

Civic Systems

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3: Setting & Demographics

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A closer look at Setting

In Unit 2, we said that one part of the Model is Setting, which includes not only a society's natural but also its human-made environment—tools, clothes, foods, roads and buildings—everything tangible. Note that the Setting sub-categories “natural” and “human-made” overlap. Human-made facilities and tools require natural materials and resources, and many parts of Setting are combinations of the two.

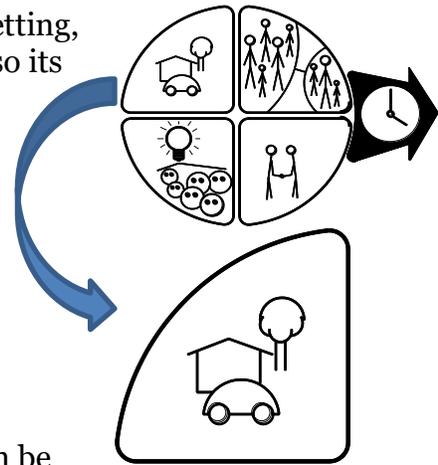
Setting—primary habitat (natural environment) includes:

- Climate: This affects the kind of crops that can be grown, the kind of buildings built, and much more.
- Resources: Oil, coal, metal ore, water, soil, and all other useful things that come from the earth and the sea
- Land: Space for cities, towns, farms, and forests
- Oceans, rivers, plants and animals, microbes, etc.

The secondary (human-made) Setting includes:

- Towns, cities, and buildings
- Food production facilities: farms, ranches, aquaculture, commercial fishing, food processing
- Transportation facilities such as streets, highways, railroads, etc.
- Communication facilities and networks, both two-way (like the telephone) and one-way (like TV and newspapers)
- Tools used for working, entertaining, and solving problems
- Provision for waste disposal
- Sources of energy, and ways of getting it where it's needed.
- Significant peoples outside the group being investigated
- Everything else human made: symbols, art, etc.

Changes in Setting are important causes of major changes in civic systems. You probably already know that many of the differences between your life and that of your great-grandparents at your age are because of changes in Setting, particularly those related to technology.



Investigation: Target Area setting

Understanding your Target Area more completely will require more data about its Setting. ***With your work group, choose one of the following, investigate, and prepare a report on your findings.***



- Sunlight affects the building or buildings in your Target Area. Identify places where the sun's effect is greatest. Make measurements to find how the sun's angle is changing from day to day (e.g., length of the flagpole's shadow at the same time each day). Explain this change with diagrams. Measure the effects of the sun's heat and light on the building interior.
- Precipitation—rain, maybe snow—falls on your Target Area. How much? When? (Check local statistics.) Where, specifically, does the water go when it runs off? (Describe its route to the nearest river.) How contaminated is the water that comes off the building roof? Off the parking lot? What are the contaminants? Find out if they're harmful in some way.
- Your Target Area uses energy—electricity, and perhaps natural gas or other fuel. Find out how much is used, what it costs, how efficiently it's used, what the by-products are (e.g., carbon dioxide from burning fuel). Identify the source of electricity, and find out how it's produced.
- Identify the different kinds and amounts of waste produced in the Target Area. Where does it go? How is it processed? How much is recycled? Where will it be when you're 60 years old?
- Other possible investigations of Target Area Settings: foot and vehicle traffic studies, air quality, etc. Make sure that whatever you investigate has important systemic effects on the main Target Area.

Infrastructure

in·fra·struc·ture

...the basic physical and organizational structures and facilities (e.g. buildings, roads, power supplies) needed for the operation of a society or enterprise.

Infrastructure includes some of the most important parts of the **setting** of civic systems. You began your look at these systems by identifying parts of infrastructure shown in a photograph of a city street.



Investigation: Local civic infrastructure

- 1: Working with others, list significant infrastructure (streets, parks...) supplied and/or maintained by your local government. Make your list as complete as possible.**
- 2: Organize your list into a knowledge tree. You may wish to add more information in sub-categories, now or later.**
- 3: Infrastructure costs money to acquire, operate and maintain. Choose one major item of infrastructure, and identify (a) annual budgeted cost, and (b) source or sources of that money.** (Although most local governments post budget information on the Internet, interpreting this information may not be easy.)



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Setting: A wider view

Investigation: City design and behavior

The late urban expert and author Jane Jacobs wrote some important books about city environments and their effects on the Action Patterns of residents. The information below is from her first book, *The Death and Life of Great American Cities*.¹

Consider, for example...the North End of Boston. This is an old, low-rent area merging into the heavy industry of the waterfront, and it is officially considered Boston's worst slum and civic shame. It embodies attributes which all enlightened people know are evil because so many wise men have said they are evil. Not only is the North End bumped right up against industry, but worse still it has all kinds of working places and commerce mingled in the greatest complexity with its residences. It has the highest concentration of dwelling units, on the land that is used for dwelling units, of any part of Boston, and indeed one of the highest concentrations to be found in any American City. It has little parkland. Children play in the streets. Instead of super-blocks, or even decently large blocks, it has very small blocks. In the words of planners, it is "badly cut up with wasteful streets." Its buildings are old. Everything is assumed to be wrong with the North End...

Twenty years ago, when I first happened to see the North End, its buildings—town houses of different kinds and sizes converted to flats, and four- or five-story tenements built to house the flood of immigrants first from Ireland, then from Eastern Europe and finally from Sicily—were badly overcrowded, and the general effect was of a district taking a terrible physical beating and certainly desperately poor.

When I saw the North End again...I was amazed at the change. Dozens and dozens of buildings had been rehabilitated. Instead of mattresses against the windows there were Venetian blinds and glimpses of new paint. Many of the small, converted houses had only one or two families in them instead of the old, crowded three or four. Some of the families in the tenements (as I learned later, visiting inside) had uncrowded themselves by throwing two older apartments together, and had equipped these with bathrooms, new kitchens and the like... Mingled all among the buildings for living were an incredible number of splendid food stores, as well as such enterprises as upholstery making, metal working, carpentry, food processing. The streets were alive with children playing, people shopping, people strolling, people talking. Had it not been a cold January day, there would surely have been people sitting.

