Second Demographic Transition

• Focuses on reasons for below-replacement fertility (mortality ignored)
• Characterized by:
  – Sustained sub-replacement fertility
  – Living arrangements besides marriage
  – More out-of-wedlock births
  – Migrating populations

How low can fertility go?

• Many ways to examine question
  – Cultural change
  – Economic change
    • Global
    • Idiosyncratic (external events)
  – Institutional change

Graphic from The Economist
Fertility Preferences and Family Size: Chicken or Egg?

- Ideal family size (2 kids, maybe 3) has been higher than actual fertility for decades
  - **Tempo:** People are postponing children, and fertility may catch up to intentions (Bongaarts)
  - **Chicken:** People want more kids but don’t because of social and economic constraints (Demeny)
  - **Egg:** “Cultural lag” explains how norms can persist even when behavior doesn’t match
    - German-speaking countries have newly lowered ideals
    - Other countries may follow (Goldstein et al.)

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Typology of low-fertility theories

(Morgan and Taylor)

<table>
<thead>
<tr>
<th>Scope</th>
<th>Global</th>
<th>Interactive</th>
<th>Idiosyncratic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content</strong></td>
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<tr>
<td>Econ change</td>
<td>1st dem trans</td>
<td>+Birth control</td>
<td>Political crisis</td>
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<tr>
<td></td>
<td>+Pop bomb</td>
<td></td>
<td>East Europe</td>
</tr>
<tr>
<td>Ideological</td>
<td>Framework of self</td>
<td></td>
<td></td>
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<tr>
<td>Institutional</td>
<td>Family aid; flexibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technological</td>
<td>Birth control and abortion</td>
<td>Tech raises female wage</td>
<td>Pill enables careers</td>
</tr>
<tr>
<td>Synthetic/path dependent</td>
<td>Ind + family + ideation</td>
<td></td>
<td>Exceptionalism</td>
</tr>
</tbody>
</table>
Cultural explanations
(Lesthaeghe and others)

1. Second demographic transition is fundamentally different from the first

<table>
<thead>
<tr>
<th>First transition</th>
<th>Second transition</th>
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</thead>
<tbody>
<tr>
<td>• Investment in child</td>
<td>• Investment in self</td>
</tr>
<tr>
<td>• Strong marriage norms</td>
<td>• Decline of marriage</td>
</tr>
<tr>
<td>– Early age</td>
<td>• Contraception is given</td>
</tr>
<tr>
<td>– Little childlessness</td>
<td>• No cycles of fertility means no equilibrium</td>
</tr>
<tr>
<td>• Start contraception</td>
<td>• Revolutions in contraceptives, sex, gender relations.</td>
</tr>
<tr>
<td>• Cyclical fertility</td>
<td>– Higher divorce rates.</td>
</tr>
<tr>
<td></td>
<td>– Postponed births.</td>
</tr>
</tbody>
</table>

Lesthaeghe

2. SDT's macro features are spreading to Central and Eastern Europe and parts of Asia

   Economic disruption + extramarital births

3. SDT will continue wherever higher-order needs are expressed.

   Thus, SDT is both structural and cultural.
Marriage, Children and Happiness

• Marital happiness highest in first two years, but marriage keeps happiness above baseline.
• Childbearing decreases marital happiness
• For men, happiness comes mainly from partner, not kids, but first-born sons make men happier than daughters.
• For women, happiness comes from partners AND first child. Subsequent children make women less happy.
  – # 1 brings status, role expectations, emotional rewards.
  – # 2 seen as a companion for # 1.

Caldwell on (post)modern fertility: An economic explanation

• World in early stages of the industrial revolution
• Industrial societies do not need the traditional family or the moral system associated with agrarian life
• Industrial societies generate enough wealth to support many lifestyles, provided that women work.
• Patriarchy (varying in degree but universal) makes it hard for women to mix jobs and children, so women choose fewer or no children
• Wealthy governments will intervene to increase fertility: child care, flex-time, housing, etc.
Usefulness of intervention to raise TFR

- State was effective in reducing fertility
- More modest results in raising fertility
- Skepticism about policies to raise fertility
  - TFR drop attributed to tempo
  - Cost-effectiveness
  - Political sensitivity
  - Potential for migration (down to 1.5 TFR)
  - Environmental concerns

European Future

- Timing
  - Late age at marriage
  - Postponed childbearing
  - Greater chance of infecundity
- Quantity
  - Overall, below replacement level
  - Depends on status of women
    - Opposite pattern from developing world and early stages of the demographic transition
### Trends in TFR, Northern/Western Europe, 1995-2009

