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ABSTRACT

This curriculum guide for secondary students contains learning activities on population and social change. The guide revolves around four major concepts. The first concept is population change which refers to the numerical increase or decrease of population. Population distribution is the second major concept which refers to the patterns of where people live. Included are references to economic, cultural, geographic, and psychological factors. The third concept is the effects of population change on both the natural and man-made environments. Planning for the future is the last concept covered in the curriculum guide. For each of the concepts, one major learning activity is included with questions, supporting concepts, and evaluation. The guide lists suggested instructional objectives as well as an evaluation form for teachers to rate the curriculum guide. Ideas for additional learning experiences and sources of further information conclude the document. (Author/JR)

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Population & Social Change

A Curriculum Guide
for
High School Teachers
by
Mark E. Cohan
Neil C. Gustafson



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Introduction

This is a guide for high school teachers who want to develop a short unit on population and social change.

It is difficult to write a curriculum guide for all teachers, since each teacher has a unique style of interacting with content and students. We have included a series of sample learning experiences, hoping that you will adapt them to suit your classroom needs. In addition, we hope that you will create your own learning experiences for students.

There are instructional objectives for those who find them useful. Related to these objectives is a list of key concepts and questions, organized in a logical manner. Some will wish to follow the sample learning experiences closely, while others may pick and choose among them. The purpose of this guide is to inspire, not restrict, the creative teacher. Some learning experiences will take less than one full class period, and others will take considerably longer. In large part, this will be up to you and your students.

(Some of the materials contained in this guide are derived from two recent studies published by the Upper Midwest Council - Recent Trends/Future Prospects, and Population Mobility in the Upper Midwest. While some of the materials are based upon these studies, the basic concepts and goals transcend the specific data, and lend themselves to use with a variety of materials in several subject areas.

As you use this guide, and improve upon it, please contact us so that others may benefit from your experiences. The evaluation sheet at the end of the guide is for this purpose.

Why Population Studies?

Educators, students and the general public are demanding curricula that address some of the pressing social issues of the present and future within a framework that helps students develop basic intellectual skills.

Almost daily, the news media confront us with problems throughout the world that relate in some way to population change and distribution. The world-wide food shortage, which has already assumed crisis dimensions in some areas, is directly related to population growth and the question of how many people the earth's surface can support. Urban unrest, in American cities during the 1960's reflected the widespread and complex social problems that resulted, in part, from the mass migration of people from rural areas to cities.

At first glance, starvation in Africa and urban tensions in America may seem far away and irrelevant to many residents of the Upper Midwest. However, upon reflecting, we see that the Upper Midwest is directly related to these areas and their problems. As one of the world's great food-producing areas, the Upper Midwest is asked to provide sustenance to the world's growing population. Today, some African nations ask us for food that they cannot pay for. Perhaps tomorrow, much of Europe will ask the same. Our cities have grown and will likely continue to do so, as a result of many young people leaving their rural heritages for the jobs and glamour of the urban centers. While the larger urban areas have grown, many smaller Upper Midwestern communities complain that they are losing their young people - and, consequently, their futures - to the cities.

The causes and consequences of population change and distribution are timely and important subjects for classroom study. It is certain that most of your students will marry, raise families and change residences within their lifetimes. Population Studies provides the opportunity for them to reflect upon this powerful set of phenomena of which they most certainly are a part.

What is Population Studies?

Population Studies focuses on changes in the size and distribution of population in a given area. Those who study population do more than count numbers of people. They seek to identify patterns of change, and hypothesize reasons for these patterns.

Because it is concerned with population changes over time, Population Studies has an historical dimension. An important resource for studying population changes in America is the U.S. Census of Population, which provides a population profile of the United States every ten years. For instance, we can compare the 1970 Census with the 1960 and 1950 counts, and notice differences and similarities among them.

Population Studies also has an economic dimension. We sometimes find that patterns of population change, especially migration, are related to patterns of economic change. The availability of jobs often influences people's decisions regarding whether, and where, they will move. Sometimes, the existence of a large labor pool influences businesses to locate in a particular area.

The geographical perspective plays an important role in the study of population change and distribution. Geographers are interested in differences and changes over space. When we study population, we study changes in the numbers of people in certain areas during a particular period of time, thus combining the historical and geographical perspectives.

In addition, Population Studies has sociological elements. When we identify patterns of population change in an area, sociological questions are suggested. Why do some groups leave an area in great numbers (for instance, the migration of rural, black workers from the South)? Why do some groups move to an area in great numbers (for instance, the migration of rural, black workers to Northern cities)? Finally, why do some people never move?

Sometimes sociological questions are not enough, and a psychological question must be asked. Why, for instance, do Americans move more often than many other peoples throughout the world? What is the impact of urban crowding on the emotional well-being of the individual?

Population Studies has a political dimension as well, since political decisions often influence patterns of population distribution. What government policies have contributed to migration in the past? The Homestead Act of the mid-nineteenth century, which made inexpensive land available to those willing to settle it, comes to mind as a classic example. What government policies might have an impact upon population size and distribution in the future? What might be the effects of a conscious political decision not to have a population and settlement policy?

We may also ask philosophical questions. For instance, if overpopulation is determined to be a threat to humanity's well-being, is government justified in taking steps to control population growth and/or distribution?

Population Studies refers to a thematic area, and not any particular academic discipline. It calls upon many academic disciplines to answer its questions. In addition to the above areas, Population Studies has religious and scientific dimensions. Its interdisciplinary nature makes Population Studies particularly exciting for use in schools. We are, after all, educating future citizens who will need many different perspectives in order to perceive and resolve tomorrow's problems.