(Continued)

¹ Jane Jacobs, *The Death and Life of Great American Cities*, New York, Random House, 1961. Adapted from the Introduction.

The general street atmosphere of buoyancy, friendliness and good health was so infectious that I began asking directions of people just for the fun of getting in on some talk. . .This struck me as the healthiest place in the city.

I could not imagine where the money had come from for the rehabilitation...To find out, I went into a restaurant and called a Boston planner I knew.

“Why in the world are you down in the North End?” he said. “Money? Why, no money or work has gone into the North End. Nothing’s going on down there. Eventually, yes, but not yet. That’s a slum!”

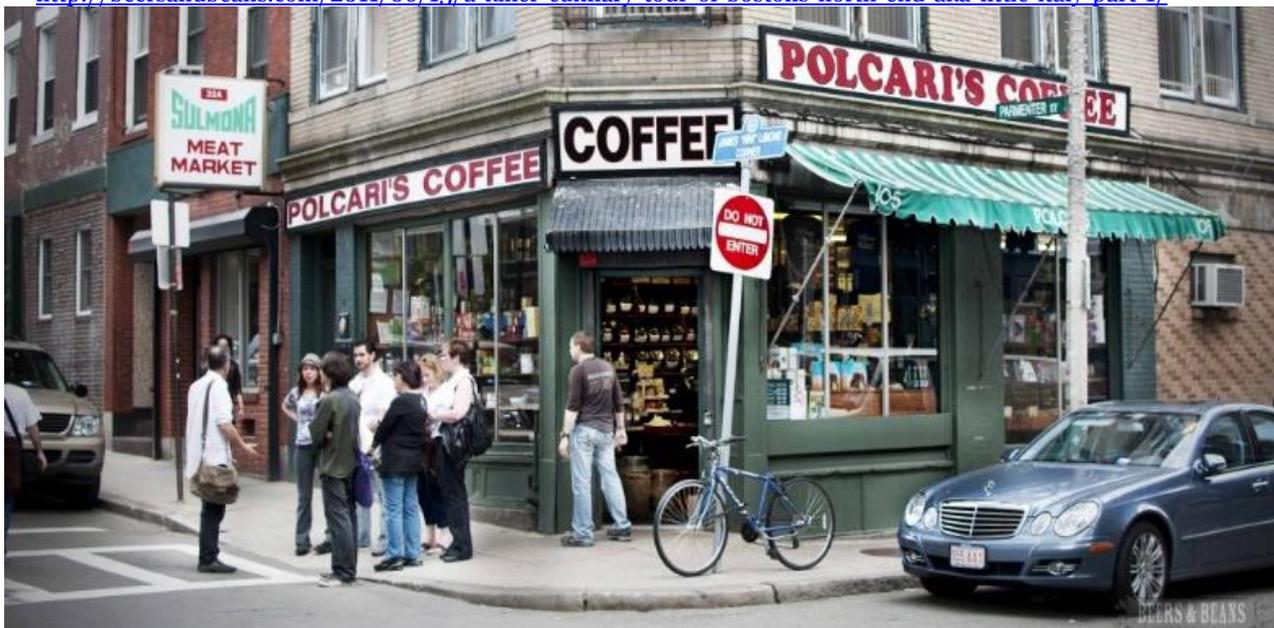
“It doesn’t seem like a slum to me,” I said.

“Why, that’s the worst slum in the city. It has two hundred and seventy-five dwelling units to the net acre! I hate to admit we have anything like that in Boston, but it’s a fact.”

“Do you have any other figures on it?”

“Yes, funny thing. It has the lowest delinquency, disease and infant mortality rates in the city. It also has the lowest ratio of rent to income in the city. Boy, are those people getting bargains. Let’s see . . . the child population is just about average for the city, on the nose. The death rate is low, 8.8 per thousand, against the average city rate of 11.2. . .Of course it’s a terrible slum.”

<http://beersandbeans.com/2011/06/13/a-killer-culinary-tour-of-bostons-north-end-aka-little-italy-part-1/>



For contrast, here's another excerpt from Jacobs' book:

Consider the Morningside Heights area in New York City... It enjoys a great abundance of parkland, campus, playground and other open spaces. It has plenty of grass. It occupies high and pleasant ground with magnificent river views. It is a famous educational center with splendid institutions—Columbia University, Union Theological Seminary, the Juilliard School of Music, and half a dozen others of eminent respectability. It has good hospitals and churches. It has no industries. Its streets are zoned against “incompatible uses” intruding into the preserves for solidly constructed, roomy, middle- and upper-class apartments.

Yet by the early 1950's Morningside Heights was becoming a slum so swiftly, the surly kind of slum in which people fear to walk the streets, that the situation posed a crisis for the institutions. They and the planning arms of the city government got together, applied more planning theory, wiped out the most run-down part of the area and built in its stead a middle-income cooperative project complete with shopping center, and a public housing project, all interspersed with air, light, sunshine and landscaping. This was hailed as a great demonstration in city saving.

After that, Morningside Heights went downhill even faster.

Clues to the differences between the two areas are in the descriptions. ***Imagine yourself in Boston's North End, and think about reasons why the delinquency rate might be low. Record your explanations in your journal.***

Then imagine yourself in Morningside Heights. Why might you be afraid to walk the streets? Record your explanations in your journal.

If possible, identify local areas that resemble one or both of these city environments. Take photos or make sketches to show the environments, and describe their possible effect on the people that use them.

