

Ernesto F. L. Amaral

January 21, 2020 Social Demography (SOCI 622)

TEXAS A&M

Outline

- Introduction to doctrines and theories
- Early writings about population
- Demographic transition theory
- Fertility theories
- Health and mortality transition
- Demographic theory of mortality
- Migration terms
- Internal migration theories
- International migration theories



Introduction

- Ryder (1964)
 - A population is an aggregate of individuals defined in spatial and temporal terms
 - The population model is both microdynamic (individual) and macrodynamic (aggregate)
- Lotka (1934)
 - Distinction between the persistence of the individual and aggregate
 - Human beings die, while a population aggregate does not: individuals continue entering to replace those exiting

Premodern doctrines

Date	Demographic Perspective
~1,300 B.C.	Genesis: "be fruitful and multiply and fill the earth"
~500 B.C.	Confucius: governments should maintain balance between population and resources
~360 B.C.	Plato: population quality more important than quantity
~340 B.C.	Aristotle: population should be limited; abortion might be appropriate



Premodern doctrines

Date	Demographic Perspective
~50 B.C.	Cicero: population growth necessary to maintain the Roman Empire
~400 A.D.	St. Augustine: abstinence is preferred way to deal with sexuality; second best is to marry and procreate
~1280 A.D.	St. Thomas Aquinas: celibacy is <u>not</u> better than marriage and procreation



Premodern doctrines

Date	Demographic Perspective
~1380 A.D.	Ibn Khaldun: population growth increases occupational specialization and raises incomes
~1500— 1800	Mercantilism: increasing national wealth depends on a growing population that can stimulate trade
~1700— 1800	Physiocrats: population size depends upon the wealth of the land, which is stimulated by free trade (so-called laissez-faire)



Modern theories

Date	Demographic Perspective
1798	Malthus: population grows exponentially, food supply grows arithmetically; poverty is the result in the absence of moral restraint
~1800	Neo-Malthusian: birth control measures are appropriate checks to population growth
~1844	Marxian: each society has its own law of population that determines consequences of population growth; poverty is not the natural result of population growth

Modern theories

Date	Demographic Perspective
1945	Demographic transition in its original form: the process whereby a country moves from high birth and death rates
1962	Earliest studies suggesting the need to reformulate demographic transition theory
1963	Theory of demographic change and response: demographic response made by individuals to population pressures is determined by the means available to them to respond; causes and consequences of population change are interrelated

Modern theories

Date	Demographic Perspective
1968	Easterlin relative cohort size hypothesis: successively larger young cohorts put pressure on young men's relative wages, forcing them to make a tradeoff between family size and overall well-being
1971– present	Decomposition of the demographic transition into its separate transitions: health and mortality, fertility, age, migration, urban, and family and household





Early writings about population

- John Stuart Mill (1848)
 - A stationary population is better than a larger one
 - A large society will suffer from the growth rate of wealth not keeping up with the rate of population increase
- Emile Durkheim (1893), two types of societies
 - Mechanical: small and a simple division of labor
 - Organic: larger and an extensive division of labor



John Stuart Mill

- Basic thesis was that the standard of living is a major determinant of fertility levels
- The ideal state is that in which all members of a society are economically comfortable, rather than seeking excessive wealth
- At this ideal point, the population will stabilize and people will progress culturally, morally, and socially

Émile Durkheim

- French sociologist who based an entire social theory on the consequences of population growth
- Population growth leads to greater division of labor and more societal specialization
 - The struggle for existence is more severe when there are more people
 - In the long term, this leads to greater economic wellbeing



