Unit II – Population and Migration
Chapter 3 - Population

Introduction:

- In 2010, the world's population grew by over 228,000 people per day.
- That's over two times the population of the state of California in a single year.
- Of the 83M new people added, more than 97% were born into the less developed areas of the world
- Population matters!
- As geographers, especially human geographers, we must have a working knowledge of population patterns and the dynamics of population change around the world.

Module 3A – Population Growth in the Past:

- Two thousand years ago global population totaled about 300M people and roughly 300,000 people were being added per year
- Less than 200 years later the planet's total is now over 7B
- Why such large growth? Answer: Two revolutions
- Neolithic Revolution – 12,000 years ago
- From about 10,000 BCE until 1750 or so, the world's population grew slowly but steadily, although plagues occasionally caused significant reductions in human numbers
- Most well-known is the Black Death
- Mid-eighteenth century – Industrial Revolution
- Along with the revolution came innovations in science and public health. Sophisticated water and sewer systems, improved medical techniques, and better prevention of famines caused a significant drop in death rates in industrialized areas
- It is this decline in mortality, not an increase in fertility, that caused a global rise in population in the nineteenth and twentieth centuries
- Geographically, 20th century population growth was greatest in the developing world, even though many areas have yet to industrialize. This is because public health improvements, such as clean drinking water and immunization, have spread around the world.
- In 1900 a quarter of all humans lived in Europe. Today, only about 11% of the world's population is European
- Another 20th century change that caused population to increase was a significant increase in **life expectancies** – the average life spans of persons in a particular population **(Study Figure 3A.3)**

Module 3B – World Population Today: The Americas

- **Study Figure 3B.1**
- Population density – arithmetic and physiological
- **Arithmetic density** – the population of a region or country divided by its total area
- **Physiological density** – the number of people per unit of **arable** land
- **Study Figure 3B.2**

Module 3C – World Population Today: Europe and Africa

- Understand patterns

Module 3D – World Population Today: Asia and Oceania

- Understand patterns

Module 3E – The Basic Demographic Equation and Fertility

- The population of an area, such as a country, state, or city, can be expressed by the following equation, often called **the basic demographic equation**:
    - future population = current pop + births – deaths + immigrants – emigrants
- the size of the world's population means that even low birthrates can translate into large increases in total population
- **Fertility –** how many children are born in a given time period
- **Crude birth rate (CBR)** – number of children born per 1,000 in a population **(Study Figure 3E.1)**
- **Total fertility rate (TFR)** – measures how many children, on average, a woman can expect to have in her lifetime, given the current fertility rates **(Study Figure 3E.3)**
- Worldwide, the TFR averages 2.5, but the numbers vary widely by region
- The TFR has to be about 2.1 – 2.3 for a population to stay about the same size known as **the replacement level of fertility**, or **zero population growth**
- In the developing world, where health care is poor and disease more prevalent, the replacement level is closer to 2.2 or 2.3
- The world TFR is currently about 2.7, meaning that global population is rising because the TFR is above the replacement level **(Study Figure 3E.3)**
- Fertility is influenced by factors such as the following:
    - Health
    - Economics
    - Education
    - Culture

Module 3F – Mortality and Population Change

- **Crude death rate (CDR)** – statistic representing the number of deaths per 1,000 people in population during a year **(Study Figure 3F.1 and 3F.2)**
- Globally, the average CDR is just 8 per 1,000 people
- **Infant mortality rate (IMR)** – is the number of babies who die each year before their first birthday **(Study Figure 3F.3)**
    - **Calculation –(** # of infants who die before age 1 / all births) x 1,000
- Worldwide, the IMR averages 44 infant death per 1,000, but in some countries the rate can be much higher
- Afghanistan has an IMR of 131
- Iceland has an IMR of only 2.2
- **Natural Population Change – rate of natural increase (RNI)**
    - **Calculation** – crude birth rate – crude death rate
    - **Calculation in %** - crude birth rate – crude death rate / 10
- **Rate of population growth** - When migration is factored in, usually expressed as a percentage
- Whether you use the rate of natural increase or the rate of population growth will depend on whether or not you want to consider the impact of migration (rate of population growth) or just births and deaths (rate of natural increase)
- RNI have declined significantly in the last ½ century
- Starting in the 1970s, better access to contraceptive and later marriages led to a steady decline in the NIR
- In 2011, the NIR was 1.2% a year – it still means that 70M people are being added to the world each year
- Over the next 50 years, the NIR is expected to decline
- US Census Bureau predicts that the NIR might be as low as 0.5% by mid-century – still equates to a billion more people on earth every 20 years or so **(Study Figure 3F.5)**