(Note that Jane Jacobs' criticisms of New York City's Morningside Heights area reflected a temporary situation, and this area is now a stable, healthy neighborhood. See:

http://michaelminn.net/newyork/urban_renewal/upper_west_side/jane_jacobs/)

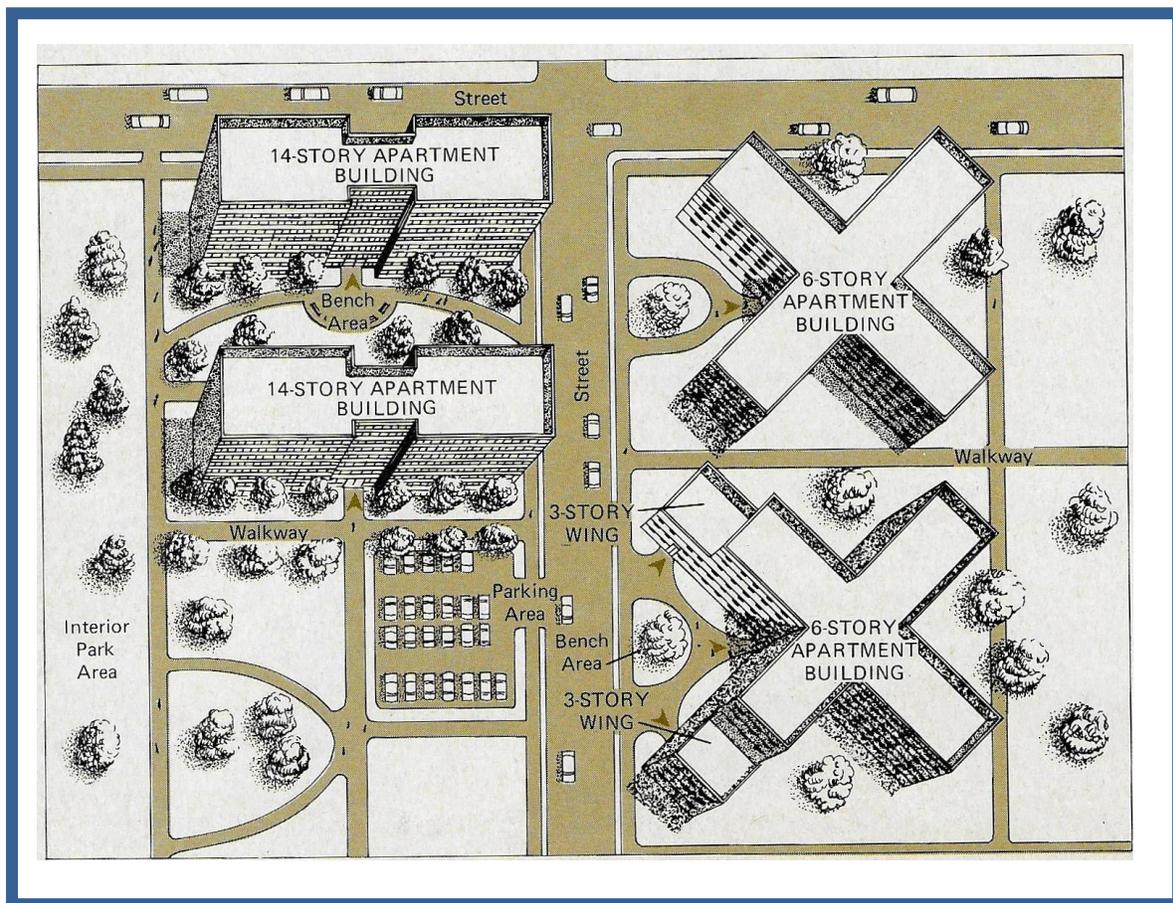
(Investigation continues next page)

Architect and city planner Oscar Newman studied two apartment complexes in Brooklyn, New York in detail, and the following is based on his work.¹

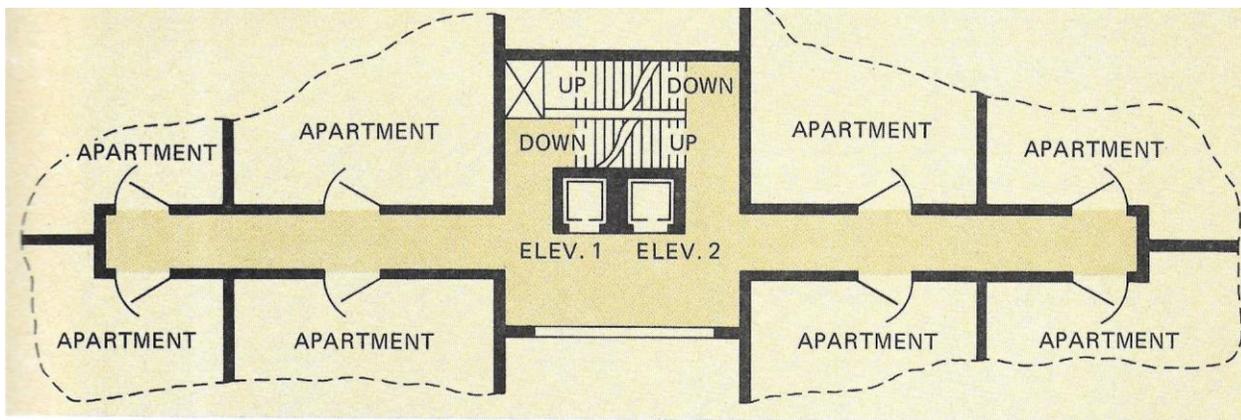
The complexes are alike in many ways. They're across the street from each other. One houses a little over 5,000 people; the other about 6,000. Both cover about the same number of acres. The floor space per person is about the same. Also about the same are the racial mix, family incomes, and the proportion of children to adults.

In spite of these similarities, one complex has many more problems than the other. The differences are almost certainly related to the differences in the Settings—interior and exterior designs.

Work with others to analyze and discuss the drawings of the Settings on this and the next page. Record, in your journal, answers to the questions on the next page. Important: For each answer, write a brief explanation.