Suggested Instructional Objectives

Skill Objectives

- 1) Students develop the ability to read and interpret several types of maps, tables, charts and graphs.
- 2) Students develop the ability to extract trends from organized data.
- 3) Students develop the ability to hypothesize various reasons for revealed trends.

Knowledge Objectives

- 1) Students recognize the basic patterns of population change in the Upper Midwest, and their relationship to patterns throughout the rest of the United States and the world.
- 2) Students recognize basic factors contributing to population change and distribution.
- 3) Students understand certain key terms and concepts relating to population change and distribution.
- 4) Students recognize that continuing changes in population size and distribution will have important social consequences.
- 5) Students recognize that various regions are interrelated to, and interdependent upon, one another.

Affective Objectives

- 1) Students recognize that they will be involved in population changes and their consequences in the future.
- 2) Students recognize that the "future" is very near at hand, and is something always to be considered.

Key Concepts and Questions

The sample lesson plans in this guide are organized around four major concepts - "population change", "population distribution", "effects of population change" and "planning for the future". These concepts are interrelated. The first two are phenomena. The third deals with the way in which we perceive the impact of these phenomena on our environment and ourselves. The final concept describes how we might choose to react to these perceptions and thus help shape the future.

These major concepts can be thought of as umbrellas covering numerous supporting concepts which relate to one another and to the major concepts. Since it is often difficult to teach a large, complex concept all at once, it may be easier and more effective to teach it in parts. The following descriptive outline offers one way of viewing the major concepts in light of their parts, their relation to one another and the important questions related to them.

The purpose of this outline is to help teachers develop unified, conceptually-based lessons on the subject of population and social change. It is not a vocabulary list. Teachers may wish to rework some definitions in order to make them more easily understandable to students.

I. Major Concept --- POPULATION CHANGE

Population change refers to the numerical increase or decrease of population. This can result from two processes. The first is natural increase, the result of an increased birth rate, a decreased death rate, or a combination of the two. The second process is migration of people into or out of an area. It is important to remember that population change rarely results from just one of the above processes in isolation.

A. Questions

1. Why does population grow? Why do some areas lose population?
2. Are there limits to population growth? If there are, how can we determine these limits?

B. Supporting Concepts

1. Change - to become different from what has been.
2. Factors - things that influence phenomena such as population change; for example, health care services, nutrition, cultural values and norms.
3. Interdependence - a condition in which several things need one another in order to survive or prosper.
4. Life Cycle - the stages of human growth and development (including childhood, adolescence, young adulthood, middle age and old age) taken as a whole.
5. Limits to Growth - assumed boundaries beyond which continued growth would have a destructive effect upon the natural and/or social environment. These limits vary with regard to the value systems and level of technological development of a society.
6. Zero Population Growth (ZPG) - a condition in which the numbers of births and deaths are equal, thus stabilizing change. If present fertility rates continue, it is estimated that ZPG, or population stability, will be reached in the United States sometime in the first half of the twenty-first century.

II. Major Concept --- POPULATION DISTRIBUTION

Population distribution refers to the patterns of where people live. The idea of population density (how many people live within a specific area) is central to discussing population distribution. Population distribution is the result of the interaction of various factors. Chief among these are the interaction of human beings with one another, and human beings with their natural and man-made envi-

ronments. Population distribution is influenced by economic, cultural, geographical, psychological and other factors, and, in turn, has its own impact upon each of these factors.

A. Questions

1. What factors cause people to settle in certain areas (urban, suburban, exurban and rural) rather than others at different times in history?
2. Do certain kinds of environments attract specific types of people?
3. What is the impact of population distribution patterns on the environment?
4. How does the prevailing technology - and associated ways of earning a living - influence how many people can be supported in an area?

B. Supporting Concepts

1. Change - see above.
2. Factors - see above.
3. Alternatives - the various opportunities available in a given situation.
4. Dispersal - the spread, in this case of population, over an extended geographical area.
5. Migration - a change in residence that severs most social and economic ties.
6. Life Cycle - see above.
7. Interdependence - see above.

III. Major Concept --- EFFECTS OF POPULATION CHANGE

Population change and distribution have definite effects on both the natural and man-made environments. The nature of these effects, and the ways in which they interact with one another to shape the future are important.

A. Questions

1. Is there enough food and natural resources to sustain a

growing population at its present levels of consumption?

2. What are the effects of population growth, or decline, on individuals, communities, nations, and the world? What are the possible benefits and problems?

B. Supporting Concepts

1. Change - see above.
2. Life Styles - the cultural, social and economic patterns within a particular society.
3. Values - that which one holds in high esteem, or prizes, and which gives direction to decisions and behavior.
4. Alternatives - see above.
5. Consequences - the results of specific actions or events.

IV. Major Concept --- PLANNING FOR THE FUTURE

People may choose to respond, or not respond, to the phenomena around them. One possible response to the phenomena of population change and distribution is to plan for the future. This response is based upon the assumption that human beings are capable of influencing their futures - in this case, changing the patterns, and effects, of population change and distribution. In planning for the future, the question is not merely "can we", but also "ought we"?

A. Questions

1. Where should people live, and how many should live in each area? Who should decide this?
2. Can population growth be managed? Who has the authority to manage population growth?
3. What alternative futures are possible? Desirable? Who has the authority to answer these questions, and act on the answers?

