



UNIT 3

HOUSING IN THE UNITED STATES

The types of homes where people in the United States have lived have changed dramatically over the past 200 years. According to the U.S. Census Bureau, even as recently as 1940, almost half the houses in the United States lacked complete plumbing facilities. The fuel used to heat houses has also changed dramatically. In 1950, the main source of house heating fuel was coal. By 1990, utility gas had replaced coal. The size, ownership rates, and number of people living in housing units have also changed dramatically since the first housing census of 1940.

In this unit, students will conduct an analysis of housing trends in the United States in order to predict future changes in the housing market of the United States.

Student Learning Objectives:

- The students will compare and contrast the characteristics of housing today versus the housing of yesterday in the United States. They will also utilize data from the U.S. Census Bureau's American Housing Survey to analyze the changes in housing since 1940. Topics analyzed will include crowding, homeownership, house heating fuel, plumbing facilities, recent movers, sewage disposal, telephones, and units in structure.
- The students will describe the various designs and types of housing (condominium, single-family, duplex, mobile home, apartment, etc). They will then use cost-benefit analysis to recommend to someone else which type of housing will best meet that person's needs.
- The students will design and draw a floor plan for their predicted house of the future. They will incorporate factors such as geography, natural resources, energy sources, and technology into their future plans.

Key Concepts:

cost-benefit analysis
trade-offs

opportunity cost

LESSON 3-1: HOUSING THEN AND NOW

According to the United States Census Bureau, housing is defined as “a house, an apartment, group of rooms, or a single room occupied or intended for occupancy as separate living quarters.” In order to be considered housing, the unit must also include direct access from the outside or through a common hall, as well as complete kitchen facilities for the exclusive use of the occupants. Housing has been a part of civilization since its beginning and has undergone many changes over time. In this lesson, students will examine some of these changes.

Materials Needed:

- Internet access to the U.S. Census Bureau’s American Housing Survey’s Historical Tables from 1940-1990 found at the following site: <http://www.census.gov/hhes/www/housing/census/histcensushsg.html>. If Internet access is not available, you may wish to print enough copies of the information found at this site for each group of students.
- Duplicate *Activity Sheet 3-1: Housing Then and Now* for each member of the class.

Teaching the Lesson:

1. Introduce the lesson to the students by asking them to list all of the types of housing that are available to consumers in the United States. (*Student answers may include: single-family homes, apartments, duplexes, mobile homes, manufactured homes, condominiums, etc.*) Have students brainstorm the changes that housing has undergone in the past 50 years. What are some possible reasons for these changes?
2. Explain to students that the U.S. Census Bureau collects information about housing in the United States. According to their research, more than half of all householders rate their homes and neighborhoods 8 or better on a scale of 1 to 10, with 10 being the highest. This figure and others related to people and homes in the United States can be found in the American Housing Survey.

The survey provides data on apartments, single-family homes, mobile homes, vacant homes, family composition, income, housing and neighborhood quality, housing costs, equipment, heating fuels, size of housing unit, and recent movers. National data are collected every other year, from a fixed sample of about 50,000 homes, plus new construction each year. The Bureau of the Census for the U.S. Department of Housing and Urban Development conducts the surveys in person and on the telephone.

3. Distribute copies of *Activity Sheet 3-1: Housing Then and Now* to everyone in class. Review the directions with students and have them complete the activity sheet based on the graphs and information found on the Census Bureau website. (This activity could be completed individually or in small groups.)
4. Other questions you might want to ask the students include: How can you explain the difference between the recent mover rates for owner-occupied versus renter-occupied units? What generalizations can you make about neighborhoods stabilization nationwide? In your state? How does the Census Bureau define crowding? Which states currently experience the greatest crowding? The least crowding? Why?
5. Discuss the student responses to the activity sheet. What are some of the housing trends that they discovered? What conclusions can they make about the development of housing in the United States over the past 50 years? In your state? Have students hypothesize housing changes that may take place in the future.

Debriefing the Lesson

Explain to the students that the types and designs of housing change greatly over time, even within a lifetime. Because of this, the U.S. Census Bureau includes questions about housing in every decennial census. Issues such as crowding, plumbing facilities, telephones, homeownership rates, movement of people from one housing unit to another, house heating fuels, sewage disposal, sources of water, and others help to depict the lives and well-being of citizens.

