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The Characteristics Affecting Consumers' Perceptions and Preferences for U.S. versus Imported Beef



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WCC-72 Annual Meetings

Las Vegas, NV


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Country-of-Origin Labeling



- **Country-of-Origin is a Credence Attribute (Caswell, 1998; Loureiro & McCluskey, 2000)**
- **Mandatory COOL may be an appropriate policy tool if:**
 - **Asymmetric information exists**
 - **COOL increases demand for product**
 - **Disclosure of possible negative quality attributes does not exceed the benefits (Golan et al, 2000)**
- **Some Consumer, Meat Processors, Wholesalers, Retailers and Restaurants prefer COOL (Schupp & Gillespie, 2001)**

“Estimating Consumer Willingness-to-Pay for Country-of-Origin Labeling.” Loureiro and Umberger JARE, 2003

- 
- **A Select Group of 243 Colorado Consumers along the front range of Colorado**
 - **in A Survey Conducted In Grocery Stores Would:**
 - **Pay \$183.77 Per Year For Mandatory COOL**
 - **Pay \$1.53/lb. More for Steak**
 - **38% Premium for Steak**
 - **\$0.70/lb. More for Hamburger**
 - **58% Premium for Hamburger**

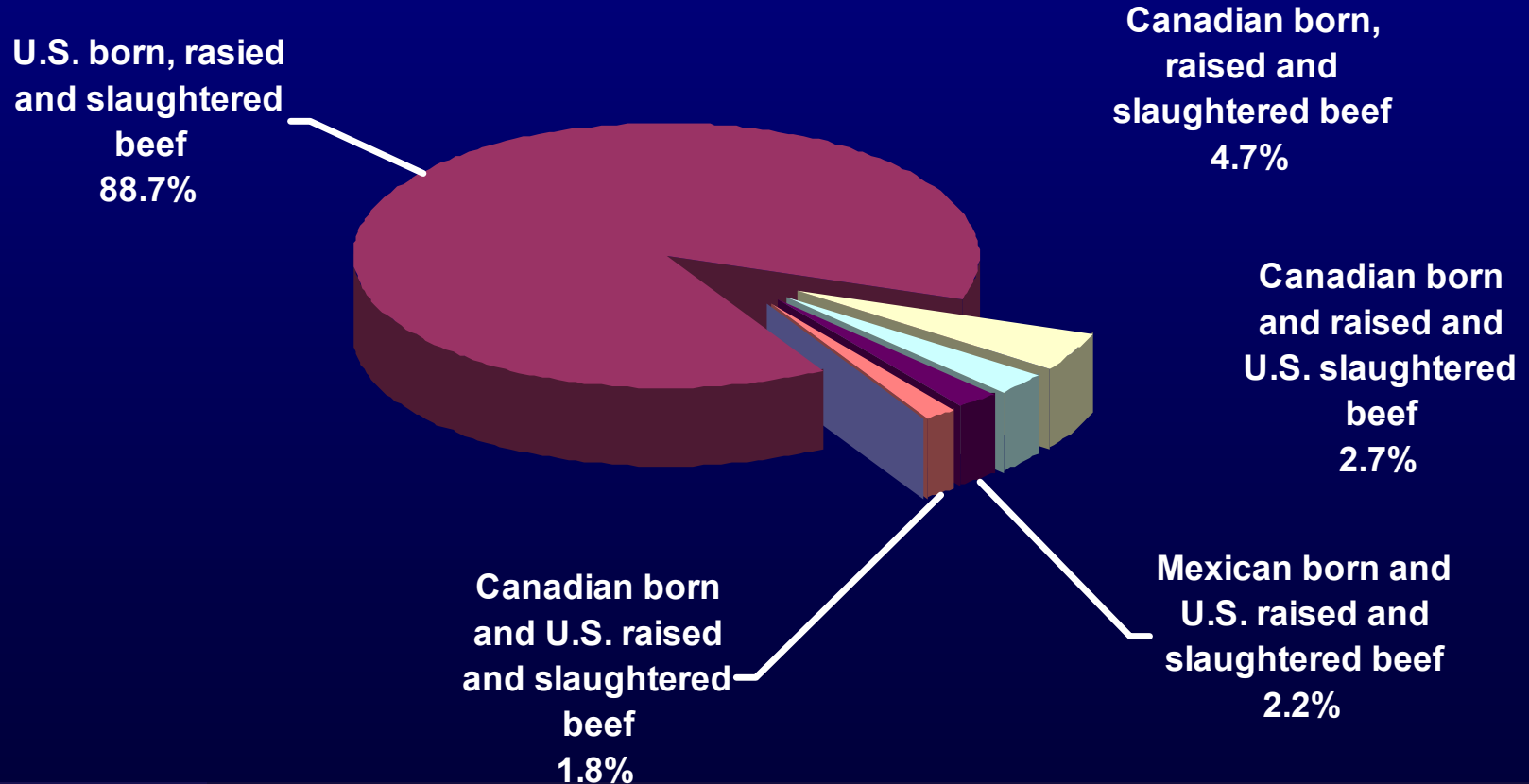
What is Mandatory COOL?