B. Supporting Concepts

1. Change - see above.
2. Factors - see above.

3. Trend - the change in a characteristic from past, to present to future.
4. Description - a portrayal without recommendations.
5. Alternatives - see above.
6. Prescription - a recommendation for specific action.
7. Planning - the setting forth of alternative programs to accomplish agreed-upon goals.
8. Scenario - a comprehensive description of a possible future situation, considering the interaction of factors over time.
9. Decision Making Process - the formal, or informal, procedure by which decisions are arrived at.
10. Development - an ongoing process, coordinated or uncoordinated, leading toward a conceived outcome.

Sample Learning Experiences

MAJOR CONCEPT --- POPULATION CHANGE

OBJECTIVES (numbers correlate with "Instructional Objectives" section)

Knowledge Objectives

- 2) Students recognize basic factors contributing to population changes and distribution.
- 3) Students understand certain key terms and concepts relating to population change and distribution.
- 4) Students recognize that continuing changes in population size and distribution will have important consequences.

Affective Objectives

- 1) Students recognize that they will be involved in population changes and their consequences in the future.

PROCEDURE

The beginning of a unit on population and social change should be devoted to creating a receptive atmosphere on the part of the students. This may be accomplished in several ways. For example, teachers can begin by relating population change directly to the lives of their students. Using outline maps of the world, teachers can ask students to plot the birthplaces of their parents and grandparents, and even their great grandparents. After completing this task (students may have to finish it at home to get input from parents), teachers may desire to hang all maps on the bulletin board so that students can see the diversity of the mobility backgrounds that exist within the class.

Another way of setting the stage for a unit on population and social change is to discuss a relevant news article, editorial or film. For example, the following learning experience is based upon an article entitled "Growth: Not So Fast!", from Newsweek, August 13, 1973.

- 1) Make copies of the article and hand them out to students to be read and analyzed the night before it will be discussed in class. Ask students to underline what they feel are the main points of the article, and make notes as to what points they feel are open to debate.
- 2) Divide the class into several small groups (4-7 students) and ask each group to discuss the theme of the article as they see it, and at least some of the following questions:
 - a) What is meant by "growth"? Growth of what? Are there any other kinds of growth (see # 1 on copy of article)? These questions are related to knowledge objective # 3 (above).
 - b) Is the speed, or rate, of growth important? Why or why not (see # 2 on copy of article)? This question is related to knowledge objective # 4.
 - c) Is there any relationship between population and employment growth (see # 3-4 on copy of article)? This question is related to knowledge objective # 2.
 - d) According to this article, what are the good and bad consequences of growth? What do you feel are the consequences (see #6-7 on copy of article)? These questions are related to knowledge objective # 4 and affective # 1.
 - e) Can growth be managed in a democratic way? Explain your opinion (see # 5, 6, 8 on copy of article)? This question is related to affective objective # 1.
 - f) Who does Charles Lee mean when he says "we"? (see # 9 on copy of article) This question is related to affective objective # 1.
- 3) As groups are busy discussing these questions, teachers should circulate among them, serving as resource persons and generally monitoring discussions.
- 4) When groups have had adequate time to discuss these questions, they can be brought back together as a whole class. They can then exchange their conclusions with each other. As they do this,

teachers can introduce, where appropriate, the following concepts (refer to "Key Concepts and Questions"):

- a) Change
- b) Factors
- c) Limits to Growth

EVALUATION

If teachers feel the need for an evaluation exercise to test the effectiveness of this lesson, they may assign students to write brief position statements on both sides of the population growth issue: "Population Growth - Pro" (250 words), and "Population Growth - Con" (250 words).

SUGGESTION

In order to set the tone for this lesson, teachers may wish to create a collage on the theme of population growth, taking care to include pictures which present both the positive and negative aspects of the subject. An alternative is to have students make their own collages at the end of this lesson.

twice as the Dutch Finance Minister. He is basically devoted to fixed foreign-exchange rates, but he is flexible enough to support devaluation or revaluation as a solution to short-term difficulties.

Witteveen assumes his new post Sept. 1, and thus will preside over the IMF's next annual meeting in Nairobi. At that meeting, the Committee of Twenty will present its recommendations to the full 125-nation body; barring any major stumbling blocks, further refinements will be made, moving the world another step closer to permanent monetary reform—perhaps as early as the fall of 1974.

GROWTH:

Not So Fast! 2

Every week, 6,000 more Americans take off on what they think will be a permanent vacation by moving to Florida. The influx of newcomers continues at such a high rate, in fact, that the state's

growth to a more manageable level.

The legislature has passed a law that gives the state the right to regulate the construction of power plants, airports, office buildings, industrial parks and housing developments and to govern the use of 2.3 million acres of choice Florida land. While there is still some question how vigorously Florida will exercise its powers, the fact is that the state this year discouraged Volkswagen when it advanced tentative plans to locate an assembly plant there. Even though it would have employed 10,000 persons, state officials felt it would put too great a strain on water, sewage and other services. State authorities have delayed ITT Community Development Corp.'s plans to continue with a huge new subdivision in the wetlands of rural Flagler County until it details how it will control water pollution in the area.