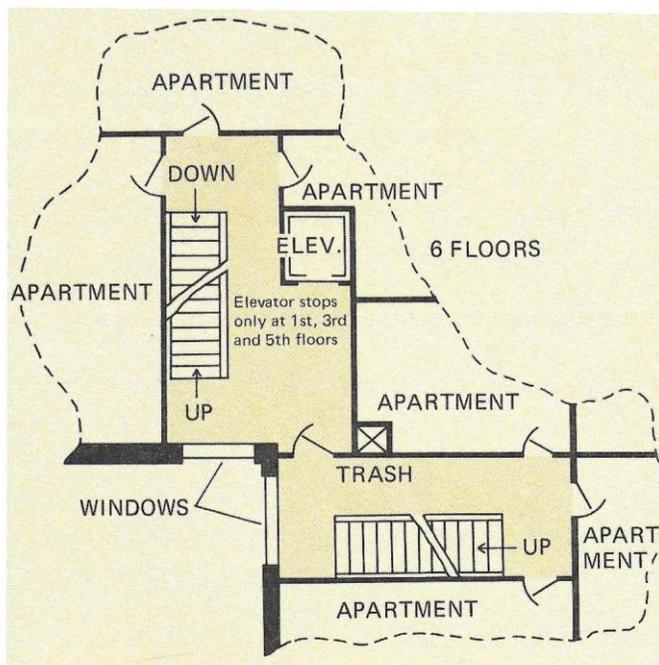


¹ Oscar Newman, *Defensible Space*, New York, Macmillan, 1972 (Adapted in Marion Brady and Howard Brady, *Idea and Action in World Cultures*, Englewood Cliffs, N.J., Prentice Hall, 1977, pp. 120-122.)



Above: hallway plan in 14-story apartment building. Note that stairs behind elevators are in a walled-off stairwell, with access doors at each level.

Right: Hallway plan in six story apartment building



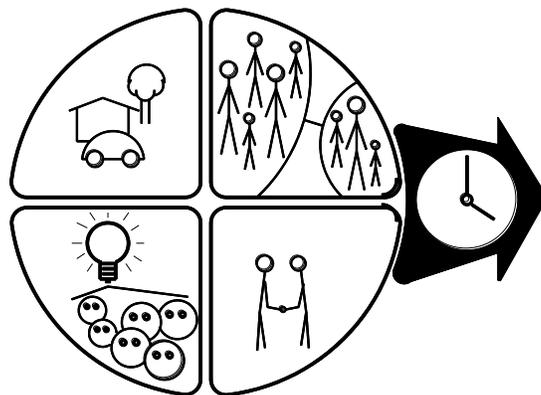
Based on your analysis, decide which apartment complex:

- ***Has a greater problem with trash and garbage in hallways and around the buildings?***
- ***Has more residents acquainted with each other, at least casually?***
- ***Has more maintenance problems due to vandalism?***
- ***Has residents that feel more a part of a neighborhood?***
- ***Has an outdoor entrance that's safer for a person returning home at night?***
- ***Has hallways where some parents leave their doors open, and allow small children to ride tricycles?***
- ***Has more places where crimes can occur without anyone noticing?***
- ***Has the higher crime rate, in your opinion?***

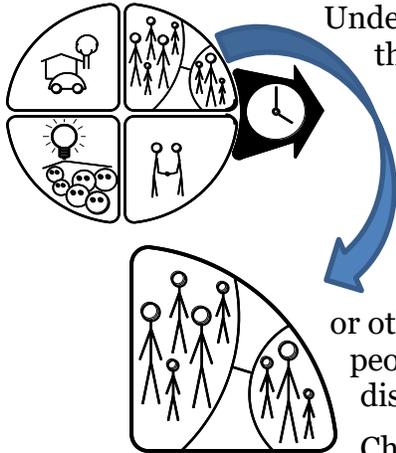
Investigation: Modifying your neighborhood setting

The investigation that follows is similar to many in this course. It calls attention to the real world and asks you to think about it in new ways.

- 1:** *Working with a few others, sketch a pencil map of your neighborhood. Show everything you think is important. You may want to make changes as the investigation proceeds—that's OK.*
- 2:** *In your journal, describe how your neighborhood might be affected if, in the future, energy costs were so high that most families couldn't afford to own a powered vehicle, or even make frequent use of public transportation. Identify problems and possible solutions.*
- 3:** *Redesign the neighborhood to make it more effective for a fuel-limited future. Explain the changes in your journal.*



A closer look at Demographics



Understanding a particular event, situation or society, whether in the past or present, requires some knowledge of the people involved—how many, how they’re geographically distributed, the number of young and old, how the numbers are changing, and so on. Study of this kind of information is called “Demographics.”

For example, in an area where neighbors live miles apart, it probably doesn’t matter much if they throw their garbage or other waste in a stream. But if there are several thousand people living close together along that stream, all using it to dispose of waste, it matters a great deal.

Change the number of people, or how they’re distributed, and their culture almost certainly will change, sometimes in surprising ways.

Of special importance in understanding an event, situation or society:

- Total population
- Population density
- Population distribution
- Age distribution
- Ratio of males to females
- Changes in any of the above due to births, deaths, health factors, migration
- *Subgroups*: ethnic, religious, occupational, social class, and so on, using the above categories



Local Demographics

U.S. demographic data is readily available from the Internet (<http://www.census.gov/>) and from sources such as the *World Almanac*.

Find demographic information for your county or city during the past 30 years or so up to the present. Plot this information on a graph to show changes.

Write what you think will happen because of local changes or trends you've plotted. Identify possible problems and possible advantages of the changes.

Organizations

In civics, important subgroups include the many organizations—government agencies, other agencies, councils, corporations, etc.—that affect people's lives in many ways. The name “organizations” points to one thing to analyze—how these subgroups are organized.