- Title X of the 2002 Farm Bill Amends the Agricultural Marketing Act of 1946
- *“...a Retailer of a Covered Commodity Shall Inform Consumers, at the Final Point of Sale of the Covered Commodity to Consumers of the Country Of Origin Of the Covered Commodity”*



2002 Supply of Roasts and Steaks for U.S. Consumption

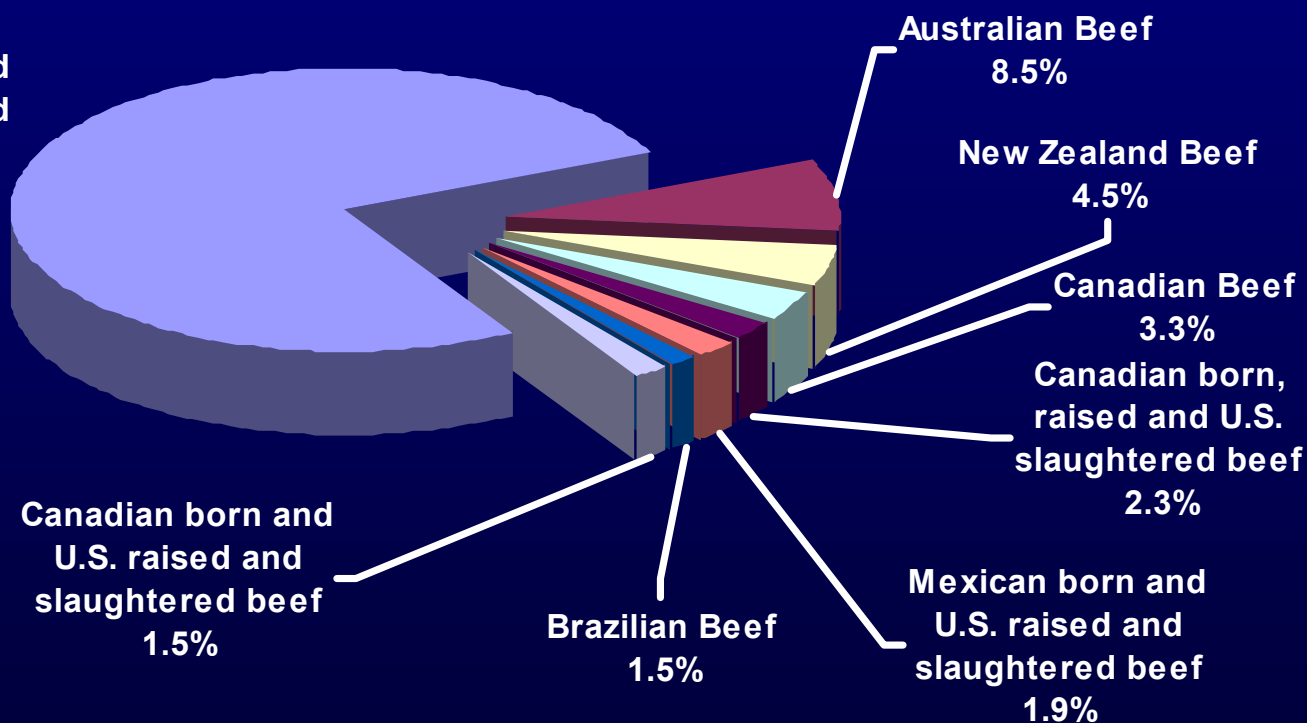
(source: Plains and Grimes, 2003)



2002 Supply of Beef Trimmings for U.S. Consumption

(source: Plains and Grimes, 2003)


U.S. born, raised and slaughtered beef
76.6%



Current Objectives


- 
- **To Determine**
 - **Consumers' preferences and WTP for COOL and U.S.A. Guaranteed Label**
 - **Attributes important to consumers' purchase decisions**
 - **Consumers' preferences and WTP for steak after tasting**
 - **Canadian vs. US**
 - **Australia vs. US**
 - **Segment of consumers WTP premium for preference**

Methods

- 
- **273 Consumers in Denver and Chicago**
 - Paid \$50 to participate
 - Surveyed on WTP for COOL Hamburger and Steak
 - Experimental Process
 - Random n th Price Auction
 - Bid on “USA Guaranteed: Born and Raised in the U.S.” Labeled & Unlabeled Steak
 - Tasted, Rated and Bid on pairs of steak with tenderness and marbling held constant within a pair
 - Canadian vs. US
 - Australia vs. US



Consumer Demographics

- 
- **87% Caucasian**
 - **73% Female**
 - **~ 40 yrs old**
 - **Married**
 - **63% Children < 18 at home**
 - **Income \$50-\$60 K**
 - **Employed**
 - **Average Education of Some College**
 - **70 % Prefer to Consume Beef**

Important Food Characteristics

Loureiro and Umberger **Extremely to Very Desirable**

- 1. Fresh**
- 2. Food Safety Inspection**
- 3. High Quality**
- 4. Lean**
- 5. Visual Presentation**

Very to Somewhat Desirable

- 7. Source Assurance**
- 9. Beef Raised in your region of the country**

Umberger, Feuz, Calkins & Sitz **Extremely to Very Desirable**

- 1. Fresh**
- 2. Food Safety Inspection**
- 3. Color**
- 4. Price**
- 5. Leanness**

Very to Somewhat Desirable

- 9. COOL**
- 11. Source Assurance**
- 13. Beef Raised in your region of the country**

Consumers' Rationale for Preferring COOL (75 % Preferred Labeled, 22% Indifferent)