Local communities have been no less active. Key Biscayne, for instance, has set a moratorium on zoning changes and

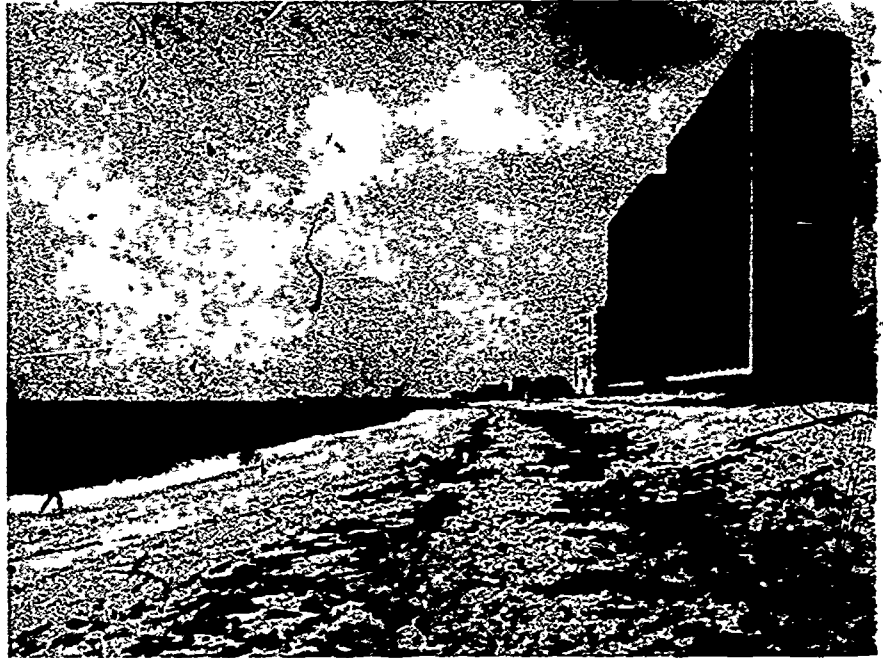
pro-growth spirit has risen to a new peak with Disney World ballooning land values and providing thousands of new jobs. "This county doesn't have a lot of no-growth feeling," says builder William Baker. "People are caught up in the euphoria of Mickey Mouse and making money." Some Big Cypress residents and developers are bitterly resisting efforts to compel them to sell their land to the state, and somebody recently took a pot-shot at a conservationist visiting the swamplands.

Losers: The biggest backlash could come from labor and the poor, those who stand to lose the most if the state turns away industrial jobs and low-density zoning sends real-estate prices far out of the reach of all but the affluent. Several unions have opposed various building moratoriums; the Dade County growth-moratorium referendum only narrowly passed in black and Cuban neighborhoods and failed altogether in white- and blue-collar Hialeah. "This is a potential



Edward Stater—Photo Trends

Florida wildlife, high rises: How compatible?



Jack Burton

population is expected to double to almost 15 million by the year 2000. But now growing numbers of Floridians wonder whether unchecked growth isn't in the end going to wreck the very lifestyle that draws new inhabitants in the first place, and the state is beginning to apply the brakes. "We are abandoning the attitude that growth, including industrial growth, is good for the economy regardless of the problems it brings to the state," Gov. Reubin Askew declares.

Other states are also trying to control growth. Last week, for example, New York rejected an application for a huge recreational-home development in Adirondack State Park. But Florida, which has been among the leaders in attacking the problem, provides a good indication of the way things might develop. All levels of government in the state have taken steps that will at least slow down

building starts until new environmental studies are completed. Boca Raton, where some choice beaches are now shadowed in late afternoon by fortress-like condominiums, has placed an absolute limit on the number of housing units that can be built within its confines.

Conserve: Public support for a slowdown has grown so that a Dade County official says, "It's getting politically expedient to be a conservationist" in his county. And on the state level, Floridians last November voted almost 3 to 1 for a \$240 million bond issue to buy up swamps—which are valuable natural water reservoirs—and beaches. The first purchase, of Big Cypress Swamp, is about to be completed with the aid of Federal funds.

But not everyone shares the new mood about growth. For example, in Orange County (which includes Orlando) the

political coalition and a strict no-growth policy would bring it out," State Sen. Robert Graham said to NEWSWEEK's Laurie Lisle.

Aware of the danger, Governor Askew insists that he only favors spreading the growth more evenly to keep the fast-growing urban areas from choking. "While some of our metropolitan centers may already have enough people and enough jobs, many of our rural areas must have more of both to survive," he says. Charles Lee of the Florida Audubon Society puts it more bluntly. "We're trying to direct growth where it will do the least harm."

At the moment, one of the biggest selling jobs the state has is to convince industry that it has embarked on a policy of careful growth rather than one of no growth at all. Last spring, the government ran ads in several business publica-

← See page 20

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MAJOR CONCEPT --- POPULATION DISTRIBUTION

OBJECTIVES (see "Instructional Objectives")

Skill Objectives

- 1) Students develop the ability to read several types of maps, tables, charts and graphs.
- 2) Students develop the ability to extract trends from organized data.
- 3) Students develop the ability to hypothesize various reasons for revealed trends.

Knowledge Objectives

- 2) Students recognize basic factors contributing to population change and distribution.
- 3) Students understand certain key terms and concepts relating to population change and distribution.
- 4) Students recognize that continuing changes in population size and distribution will have important social consequences.

PROCEDURE

One way to introduce the concept of POPULATION DISTRIBUTION is for teachers (perhaps aided by local experts) to take students on a guided tour of their town or city. Before the tour, students and teachers should draw up a list of things to look for. The following is an example:

- a) Where do people live? What different kinds of housing are available?
- b) Where do people work? Who are the major employers? Do many people live out of town and commute to work? Do many people commute to work out of town?
- c) Where do people shop?
- d) Where do people play? Are there parks, baseball diamonds, swimming areas?

- e) Where do people learn? Are there any facilities for post-secondary education, or adult education?
- f) Where do people worship? How many religions are represented in the area in large enough numbers to have places of worship?
- g) What kinds of ethnic groups are represented in the area? Are there special pockets of ethnicity? Are there areas of racially mixed housing?
- h) What kinds of entertainment are available?

These types of questions will help students to focus clearly on what they see. Students should be encouraged to take notes during the tour.