Thomas Robert Malthus

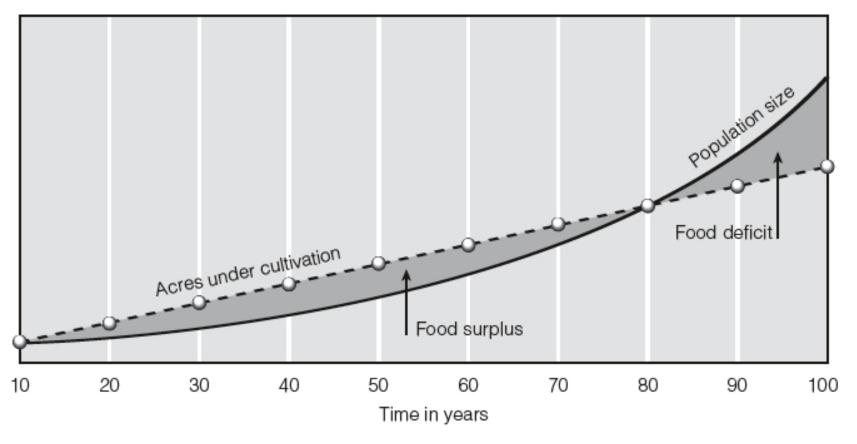
- The most well-known early scholar who wrote about population growth
 - An Essay on the Principle of Population, as it Affects the Future Improvement of Society with Remarks on the Speculations of Mr. Godwin, M. Condorcet, and Other Writers (1798)
 - Main argument: material resources (food and shelter) can grow at an arithmetic rate, while populations grow at a geometric rate
 - If left unchecked, population grows exponentially and subsistence arithmetically
 - Preventive checks: "moral restraint" or the postponement of marriage
 - Positive checks: war, famine, pestilence, and other forms of misery and vice
 - He influenced Charles Darwin, Herbert Spencer, David Ricardo,
 John Maynard Keynes, and many others

Malthusian perspective

- Malthus argued that people have a natural urge to reproduce
- The increase in the food supply (arithmetic increase) cannot keep up with population growth (geometric increase)
- The major consequence of population growth is poverty
- Poverty is the stimulus for action that can lift people out of misery



Malthusian ideas about growth of population and food supply





Major criticisms of Malthus

- He did not consider that technological advances could increase food production to deal with population growth
 - Some of these advances that were going on during the Industrial Revolution (from 1760 to around 1840)
 - He described humans as no different than all living organisms in the ability to increase at a geometric rate
 - In his view, we are all competing for space and resources
- Conclusion that poverty was an inevitable result of population growth led to rejection by Marx and Engels
- Belief that moral restraint was the only acceptable preventive check
 - Avoiding intercourse until marriage
 - Only marrying when you can afford the subsequent children



Other criticisms of Malthus

- Some argued that he ignored the impact of contraception
 - He was a clergyman who didn't see contraception practices as moral
- He never clearly defined subsistence as either food or means of subsistence (life standard)
- Malthusian principles were not valid for Europe or North America
 - With the industrial revolution, the increase in subsistence have far exceeded the human tendency to reproduce

Neo-Malthusians

 Neo-Malthusians agree that resources are limited, but argue that people should use birth control

Paul Ehrlich: Population Bomb

Garrett Hardin: Tragedy of the Commons



Karl Marx

- An economist and philosopher, who disagreed with Malthus about his theory
 - Two classes of people: the bourgeoisie (capitalists)
 and the proletariat (the workers)
 - To Malthus, population was an independent variable creating distress (poverty)
 - To Marx, population was the dependent variable
 - Capitalism is the main cause of poverty, not the population
 - Regardless of fertility level, bourgeoisie benefits the most
 - Population growth can be a problem
 - However, the potential difficulty can be regulated in communist society



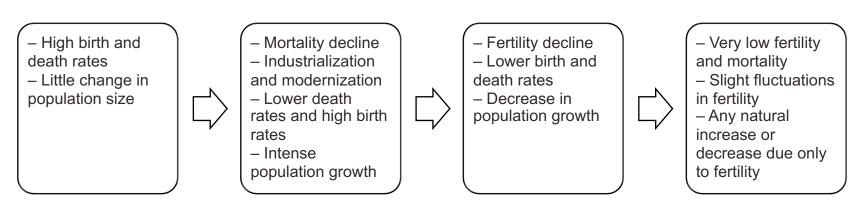
Marxian perspective

- Each society at each point in history has its own law of population that determines population growth
 - For capitalism, the consequences are overpopulation and poverty
 - For socialism, population growth is readily absorbed by the economy with no side effects
- Major criticism of Marx
 - He provided no guidance for how to get to a socialist model