Investigation: Target Area subgroups

Your target area probably has many subgroups—some of them formally organized (e.g. faculty and staff, clubs, societies, teams, classes) and some informal but nevertheless important (e.g. cliques).



- 1: List all the Target Area sub-groups, both formal and informal, that you can identify. Some informal groups may not have names, but can be described by their characteristics.***

Organizational charts are an important tool to help in understanding many kinds of official, formal subgroups. *They're similar to the “knowledge trees” you developed in Part 1, but are usually arranged vertically, with the main person or group in charge at the top.*

- 2: Choose one of the more complex formal subgroups in your Target Area, and make a chart that shows its organization.***



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Investigation: Local government organization

People taking civics courses generally spend most of their class time studying governments. In the United States, most people are affected by four levels of government:

National
State
County
Municipal (City or town)

Each level has many responsibilities and provides many services. This gets really complicated, and can be extremely confusing. To simplify, in this course you'll focus most often on the lowest level that affects your life. For most people, that's their own municipal government.

- 1: *The Internet, local directories, and city publications provide a great deal of information about local government. This information will likely contain an organization (“org”) chart. Working with others, find the chart, print or copy it. If you can’t find the chart, create it. (Note that the chart will likely not show lower levels of organization within departments. You’ll find and add some of this information later.)***
- 2: *For each org chart box, identify the associated number of employees.***
- 3: Earlier (Page 4) you made and organized a list of the local government’s infrastructure. Each block on your org chart will be linked to some infrastructure. For example, the police department will have stations, patrol cars, radios and other equipment. *For each block on your chart, identify and list the associated infrastructure.* (You’re relating “Demographics” to “Setting”)**

This is a major activity; this information will become a basic reference document for your later work in the course. You'll probably be changing it from time to time as you learn more about your local government.



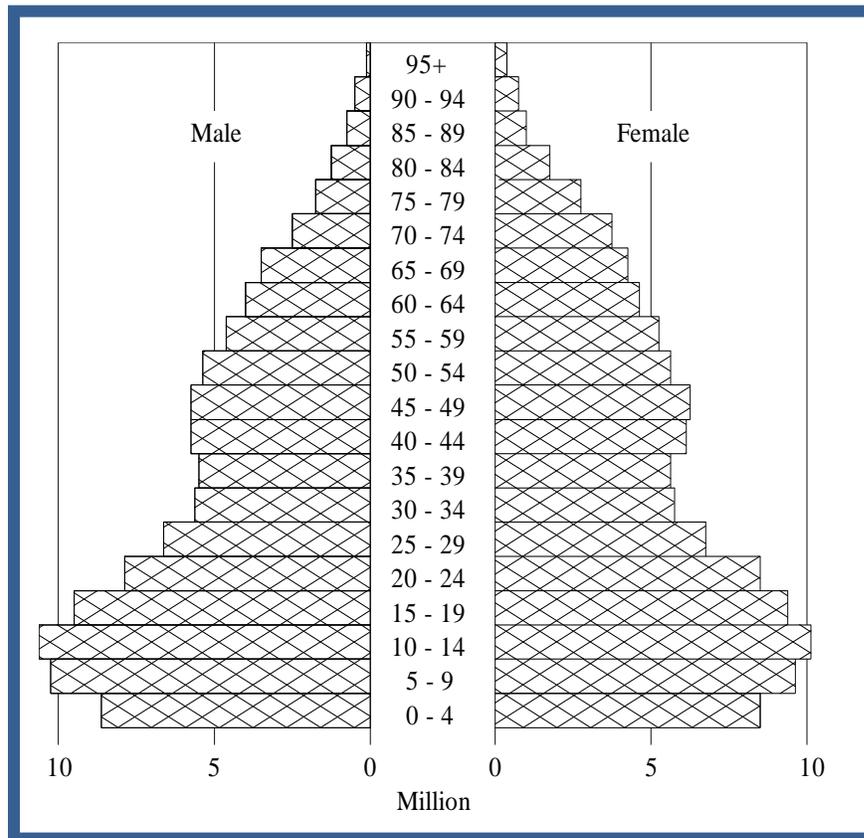
Demographics: A wider view

Investigation: Population pyramids

Population experts often show the ages of members of a population in a type of graph called a “population pyramid.” The population pyramid (below) shows the United States age distribution in 1970.

- 1:** The second box (next page) provides data for population of the U.S. in 2016. **Draw a population pyramid showing this data.**¹
- 2:** ***In your journal, identify and describe similarities and differences between the two population pyramids.***
- 3:** World War II ended in 1945. After the war, the U.S. had what is usually called “the baby boom.” Returning soldiers married and started raising families, and the population rapidly increased. ***What effects did the “baby boom” have on the 1970 pyramid? On the 2016 pyramid? Mark your pyramid to show the baby boom.***
- 4:** ***Identify and describe effects baby boomers had—and are having—on American life as they passed through various ages. (For example, how and when were schools affected? What were/are later effects?)***

U.S., 1970 ►



¹ Pyramid and table data: U.S. Bureau of the Census. Refer to www.census.gov/population

U.S., 2019 ►
(Population
in thousands)