The day following the tour should be devoted to class discussion. General impressions should be solicited first. Did anyone learn anything new about the community? If so, what? The following questions can be introduced into the discussion where appropriate:

- a) What aspects of the community do you feel attract people to settle here? What kinds of people (age, economic status, family status, etc.) are most attracted to these aspects? What kinds of people are least attracted? (Knowledge Objective # 2)
- b) To highlight the importance of age and family status as factors in population distribution, teachers can ask students to try to guess where they will be living, and why, in four years. Then students should try to guess where their parents will be living and why, in four years. Chances are that many students will say that they will be living someplace other than their home community in four years, and that their parents will remain where they are now. Teachers should encourage students to clarify the reasons for these guesses. (Knowledge Objectives # 2 and 4)
- c) To further highlight the importance of one's stage in the life cycle as a factor in deciding where to live, teachers can ask the following questions. If you were 26, single and looking for a place to live, where would you choose, and why? If you were 35, and had a family including your spouse, two children and a dog, where would you choose to live, and why? If you were 66 and retired,

where would you choose to live, and why? (Knowledge Objectives # 2 and 4)

Following the above discussion, teachers may wish to have students read and discuss pp. 1-13 in the Upper Midwest Council Study, "Recent Trends/Future Prospects". (Teachers may xerox, or otherwise copy, any and all portions of the Upper Midwest Council studies mentioned in this curriculum guide, as long as proper acknowledgment is given.)

The following questions refer to the material contained in this section of "Recent Trends/Future Prospects." If they have access to A-V equipment, teachers may wish to have 35 mm slides made directly from the maps and tables in the studies.

- a) Did farm population increase, or decrease in the Upper Midwest between 1960 and 1970? What factors do you feel might have caused a decrease in farm population? What might be some consequences of such a trend?
- b) Has the population of the Twin Cities area increased, or decreased between 1960 and 1970? What are some factors responsible for the increase in population? How do you think Twin Cities population growth relates to population change throughout the entire Upper Midwest?
- c) What do you think will be the results of population loss in central city areas? Why do people leave the central city? Should (can) something be done to counteract this trend?
- d) Is population loss good for an area? Is population gain good for an area? Why?
- e) Why do people move?
- f) Will the birth rate, or population movement, be the most important factor in the population future of the Upper Midwest? Why?

The above questions are related to Skill Objectives # 1, 2 and 3, and Knowledge Objectives # 2 and 4.

In the course of discussion, teachers may wish to introduce the following concepts (refer to "Key Concepts and Questions"):

- a) Change
- b) Factors
- c) Life Cycle

EVALUATION

To evaluate students' map skills, teachers can choose a map from "Recent Trends/Future Prospects" and ask students to summarize the information presented by the map. Students can list the important questions suggested by the data. This type of activity can help teachers to plan future map work.

To evaluate students' grasp of the concept "factors", teachers can ask them to describe the kind of community that a hypothetical person, or family (description provided by the teacher) would most likely choose to live in and to explain the reasons for their choices.

SUGGESTION

Students may find it stimulating and informative to conduct their own survey of residential decision patterns within a specific community. Students can devise a questionnaire to be distributed among the faculty, asking where they live, why they chose to live there, where they lived previously, their family status and their age, and where they would move if they decided to move again. The same type of survey can be taken among the students, or the community at large. Students can then tabulate the data, and prepare an article to be published either in the school newspaper, or (if they are lucky) the local newspaper.

MAJOR CONCEPT --- EFFECTS OF POPULATION CHANGE

OBJECTIVES (see "Instructional Objectives")

Knowledge Objective

- 4) Students recognize that continuing changes in population size and distribution will have important social consequences.

Affective Objective

- 1) Students recognize that they will be involved in population changes and their consequences in the future.

PROCEDURE

As an introduction to this concept, teachers may wish to use an activity appearing in the magazine Intercom # 72 (218 East 18th Street, New York, New York, 10003):

"You might want to have students consider their own classmates and find out how many of them are from families which have moved and some of the reasons for those movings. Ask students if they can list some of the short-range effects their moving might have had on the areas from which they came, and into which they moved. (Consider the impact on housing, schools, transportation, water usage, etc). Also you might consider the area in which your school is located. Is it urban (central city), suburban, rural, a declining rural area, a rapidly growing suburb? What are the impacts of population movements on that area - today? Ten years from now? Can you list some of the reasons why population distribution is as important as population growth?" (Intercom, p. 56.)

The above discussion activity is related to Affective Objective # 1.

As a follow-up learning experience, teachers may assign students to read the section of the "Population Mobility" study entitled "Effects of Migration" (pp. 25-26). This short section explores the effects of migration from four perspectives. First, there is the perspective of

those who migrate. The second viewpoint is the national perspective, focusing on the total labor market in a macro-economic sense. Finally, there are the related perspectives of the communities of origin and destination of migrating individuals. A discussion of this section can help highlight Knowledge Objective # 4.

After the above discussion, teachers and students may be ready for a change of pace. If they wish, they can clarify the meaning of this major concept by means of a very simple card game.

Teachers can create a deck of between 30 and 60 cards. Each card should contain a description of a population-related event (that is, some kind of change in population, and its related social consequences). Anywhere between 2 and 10 players may participate. The object of the game is to accumulate the most points by the time the deck runs out. Players take turns drawing cards. Each card has a description of a population-related event, and an explanation of the meaning of this event. The explanation also includes a point value. There is absolutely no skill or strategy required. The winner is determined by pure luck. However, the point of the game is to introduce students to the idea that any population event has an impact upon a community, and that this impact is often a combination of positive and negative effects. The following are examples of cards. Teachers and students should have little trouble making up more cards, as they can refer to the two Upper Midwest Council studies for ideas. Teachers may wish to spend a few days having several classes make up decks. Then classes can exchange decks to test them. Or several classes can pool their efforts to make one big deck for everyone.