LESSON 3-2: TYPES OF HOUSING

In this lesson, students will describe the various designs and types of housing (condominium, single-family, duplex, mobile home, apartment, etc.) that are available. Students will be provided with descriptions of a client who is looking for housing. They will use the local multiple listing service on the internet, samples of housing from the local newspaper, and grocery store circulars to determine three potential options for their client's housing needs. The students will then use cost-benefit analysis to determine which type of housing will best meet the needs of their client. They will then write a persuasive letter to influence the client's decision.

Materials Needed:

- Duplicate enough copies of *Activity Sheet 3-2: Client Request Cards* so that each student or group of students has a client card. Duplicate

Activity Sheet 3-3: Cost-Benefit Housing Analysis for each student or group of students.

- Internet access to a local Multiple Listing Service (MLS). For example, using a search engine such as *Yahoo*, search for “Multiple Listing Service” and the name of your area, for example “Northern Kentucky.” Then select the web site that most closely matches the MLS for your area. For example, the address for the Northern Kentucky Multiple Listing Service is: <http://www.nkymls.com/>. Alternatively, you may want to try the <http://www.realtor.com/> site. It also has a search feature that allows you to search for available homes.
- Samples of available housing from local newspapers, advertisements, Internet sites, and grocery store circulars.

Teaching the Lesson:

1. Ask students to review the information they learned about the history and types of housing available to consumers in the United States (condominium, single-family, duplex, mobile home, apartment, etc.)
2. Explain to students that they will be assuming the role of a real estate agent or broker in helping a client find suitable housing. They will receive information about the client and use this information to search for housing options from local newspapers, advertisements, Internet sites, and grocery store circulars.
3. Students should select three possible choices from their search. These choices will be used to complete *Activity Sheet 3-3: Cost-Benefit Housing Analysis*. Students should assume that the client can afford to buy housing at 1½ times their annual income.
4. Distribute a Client Request Card and *Activity Sheet 3-3: Cost-Benefit Housing Analysis* to each student or pair of students. Review the activity sheet directions with students. Explain to students that we all face **trade-offs**, or alternative choices, when decisions are made. In other words, we often have to make a choice because we do not have enough time, money, or other resources to do all of the things that we would like to do. The value of the next best alternative not selected whenever we make a choice is called the **opportunity cost** of that choice. (The **cost-benefit analysis** model featured is based on the National Council on Economic Education’s PACED Decision Making Model. This is a five-step model used to develop decision-making skills. The steps are as follows: State the **P**roblem; List the **A**lternatives; List the **C**riteria; **E**valuate each Alternative; and Make a **D**ecision.)
5. After students have completed the lesson, discuss their responses to the activity sheet and their persuasive letters. Ask students to discuss the costs and benefits of different types of housing. How did they

make their housing decision for the client? What were the obstacles? What strategies did they use to convince the client?

6. Remind students that the decision making strategy they used in the activity will help with the analysis of *any* decision to be made because virtually every decision involves trade-offs and opportunity costs. Have students identify the trade-offs and opportunity costs of their decisions.

Debriefing the Lesson

Remind students that many different types of housing exist to satisfy the varied needs of consumers in the United States. Many factors are considered when someone selects their home. These factors often require a cost-benefit analysis of alternatives. Potential buyers must consider factors such as mobility, tax advantages, mortgage/rental costs, investment potentials, maintenance, privacy, family size, etc. Because of the substantial cost of purchasing a home, it is vital that the potential homeowner use a reasoned approach to allocating their scarce resources.

LESSON 3-3: HOUSING OF THE FUTURE

This lesson will focus on the housing of the future. Students will be asked to design and create a model/floor plan for their predicted house of the future. They will incorporate factors such as geography, natural resources, energy sources, and technology into their plans.

Materials Needed:

- Duplicate *Activity Sheet 3-4: The House of the Future* for each member of the class.
- Materials to create floor plans—graph paper, cardboard, foam board, fabric, etc.

Teaching the Lesson:

1. Review with students the different types and styles of housing that are available to consumers today. Have students describe the influences on the types of houses. What is the effect of geography or location on the type and size of house? (Climate, water level, topography of land, building codes, etc.) What is the effect that technology has had on houses of today versus those of fifty years ago? How do available natural resources and energy sources influence the types and styles of houses available to consumers? Have students brainstorm features that they would like to have in their ideal home.
2. Ask students to predict changes they foresee in houses of the future. How will technology, geography, natural resources, energy resources,

- and other factors influence the housing available to consumers of the future?
3. Distribute *Activity Sheet 3-6: The House of the Future* to each student. Explain to students that they will design and draw a floor plan for their predicted house of the future. Remind students to think about how factors such as geography, natural resources, energy sources, zoning and planning laws and restrictions, and technology will fit into their plans. Students might also want to include how family types such as blended and extended families and the age and number of family members influence housing needs. Students should include details such as scale, roof type, primary exterior material, accent materials, windows, details, color, and architectural style. Students may want to research some ideas through the Internet in addition to books from your school or local library.
 4. Have students share their designs with each other. Discuss differences and similarities in the plans. How did students incorporate the factors of geography, natural resources, energy sources, zoning and planning laws and restrictions, and technology into their plans?