- **Doubling Time** – represents the amount of time it will take for a population to double if the rate of NIR continues at the same rate
    - **Calculations** – 70 years / rate of natural increase (%)

Module 3G – The Demographic Transition Model

- DTM – how population changes **(Study Figure 3G.1 and page 61)**
- **Stage 1**
    - country in a preindustrial, probably agrarian society
    - both birth rates and death rates tend to be high
    - war, famine, disease, and generally poor healthcare keep death rates high
    - population tends to stay at about the same size because births and deaths cancel each other out
    - there are no large areas or regions where a Stage 1 scenario prevails
- **Stage 2**
    - Death rates decline dramatically while birth rates stay about the same
    - In Europe IR
    - Fertility rates during Stage 2 stay at a constant, high level
    - Rapid population growth because fertility and mortality are not canceling each other out, as they did in Stage 1
    - Many countries of the world seem to be in Stage 2.
        - Examples – Sub-Saharan Africa, Some Asian countries (Laos)
- **Stage 3**
    - Birth rates decline significantly
    - Reasons – children becoming less important as earners or labor for families and people choosing to spend money on things other than children as an economy grows
    - Death rates continue to decline during Stage 3 of the model, which means that birth rates are still higher than death rates during this period – which means pop growth
    - Overall population growth slows and eventually begins to level off – can take a generation or two
        - Examples – Turkey, Argentina
- **Stage 4**
    - Last stage of the DTM represents what is essentially a modern, industrialized country
    - Both birth rates and death rates have leveled off, with birth rates almost always remaining higher than death rates – this means pop will continue to grow at a steady pace - but not rapidly, as it did in Stages 2 and 3
        - Examples – US, much of Europe, few countries in Asia (Japan)
    - Some theorists have hypothesized that there is a Stage 5 of the DTM in which birth rates are consistently lower than death rates. Because of this, a country's population would be expected to decline over time.
        - Examples – some countries in Europe exhibit the conditions of Stage 5

Module 3H – Population Profiles:

- **Population profile (or Pyramid)** – a graphic that shows the number or percentage of men and women in a population per year group or range of years; sometimes called a population pyramid.
- This is to help understand a population's structure and what might be going in a country or region
- **Study Figure 3H.1**

Module 3I – Population Change in the Future:

- **Thomas Malthus** – 1798 published a short work, *An Essay on the Principle of Population*, arguing that population growth in the future would be guided by two postulates and one assumption **(Study Figure 3I.1)**
    - **Postulates**
        - Food is necessary for survival
        - Sex between men and women would continue to occur
    - **Assumption**
        - If population is not restrained by disease, vice, war, or similar checks, would grow at a **geometric rate (exponentially** - 1, 2, 4, 8, 16, 32, 64)
        - Food supplies would grow only **arithmetically**, or 1, 2, 3, 4, 5, 6, 7, and so on.
    - Malthus did not consider the following:
        - Role of technology, family planning, etc.
- Mid-20th century, scholars began returning to Malthus's ideas
    - **Neo-Malthusians** carry on Malthus's general notion that pop growth can lead to global chaos
    - 1968 Paul Erlich *The Population Bomb*
- Ester Boserup – (1965) Danish economist argued that population growth actually stimulates societies to innovate and produce more food
    - Development of these techniques did actually result in a "Green Revolution" that helped increase agricultural yields considerably in the last decades of the 20th century
- Another theoretical view on the future of pop growth is held by some Marxists, such as communists and socialists
    - Downplayed the role of pop growth instead, focused on the poor distribution of food around the world as the source of population-related problems, such as famine
    - In other words, the rich countries of the world do not share enough food with poorer countries
- Today, theorists in the debate about the world's pop are often grouped into two camps
    - Implosionists – point at declines in fertility in most countries and argue that the world has turned the corner on population growth
    - Explosionists – tend to be more Malthusian in their view and warn that, although fertility rates have declined, the world will continue to see rapid population growth for decades to come