1) CARD
A doctor and her husband, a teacher, and their four children move into your community. They use some of their savings to make a down-payment on a new house in town. The husband joins the United Fund Drive and his wife joins a drama club.

TOPICS FOR DISCUSSION
Who contributes more to a community - renters or homeowners? Why?
Were you surprised that the woman was the doctor, and the man was the teacher? If you were, why?

CARD

TOPICS FOR DISCUSSION

Since your community has a need for doctors and teachers, and since it looks as if this family intends to make a long-term commitment to the community, YOU GAIN 5 POINTS.

2)

A local canning company, employing 255 people, has decided to move to another state where they will receive more favorable tax treatment, and will not be under as much pressure to stop polluting the local lake. At the same time, they are modernizing their operation. Thus, they will bring 155 of their current employees with them. Of the remaining 100 employees, 40 are able to find new jobs in town, 15 move away to seek employment elsewhere, and 45 are left unemployed.

Your community loses 30 points for the loss of this relatively large number of wage-earners, 30 points for the lost tax revenue from the company, 10 points for the added burden to the local labor market, and 5 points for the demoralizing effect of this event. On the other hand, because the canning company was a heavy polluter of the town's largest lake, your community gains 45 points for the benefit to the local environment, for a net LOSS OF 30 POINTS.

3)

A community college is built on the outskirts of your town. The present enrollment of the college is 1,500 students, with a projected enrollment of at least 5,000 within 10 years. The influx of population into your community places a short-term strain on the local housing market, benefiting property owners (gain 10 points), but hurting buyers and renters (lose 10 points). The students & staff of the

Do you feel that the community described on this card is a smaller, or larger, community? Why?

If the owners of the company said that they would remain in town in exchange for a lower tax bill, and less pressure on them to curb pollution of the lake, how would you react? Why?

What are the benefits and drawbacks of a community having one large, major employer?

List all of the local businesses that would probably benefit from the location of this college in this town. Explain the reasons for your choices.

What public services would have to be added or expanded as a result of the people who would move into town? Why?

CARD

TOPICS FOR DISCUSSION

school provide a new market for local businesses (gain 30 points). The school, itself, provides useful and enjoyable cultural and educational opportunities for the adult members of your community (add 20 points). There is, unfortunately, some strain in the relations between older residents and the college people, caused, in part by the fact that the school was built adjacent to an older, established, quiet neighborhood, over the protests of the residents. For this, your community loses 20 points, for a net GAIN OF 30 POINTS.

4)
A very large percentage of your small town's recent high school graduates moves away to medium and large-sized cities, as well as college towns. Few of those who move away ever return permanently, and few young families have been moving into your community lately.
Because this is demoralizing to the older population left behind, your community loses 10 points. However, because so many young people move away, there is a low rate of unemployment in your town (which has very few jobs for young adults anyway). Due to the fact that this out-migration averts a serious strain on the local labor market, your community gains 15 points, for a net GAIN OF 5 POINTS.

5)
Your small town, situated very close to a major metropolitan area, has experienced a major influx of population, gaining an average of 1,000 new residents a year during the past five years, for a total population of 8,000.

Why do young adults leave small towns for cities?

What do you think would convince some of those who move to stay?

Is it better for young adults to marry and raise their families where they grew up, or to live in different places and see a bit of the world? Why?

What factors do you feel may have caused this rapid in-migration into your community?

Does a community have the right to restrict the numbers of people who move in?

CARD

Because this in-migration has stimulated local business and benefited local landowners, your community gains 30 points. However, this explosive growth has created problems as well. Inadequate zoning regulations and building codes have led to problems with sewage disposal, and the presence of ugly apartment complexes. For these problems, as well as the overcrowding in the schools caused by the rapid growth in population, your community loses 40 points, for a net LOSS OF 10 POINTS.

6)

A major electronics firm has decided to locate in your beautiful community of 15,000. It will contribute more than 1,000 new residents; and will hire 150 local people, in addition to the staff that it brings with it. In addition, the firm will make a major contribution to the community through the property taxes it will pay. In order to convince them to locate in your small city you have passed a bond issue to pay for the development of two new large parks, and have increased property taxes to build a new high school. In addition, your community has promised to upgrade the local airport.

The bond issue and planned improvements create a financial strain on the community. For this you lose 30 points. However, the planned improvements will contribute to the quality of life of the residents of your city. For this you gain 25 points. The new jobs, added taxpayers and increased property tax revenue result in a major benefit to the community. For this you gain 30 points. Because this is a relatively pollution-free factory, you gain an additional 10 points, for a net GAIN OF 35 POINTS.

TOPICS FOR DISCUSSION

Is there any way that the town could have anticipated this major in-migration?

Are there any other benefits or drawbacks that have not been mentioned on the card?

What do you think will be the effects of this event on the local housing market?

Would the impact of this event be as great, greater, or less if the electronics firm moved into a city of 150,000? Why?

These sample cards and questions for discussion suggest the method of playing the game. The player who chooses a card reads it out loud. After this, the teacher should probe all participants to see if they understand the event and its consequences. The sample questions to the right of each sample card show how this might be done. Teachers should plan to spend anywhere from two to twenty minutes per card.

For further ideas concerning population events and consequences, teachers can refer to the descriptions and analysis contained in the "Recent Trends" and "Population Mobility" studies.