- **Safety and Health of Meat, 45%**
 - U.S. better regulations and standards
 - Mad Cow Disease
- **More Information** (*Awareness of conditions, Identify meat if Outbreak Occurs*), **31.8%**
- **Support Producers (U.S.), 21%**
- **Location** (*Prefer from certain countries, Learn about countries*), **12.5%**
- **Quality of Meat Higher in U.S., 11%**
- **Freshness of Meat Closer to Home, 4.5%**



Born and Raised



U.S. Guaranteed

In the United States of America

Survey WTP Results: Umberger, Feuz, Calkins, Sitz

● “COOL Steak”

- 73% Consumers were WTP Premium
- \$0.42 over \$4.00/lb
- 11% Premium for label



● “COOL Hamburger”

- 72% Consumers were WTP Premium
- \$0.36/lb over \$1.50/lb
- 24% Premium for label
- Higher than for Steak



- Overall Premiums Smaller than Loureiro and Umberger

Visual Auction WTP Results: “U.S. Guaranteed Steak” versus Unlabeled Steak

● Chicago

- \$1.03/lb more for “U.S. Guaranteed Steak” (base = \$4.53/lb)
- 23% Premium for labeled steak

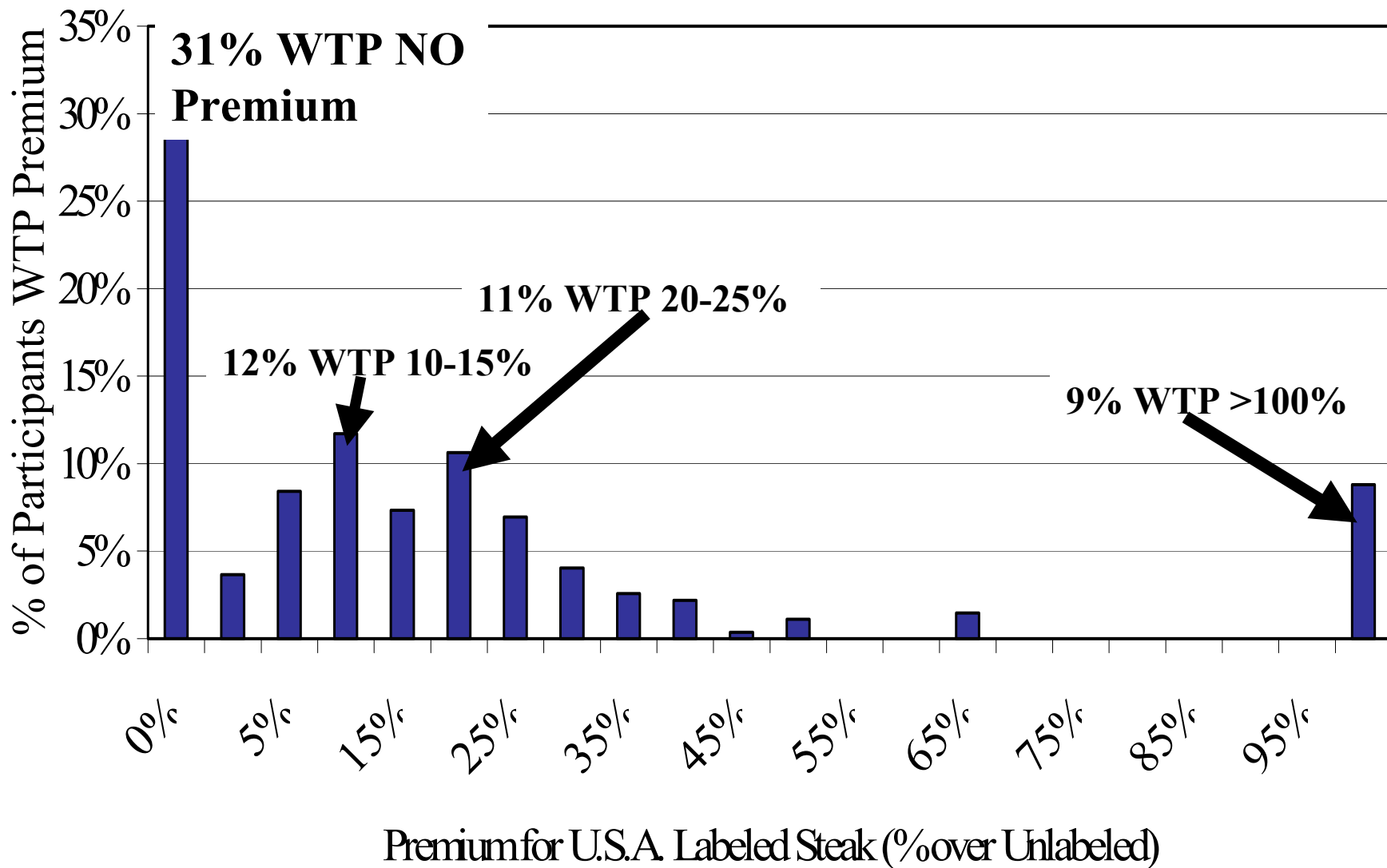
● Denver

- \$0.57/lb more for “U.S. Guaranteed Steak” (base = \$4.12/lb)
- 14% Premium for labeled steak

● Overall


- \$0.81/lb more for “U.S. Guaranteed Steak” (base = \$4.33/lb)
- 19% Premium for labeled steak