Module 3J – Population Planning:

- **Population planning** – Government attempts to increase or decrease the birth rate in the country
- Can be very controversial
    - 1873 "Comstock Law" made it illegal to distribute any information about contraception through the mail
    - Related laws stayed on the books until the 1960s in some states
    - After WWII, United Nations Population Commission on the International Planned Parenthood Federation began to advocate for more family planning globally
    - Advocacy increased in the 1960s and 197s
    - International groups involved in population planning generally focus on several areas:
        - Changing cultural attitudes
        - Training population planning staff around the world
        - Providing contraceptives to poor countries
        - Helping countries improve their demographic statistics through better censuses and recordkeeping
        - Working to improve education for women
        - Providing technical assistance to personnel in developing countries **(Study Figure 3J.1)**
- About 61% of women aged 15-49 worldwide use some modern method of contraception
- 74% of women in Naorth America use some sort of modern contraceptive

- 29% in Africa
- 55% in Asia excluding China
- Conference on population and Development (ICPD) held in Cairo in 1994 – the meeting urged countries to make social development a central part of their pop policies
- Specifically, the social status of women was emphasized
- Often countries take dramatic actions
    - China's attempt to control its population is the most well known
    - In 1979, China instituted what is commonly referred to as the One-Child Policy, although a more accurate description would be the One-Birth Policy
    - Couples are often rewarded for adhering to the policy with larger salaries or more spacious housing
    - Couples who illegally have a second child can be fined severely, and reports indicate that forced abortions and other punishments have occurred
    - Extra children born without permission do not legally exist and therefore cannot attend school unless the school officials are bribed, and many have difficulty later in life getting any kind of government license, such as permission to marry or to travel **(Study Figure 3J.2 and 3J.3)**

Unit II – Population and Migration
Chapter 4 – Geography of Health and Disease

Introduction:

- Humans thrive and they get sick, and the health of a country's or a region's people affects that region's economy, education system, and ability to grow and adapt
- **Medical geography**, or health geography, is the application of geographic ideas, information, and theories to the study of disease, health, and health care
- Twenty-first century scares over severe acute respiratory syndrome (SARS) and avian flu are reminders of how small the world has become
- Doctors, nurses, and hospitals are often not evenly distributed on the landscape. And even when they are, not everyone has equal access to health facilities

Module 4A – Health and Geography:

Epidemiology, the study of the causes and spread of disease, play a critical role in understanding health around the world

- **Human Environment Relationships**
  - Human health is fundamentally affected by the environment
  - Pollution can also affect disease **(Study Figure 4A.1)**
- **Culture**
  - Health and disease are affected by a region's culture, and geographers have long studied cultural patterns
  - In the US, for example, there is a great cultural debate about abortion. Disagreements between liberals and conservatives over abortion have led to varying state health policies about whether public money can be spent on certain medical procedures. You can see how this is not just a cultural, but also a geographic, issue. Attitudes toward abortion are not the same in all places of the US, and thus health policies have a geographic pattern
  - Around the world, some cultures still allow a man to have many wives. This practice, called **polygyny**, has had an effect on HIV/AIDS rates in some countries
  - Another example is the initial lack of public money to fight AIDS in the US in the 80s
- **Movement**
  - Diseases move, and geographers study diffusion, thus making geography an obvious academic discipline for the study of infectious disease. Compare the dynamics of a disease like HIV/AIDS to one like Ebola **(Study Figure 4A.2 and 4A.3)**

Module 4B – Human Ecology of Disease:

- **Ecology** refers to the relationship between organisms (plants or animals) and their environment
- **Human ecology** refers to the interconnections between human populations and the physical world
- Humans affect their environment, and the environment affects humans **(Study Figure 4B.1)**
- Environment s that humans live and work in, can be classified by scale
- **Microscale environments** include your house or dorm room, your car, and the classrooms you go to
- **Mesoscale environments** (meso means "medium") include your town or region or country
- At each scale, there are factors that can positively or negatively affect human health
- Health can be affected by a variety of factors that geographers refer to as **insults or stimuli**
- These can be grouped as chemical, physical, infectious, or psychosocial

- **Chemical insults** include things such as drugs and exposure to carbon monoxide or other noxious gases
- **Physical insults** include traumas from events such as accidents, radiation poisoning, or electrical shock
- **Infectious stimuli** include effects of viruses, bacteria, or protozoa
- **Psychosocial insults** include the positive or negative effects of crowding, anxiety, love, and sense of belonging
- **Population** does not simply refer to numbers of people; the term refers to a group or society's age, gender, and genetic characteristics
- Genetics obviously affects individual health, but it can also affect a larger population, although the connections are more complex
    - Examples:
        - Alcohol metabolism in Chinese population
        - Process of testosterone in African population
- **Habitat** refers to both natural characteristics and cultural and human made aspects of an environment **(Study Figure 4B.2)**
- **Behavior** refers to the effect of things such as cultural beliefs and social organization
- Bad American eating habits have led to record levels of obesity, heart disease, and diabetes

Module 4C – Disease Basics (Study Figures 4C.1, .2, and .3):

- **Endemic –** A disease such as chicken pox, which is always present
    - Example: Arthritis in US population
- **Epidemic** – a disease which occurs in large numbers in a population that does not normally experience the disease, or when the number of new cases of a disease is more than would normally be expected
- **Agent –** the organism that causes a disease, such as bacteria, viruses, protozoa, or tiny worms called flukes
    - an agent can also multiply or even mutate inside a vector
- **Host –** the life form, animal or human, that has the disease caused by the agent
- **Vector –** the means by which the agent is transmitted to the host. Common vectors include mosquitoes, flies, ticks, bats, and rodents

Module 4D – HIV/AIDS:

- Understanding the geography of this horrible disease, which infects an estimated 33M people worldwide, will help you better understand the challenges of controlling and someday eradicating this killer
- As geographers, we know that looking only at data at the country level can mask important dynamics at a subnational scale **(Study Figure 4D.1)**
- This has certainly been true of HIV/AIDS
    - For example, in the 1980s as many as 90% of all HIV cases in the US were among homosexuals, while in Africa the early epidemic was primarily among heterosexuals **(Study Figure 4D.2)**
- The rate of HIV infection has also been more common in urban areas than rural areas
- It is, however, easier to combat HIV/AIDS in cities because access to medical care, drugs, and education programs is more readily available
- But because many countries have few resources for health care, HIV?AIDS presents a formidable challenge
- In some areas, public health officials have instituted complex counseling programs to work with couples and families to improve understanding about the disease, safe sex practices, and access to affordable testing
- There are also geographic issues related to the spread and prevention of HIV that are less obvious, but still geographic
- One is the vast economic disparity between the developed and developing worlds

- Continents such as Africa have much less money to spend on health care and education, which in turn can lead to higher infection rates (through lack of awareness) and poor prevention programs
- In many countries, too, the status of women is poor

Module 4E – Common Diseases:

- **Malaria** is a global problem
- Malaria is caused by parasites of the genus Plasmodium and is spread to humans by the bite of infected Anopheles mosquitoes
- Children are particularly at risk and account for the majority of cases
- Malaria symptoms include fever, chills, vomiting, and headaches, and the disease can be fatal if untreated
- Treatment generally includes the use of antimalarial drugs
- Historically, the drug, chloroquine was most commonly used, but in recent decades, Plasmodium falciparum has grown resistant to chloroquine, requiring the use of other drugs
- There is no cheap or effective vaccine
- At the local scale, malaria is associated with water because mosquitoes lay eggs in water
- Historically, wet areas wee drained to control malaria, but today public health officials focus on controlling mosquito populations through eh use of indoor residual spraying (IRS) and the use of long-lasting insecticidal nets (LLINs)
- In Africa, the World Health Organization estimates that malaria alone accounts for 40% of public health expenditures, up to half of all admissions to hospitals or clinics, and up to 60% of outpatient visits
- In addition, infected children often cannot attend school and thus reduce their ability to hold a good job later in life **(Study Figure 4E.1)**
- **Tuberculosis**, or **TB** is one of the world's great killers
- Each year, 9 million people get a new case of the lung disease, and nearly 1.5M die from it
- TB is difficult to control eradicate because it is easily spread from an infected person to a non-infected person through coughing, speaking, or sneezing **(Study Figure 4E.2)**
- TB has been on on the rise in recent years after a period of control
- The reasons for this are numerous,
    - **one** reason is the rise of HIV/AIDS
    - **second** reason for TBs return is that many countries have reduced TB control programs and public health money for treatment and monitoring of the disease
    - **third** reason is new, drug-resistant forms of TB
- **Yellow fever** is a mosquito-transmitted viral disease that causes an acute hemorrhagic fever
- The disease is endemic in Africa and Latin America, infecting approximately 200,000 people and causing 30,000 deaths annually
- Most of us think of diarrhea as a temporary problem or as the result of a bad meal
- However, diarrheal disease is one of the leading killers worldwide, especially for children in the developing world because dehydration
- Nearly 1.1B people worldwide do not have access to clean drinking water, and nearly 2.5B have no adequate sanitation, so exposure to contaminated water is a problem that will be around for years to come **(Study Figure 4E.4)**
- In the late 1960's, researchers in India and Bangladesh developed what is commonly known as oral rehydration therapy (ORT), which involves giving patients suffering from acute diarrhea a solution of salt and sugar
- This solution is able to be absorbed by the body when regular water is not
- It also restores electrolytes

- Between 1980 and 2000, the use of ORT reduced annual deaths of children under five by diarrhea from nearly 5M a year to just under 2M a year
- Like acute diarrhea, most Americans and Europeans do not think of influenza as a major killer, but historically, and for many worldwide, it is just hat
- Caused by a virus, the flu causes fever, aches, and pains, headaches, and sore throats
- But the flu often leads to pneumonia, and pneumonia is a killer of children, the sick, and the elderly
- Because influenza outbreaks are worse during the winter, there is a geographic and temporal difference between outbreaks in the Northern and Southern Hemispheres because winter occurs at different time
- Recent research has shown that China is the point of origin for most new types of flue

Module 4F – Snapshots of Global Health:

- Study the Figures

Module 4G – Geography of Health Care:

- Timely and regular health care is a key component of human wellness, and even in the US it is well established that poverty reduces access to good health care
- In the UK, about 97% of all care is provided by the National Health Service
- Canada's system is also universal – that is everyone is guaranteed care, but unlike the UK, insurance is publicly funded, with the care itself provided by private companies
- Conversely, in the US a large percentage of health care is privately funded, with less than 30% of the population getting all or part of their health needs met only from government sources such as Medicare and Medicaid
- Two angles for examining the geography of health care
    - First – there is the actual geographic location of health care facilities and providers
    - Second, there is the geography of access to health care
- Health care facilities are not evenly dispersed
- Health care provers are not evenly distributed
- Culture may affect access to health care
- Access to health care is limited by functional, geographical, social, and financial factors
- **Functional factors** are simply the presence of absence of health care resources
- **Geographical factors** include the proximity of the resources to the population
- Access to health care may be affected by **social factors**, such as racism or sexism
    - Example – India
- **Financial factors** limit access to health service for people who cannot afford to use them
- Because poor communities tend to have poorer insurance coverage, there can be geographic differences in the quality of health care within particular city or region

Unit II – Population and Migration
Chapter 5 – Migration Flows

Introduction:

- Population is not only effected by births and deaths but also immigration and migration
- More importantly, migration can change the composition of an area because migrants are not evenly divided among all ages and ethnicities
- Most people move from countries in the developing world to other developing countries
- Much of this movement is to take advantage of economic opportunities, but some migrants are fleeing persecution or violence
- Some of the most active migration streams from the developing to the developed world are from Latin America and Asia to the US and Canada and from the Middle East and North Africa to Europe
- In the developed *world*, migration *between* countries has been less important than migration *within* countries – specially, rural-to-urban migration
- Fifty years ago, about half of all Americans lived in urban areas
- Today, that number is over 78%
- In the next 50 years, tens, if not hundreds, of millions of rural residents in the developing world will also move to cities, placing a great burden on governments to provide housing, education, health care, and sanitation for these increasing city populations
- Today, only about 44% of the people in developing countries live in cities

Module 5A – Migration versus Movement:

- **Study Figures 5A.1-5A.2d**
- **Migration** is a permanent relocation of one's place of residence and generally considered to be a long distance move
- **International migration** is when a migrant leaves one country to region and moves permanently to another
- **Internal migration** occurs within a country
- **Cyclical movements** occur when people move back and forth between two places or among a few locations
- Cyclical movement can also be seasonal
- This type of movement has significant economic consequences for both the hometowns and the warmer destinations
- Cyclical movements are also common for pastoral nomads, farmers who move with their animals during the course of a year
- **Period movement**, population moves, often over long distance that occur from time but are not permanent
    - **Examples:**
        - Guest workers – they send home much of the money they make. These payments are known as **remittances**
        - Guest workers can induce real social challenges in countries where they work

Module 5B – Types of Migration:

- **Primitive migration** – basic type of migration which involves human population migrate because they run out of food (hunter gatherers)
- **Mass migration** (before modern era) – involves a large group of people moving together
    - **Examples:**

        - Army, ethnic group, tribe
- **Free migration** – a decision to relocate permanently to another location without the coercion, support, or compulsion of any government or group in power
- Free migration has largely been replaced by **restricted migration**. Because most countries now have complex rules that limit the number of people who can cross their borders to seek residency, migration is no longer "free" for most migrant
- In the US, the Emergency Quota Act of 1921was the first major legislation to limit migration.
- Two other types of migration are **impelled** and **forced migration** – in both cases, migrants are pressured by a government or another institution in power to move
- Impelled migrants may have some choice in the decision, but they feel pressured to do so
    - Classic Example – Jews from Germany
- It is also important to remember that migration can take place within a country as well as between countries
- The most important type of internal migration affecting the world today is **rural-to-urban migration**
- **(Study Figure 5B.4)**

Module 5C – Human Trafficking:

- **Human trafficking** is defined by the United Nations as the
    - *Recruitment, transportation, transfer, harboring or receipt of persons, by means of threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation* **(Study Figure 5C.1, .2, and .3)**
- The CIA estimates that about 50,000 people are brought into the US illegally each year to work as prostitutes, servants, or slave laborers. Worldwide, 600,000 to 800,000 people are trafficked each year
- The evils of trafficking can be seen in three broad areas
    - Social institutions
    - Family
    - Education
- Another type of human trafficking is known as **"people smuggling"**
- This crime is defined by Interpol as "the procurement, for financial gain, of the illegal entry into a state of which that person is neither a citizen nor a permanent resident"
- A particularly brutal form of slavery and forced migration is the abduction of youth for service as **child soldiers**

Module 5D – Refugees:

- The US government defines a **refugee** as
    - *Any person who is outside of any country of such person's nationality or, in the case of a person having no nationality, is outside any country in which such person last habitually resided, and who is unable or unwilling to return to, and is unable or unwilling to avail himself or herself of the protection of that country because of persecution or a well-founded fear of persecution on account of race, religion, nationality, membership in a particular social group, or political opinion.*
- **(Study Figures 5D.1, .2 and .3)**
- **Asylum seeker –** a person waiting to be considered a refugee by the government of the country they have traveled to
- **Internally displaced person –** people displaced from their homes in their own country (24M)
- **Refugee warehousing –** the long-term housing of refugees in a specific location without allowing them to assimilate into the receiving country

- Nearly 8M refugees worldwide, 67% of the world's total, have been warehoused for more than 10 years
- In 1994 genocide in Rwanda resulted in a refugee camp at Goma in the Democratic Republic of the Congo (then Zaire) to grow to over 1M people
- **Repatriation –** the process of moving refugees back into their home country or region

Module 5E – Why Do People Migrate?