EVALUATION

Teachers can create a matrix such as the following incomplete example:

POPULATION EVENT	AREAS OF SOCIAL CONSEQUENCES			
	Housing	School Enrollment	Taxes	Local Business
1)				
2)				
3)				
4)				

Teachers can give each student a copy of the blank matrix. Then they should describe a simple population event (similar to those in the cards), asking students to enter the event in the appropriate spot on the matrix. Students should then be allowed sufficient time to fill in the spaces under the "social consequences" headings. Teachers may or may not choose to assign formal grades to this exercise. In any event, it should provide teachers and students with a sense of whether or not students grasp the concept of "effects of population change."

MAJOR CONCEPT --- PLANNING FOR THE FUTURE

OBJECTIVES (see "Instructional Objectives")

Knowledge Objectives

- 2) Students recognize basic factors contributing to population change and distribution.
- 4) Students recognize that continuing changes in population size and distribution will have important social consequences.

Affective Objectives

- 1) Students recognize that they will be involved in population changes and their consequences in the future.
- 2) Students recognize that the "future" is very near at hand, and is something always to be considered.

PROCEDURE

Have students read Appendix A, "Alternative Futures" (pp. 30-36) in the "Population Mobility" study. This is the most speculative part of both reports. In essence, the three scenarios are informed guesses of what our future might be like, given certain sets of circumstances.

Unlike other portions of the studies, this section does not rely heavily upon "hard" data (facts and figures). Instead, the scenarios were constructed by a process whereby a committee of intelligent, experienced men and women sat around a table and traded their most deeply considered thoughts regarding the future. Teachers who agree that scenario construction is a helpful exercise in creative thinking may wish to follow our process, as described below.

One of the first things we did in creating our scenarios was to outline the basic steps necessary to complete the project. The outline looked something like this:

- I. Solicit Suggestions
 - A. Ask for suggestions regarding factors influencing population movement that:
 1. Have been, and will continue to be, important;
 2. Have been important, but will decline in importance;
 3. Have not been important to date, but will become so.
 - B. Ask for suggestions regarding scenario themes.
- II. Organize Suggestions
 - A. Make master lists of suggested factors and scenario topics.
 - B. Submit master lists to the committee, and ask them to recommend which factors and topics we should concentrate on.
- III. Scenario Abstracts
 - A. For each of the three scenario topics chosen, write a 250 word abstract, summarizing the intended themes of the scenario.
- IV. Scenario Matrix
 - A. Create a matrix outline to use in planning the scenarios.
 - B. Fill in matrix outline for each scenario topic.
- V. First Draft
 - A. Write first draft and submit to committee for criticism.
- VI. Second Draft
 - A. Submit second draft to committee for comments. (While we went through numerous drafts, teachers may desire to abbreviate the process.)
- VII. Final Draft
 - A. Re-draft scenarios and submit to committee for final approval.

In order to enable students to work intensively on their own scenarios, it may be best to divide the class into three groups, each of which will work on a single scenario, and report on it to the class as a whole. The best time to do this is after the whole class understands what scenarios are, and agrees upon the scenario topics.

Studying the scenarios in the "Population Mobility" study should prepare the class to follow through the first three steps in the above outline. For the fourth step, the scenario matrix, teachers may wish to adapt the matrix used by our staff in the initial creation of the scenarios. This matrix is reproduced for your convenience on the following two pages. Teachers should make sure that the terminology in the

"factor" boxes is easily understandable. Throughout the process of creating their own scenarios, students should be challenged to identify the basic assumptions which lead them to make their particular guesses.

Teachers unfamiliar with scenarios and futuristic studies should consult one or more of the following books before embarking upon this learning experience: Values and the Future (Baier and Reschen), The Year 2000 (Kahn and Wiener), The California Tomorrow Plan (Heller), Future Shock (Toffler). An excellent magazine for those interested in scenarios and futuristic studies is The Futurist (World Future Society, P.O. Box 30369, Bethesda Branch, Washington, D. C. 20014). The World Future Society has many branch associations throughout the United States. Society members are often willing to assist teachers interested in injecting future studies into the curriculum.

NOTE:

While some may feel that this exercise is for advanced students only, we feel that all students can benefit from thinking about the future since all students will live in it. If the process of constructing scenarios is too complex for your class, concentrate upon having them discuss the scenarios in Appendix C. When discussing these scenarios, try not to focus upon whether they are "right" or "wrong", but rather upon understanding how such outcomes could come about in the future.

SUGGESTION:

Students may wish to create scenarios for their own communities. Teachers and students may invite local officials, business and civic leaders to testify before the class' "Committee on the Future". The findings of your class committee should be released to the local news media. The Minnesota Commission on the Future (101 Capitol Square Building, St. Paul, Minnesota) is a good source of information.

FACTOR

<p><u>Human Values/Attitudes</u> Changing values, lifestyles, family structure; religious values; sex roles; egalitarian movements; attitudes towards work, government.</p>			
<p><u>Energy Resources</u> Availability and price re: industry, agriculture, domestic use, recreation; possible impacts of shortages or surplus situation.</p>			
<p><u>Employment</u> The nature and meaning of work in our culture; "full", or underemployment; vocation and avocation; leisure time impact.</p>			
<p><u>Economy</u> The state of the world economic system; value of the American \$; balance of payments; government controls; impact of investment.</p>			
<p><u>Agriculture</u> World and national food requirements; food production; new technologies; farm profits; impact of food needs on national and international policies.</p>			

FACTOR

SCENARIO 1

SCENARIO 2

SCENARIO 3

Health/Education/Welfare
Quality and costs of health care; housing needs; social education; paying for social services; impact of education on values and vice versa.

