Calculating Deaths

1/Lifespan <u>versus</u> Death Rate

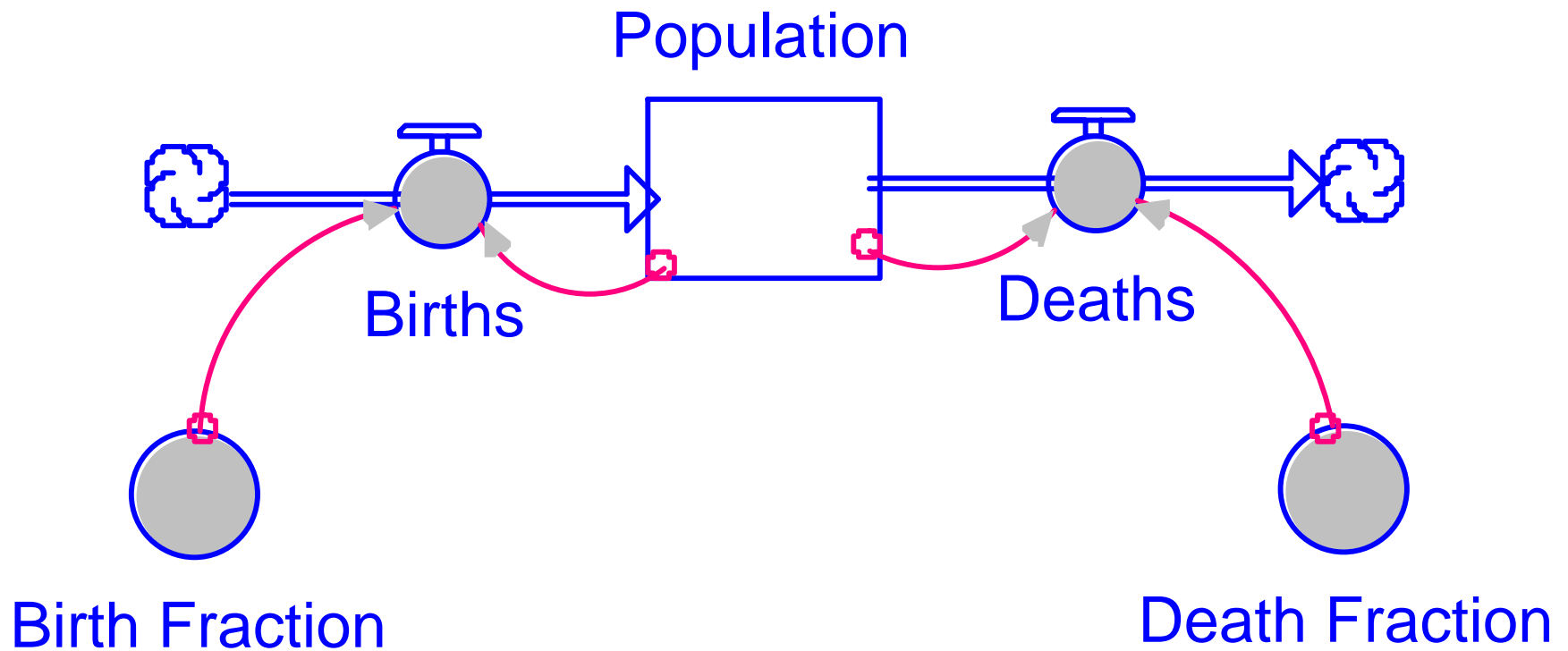# How Long Do We Live?

- National Center for Health Statistics
  http://www.cdc.gov/nchs/releases/02facts/final2000.htm

- Average US Lifespan: 76.9 years

- Age-Adjusted Death Rate: 872/100,000

Population Model #1a
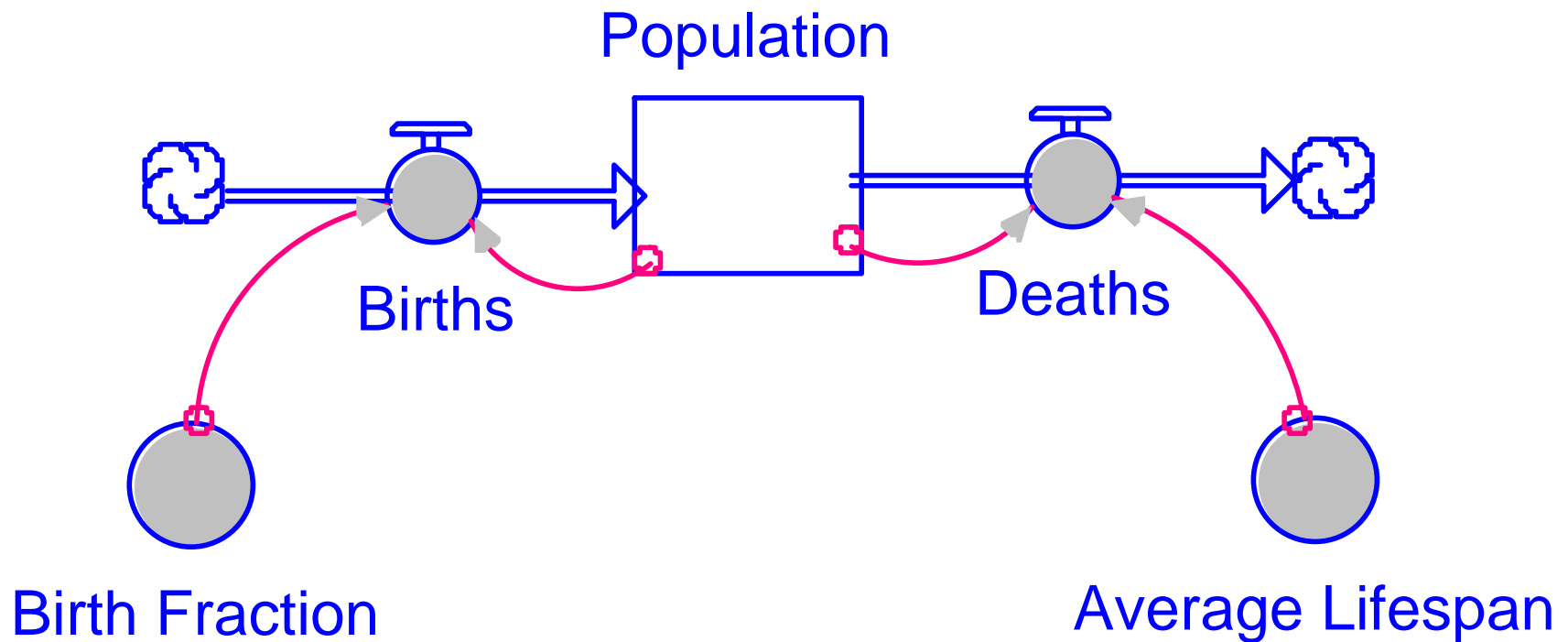
Deaths = 1/Average Lifespan * Population

Population Model #1b

Population

Births

Deaths

Birth Fraction

Death Fraction

Deaths = Death Fraction * Population

What Should We Use As the Death Fraction?

- Dwell time model
  - Use 1/Lifespan: 1/76.9 = .013003901
  - Assumes population evenly divided into age groups.
- Age-adjusted model
  - Death Rate = .00872
  - Takes into account age-specific death rates and "averages" over age groups.

What Will Be the Difference in the Long Run?

Population depending on Death Fraction

5:02 PM   Wed, Jan 29, 2003