- Theory by British geographer Ernst George Ravenstein (1880s) called Raventstein's laws of migration
    - **LOOK ON PAGE 100**
- **Distance decay –** there is more interaction between places that are closer rather than farther way, a concept known as **Zipf's law (Study Figure 5E)**
- **Step migration –** migrants who wish to travel to somewhere far away, they will often move to a closer town, then to a town farther way, and so on until they reach their final destination (speed at which people can move around the world may change the assumption that migrants move to nearby areas more than far-away destination)
- A good example of a migration stream that defies Ravenstien's laws, and one that Ravenstein himself recognized was the movement of American immigrants to the rural frontier far from major cities
- **Everett Lee**, in 1966 put forward what is commonly referred to as the **push-pull model** of migration
- **Intervening obstacles –** variables that a migrant must consider when weighing the pluses and minuses of a potential move
- **(Study Figure 5E.**3)
- **Intervening opportunities –** According to theorist Samuel Stouffer, the amount of migration movement between two places, A and B, is affected by the number of other possible migration destinations that a migrant leaving location A can choose from before reaching B
- **Factor mobility model –** a microeconomic model which argues that differences in wage rates cause people to migrate from low-wage areas to high-wage areas – there are exceptions
- **Human capital model –** another economic theory which argues that people move not just for macroeconomic reasons but also for individual reason
- Behavioral geographers have repeatedly shown that perceptions about the world are often just as or even more important than reality in governing human geographic behavior

Module 5F – Consequences of Migration:

- The movement of large numbers of people in or out of an area can lead to significant challenges for the receiving or the sending area
- In general, the consequences of migration can be characterized as demographic, economic, or social
- **Demographic consequences** occur when migrants change the basic structure of a population
- Many southern US states, such as Florida and Arizona, have higher-than-expected numbers of older people because retirees have resettled there
- The ethnic composition of a population can also be affected by immigration
- Populations of both Latin American and Asian immigrants are expected to triple by 2050
- One consequence of this is that the white, non-Hispanic population will decrease from nearly 70% of the population today to approximately 50%
- **Economic consequences** can be either positive or negative
- **Social consequences** such as prejudice, resentment, and misunderstanding can rear its ugly head

Module 5G – Migration History of the United States:

- We want to understand migration in 3 ways
    - When people migrated?

    - Where people came from in particular time periods?
    - Where people settled during each time?
- In the US migration can be broadly grouped into **four** phases **(Study Figure 5G.1)**:
    - **Colonial period 1600-the American Revolution**
    - White northern and western Europeans and black Africans
    - European migrants before 1790 were largely from the British Isles (England, Ireland, Scotland, and Wales) and settled mostly in New England and the Southeast
    - Hudson valley of New York and the Middle Atlantic states were a bit more diverse
        - Over 100,000 Germans before 1790
        - Dutch
        - Spanish in the South and Southwest
    - **First wave of European immigrants 1800-1880**
        - Like the colonial period, nearly all the migrants were from western and northern Europe
        - England remained the largest supplier, but Germans, French, Scots, and Irish were also important components of the immigration stream
        - The term Scots-Irish or Scotch-Irish refers to the Protestant Irish
        - Toward the end of this period, especially after 1840, railroads increasingly allowed people to move away from the coast, so the first "frontiers" of the US – such as the Appalachians, western Pennsylvania, western New York, and the eastern parts of the Midwest – were settled largely by western and northern Europeans
    - **Second wave of European immigrants 1880-1921**
        - During this time, first serious immigration restrictions were passed into law
        - The change in this era was the origin of the migrants
        - Although most continued to come from Europe, there was a shift from western and northern European to eastern and southern European countries of origin
        - Increasingly, Italians, Poles, Scandinavians, Hungarians, Russians, and Greeks replaced English, Irish, and French migrants

Many settled in the Midwest and Great Plains **(Study Figure 5G**