

The Economics of Obesity

by

Tomas Philipson

The University of Chicago

Who Is to Blame for Obesity?

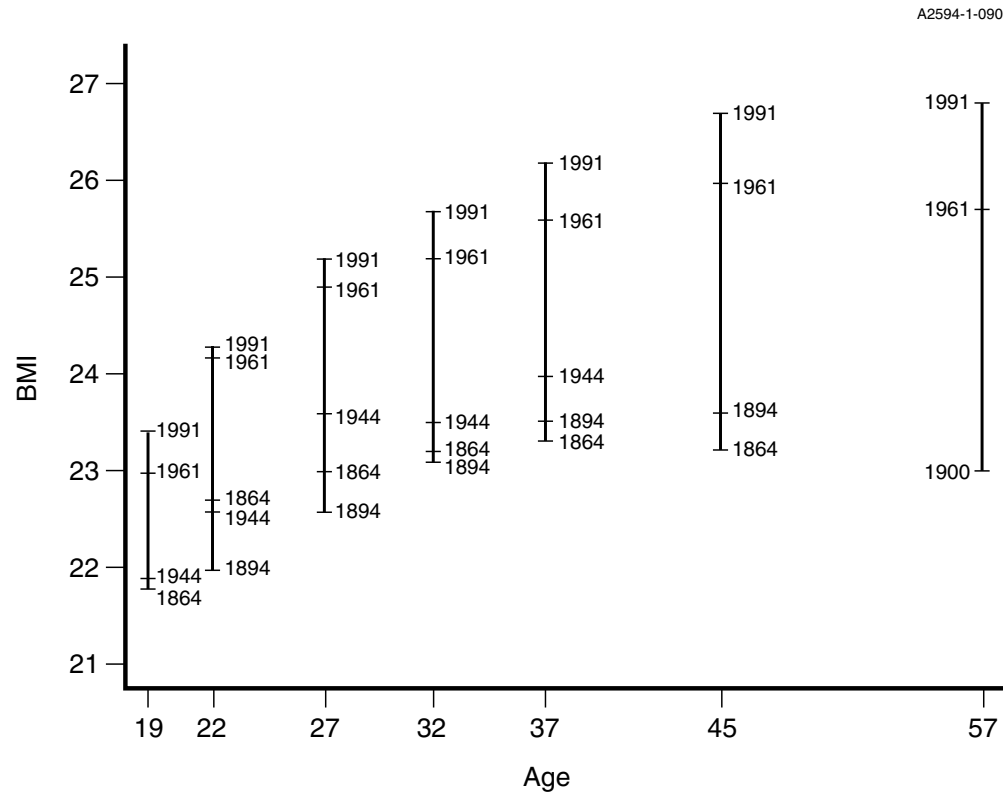
AEI

March 3, 2005

Discussed Work

- 1) Lakdawalla, Philipson, and Battacharya, “Food Prices, Nutrition, and Obesity”, forthcoming, *American Economic Review*.
- 2) Lakdawalla and Philipson, “The Economics of Obesity: A Survey” , forthcoming, *Elgar Companion to Health Economics*.
- 3) Lakdawalla and Philipson, *National Bureau of Economic Research*, www.nber.org Working Paper # 8946.
- 4) Philipson and Posner, *National Bureau of Economic Research*, www.nber.org Working Paper # 7423.

