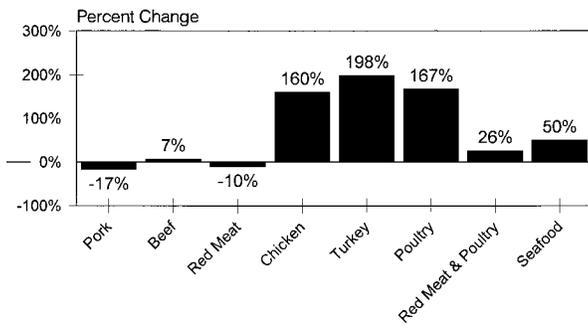
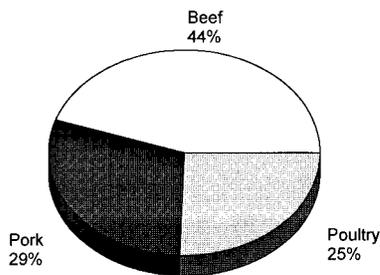


FIGURE 5.

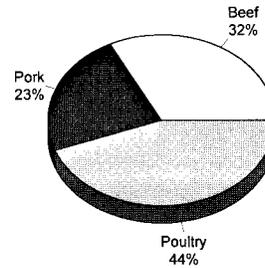
**Per Capita Meat Consumption Market Share - 1970**  
Ready-to-Cook or Retail Weight



Other meats and other poultry = 1-2%

FIGURE 6.

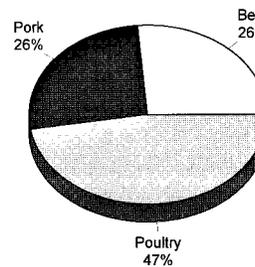
**Per Capita Meat Consumption Market Share - 1996**  
Ready-to-Cook or Retail Weight



Other meats and other poultry = 1-2%

FIGURE 7.

**Per Capita Meat Consumption Market Share - 2003**  
Ready-to-Cook or Retail Weight



Other meats and other poultry = 1-2%

FIGURE 8.

**The Major Contrast Between Per Capita Poultry, Beef and Pork Consumption**

*From 1976 - 1995 (20 Years)*

- Poultry consumption increased 3.8% per year or 75% in 20 years. Per capita poultry consumption was 89 pounds in 1995 vs 51 in 1976, which is a net increase of 38 pounds.
- Beef consumption decreased 1.5% per year or 29% in 20 years. Per capita beef consumption was 67 pounds in 1995 vs. 94 in 1976, which is a net decrease of 27 pounds.
- Pork consumption has been essentially flat and stable over this same 20-year period, ranging typically between 48 - 53 pounds per person.

FIGURE 9.

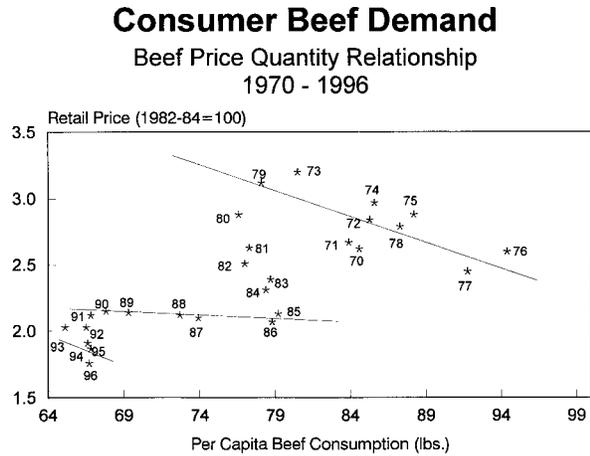


FIGURE 10.

### Annual Retail Beef Prices Adjusted For Inflation And Per Capita Consumption For Beef 1970 - 1996

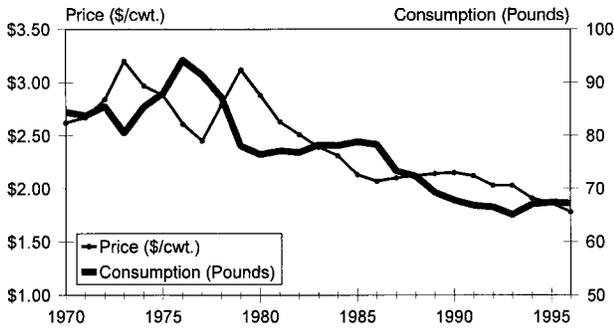


FIGURE 11.