● Chicago Premiums were Larger than Denver



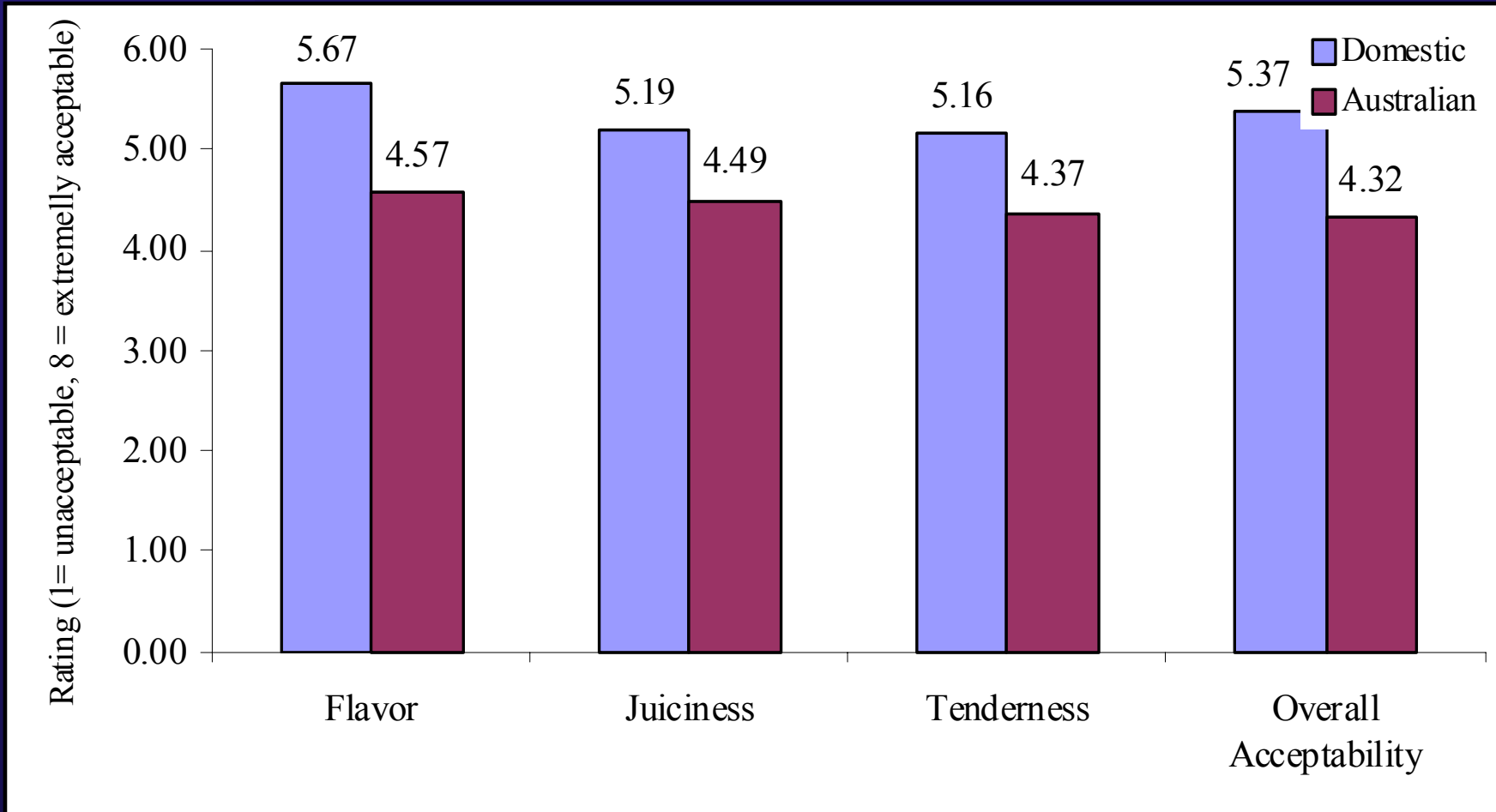
Who's WTP for COOL?:

Logit Model

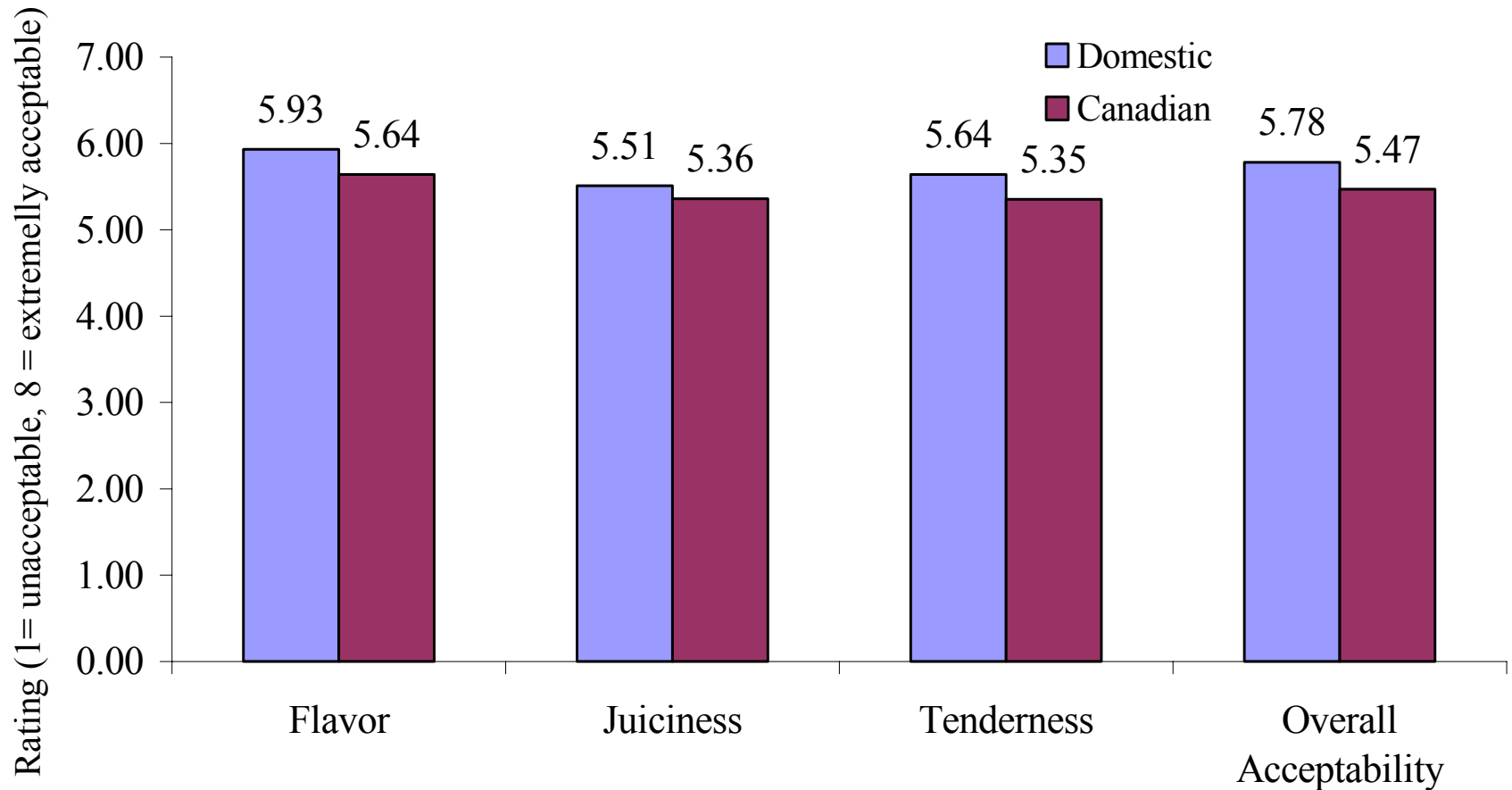

$$USAPREF_i = \beta_0 + \beta_1 Location_i + \beta_2 Age_i + \beta_3 Gender_i + \beta_4 Ethnic_i + \beta_5 Kids_i + \beta_6 Income_i + \beta_7 Educate_i + \beta_8 Safety_i + \beta_9 Source_i + \beta_{10} COOL_i + \beta_{11} Local_i + \beta_{12} Fresh_i + \beta_{13} Organic_i + \beta_{14} BeefEat_i + \beta_{15} NonGrocery_i + \beta_{16} USDAGRADE_i + \varepsilon_i.$$

- Consumers concerned about Food Safety and Source Assurance
- Females with children
- Lower Income
- Higher Educated
- Beef eaters
- Consumers purchasing beef at alternative locations