Debriefing the Lesson

Remind students that architects play an important role in the housing industry. They help consumers turn their housing vision into reality and help define what the consumer would like to build, present options to the consumer, and help the consumer get the most out of his/her investment. Architects are also creative problem solvers who can help reduce building costs, decrease a home's energy needs, and increase its future resale value through good design. They also look out for their client's interests and make the building process go smoother by finding qualified construction contractors, and visiting the worksite to make sure that the floor plans are constructed as planned.

It is also important for architects to keep in mind the architecture and style of other buildings in the neighborhood where the housing is to be constructed. The building should enhance the surroundings as well as satisfy the owner's needs. In addition, the design must comply with city planning and zoning laws.

UNIT RESOURCES:



Community Resources:

- Invite a speaker from the local historical society to speak about changes in local housing over the past one hundred years. What are similarities and differences in the types and quantity of housing? What

factors might have contributed to these changes? What are future changes that they might predict?

- Invite a realtor, architect, builder, and/or city planner to speak with the class about the history and types of housing in your local area. These speakers could also discuss city planning and zoning regulations.
- Have students create three-dimensional models of their predicted housing of the future designs and create a model of their future community. Alternatively, use the student designs as part of a competition. Members of the community such as city planners, builders, architects, real estate agents, etc. could serve as judges of the designs.



Teacher Resources:

- Choosing a Place to Live. Covers the basics of a variety of housing options. Includes reproducible lesson plans with information as well as sample documents for renting, leasing, or owning apartments, houses, mobile homes, and condominiums. Available from Social Studies School Service at <http://www.socialstudies.com>.
- What is a House? Video that explores the concept of shelter. Viewers discover why traditional styles are often preferred over contemporary designs, how interior space relates to family size, why centrally heated homes still have a fireplace, and who lives in the largest room of a typical suburban house. Available from Social Studies School Service at <http://www.socialstudies.com>.



World Wide Web Resources:

<http://ic.www.media.mit.edu/Woarch/womaninarch.html> This site features profiles of women in architecture; features interviews, discussions, and interactive graphics

<http://www.aiaaccess.com/> The American Institute of Architects; features information about commercial, residential, and institutional architecture; also describes process of building design

<http://www.cubekc.org/architalk.html> Site aims to connect educators, design and planning professionals, and activist citizens in carrying out community based education activities in the classroom

<http://www.kidsplan.com> This award-winning site features ideas for students to understand how city planning works using the same skills and tools that professionals use. The site ideas are designed for students to experience planning from the view of a city planner, architect, engineer, and landscape architect

ACTIVITY SHEET 3-1 HOUSING THEN AND NOW

Directions: Using the Census Bureau's Census of Housing Historical Tables 1940-1990 (<http://www.census.gov/hhes/www/housing/census/histcensushsg.html>), answer the following questions.



1. Select the *homeownership* link from the list. Read the information and examine the graph. What are some trends that you see in homeownership rates analyzed? Are there differences between the national rates and the rates for your state?

2. Select the *homeownership* link from the menu. How has the percentage of people owning a home in your state changed since 1940?

3. Analyze the information about *telephones* in the survey. What trends do you notice in telephone availability in homes for your state?

4. Select the *sewage disposal* graphs and information links from the menu. How has this changed in the United States?

5. The *plumbing facilities* link provides a further look into the homes of people in the United States. How does the Census Bureau define “complete plumbing facilities”?

6. Select the *house heating fuel* link from the menu. What types of fuel have been used in homes in the United States? What type of fuel is most prevalent in your state?

ACTIVITY SHEET 3-2 CLIENT REQUEST CARDS

Directions: Duplicate and cut cards apart. You may wish to laminate the cards to increase their durability.



A family of four has asked for your assistance in finding a new home. They are a two-income family with a combined gross annual income of \$70,000.

- The Gonzalez family wishes to find housing in a good school system (the children, ages 6 and 13 are in elementary and middle school).
- Mr. and Mrs. Gonzalez would like to have a two-car garage, at least three bedrooms, and prefer a yard with at least 2 acres of land.
- They are currently renting a small two-bedroom house and would like to move within the next 6 months.