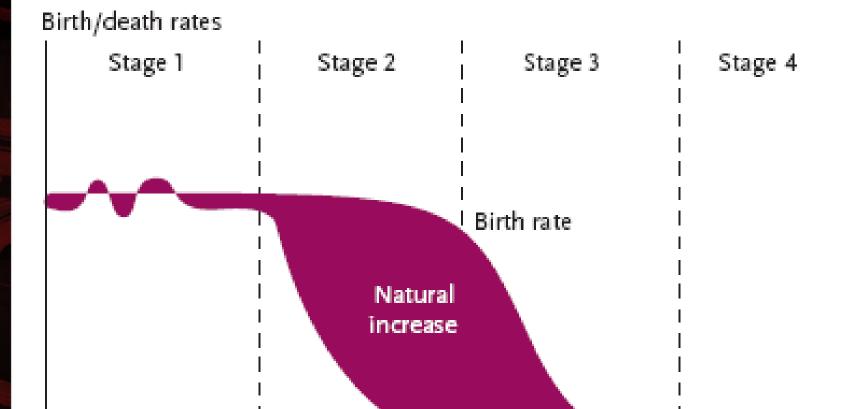


Demographic transition theory

- Demographic transition theory is the most prominent explanation for population growth
 - Also known as classic demographic transition or first demographic transition
 - Developed by Warren S. Thompson (1929) and Frank W. Notestein (1945), and extended by Kingsley Davis (1963)
- Changes in the size of the world's population over a certain period of time are due to fertility and mortality changes
- Four stages of mortality and fertility change in the process of societal modernization



Demographic transition



I Transitional
Pre-transitional I Industrialization
Pre-industrialization I Modernization

Death rate

Fertility began to decline

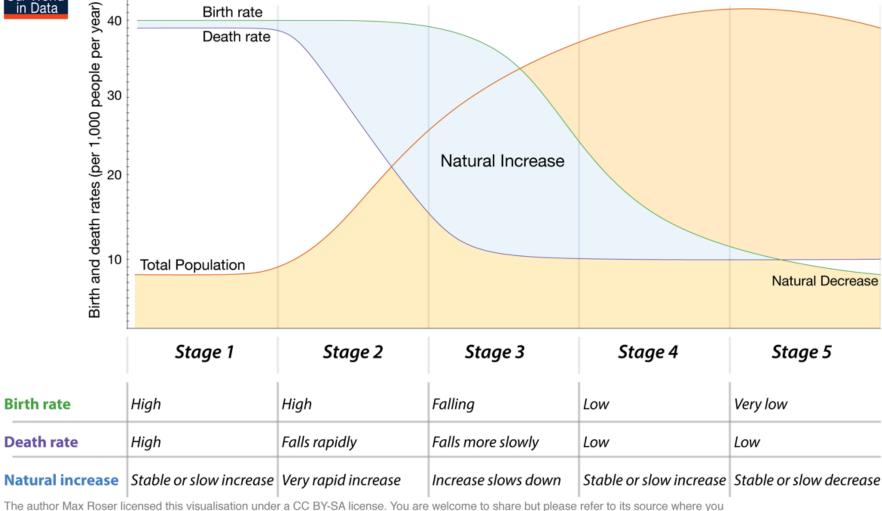
Incipient decline



Time

Demographic transition





find more information: http://www.OurWorldInData.org/data/population-growth-vital-statistics/world-population-growth

Examples in the world

- Transition began in 1700 and later in Europe
- Not complete in most less developed countries (LDCs)
 - Many African and Middle Eastern countries are early in Stage 3
 - Some in Latin America are moving toward Stage 4, also the U.S.
 - These variations change population distribution
- Beginning of 20th century
 - Majority of population resided in more developed countries
- Throughout 20th century
 - High population growth and reversal of population distribution
- In 2014, of the world population
 - Over 83% (~6 billion) lived in LDCs
 - Under 17% (~1.2 billion) lived in more developed countries
- 21st century
 - Share of LDC population will increase



Second demographic transition

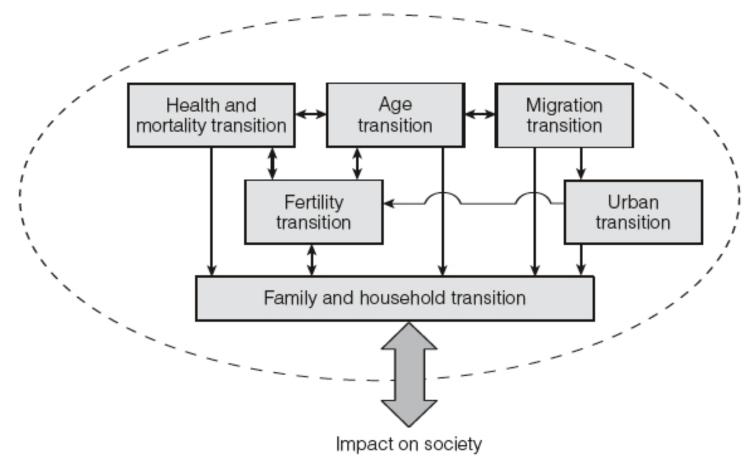
- Introduced by Dirk van de Kaa (1987) and Ron Lesthaeghe (1995, 2006, 2009, 2010)
- Further fertility declines are due to demographic behaviors such as
 - Increasing age at first marriage
 - Increases in cohabitation
 - Increases in divorce
 - Emergence of same-sex partnerships and marriages
 - Increasing rates of nonmarital childbearing
 - Voluntary childlessness