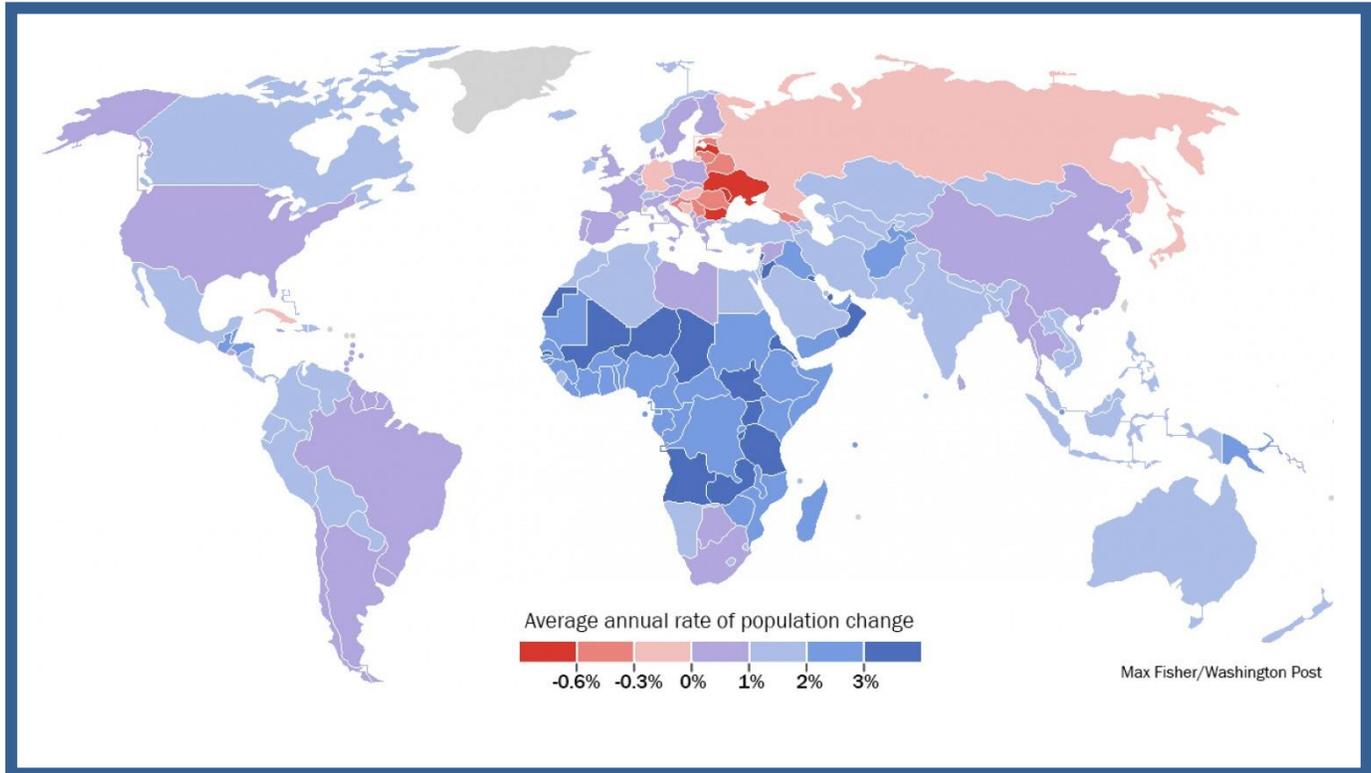
Age	Male	Female	Age	Male	Female
Under 5	10,009	9,567	45 to 49	10,085	10,312
5 to 9	10,323	9,873	50 to 54	10,087	10,391
10 to 14	10,618	10,180	55 to 59	10,642	11,235
15 to 19	10,746	10,309	60 to 64	9,857	10,714
20 to 24	11,065	10,568	65 to 69	5,053	6,583
25 to 29	12,005	11,504	70 to 74	8,200	9,255
30 to 34	11,355	11,077	75 to 79	6,500	7,529
35 to 39	10,885	10,863	80 to 84	2,680	3,637
40 to 44	9,907	10,014	85 and over	2,376	4,228

Investigation: Local or regional demographics

- 1:** *Obtain population data for your region, city or local area and graph it as a population pyramid.*
- 2:** *Identify as many consequences as you can of the population configuration as shown on your population pyramid—activities of various age groups, places used for those activities, sights, sounds, routines, patterns—every possible implication or consequence of the age distribution you can think of. (Record your results.)*
- 3:** *Draw a second population pyramid for your selected area representing how it might look ten years from now.*
- 4:** *Speculate about changes to your findings from step 2, and possible problems, as a consequence of the changes in age distribution of the population.*

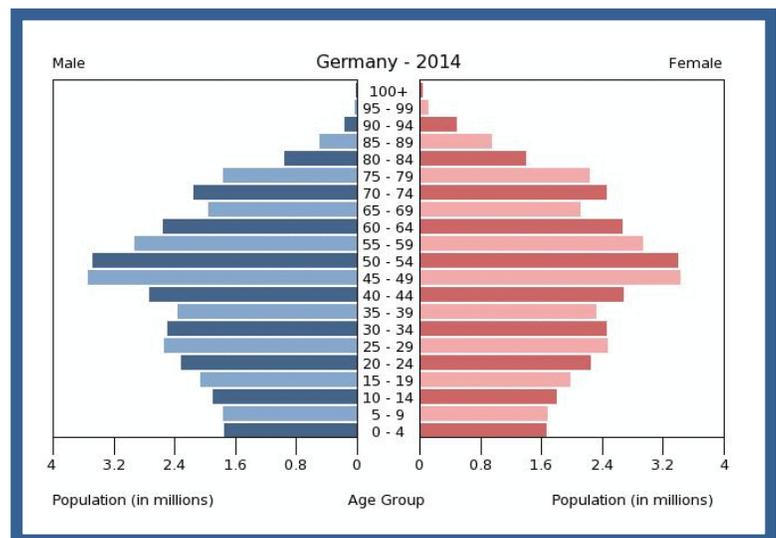
Investigation: World population trends

On the map below, blue countries have expanding populations; those in red or pink are shrinking. Purple ones are growing slowly or not at all. Data source: United Nations Population Fund. Countries with shrinking population include Germany, Russia, South Korea and Japan—all countries with major economic effects on the rest of the world.



https://www.washingtonpost.com/news/worldviews/wp/2013/10/31/how-the-worlds-populations-are-changing-in-one-map/?utm_term=.5f6e23569072

Do the differences matter?
Study the population pyramid for Germany.
(Pyramids for Korea and Japan are similar.)
What caused this shape?
What problem will German manufacturers have in a few years?
What effects will this have on Germany and the world? Discuss this and record your conclusions and hypotheses in your journal. (Continued next page)



In many African and Middle Eastern countries, populations are growing rapidly. ***What problems are created by rapid population growth and a large population of children and young people? Use the Model to analyze these effects, and record your conclusions.***

Investigation: Extended life spans

“Affectionately named N/R₄₀₋₂₄₃, she achieved special distinction among the woodchip-lined cage of ordinary C3B10RF mice. While other mice were eating as much as they pleased and living to the ripe old age (for mice, at least) of 30 months, NR₄₀₋₂₄₃ was among those given 60 percent less Purina Lab Chow. The reduction extended her life to 54.6 months, making her possibly the oldest mouse ever known.”