Using information about available housing from local newspapers, advertisements, Internet sites, and grocery store circulars to find at three appropriate housing options for the Gonzalez family. Then, use *Activity Sheet 3-3 Cost-Benefit Housing Analysis* to determine which of your choices best meets the needs of your clients.

A single person has asked for your assistance in finding a new home. Mr. Bijon has a gross annual income of \$55,000.

- Mr. Bijon wishes to find housing in an urban to suburban area close to restaurants and shopping. He is willing to live in a house or a condominium.
- He also would like to have off-street parking, one bedroom, and a study, and owns a Labrador Retriever dog that he will keep in his home.
- He has had steady employment for the past two years.

Using information about available housing from local newspapers, advertisements, Internet sites, and grocery store circulars to find at three appropriate housing options for Mr. Bijon. Then, use *Activity Sheet 3-3 Cost-Benefit Housing Analysis* to determine which of your choices best meets the needs of your client.

A newly married couple, the Freiberts, has asked for your assistance in finding a new home. They are a two-income family with a combined gross annual income of \$65,000.

- The Freiberts want to find housing with highway access because Mrs. Freibert's job requires weekly out of town travel. The family also would like to have a house with a fenced yard for their dog, Penny.
- Mrs. Frieibert would also like carpeting, a garbage disposal, and central air-conditioning. Mr. Freibert, an amateur photographer, would like a basement where he could set up a darkroom.

Using information about available housing from local newspapers, advertisements, Internet sites, and grocery store circulars to find at three appropriate housing options for the Frieiberts. Then, use *Activity Sheet 3-3 Cost-Benefit Housing Analysis* to determine which of your choices best meets the needs of your clients.

Miss Delon, a teacher, has asked for your assistance in finding a new home. She has gross annual income of \$36,000.

- She wants to find housing close to the school where she teaches.
- She prefers a house with a nice yard with space for gardening and an open studio floor plan.
- She also finds houses that need remodeling and rehabilitation to be very acceptable.

Using information about available housing from local newspapers, advertisements, Internet sites, and grocery store circulars to find at three appropriate housing options for Miss Delon. Then, use *Activity Sheet 3-3 Cost-Benefit Housing Analysis* to determine which of your choices best meets the needs of your clients.

Mr. and Mrs. Collins asked for your assistance in finding a new home. They are a two-income family with an expected retirement income of \$64,000 annually.

- They will both be retiring soon and prefer a condominium or housing without a large yard to maintain.
- Mr. Collins needs a study area for his home office work.
- They also would like to be close to community resources such as hospitals, community centers, and shopping.

Using information about available housing from local newspapers, advertisements, Internet sites, and grocery store circulars to find at three appropriate housing options for the Collins. Then, use *Activity Sheet 3-3 Cost-Benefit Housing Analysis* to determine which of your choices best meets the needs of your clients.

Miss McCormick has asked for your assistance in finding a new home. She has a gross annual income of \$46,000.

- The family wishes to find housing in a good school system (the children, ages 13 and 16 are in middle and high school).
- The family also would like to have a one-car garage, at least three bedrooms, and prefers a fenced yard for their dog.
- They are currently renting a small two-bedroom apartment and would like to move within the next 6 months.

Using information about available housing from local newspapers, advertisements, Internet sites, and grocery store circulars to find at three appropriate housing options for the family. Then, use *Activity Sheet 3-3 Cost-Benefit Housing Analysis* to determine which of your choices best meets the needs of your clients.

The Bielawski family of five has asked for your assistance in finding a new home. They have a gross annual income of \$57,000.

- The family wishes to find housing in a good school system (the children, ages 6, 10, and 13 are in elementary and middle school).
- The family also would like to have a two-car garage, at least three bedrooms, and prefers a yard where the children can play.
- They would like to have a dishwasher, a playroom or basement area, and central air-conditioning.

Using information about available housing from local newspapers, advertisements, Internet sites, and grocery store circulars to find at three appropriate housing options for the family. Then, use *Activity Sheet 3-3 Cost-Benefit Housing Analysis* to determine which of your choices best meets the needs of your clients.

Mr. Trenkamp has asked for your assistance in finding a new home. He has a gross annual income of \$53,000.

- Mr. Trenkamp would like to be within walking distance to the elementary or middle school.
- The family also would like to have a two-car garage, at least three bedrooms, and prefers a lot with at least 2 acres of land.
- He is currently renting a small two-bedroom apartment and would like to move within the next 7 months.

Using information about available housing from local newspapers, advertisements, