Keeping Score: new approaches to the standard of living

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Keeping Score:

New Approaches to the Standard of Living

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LSE
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Keeping Score in Personal Health

- Temperature
- Blood Pressure
- Pulse
- White blood cell count
- ....and so forth
Social Performance of a Country

- **Economics**
  - National income accounts: GDP

- **Demography**
  - Life table: average length of life
  - Morbidity: sickness or disability

- **Anthropometric measures**
  - height, BMI
Gross Domestic Product (GDP)

- Origins in late 1600s
- Modern concepts in late 1800s
  - Market value of goods and services
- Implementation
  - Great Depression
  - World War II
Demography

- **System of vital registration**
  - Origins in early 1800s
  - Number of deaths by age and sex

- **National censuses**
  - Number of people at risk by age and sex

- **Life table: based on death rates**
  - Average length of life

- **Morbidity: illness or disability**
  - Days lost from work or school
Auxology is the study of human growth, which had origins in art.

Illustration of Vitruvius’ Rule of Human Proportion

by Cesariano, 1521

Audran’s measurements of the stature of Hercules, 1683
Intellectual Curiosity and the Study of Human growth

Measurements taken 1759 - 1777
Goethe’s drawing:
the measurement of troops, 1779
(used for identification purposes)

Drawn while in the service of Karl August, Grand Duke of Saxe-Weimar-Eisenach
Growth Velocity under Good Conditions
Net nutrition: diet, disease and work. Genetics
Determinants and Consequences of Height

**Socioeconomic Determinants**
- Income
- Inequality
- Public Health
- Personal Hygiene
- Disease Environment
- Technology
- Labor Organization
- Cultural Values
- Food Prices

**Proximate Determinants**
- Diet
- Disease
- Work Intensity
- Maintenance
- Genetic

**Stature**

**Functional Consequences**
- Mortality
- Age
- Gender
- Disease
- Morbidity
- Work Intensity
- Labor Productivity
- Human Capital Formation
- Cognitive Development
- Personality

**Sources**
- Military
- Manifests
- Oath Takers
- Students
- Passports
- Convicts
- Police
- Registration of Free Negroes
- National Guard
- Firemen
- Voter Registration
- Contraband Slave Records
- Runaway Slave Advertisement
- Surveys
- Skeletal Remains
- Runaway Indentured Servant Advertisement
- Life Insurance
Comparisons with Traditional Measures

Per Capita GDP and Height at Age 12 (Boys)

- Height in cm
  - 130
  - 135
  - 140
  - 145
  - 150
  - 155

- Per Capita GDP (1985$)
  - 0
  - 5000
  - 10000
  - 15000

Life Expectancy at Birth and Height at Age 12 (Boys)

- Height in cm
  - 130
  - 135
  - 140
  - 145
  - 150
  - 155

- Life Expectancy at Birth
  - 20
  - 40
  - 60
  - 80
Media Attention to Heights
Heights by Generation in Ireland and Japan
Advantages of Heights

- Abundant data, back to the 1700s
  - Even earlier, from skeletons
- Easy to collect
- Comparable over time and space
Applications in History: Study of American Slavery

Percentiles of NCHS Height Standards Attained by American Slaves
Estimating Height from Femur Length

Source: WWII U.S. soldiers, Trotter and Gleser (1952) data.
## Adult Male Height Trends in Northern Europe

<table>
<thead>
<tr>
<th>Era</th>
<th>Place</th>
<th>Average Heights (cm)</th>
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<td>9-11th C</td>
<td>N. Europe</td>
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<td>Middle Ages</td>
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<td>Late 19th C</td>
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<tr>
<td>1930</td>
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</tbody>
</table>
Mean Height Differentials by Occupational Class and Birth Cohort

- Artisans
- Laborers
- Farmers
- Professionals or Proprietors

Height (cm)

Year of Birth
Height Trends in North and South Korea