Can Consumers Perceive a Difference in Flavor? : Australian vs. Domestic



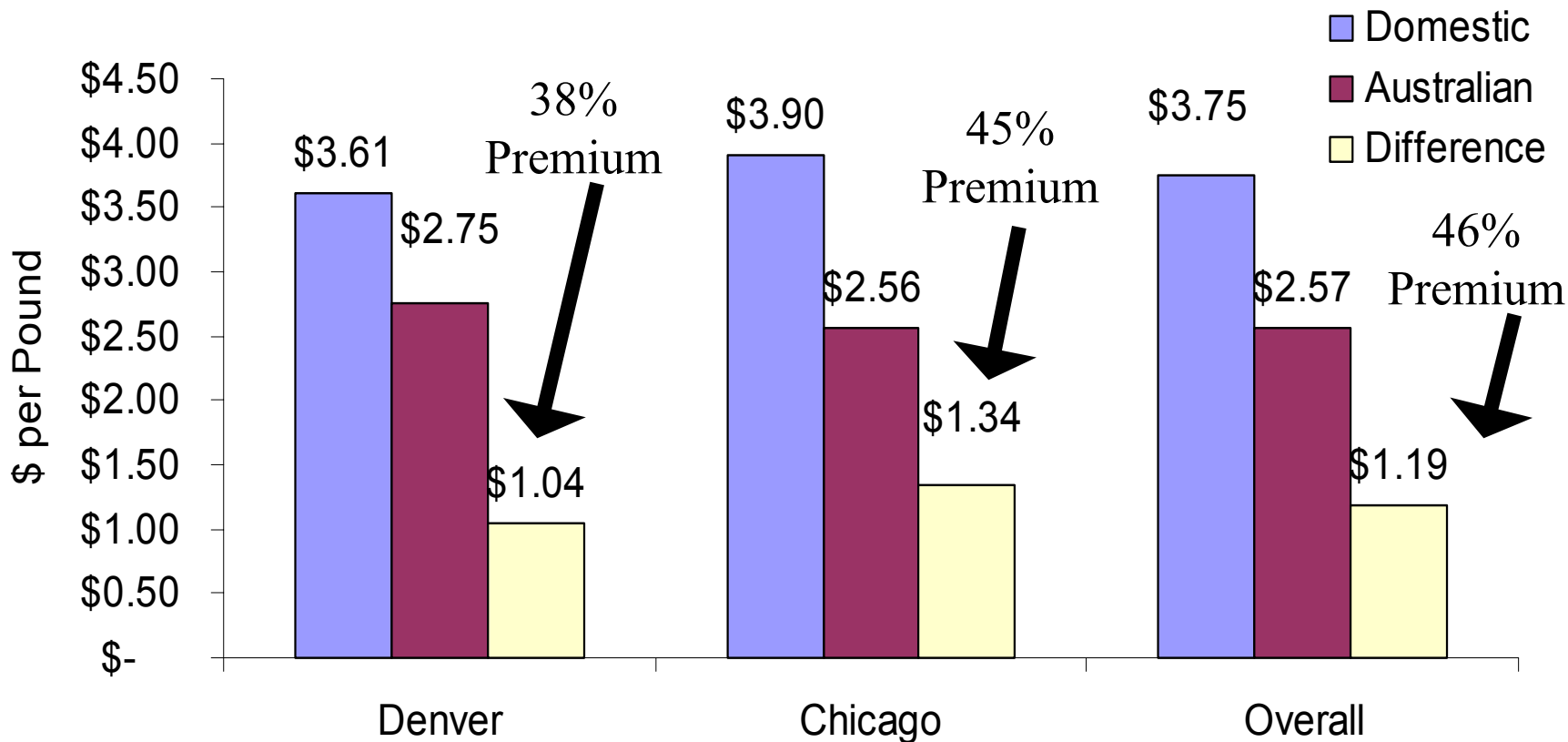
Can Consumers Perceive a Difference in Flavor? : Canadian vs. Domestic