* * *

“But after demonstrating that many strains of animals live longer when they weigh less than nature dictates, researchers have yet to answer the big question: Does it work in primates?”

Bell, Laura, **Lean Living**. *Science News*, Vol 134, p. 42. (1988)

“Putting rhesus monkeys on a low-calorie diet has altered their metabolism in a manner that appears to have slowed their rate of aging, reports a team of scientists. . .Rhesus monkeys resemble humans in a way their biological systems age and incur age-related disease. . .”

Research Notes...Aging. *Chronicles of Higher Education*, Dec. 5, 1990, p. A10

Additional studies have confirmed and expanded these findings, and studies in humans have begun. Restricting the quantity of food seems to extend life in animals, but the food must be of high quality, with a full range of nutrients.

- 1: Compute the average life expectancy of humans if the effect of a reduced human diet were approximately the same as for the experimental mouse RN₄₀₋₂₄₃.**
- 2: Given this change in life expectancy, generate hypotheses for eventual, important, possible consequences for your society in each major category: people/demography, Setting, Action Patterns, and Shared Ideas.**

Investigation: U.S. demographics

U.S. demographic data is readily available from the Internet (<http://www.census.gov/>) and from sources such as the *World Almanac*.

- 1. Find and graph changes in U.S. population over the past 50-80 years. Based on this graph, estimate the probable population 40 years from now, if the present trend continues.**
- 2. Irrigation is used to raise crops in many parts of the world, including areas within the United States. However, a major problem is rapidly developing—insufficient water due to reduced rainfall and excessive water use. Almost 25% of the plant-based foods sold in the United States come from irrigated farms.**
(<http://quickstats.nass.usda.gov/results/7712D572-E5B9-3718-AA29-8E0FA6359B67>)

What effects might a possible scarce-water future have on U.S. population? On U.S. setting and patterns of action? State and defend your hypotheses in your journal.



Photo by Howard Brady; June 2015, Southern California, dry lake bed.

For teacher/mentor:

Investigation: Target Area setting

Ideally, each work groups will choose (or be assigned) different investigations of Setting from this “right here, right now” activity. Each will prepare reports that could then be communicated to the entire class, so all will benefit from expanded understanding of the Target Area. As always, the products produced by the investigations should be designed for effective communications—quality writing, accompanied with illustrations, tables, photographs, and whatever else is needed to enable effective information transfer to others.

The Target Area Setting investigations here have a strong science element; cooperation with a science teacher and language arts teacher (for communication skill assistance) may be helpful. (The artificial walls erected around school subjects block the knowledge-expanding relating process—a major problem with traditional schooling.)

Expanded science-based investigations: See

<https://www.marionbrady.com/IntroSystems/SystemsScience.pdf>

Doing any of these projects properly will take time, and will sometimes involve learners working outside the classroom. Make sure school administrators realize the importance of “active” learning.

Advanced classes may wish to expand the Target Area beyond the school boundaries into the surrounding neighborhood, increasing the variety and richness of data. Encourage photographs, Google Earth® views, and public documents. Alternatively, learners could document their own neighborhoods. This would likely overlap with the next investigation.

Investigation: Local civic infrastructure

This is a straightforward activity; by this time work groups should have procedures in place to proceed. The activity could be expanded with visits/photos to document each type of infrastructure.

Investigation: City design and behavior

Jane Jacobs, in her paradigm-shifting book, *The Death and Life of Great American Cities*, noted that city planners generally assumed that functional segregation was desirable, that stores and businesses should be separated from residential districts, and both should be isolated from industry. Where land was scarce, urban residential areas should feature high-rise buildings, attractively surrounded by park-like green spaces.

City residents instinctively prefer urban Settings that intermingle housing, businesses, shops, restaurants, neighborhood taverns “where everybody knows your name,” and even include light manufacturing. Sidewalks alive with foot traffic all day and into the night are enjoyable and safe. Low-rise residences close

to the street lead to informal surveillance of street life by many eyes, reducing the likelihood of crime. Having some jobs within walking or bicycling distance saves fuel and parking space, and lowers motor vehicle traffic.

Before Jacobs' book, these kinds of neighborhoods typically were accidental, created by unplanned growth. (European towns and cities are full of neighborhoods with charming diversity like this.) Now, because of the influence of Jacobs and others who reinforced her findings, mixed-use neighborhoods of this type are sometimes deliberately designed.

But, as with many such views, reality is always more complex and troubling. See https://www.newyorker.com/magazine/2016/09/26/jane-jacobs-street-smarts?source=EDT_NYR_EDIT_NEWSLETTER_o_imagenewsletter_SundayArchive_ZZ&utm_campaign=aud-dev&utm_source=nl&utm_brand=tny&utm_mailing=TNY_SundayArchive_090819&utm_medium=email&bxid=5bd670952ddf9c619438cfa7&cid=24459693&esrc=frm_act_Daily_subs&mbid=&utm_term=TNYSundayArchive

Unintended consequences create problems. People have come to recognize the advantages of the kinds of streetscapes with the diverse features pointed out by Jacobs, and the demand for living quarters in places like the NYC's West Village, or San Francisco's North Beach has driven rental prices in those places sky high. As a result, only the wealthy can afford to live there, and they tend to become rich, white enclaves. Restaurant workers and other people that provide services in those neighborhoods are forced to commute two or more hours each way from places that have affordable housing.