<table>
<thead>
<tr>
<th>Year</th>
<th>Country</th>
<th>TFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>Denmark</td>
<td>1.96</td>
</tr>
<tr>
<td>1996</td>
<td>Denmark</td>
<td>1.95</td>
</tr>
<tr>
<td>1997</td>
<td>Denmark</td>
<td>1.94</td>
</tr>
<tr>
<td>1998</td>
<td>Denmark</td>
<td>1.93</td>
</tr>
<tr>
<td>1999</td>
<td>Denmark</td>
<td>1.92</td>
</tr>
<tr>
<td>2000</td>
<td>Denmark</td>
<td>1.91</td>
</tr>
<tr>
<td>2001</td>
<td>Denmark</td>
<td>1.90</td>
</tr>
<tr>
<td>2002</td>
<td>Denmark</td>
<td>1.89</td>
</tr>
<tr>
<td>2003</td>
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<td>1.88</td>
</tr>
<tr>
<td>2004</td>
<td>Denmark</td>
<td>1.87</td>
</tr>
<tr>
<td>2005</td>
<td>Denmark</td>
<td>1.86</td>
</tr>
<tr>
<td>2006</td>
<td>Denmark</td>
<td>1.85</td>
</tr>
<tr>
<td>2007</td>
<td>Denmark</td>
<td>1.84</td>
</tr>
<tr>
<td>2008</td>
<td>Denmark</td>
<td>1.83</td>
</tr>
<tr>
<td>2009</td>
<td>Denmark</td>
<td>1.82</td>
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</tbody>
</table>

### East-West divide: Hajnal’s line

- **Hajnal’s line**: A line of demarcation between higher fertility rates in the West and lower fertility rates in the East.

- **The Iron Curtain**: Divides Eastern and Western Europe.

- **Eastern Orthodox empire**: Thectory region in Eastern Europe.
U.S. fertility remains near replacement level. Why?

USA spatial demographic patterns of households and procreation and their correlates

Ron Lesthaeghe
Lisa Neidert
U. Michigan Population Studies Center
**USA 50 states : Demographic dimension 1: indicators and best correlates**

- **Demogr. Dimension 1 indicators**
  - Abortions p 1000 L Births 80  \( +.92 \)
  - Abortions p 1000 L Births 92  \( +.91 \)
  - Abort. rate p 1000 w 15-44 96  \( +.86 \)
  - % hhlds same sex adults 00  \( +.80 \)
  - NHWhites : TFR 02  \( -.72 \)
  - % hhlds 'families' *  \( -.64 \)
  - NHWhites: Fertility postponm.02  \( +.64 \)
  - % hhlds Cohabitation 00  \( +.56 \)
  - NHWhites: Fert rate 15-19 02  \( -.54 \)

* = "second demographic transition" dimension

*families = married couples, married couples + children, parent + children

- **Best correlates of demographic dimension 1 (corr. coeff.)**
  - % vote Bush  \( -.84 \)
  - % pop Metropolitan 00  \( +.64 \)
  - % pop Metropolitan 62  \( +.62 \)
  - Disp. Pers. Income level 01  \( +.60 \)
  - % pop. Catholic 02  \( +.50 \)
  - % pop 25+ with BA 90  \( +.50 \)
  - % pop Evangelical 02  \( -.50 \)
  - % workers unionized  \( +.47 \)
  - Disp. Pers. Income 80  \( +.45 \)

**USA 50 states : Demographic dimension 2 Indicators and best correlates**

- **Demographic dimension 2: best indicators (factor loadings)**
  - % Births to teenagers 00  \( +.87 \)
  - Median age at first birth 02  \( -.80 \)
  - % Births to unmarried w. 00  \( +.77 \)
  - NHWhites: teenage fert. rate 02  \( +.74 \)
  - Divorce per 1000 pop. 90  \( +.71 \)
  - % Births to unmarried w 90  \( +.69 \)
  - Divorce per 1000 pop 62  \( +.61 \)
  - NHWhites: fert. postponmt 02  \( -.57 \)

- **Demographic dimension 2: best correlates (corr. coeff.)**
  - % pop. in Poverty 98-00  \( +.68 \)
  - % Evangelical 02  \( +.67 \)
  - % pop 25+ Hi School grads 90  \( -.63 \)
  - % vote Nixon (McGovern) 72  \( +.57 \)
  - % vote Goldwater (Johnson) 64  \( +.57 \)
  - Disp. Pers. Income 01  \( -.55 \)
  - % pop 25+ with BA 90  \( -.55 \)
  - % pop Black 00  \( -.51 \)
  - % pop NHWhite 90  \( -.49 \)
USA 50 states: Plot of States on 2 Demographic Dimensions

Dim. 1:
High on:
- Abortion rates
- Cohabitation
- Same sex cohabitation
- Fert. Postpnmt NHW

Low on:
- NHW Tot Fert Rate
- NHW teenage fert.
- Classic family hhlds

Dim. 2 — high on:
- Teenage fertility (all)
- Births to unmarried women
- Divorce

US 50 States: prediction demographic dimension 1 ("SDT") on the basis of:
- Pct vote Bush 2004 (beta coeff.=-.53)
- Pct pop. Metropolitan 2000 (+.26)
- Pct pop. Evangelical (-20)

R sq adj. = 0.79 (R=0.90)
US 50 States: Prediction of Demographic Dimension 2 (teenage fert, non-marital fert and divorce) on the basis of:
Pop 25+ with BA 1990 (beta coeff = -.44)
Pct pop Afro-American 2000 (+.42)
Pct pop Hispanic 2000 (+.34)
Pct pop in Poverty 1996-00 (+.27)

\[ R^2 \text{ adj} = .70 \quad (R = .85) \]

US States: Predicting % vote Bush 2004 on the basis of:
* NH Whites Total Fertility Rate 2000 (beta coeff = +.61)
* 1996 Abortion Rate per 1000 women 15-44 (-.39)

\[ R^2 \text{ adj} = .71 \quad (R = .85) \]