Third demographic transition

- David Coleman (2006) further expanded demographic transition theory
 - Increasing tendency of low fertility countries relying on immigration to maintain their populations
 - This changes composition of national populations, culture, physical appearance, social experiences, self-perceived identity
 - e.g. United States, Western Europe
- Daniel Lichter (2013): children of immigrants are the vanguard of the third demographic transition that will remake the United States

Demographic transition is a set of transitions





Several transitions

- Health and mortality transition
 - Shift from deaths at younger ages due to communicable disease to deaths at older ages due to degenerative diseases
- Fertility transition
 - Shift from natural (and high) to controlled (and low) fertility
- Migration transition
 - Growth in the number of young people in rural areas will lead to an oversupply of young people looking for jobs
 - This encourages people to leave in search of economic opportunity in urban areas (urbanization)



Several transitions

Age transition

- Changing numbers/percentages of people at each age and sex, as mortality and fertility decline, and as migrants flow
- "Master transition" because it forces changes in societies

Urban transition

- It begins with migration from rural to urban areas
- It changes into urban "evolution" as most humans are born in, live in, and die in cities
- Migration to suburbs and mid-sized cities
- Family and household transition
 - Diversity in composition and structure, due to longer life lower fertility, older age structure, urban residence



Fertility theories

- Wealth flows theory
- Human ecological theory
- Political economic theory



Wealth flows theory

- John Caldwell (1976)
- Fertility patterns depend on the intergenerational flows of wealth and services
 - When flows run from children to their parents,
 parents will want to have large families
 - When flows run from parents to their children,
 parents will want to have small families
 - The "emotional" nucleation of the family is crucial for lower fertility
 - Parents become less concerned with ancestors and extended family than with children and grandchildren

Human ecological theory

- Macro-level perspective (Poston and Frisbie)
 - Focus on societies, not individuals
 - The level of organization and complexity of a society is negatively related with fertility growth
 - High fertility makes a population vulnerable to environmental, technological, and other kinds of societal changes and fluctuations
 - Large quantities of sustenance are normally consumed by the familial and educational institutions
 - Low fertility enables more sustenance to be available for investment back into the system



Political economic theory

- It is not a fertility theory per se
 - It is an investigative framework, analytic perspective
 - This framework is multileveled: macro and micro
 - Quantitative and qualitative analyses
- E.g., Casalecchio, Italy (Kertzer, Hogan 1989)
 - Life-course perspective: changes throughout the 19th and 20th centuries, using individual-level data
 - Historical events: labor and marriage patterns
 - Fertility reduction depends on social class or occupation of families (macro)
 - These macro factors varied through different classes of people (micro)



Health and mortality transition

- Health and death
 - Morbidity: prevalence of disease in a population
 - Mortality: pattern of death
- Epidemiological transition theory (Omran 1971)
 - Change from prevailing poor health (high morbidity)
 and high death rates (high mortality)
 - Most people dying at younger ages from communicable and infectious diseases
 - To prevailing good health (low morbidity) and low deaths rates (low mortality)
 - Most people dying at older ages from degenerative diseases



Demographic theory of mortality

(Omran 1971)

- First stage: age of pestilence and famine
 - Influenza, pneumonia, smallpox, tuberculosis...
 - High infant and childhood mortality
 - Average life expectancy between 20 and 40 years
 - In developed countries, lasted until around 1875
- Second stage: age of receding pandemics
 - Mortality declines due to improvement in sanitation, standard of living, and public health
 - Average life expectancy between 30 and 50 years
 - In developed countries, between 1875 and 1930



Demographic theory of mortality

(Omran 1971)

- Third stage
 - Era of degenerative and manmade diseases
 - Heart disease, cancer, stroke...
 - Mortality declines due to medical advances in prevention and treatment of infectious diseases
 - Life expectancy exceeds 70 years
 - Fertility is the primary factor in population growth
- Fourth stage (Rogers, Hackenberg 1987)
 - Hybristic stage
 - Individual behavior and lifestyle influence mortality
 - Social pathologies: accidents, alcoholism, suicide, homicide...
 - Lifestyle issues: smoking, diet...