Transportation
New technologies; impact of energy availability; patterns of urban and non-urban development; space-age communication technologies.

Land Use Policies
Official
De Facto

Role of Government
Structure; influence; attitudes towards government; citizen participation in government; individual liberties.

Miscellaneous

Ideas for Additional Learning Experiences

The four sample learning experiences included in this guide just begin to explore the possibilities inherent in the study of population and social change. The following suggestions are intended to help those teachers who desire to go beyond the sample learning experiences, and create their own.

- 1) Teachers should be aware of the fact that state departments of vital statistics have data by geographical area on fertility, mortality (by cause) and morbidity (by disease). Students can learn a great deal by mapping and discussing these data, as the rates can vary widely from place to place.
- 2) Students can read through a magazine or newspaper and clip out all the advertisements that encourage people to get married and raise children, or stay childless and "free". How many of each advertisement can students find? Which type of ad is more prevalent? What does this tell us about cultural values regarding marriage and family formation in America?
- 3) Teachers can present profiles of live births in the United States and the Upper Midwest since 1920, and ask students to speculate as to the consequences of the wildly varying birth rates and the varying sizes of the age cohorts today.
- 4) Students can construct age-sex pyramids for various areas and speculate as to the effects of migration on these pyramids.
- 5) Using topographic and climatic maps, have students determine which areas of the world are best suited for settlement. Then have students check their conclusions against a map showing world population density.
- 6) Using Historical Statistics of the United States: Colonial Times to 1957 (U.S. Government Printing Office), students can study

population changes in the United States over long periods of time,
and try to explain especially dramatic changes in relation to
historical events or conditions.

Sources of Further Information

While there are numerous commercially available curriculum packages that focus on population, teachers with time and imagination will find it much less expensive, and more exciting, to create their own curricula in the area of population and social change. The following is an introduction to the most fruitful and inexpensive sources of information and materials for teachers who wish to design their own population education curricula.

An excellent starting point is the April, 1972 issue of Social Education (Vol. 36, # 4), the professional journal of the National Council for the Social Studies (1201 16th Street NW., Washington, D. C., 20036). This issue, edited by Stephen Vieterman of the Population Council, is devoted entirely to population education. In addition to stimulating articles on the subject, there are excellent bibliographies of books, articles, periodicals, and audio/visual materials.

The 1970 yearbook of the National Council for Geographic Education, edited by Dr. Paul Griffin, is devoted entirely to population. Its title is "The Geography of Population."

A more recent guide to population education is the excellent Intercom # 72 (May, 1973), available from Intercom (218 East 18th Street, New York, New York, 10003). This booklet contains essays on population education, a teaching unit on the subject, and two useful listings - an annotated guide to organizations providing information and assistance to teachers, and an annotated listing of books, articles and instructional materials.

Teachers will be impressed with the publications of the Population Reference Bureau, Inc. (1755 Massachusetts Avenue N.W., Washington, D. C., 20036). Publications include PRB Selection, World Population Data Sheet, Population Bulletins and Interchange, all for a membership fee of \$5.00. In addition, teachers may wish to examine

the 1970-72 list of PRF publications for inexpensive, stimulating back issues and pamphlets.

In addition to the regular publications of the Bureau of the Census, the Bureau Information Office has produced a number of useful classroom materials. The best set of materials is entitled We the Americans and is available at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C., 20402.

Perhaps the most concentrated source of stimulating information on population and its social implications in America is Population and the American Future, the report of the Commission on Population Growth and the American Future. Published in 1972, it is available at \$1.75 from the U.S. Government Printing Office, or as a Signet Classics paperback. In addition to good prose and excellent graphics, the report offers students valuable insights into the workings of a Presidential Commission. Options, a study guide to Population and the American Future, is available from the Population Reference Bureau, Inc. Using these two volumes, teachers can easily (and inexpensively) offer a full semester course on population and America's future. In addition, Options contains an excellent descriptive list of references.

Many population education materials concentrate more heavily on population growth than on distribution. Teachers interested in the latter topic should contact the Center for Information on America (Box C, Washington, Connecticut, 06793), a non-profit, nonpartisan educational group, for a listing of their inexpensive pamphlets (50¢ each, with bulk discounts) in the Population Profiles series.

Finally, for those interested in the subject of instructional objectives, a publication entitled "Minnesota State Assessment Objectives" is available free of charge from Mr. Roger Wangen, Social Studies Consultant, Minnesota Department of Education, Capitol Square Building, St. Paul, Minnesota, 55101.

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Evaluation Sheet

So that we might revise this guide and better serve your needs, we would appreciate it if you would take a few minutes to fill out and return this evaluation sheet. At the bottom of this sheet is an order form for you to fill out if you desire to order additional copies of these population education materials. Please feel free, however, to make your own copies.

Cut Along Dotted Line

1. Did you find this guide well-organized? Easy to read? _____

2. Did you find the material in this guide to be unduly biased in any way? _____

3. Do you plan to use any portion of these materials in your classes? If so, in which classes? _____

4. Would you recommend these materials to any of your colleagues? _____

5. What do you feel is lacking in this guide? What would you like to see added or deleted? _____

6. Would you be interested in the possibility of attending a one-day workshop devoted to discussing ways in which to use these materials? _____

Please send me: _____ copies of Population and Social Change, \$1.00 each.
_____ copies of Recent Trends/Future Prospects, \$2.00 each.
_____ copies of Population Mobility in the Upper Midwest, \$2.00 each.

Name: _____
Street: _____
City/State: _____

Please reply to: Upper Midwest Council
Federal Reserve Bank Building
Minneapolis, Minnesota 55480