

Pioneering Milestones in Demography

Demography · Answer Key · 15 Questions

1. Who is credited with developing the first life table in the late 17th century, a foundational tool for actuarial science and demography?

- A) Thomas Bayes
- B) Edmond Halley**
- C) John Graunt
- D) William Petty

2. What groundbreaking statistical concept, crucial for demographic analysis of mortality and fertility, was formally introduced by Adolphe Quetelet in the 19th century, linking social phenomena to statistical laws?

- A) The Law of Large Numbers
- B) The Normal Distribution
- C) The Concept of the 'Average Man'**
- D) Bayesian Inference

3. Which historical census, conducted in 1665 in New France (modern-day Canada), is considered one of the earliest systematic attempts to enumerate and collect demographic data on a colonial population?

- A) The Domesday Book
- B) The Roman Census
- C) The Intendants' Census**
- D) The Swedish Tabellverket

4. The concept of the Demographic Transition, describing the shift from high birth and death rates to low birth and death rates as a country develops, was first systematically articulated by which demographer in the mid-20th century?

- A) Warren Thompson
- B) Kingsley Davis
- C) Frank Notestein**
- D) Alfred Sauvy

5. Which early statistical work, published in 1662, is considered a foundational text in demography for its pioneering analysis of mortality statistics and the first attempt at a scientific study of population?

- A) 'An Essay Concerning Human Understanding'
- B) 'Natural and Political Observations Made Upon the Bills of Mortality'**
- C) 'Principia Mathematica'
- D) 'Leviathan'

6. The development of the Total Fertility Rate (TFR) as a key demographic indicator is largely attributed to the work and popularization by which demographer in the mid-20th century?

- A) Ansley Coale
- B) Judith Blake
- C) Frank Notestein**
- D) Paul Demeny

7. The first national statistical office with a mandate to collect and publish population data, establishing a precedent for modern census-taking, was created in which European country in the mid-18th century?

- A) France
- B) Great Britain
- C) Sweden**
- D) Prussia

8. Which pioneering economist, in his 'Essay on the Principle of Population' (1798), first proposed the mathematical relationship between population growth and resource availability, a core concept in historical demography?

- A) Adam Smith
- B) David Ricardo
- C) Thomas Robert Malthus**
- D) John Stuart Mill

9. The concept of 'natural increase' (births minus deaths) as a primary driver of population change was explicitly defined and utilized in early demographic studies by which pair of researchers in the late 17th century?

- A) John Graunt and William Petty**
- B) Edmond Halley and Isaac Newton
- C) Robert Hooke and Christopher Wren
- D) Gottfried Wilhelm Leibniz and Isaac Newton

10. The invention of the first mechanical calculator capable of performing addition and subtraction, a precursor to the computational tools used in demography, is attributed to:

- A) Charles Babbage
- B) Blaise Pascal**
- C) Gottfried Wilhelm Leibniz
- D) Herman Hollerith

11. The development of techniques for **age-period-cohort analysis****, a sophisticated method for disentangling the effects of age, historical period, and birth cohort on demographic rates, significantly advanced in the mid-20th century thanks to the work of:**

A) Ansley Coale and Melvyn Hollander

B) Kingsley Davis and Wilbert Moore

C) Ronald Coase and Douglass North

D) Simon Kuznets and Robert Solow

12. Which census, conducted in the United States in 1890, was notable for pioneering the use of punch cards and mechanical tabulation devices, dramatically speeding up data processing and influencing future census methodologies?

A) The 1850 Census

B) The 1890 Census

C) The 1910 Census

D) The 1920 Census

13. The empirical observation and documentation of the **Second Demographic Transition****, characterized by declining fertility, increased diversity of family structures, and rising mortality from external causes, is most closely associated with the research of:**

A) Peter McDonald and John McDonald

B) David Coleman and John Hobcraft

C) Ron Lesthaeghe and Paul Meekers

D) Dirk van de Kaa and R.J. van Juchem

14. The creation of the **Gross Reproduction Rate (GRR)****, a measure that indicates the average number of daughters a woman would have, representing a refined measure of fertility, was a significant advancement in demographic measurement by:**

A) Robert R. Kuczynski

B) Alva Myrdal

C) Alfred J. Lotka

D) Louis Henry

15. Who, in the 17th century, is recognized for laying the groundwork for the scientific study of population by analyzing Bills of Mortality in London, identifying patterns in death rates, and making early estimates of population size?

A) William Harvey

B) Christiaan Huygens

C) John Graunt

D) Robert Boyle