Migration terms

- Internal migration: permanent changes in residence that occur within a country
- International migration: permanent changes in residence that occur between countries

Areas	Internal migration (within countries)	International migration (between countries)
Receiving areas (destination)	In-migration	Immigration
Sending areas (origin)	Out-migration	Emigration

Factors involved on migration

- Fertility and mortality occur in response to biological/genetic and social factors
 - E.g., women have children due in part to her fecundity (biological) and education (social)

- Migration has no biological factors
 - A person migrates due to factors in the physical and social environments at areas of origin and destination
 - Personal/individual factors can also influence migration



45

Why do people move?

- Migration happens in response to a reason that the person believes cannot be satisfied in the current residence
- The study of migration determinants dates back to classical economic development theory
 - Migration is considered to be a mechanism that establishes regional spatial-economic equilibrium (Ravenstein 1885, 1889)
- Migrants move from low income to high-income areas
 - From densely to sparsely populated areas
- Population streams are expected to occur between the poorest and wealthiest places and countries

Laws of migration

(Ravenstein, 1885, 1889)

- Migration is affected by distance
 - Most migrants move only short distances
- Migrants often move in stages
 - As they leave one area, their places are filled by migrants from more distant areas
- Every migration stream has a compensating counterstream
- Migrants moving long distances often stop, temporarily, at major cities or centers of commerce
 - Located between the area of origin and the intended final area of destination
- Urban residents are less likely to migrate than rural residents

Intervening obstacles

- Migration is due not only to a person calculating advantages and disadvantages of areas of origin and destination
- Intervening obstacles must be considered
 - Distance
 - Income, job opportunities
 - Destination characteristics
 - Physical barriers and costs, migration laws
 - Information about alternative localities
 - Personal characteristics
 - Individual expectations
 - Community and kinship ties



Migration theories

- The following migration theories are compatible
- They are influenced by individual factors
 - Age, sex, education, race/ethnicity, social network...
- They are also influenced by contextual factors
 - Characteristics in the areas of origin (push factors)
 and destination (pull factors) that facilitate migration



Push and pull factors

- Question of who migrates depends on push-pull factors
- Push factors of migration (origin)
 - Loss of a job, poverty, violence, discrimination, low availability of social and life partners, catastrophes (floods, epidemics...)
- Pull factors of migration (destination)
 - Employment, education, income, better climate and living conditions, different types of activities
- Migration as a response to push factors
 - Migrants tend to be "negatively" selected
 - They are often poorly educated or unskilled
 - The area of origin is changed positively
- Migration as a response to pull factors
 - Migrants tend to be "positively" selected
 - They are often more educated, innovative
 - The area of origin loses a valuable segment of the population



Internal migration theories

- Neoclassical migration theory
- New economics of labor migration
- Spatio-temporal migration theories
- Structuralism (neo-Marxist, center-periphery)
- Sociological human ecology



Neoclassical migration theory

- Neoclassical economic theory sees migration primarily as a function of geographical differences in the relatively scarcity of labor
 - Rural-urban migration continues if expected urban income exceeds rural income (Todaro 1969, 1980; Harris, Todaro 1970)
 - Migration is a result of individual decisions
 - This framework is also known as functionalist theory
- Migration causes labor to become less scarce at the destination and scarcer at the origin
 - This process will result in growing convergence between wages at the sending and receiving areas

53

New economics of labor migration

- NELM argues that most migration in developing countries can only be understood as a household rather than individual decision
 - Migration decision generates income diversification (e.g., remittances) rather than maximization
 - It is a conscious attempt to overcome failing markets and socioeconomic inequalities
- NELM is a micro-level theory applied to particular forms of migration
 - It is not able to explain long-term global migration patterns and trends and how these are connected to broader development processes

Spatio-temporal migration theories

- Spatio-temporal transition migration theories define migration as a constituent part of broader development processes
 - Development processes tend to coincide with increased levels of migration and overall mobility
- These processes are associated with
 - Modernization
 - Capitalist economic development
 - Urbanization
 - Demographic transitions



Structuralism

- Structuralism (neo-Marxist, center-periphery) criticizes functionalist theory (neo-classical, push-pull)
 - Structuralism sees a general pattern of disruptions, dislocations, and migrations intrinsic to capitalism
 - Functionalist assumes socioeconomic forces tend towards equilibrium through migration
- However, they share these assumptions
 - More development leads to less emigration
 - Higher development differences across areas (spatial disequilibrium) leads to more migration

