“Milk is for babies!”

–Arnold Schwarzenegger (1977)

Got Milk?
Elizabeth, Stephen, and Yodit
Milk Marketing Order Winners and Losers (2005)

- Hayley H. Chouinard
- Jeffrey T. La France
- David E. Davis
- Jeffrey M. Perloff
Marketing Orders

- Agreement between agricultural producers
- Sanctioned and enforced by government
- Producers vote to form
- Membership mandatory
- Objective: stabilized prices and coordinate marketing
Dairy Industry

- w/o order - many small producers, no market power
- w/ order - set minimum prices that processors must pay farmers
  - Class I
  - Class II
  - Class III
  - Class III-A

Distribute revenue across producers
How do milk marketing orders affect various demographic groups?
Products Tracked

- 1% Milk
- 2% Milk
- Nonfat Milk
- Whole Milk
- Cream
- Coffee Creamers
- Natural Cheese
- Processed Cheese
- Shredded Cheese
- Cream Cheese
- Butter
- Ice Cream
- Plain/Vanilla Yogurt
- Flavored Yogurt
Demographics Tracked

- Income Bracket
- Female/Male Head of Household
- Age of Head of Household
- Share Unemployed, Part and Full Time
- Professional/Non-Professional Jobs
- Ethnicity: White, Black, Hispanic, Asian
- # and Age of Kids in the Household
Example of Theoretical Model

Demand model that is linear and quadratic in prices and linear in income with all kinds of fussy manipulations

[insert formula for pg 5]
Evaluations Conducted

- Price elasticities of each of the 14 dairy products
- Cross-price elasticities between each of the 14 dairy products
- Income elasticities for each product
- Marketing order welfare effects among different demographic groups
Data Source

- Grocery Store Scanner Data
- 23 U.S. cities
- 3 years of data, Jan 1997 - Dec 1999
- Empirical study - New England Dairy Compact, ended 2001
- Theoretical model
Findings

- Very little variation in price elasticities across demographic groups
- Eliminating the market orders had noticeable welfare difference across demographic groups
(1) Welfare Differences in the Empirical Study

New England Dairy Compact ended 2001
- Price of milk dropped 20%
- Price of processed milk was stable

All consumers benefited
Degree of benefit varied - some were bigger winners than others
(1) Welfare Differences in the Empirical Study

Biggest Winners:
- lower income families
- less educated families
- families with young children
(2) Theoretical Model

Modeled: price of fresh milk drops and the price of processed milk increases half as much

Winners and losers
(2) Theoretical Model: Winners

Households that consume relatively more fresh milk
- families with children
- Asians
- Hispanics
(2) Theoretical Model: Losers

Households that consumer relatively more processed milk
- older, childless couples
Marketing Orders are Regressive

Lower income households pay a larger share of their income towards marketing order prices than households with higher incomes.
Marketing Orders are Regressive

Income share distributed differently among different demographic groups
Conclusion

When younger are you, strong bones milk builds, yes. But when adults, slow rate of bone density loss, it does. Strong am I with the Force at my age. When 860 years old you reach, feel as good you will not, hmm? Milk Got, Hmm?