### Key Factors That Today Heavily Impact Domestic Consumer Demand And Market Share For Beef

(Estimates Made Jointly by Dr. Wayne Purcell, Dr. Mike Sands and Bill Helming)  
(January 1997)

Key Factors Impacting Consumer Demand & Market Share For Beef	Ranking and Percentage Impact on Domestic Consumer Demand			
	Overall	Low Income Group	Middle Income Group	Higher Income Group
1. Beef product quality and palatability relative to beef being a satisfying eating experience.	35%	25%	30%	50%
2. The price/cost of beef and the perceived value of beef, compared to other protein sources.	40%	65%	40%	10%
3. Consumer health perceptions, lifestyles and changing demographics.	25%	10%	30%	40%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

FIGURE 12.

### Annual U.S. Beef Exports (1983 - 1996)

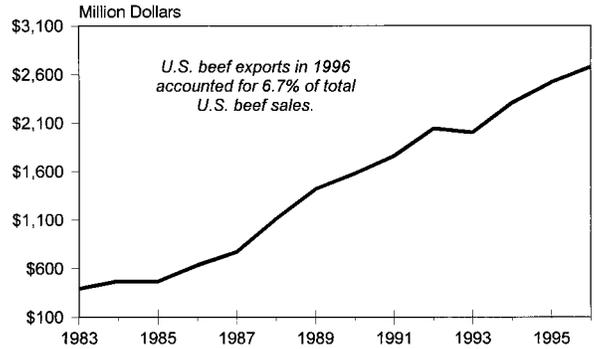


FIGURE 13.

### Annual Retail Pork Prices Adjusted For Inflation and Per Capita Consumption For Pork 1970 - 1996

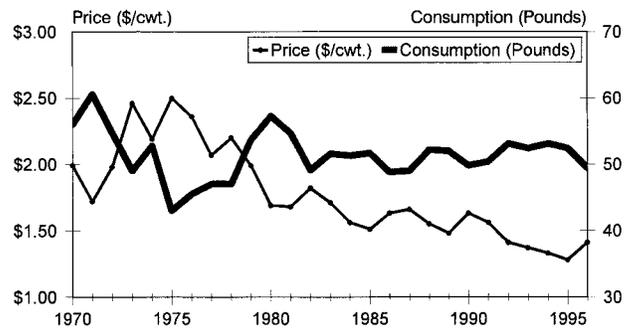


FIGURE 14.

### Annual Retail Broiler Prices Adjusted For Inflation and Per Capita Consumption For Broilers 1970 - 1996

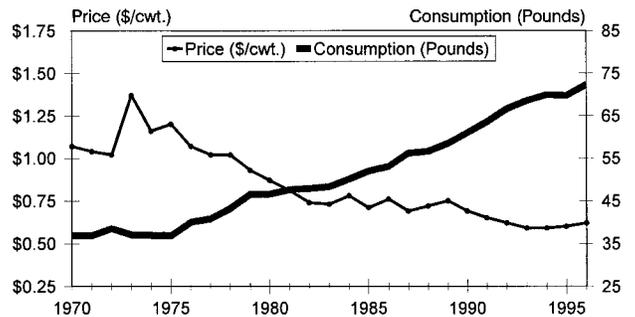


FIGURE 15.

**The Structural Make-up of the U.S. Beef Cow-Calf Industry Presents Major Challenges for Improving Beef Product Quality and Demand from the Consumer's Perspective**

The Structural Make-up of the 1996 U.S. Beef Cow-Calf Industry	Percent of Total Calf Crop
1. There are 900,000 beef cow-calf operations.	100%
<b>Commercial Operations</b>	
2. There are 72,000 beef cow-calf operations or 8% of the total who account for 50% of the U.S. calf crop which have 100 head or more beef cows with an average beef cow herd size of about 236 head.	50%
<b>Part-Time Operations</b>	
3. There are 828,000 beef cow-calf operations, or 92% of the total, which account for the remaining 50% of the U.S. calf crop which have less than 100 head of beef cows with an average beef cow herd size of about 21 head.	50%

Source: The Agricultural Census and the USDA, Washington, D.C.