Average Willingness-to-Pay: Australian vs. US



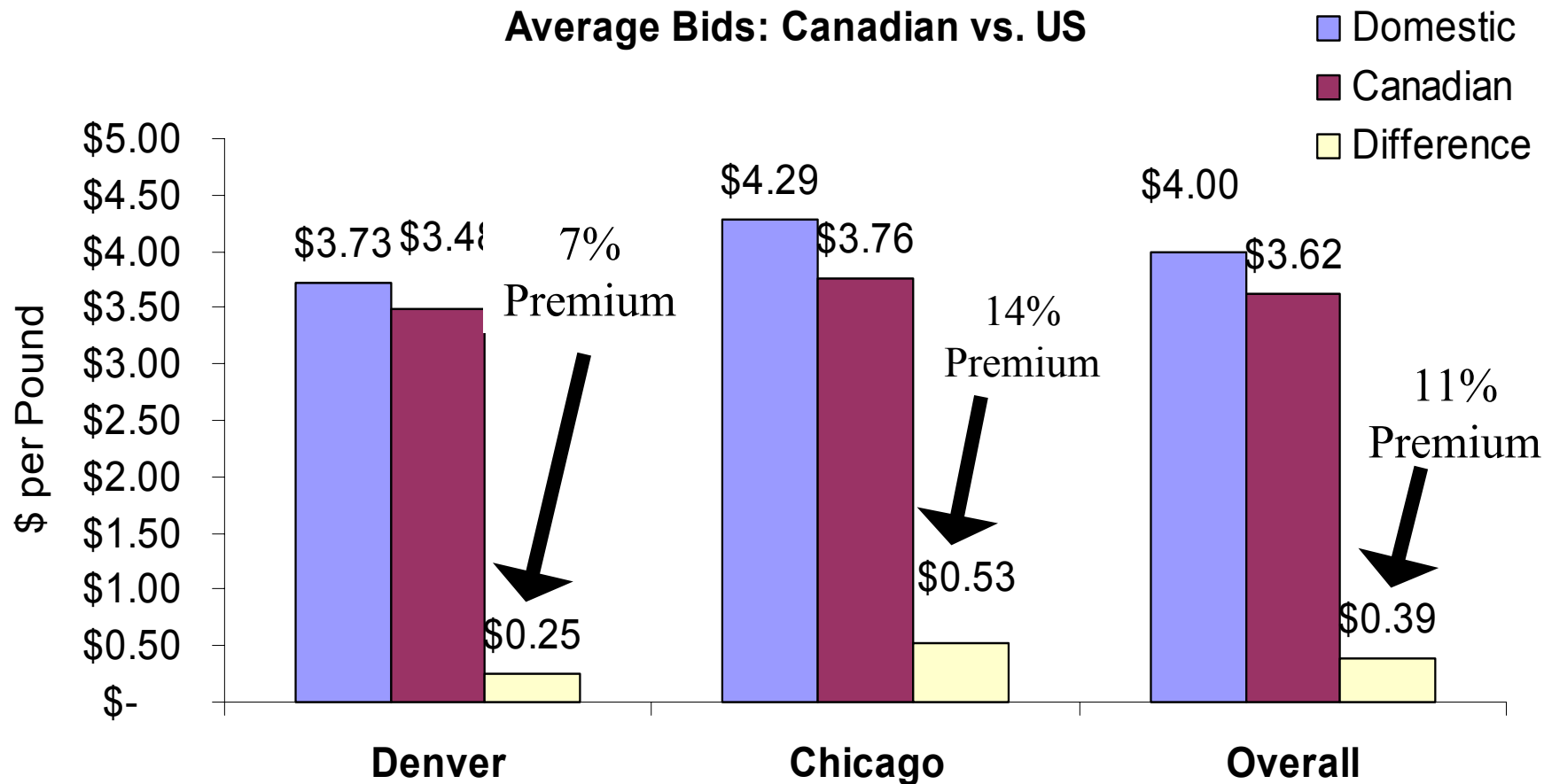
Average Bids: Australian vs. US



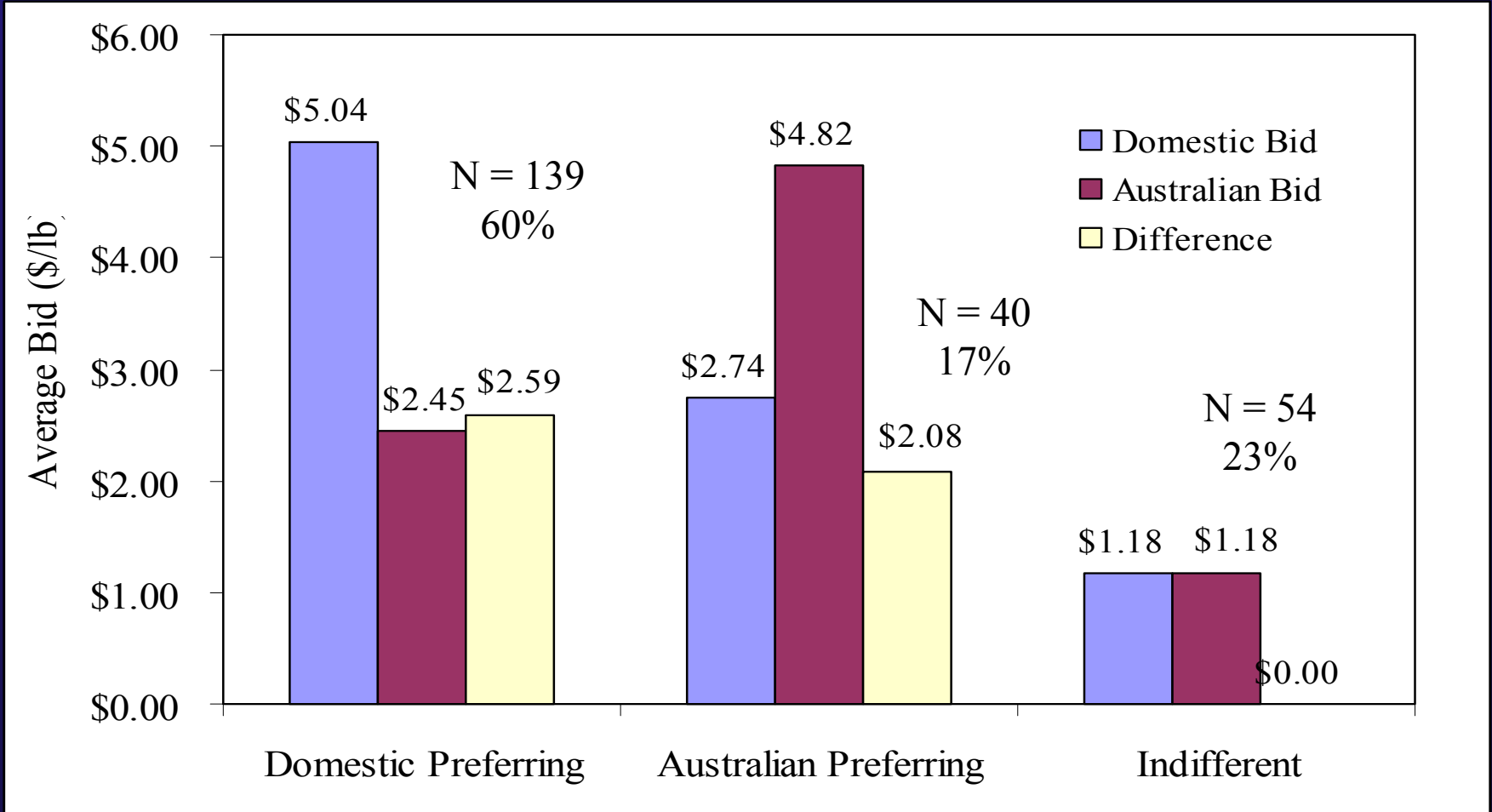
Average Willingness-to-Pay: Canadian vs. US