Sociological human ecology

- Ecological theory of migration focus on population characteristics to predict migration
 - Why some areas increase through migration?
 - Why some areas decrease through migration?
 - Why some areas are not influenced by migration?
 - It does not ask why individuals move
- Migration is the major mechanism of social change and adaptability for human populations
 - Populations redistribute themselves via net migration to attain equilibrium
- Based on interdependence of four concepts
 - Population, organization, environment, technology





International migration theories

(Massey et al. 1994)

- Initiation of international migration
 - Neoclassical economics
 - The new household economics of migration
 - Segmented labor market theory
 - World systems theory
- Continuation of migration
 - Network theory
 - Institutional theory
 - Cumulative causation



Initiation of international migration

(Massey et al. 1994)

- Neoclassical economics
 - Supply-demand framework
- The new household economics of migration
 - Diversify income sources: remittances
- Segmented labor market theory (demand-driven)
 - Primary sector: well-educated, good salary, benefits
 - Secondary sector: low wages, unstable, usually rejected by natives
- World systems theory
 - Peripheral countries are most likely to send migrants to core nations

Neoclassical economics

- The neoclassical economic theory of international migration is the oldest and bestknown
- It focuses on labor migration
- Migration occurs due to individual cost-benefit decisions to maximize expected incomes
- People move from low-wage countries to highwage countries



New household economics

- The new household economics theory of migration challenged the neoclassical theory
- Migration decisions are influenced by
 - Isolated individuals
 - As well as by larger units: families and households
- Migration happens to
 - Increase individual earnings
 - As well as to minimize household risks and protect family from market failures



Segmented labor market theory

- Migration flows are a result of the demands of the economic structure of industrial societies
 - Caused by push-pull factors
- Capitalism divides labor markets into two sectors
 - This theory is also known as dual labor market theory
 - Primary: secure jobs, high pay, generous benefits, good working conditions
 - Secondary: instable jobs, low pay, limited benefits, unpleasant or hazardous working conditions
 - Employers use migrants to fill jobs in secondary sector



World systems theory

- Migration is the result of globalization of the market economy
- In the process of global industrialization
 - Population is released from traditional industries: farming, state-owned industries, handicrafts
 - This creates a mobilized population to move both internally and internationally
- Global market economy attracts employees with higher human capital to specific global cities
 - Human capital: knowledge, experience, skills, education, productivity of an employee
 - Examples of global cities: NYC, LA, Chicago...



54

Continuation of migration

(Massey et al. 1994; Massey, Espinosa 1997)

- Network theory
 - Migrants establish interpersonal ties
 - Once started, migration sustains itself through diffusion
- Institutional theory
 - Institutions facilitate or profit from the continued flow of migrants
 - Organizations help perpetuate migration in the face of government attempts to limit the flow of migrants
- Cumulative causation
 - Migration has an impact on social environments of sending and receiving regions

Network theory

- Migration network theory focuses on interpersonal ties
 - These ties connect migrants, formal migrants,
 potential migrants, and non-migrants in the origin and destination countries

- Networks increase the likelihood of migration
 - They decrease migrant risks and costs
 - They increase net earnings to migration
 - They make it easier for migrants to find jobs and access resources in destination



References

- Harris JR, Todaro MP. 1970. "Migration, unemployment and development: A two-sector analysis." The American Economic Review, 60(1): 126-142.
- Massey DS, Arango J, Hugo G, Kouaouci A, Pellegrino A, Taylor JE. 1994. "An evaluation of international migration theory: The North American case." Population and Development Review, 20(4): 699–751.
- Massey DS, Espinosa KE. 1997. "What's driving Mexico-US migration? A theoretical, empirical, and policy analysis." American Journal of Sociology, 102(4): 939–999.
- Poston DL, Bouvier LF. 2017. Population and Society: An Introduction to Demography. New York: Cambridge University Press. 2nd edition. Chapter 2 (pp. 17–34).
- Ravenstein EG. 1885. "The laws of migration." Journal of the Royal Statistical Society, 48: 167-227.
- Ravenstein EG. 1889. "The laws of migration." Journal of the Royal Statistical Society, 52: 214-301.
- Todaro MP. 1969. "A model of labor migration and urban unemployment in less developed countries." The American Economic Review, 59 (1):138-148.
- Todaro MP. 1980. "Internal migration in developing countries: A survey." In Population and Economic Change in Developing Countries, edited by Richard A. Easterlin, 361–402. Chicago: University of Chicago Press.
- Weeks JR. 2015. Population: An Introduction to Concepts and Issues. Boston: Cengage Learning. 12th edition. Chapter 3 (pp. 58–99).