Historical Growth in Weight



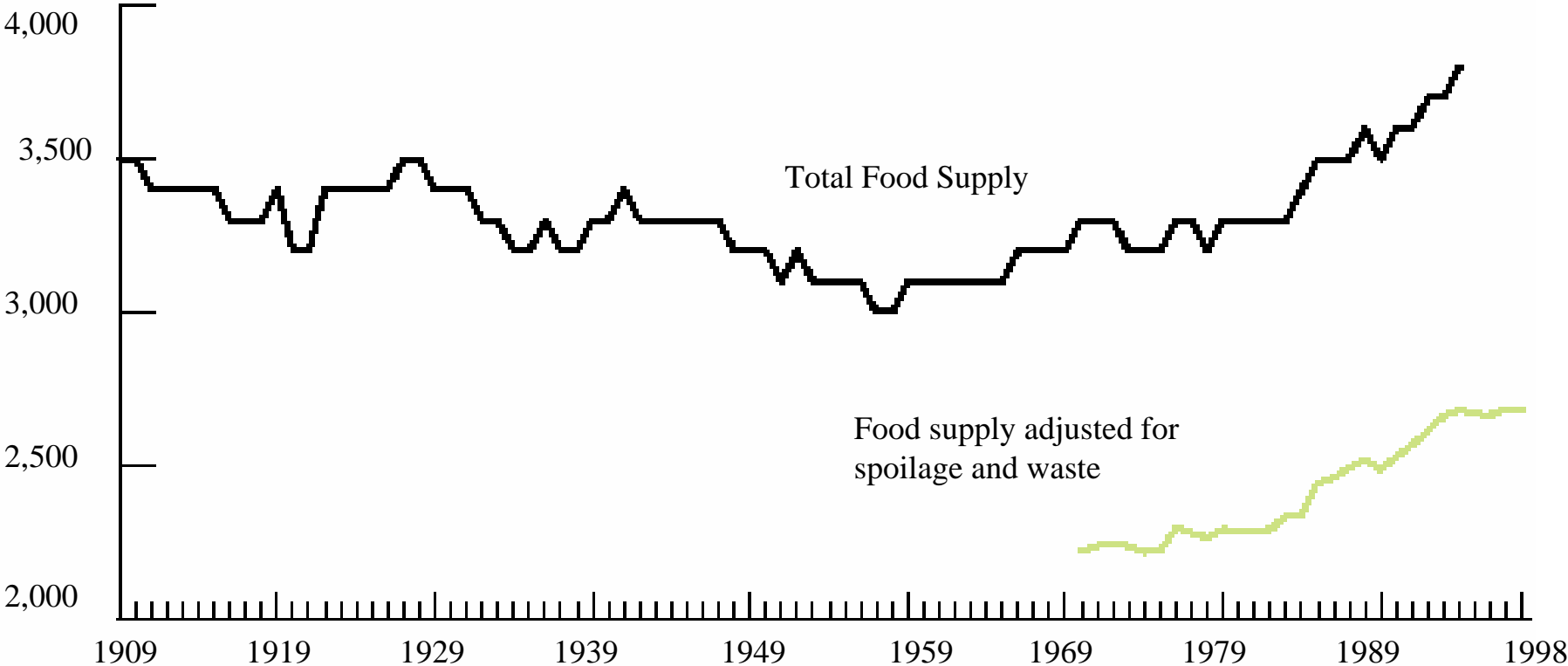
SOURCE: Costa D. and R. Steckel (1995), NBER Historical WP #76.