FIGURE 16.

**Dominant and Known Factors that Reliably Predict and Impact Beef Product Quality and Palatability that are Controlled by the Cow-Calf Operator and/or the Cattle Feeder for the 25,000,000 Head of Fed Cattle Marketed Annually**

Dominant Factors Impacting Beef Product Palatability	Importance Expressed as a Percentage
1. Beef Cattle Genetics	72%
2. Age of Cattle at Time of Slaughter	16%
3. Marbling	12%
Total	100%

Key Assumptions

**Prior To Slaughter** - The three dominant factors in the chart above, plus the key factors outlined in this paragraph greatly impact beef product quality and palatability. It is assumed and given that the 25,000,000 head of fed cattle are on a high grain concentrate feeding ration for 100 days or more, including the use of implants for improving production efficiency, plus these cattle have 25 to 40 inches of external fat at the time of slaughter. These factors by themselves have a significant impact on beef product quality and palatability and are controlled by the cattle producer/feeder.

**After Slaughter** - It is also acknowledged that beef product palatability is further impacted significantly by (a) the days of aging of beef after slaughter, (b) the time involved in cooling down the beef carcasses in the cooler and the amount of fat cover on the carcasses during the cooling down process, (c) the amount of electrical stimulation, if any, and (d) the beef preparation and cooking techniques used by the consumer or used by the away from home eating establishments.

FIGURE 17.

**The Supply of Consistent and Predictable High Quality and Palatable Beef is Today Very Limited and Is Heavily Impacted by Beef Genetics**

Major Cattle and Beef Categories	Annual Fed Cattle Marketings	Percent of Total
Total Fed Cattle Marketings	25,000,000	100%
<b>Generally Poor Quality and Low Palatability</b>		
<i>Price Discounting Category</i>		
Cattle with ear (1/4% or more Brahman influence cattle)	3,750,000	15%
Dairy Breed Cattle	3,500,000	14%
Mexican Cattle (Imports)	1,000,000	4%
Sub-Total	8,250,000	33%
<b>Significant Variability in Quality</b>		
<i>Base Price Category</i>		
Cattle having significant variability in beef quality and lacking predictability of palatable beef	10,450,000	42%
<b>Predictable Quality</b>		
<i>Price Premium Category</i>		
Generally high quality, predictable and consistently palatable beef	6,300,000	25%
<b>Total</b>	<b>25,000,000</b>	<b>100%</b>

Figures 15 to 17 outline serious challenges the beef industry must overcome to meet consumer expectations.

**If It Is Not Broken, Don't Fix It.  
If It Is Broken, Fix It.**

The present U.S. beef grading system is clearly broken. It does **not** differentiate between high quality and poor quality beef palatability. The result of a grading system that did differentiate between high quality and poor quality would be a value-based cattle and beef production, marketing, and pricing system based on significant price premiums and price discounts at the feedlot and beef processor level. The status quo for the U.S. beef grading system is **not** an option. The dramatic decline of market share and the sharp loss in domestic consumer demand for beef is truly a cowman's issue.

**A Cattle and Beef Industry Truism**

For the past 30 years, the major economic incentive, focus, and objective of cow-calf producers, feedlot operations, and beef packers/processors has been on production efficiency and producing more pounds. The focus has not been on improving beef product quality and palatability from the consumers' perspective.

Privatizing the administration and the delivery system of the present U.S. beef grading system would be a positive step forward. However, this by itself will not improve beef product quality and therefore solve the problem of declining market share and declining domestic consumer demand for beef.

**The Solution**

The only realistic and workable way to improve beef product quality and to address head-on the sharp decline in market share and domestic consumer demand for beef is to send the right economic signals back to the beef cow-calf operator through a cattle and beef industry value-based pricing system. This value-based pricing system must be predicated on significant price premiums and significant price discounts based on the major difference in beef product eating quality that obviously exists today. The present USDA beef grading system fails to do this, and is clearly broken. Therefore, the grading system must either be:

1. Changed and improved significantly, or
2. Privatized and therefore significantly improved.