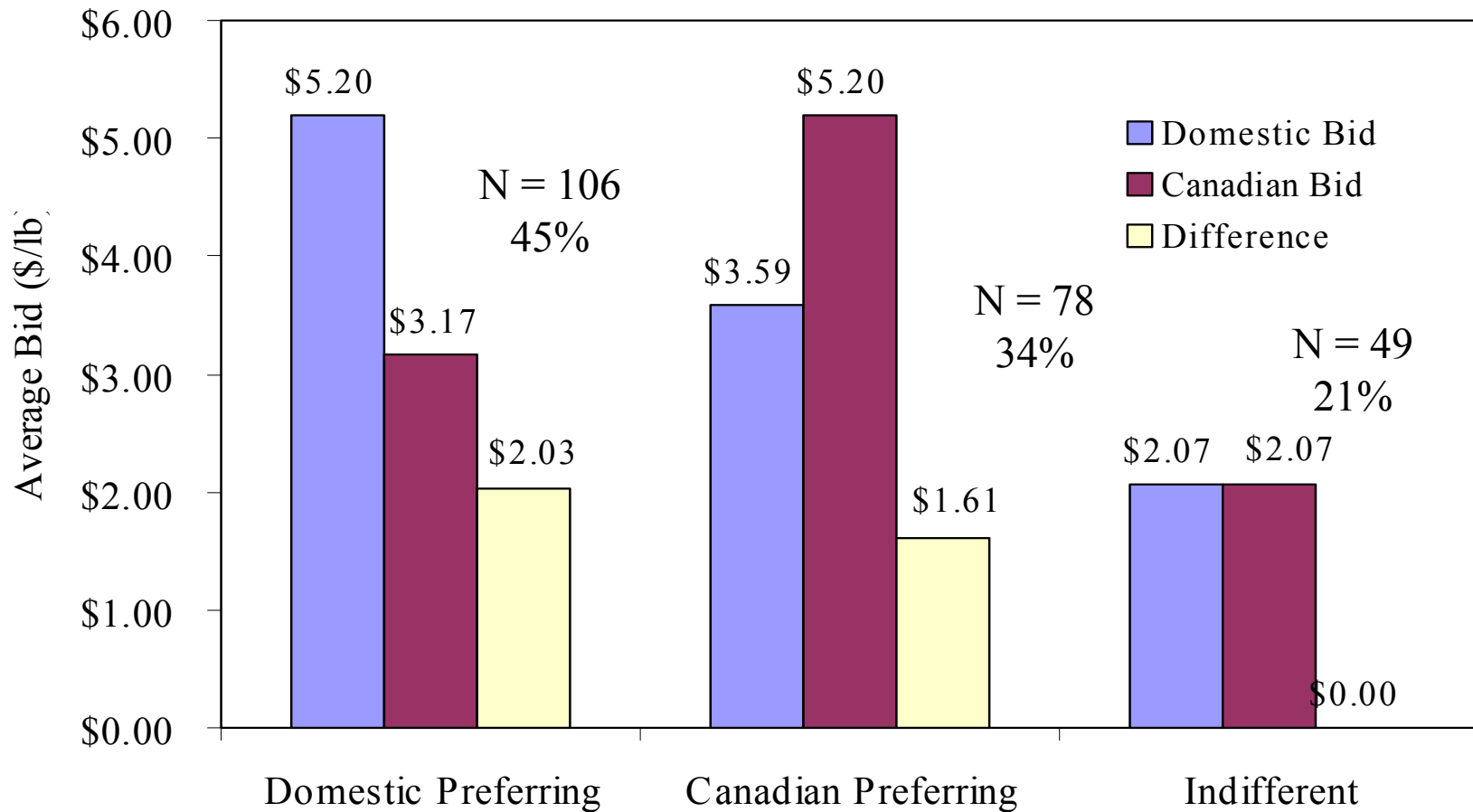
Average Bids: Canadian vs. US



Are Consumers Willing-to-Pay for their Taste Preference?: Australian vs. US



Are Consumers Willing-to-Pay for their Taste Preference?: Canadian vs. US




Predicting Flavor Preferences


$$TASTE\ PREF_i = \beta_0 + \beta_1 Location_i + \beta_2 Gender_i + \beta_3 Ethnic_i + \beta_4 PriceDrive_i + \beta_5 Income_2_i + \beta_6 BeefEat_i + \beta_7 MarryKids_i + \beta_8 Age_2_i + \beta_9 GradeDK_i + \beta_{10} Educate_2_i + \beta_{11} NoEmploy_i + \varepsilon_i.$$

- **Multinomial Logit Model**
- **Australian vs. US**
 - **Domestic Preferring: Chicago, Higher Income, Married with Kids, Older**
 - **Australian Preferring: non Chicago, Lower Income**
- **Canadian vs. U.S.**
 - **Domestic Preferring: Caucasian, Married with Kids, Older**
 - **Canadian Preferring: Non Caucasian**


Summary

- 
- Consumers WTP significant Premium for COOL
 - Premium appears to be higher when the label states “U.S. Certified” or “U.S. Guaranteed”
 - **11% Premium for COOL Steak**
 - **24% Premium for COOL Hamburger**
 - 19% Premium for U.S. labeled
 - WTP is significantly Higher for Hamburger


Who's WTP for COOL?

- 
- Consumers concerned about Food Safety and Source Assurance
 - Females with children
 - Lower Income
 - Higher Educated
 - Beef eaters
 - Consumers who purchase beef at alternative locations

U.S. vs Imported Taste Summary

- 
- **29% of consumers consistently preferred the taste of domestic to imported steak**
 - **Likely due to similarities in US and Canadian Production Processes**
 - **Niche for Australian or Imported Grass-Fed Product**
 - **Canada could compete with US if same quality**

COOL Implications

- 
- Will COOL increase beef demand?
 - Appears consumers don't understand that it's not food safety
 - Placement of label and other meat attributes
 - (food safety concerns important)
 - **What about other meat products?**
 - **U.S. versus major importers?**
 - Do premiums cover costs?

Questions?