Mean BMI by Age Group and Year, 1863-1991

Calories Produced per Person-Day, 1906-1998

Calories Available

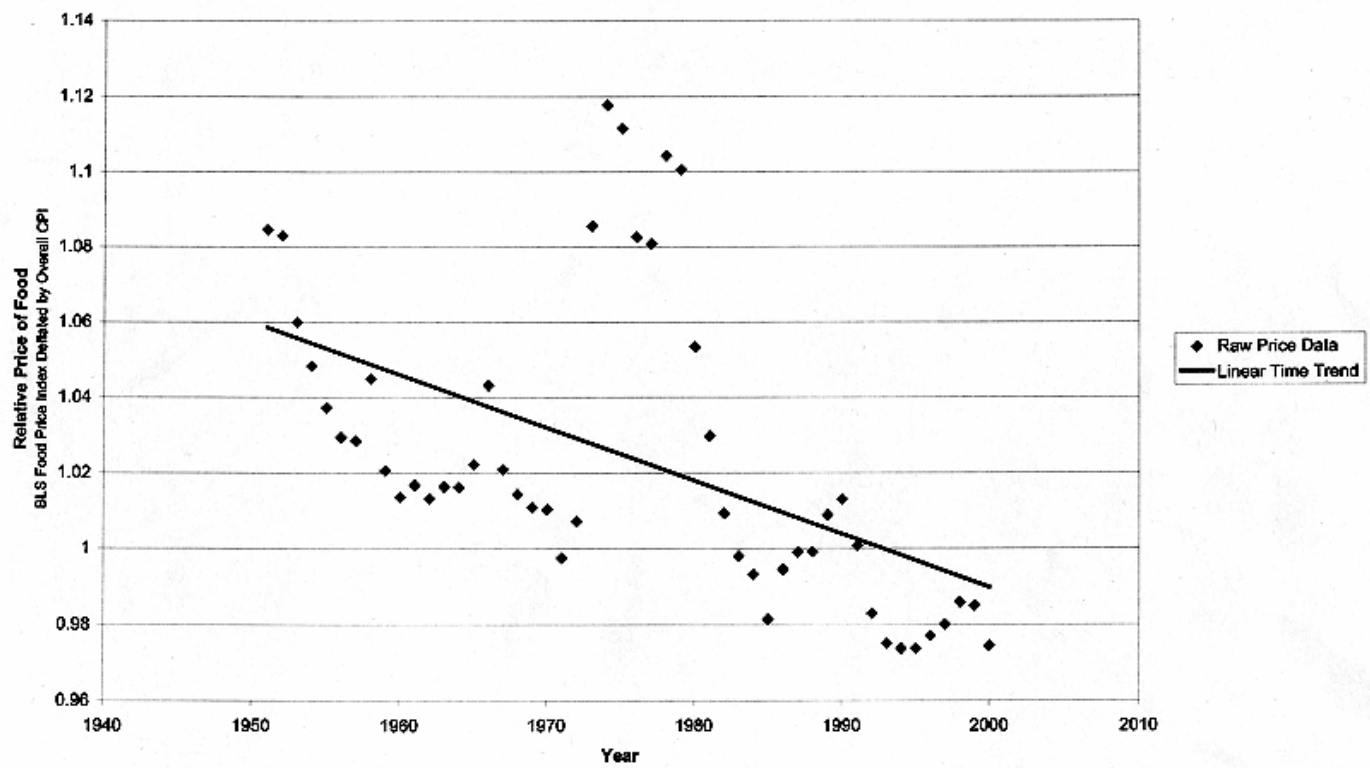
Calories per person per day



Source: USDA's Economic Research Service

Food Price Time Series

Figure 3: Changes in the Relative Price of Food in the US, 1951-2000.



Technological Change & Obesity

Economic Forces Have Been Neglected

- Agricultural TC: Price of Calorie Consumption Fallen
 - Specialization In Production: Agriculture
 - Specialization in Preparation: Home vs Market (Speed)
- Productivity Enhancing TC: Price of Calorie Spending Has Risen
 - *Pay*, as opposed to get *Paid*, to Exercise
 - Labor to Leisure : Gym +Jogging (Total Up)

Why Both Forms of Technological Change ?

- Both Forms of TC Together Imply:
 - weight rises, calorie intake ambiguous, and price falls
- Agricultural TC Alone:
 - Cannot Explain Lack of Time Series Correlation Between Weight and Calorie Intake
- Productivity Enhancing TC Alone:
 - Cannot Explain Increases in Calorie Intake
- Demand Explanations (“Food Culture”):
 - Demand increase alone cannot explain the 3 time trends together

Earned vs Unearned Income Effects

- Asset Market vs Labor market Effects
- Income Effects Within vs Across Countries
- Public Redistribution Effects
- Future Time-Series dependent on which effect dominates.

Empirical Analysis

- Main Results : Work Effects & Decomposition
 - Weight differences due work-career 3.3 BMI
 - Large relative to secular trends
 - Supply and demand Effects decomposed
- The Effect of Physical Activity at work on BMI
 - Strenuousness from *Dictionary of Occupational Titles*
 - Merge with data from NHIS (1976-1994) and NLSY
- Exploit NLSY features
 - Estimate long-run effects of occupation on weight
 - Assess Endogeneity of occupation and weight

Public Policy and Obesity

– *Positive Analysis*

- **Programs Assessed in Light of Forces of Growth**
- **Example: Public Education & Food Labeling**
 - **Information Ability to Explain Time Trend ?**

- *Normative Analysis*

- **Over-weight in Pareto Sense ?**
- **Addiction and Government**
- **Insurance Externalities: Medicare and Social Security**
- **Obesity Public Health Problem ?**



Department of Health and Human Services
Food and Drug Administration

Calories Count
**Report of the
Working Group on Obesity**