Additional insight comes from investigation of two Brooklyn apartment complexes across the street from each other, based on the groundbreaking work of architect and city planner Oscar Newman. Crime was much higher in the newer high-rise (14-story) apartment complex.

After a bit of discussion, learners should have no difficulty choosing correct answers to the questions on page 16. The "meat" here is the learner's explanation that accompanies each question. Unlike most activities, there ARE wrong answers to the questions, but learners picking wrong answers (if they have suitable explanations) should not be penalized.

Newman's work has made a difference. <https://www.huduser.gov/publications/pdf/def.pdf> is a HUD document in which Newman explains the history that led to his investigations, the principles of defensible space, and his conclusion (among others) that public spaces can be problems unless the residents "take ownership" of them. This is a function of careful design.

Note: Crime in the United States peaked sharply about 1990, and has, for the most part, declined since, at first steeply, then less so. In 1990, New York City had 2,245 murders; in 2014, the number of murders dropped to 328. Other kinds of crime declined as well, just about everywhere in the U.S. (Some evidence shows the decline in crime has leveled off, and even may be rising a bit again.)

Crime is a complicated subject, so complicated we really don't know why the rate varies. Interestingly, most developed nations have lower crime rates than the U.S.—some far lower.

One complication often not considered is the way that perceptions of police competency can affect crime rates. Crime rates are, of course based only on reported crimes. Some crimes are never reported, particularly if the victim sees reporting the crime as futile. In some actual situations, improving the quality of police work reduced the actual amount of crime, but raised the crime rate because people were more willing to report criminal activity.

Investigation: Modifying your neighborhood setting

A fuel-limited future seemed more likely a few years ago, before the growth of renewable electric energy, electric vehicles, and other energy reducing actions. However, when energy resources are non-renewable, as is the case with oil, there's obviously an eventual limit to its availability. Learners considering changes to reduce fuel use will likely be innovative—with ideas such as mobile neighborhood markets and services that would serve most people by walking or bicycling. It takes less fuel to move one food-market truck into a neighborhood rather than everyone going to market in a car or even on public transportation. Some might propose the return of horse-drawn vehicles, backyard or neighborhood vegetable gardens, chicken coops, and so on.

Investigation: Local demographics

This should be a straightforward activity, but will require some research.

Investigation: Target Area subgroups

This should be an easy investigation—almost every learner is an expert. Informal subgroups probably include what we used to call “jocks”—kids whose consuming interest is sports, and maybe “nerds” of some sort. Most learners will likely also have some previous acquaintance with org charts.

Investigation: Local government organization

This is a necessary investigation at this point, but is less interesting and challenging than we (and probably learners) would like. To offset this, we suggest that the activity be spread over considerable time, but the amount of time spent on it each class period be limited.

Part of the investigation identifies and links infrastructure (“Setting”) and organization/staffing (“Demographics”) of the local government. In the next unit, the other parts of the Model (“Patterns,” “Shared Ideas”) will be merged into this continuing activity.

An important addition to the study of the structure of government is the classic civics focus on the separation of powers, as evinced by the three branches of government at the Federal level. The founders of the United States were united in one powerful feeling—a profound distrust of power. They believed that separation of powers was essential to maintaining order. This principle shaped the

Constitution, guided by historical knowledge and the ideas of the French philosopher Montesquieu.

The primary follow-up questions to focus on this principle, appropriate even for local government: Who has what kind of power? What keeps this power under control?

Investigation: Population pyramids

Population pyramids are, of course, a major tool in demographic analyses. This investigation introduces them by having learners create one from the numerical data provided. More accurate data comes from the decennial census, of course. Graph paper is nearly essential; the common type divided into ¼-inch squares is adequate.

Comparing two pyramids for the same region with data for two periods 40-50 years apart, helps learners see how changes in population growth rate ripple through the pyramids. In the U.S., the post-WWII “baby boom” bulge has been the most significant feature of the nation’s pyramid, and that cohort is now moving into retirement, putting extra strain on Social Security and Medicare.

Additional discussion questions: ***How do pyramids for large populations differ near the top with regard to populations of men and women?***

Why? (Women tend to live longer than men in most societies. Reasons for this are complex, and not always clear. See

<http://www.newsweek.com/2014/08/08/when-it-comes-long-life-there-no-gender-equality-262578.html>.) Hypotheses by learners about this phenomenon may be interesting.

One of the fastest-growing sectors of the population in developed countries in terms of percentage is the number of individuals living past 100. Why? What may be effects? (Improved health care is almost certainly the reason for this. This group, largely dependent, also affects needs for facilities and services for the aged.)

Investigation: World demographic trends

Germany’s big demographic problem is the aging of their workforce, with inadequate numbers of younger workers to replace those who will be retiring within the next few years. To maintain current production levels, Germany will need six million workers it doesn’t currently have. A second problem is that with fewer people working, tax revenues will decline, at the same time that the growing elderly population will increase demand for pensions and healthcare. A good summary:

<http://www.telegraph.co.uk/finance/economics/11644660/Germany-dominance-over-as-demographic-crunch-worsens.html>.

Germany’s growing demographic problem is shared by several Eastern European nations, Russia, South Korea and Japan.

The on-and-off policy of open doors to immigrants apparently can’t solve the problem: <http://www.dw.com/en/immigration-not-going-to-stop-germanys-demographic-problem/a-18993548>.

The growing population in Middle Eastern and African countries is, of course, a far different problem. Obviously, a growing population needs additional housing, schools, healthcare facilities, roads and other infrastructure. In many cases, particularly in Africa, nations simply lack adequate resources to deal with these issues.

Investigation: Extended life spans

Average U.S. life expectancy (2019) is 78.7 years. Due to drug overdoses, liver disease and suicide, it has been declining for the past three years.

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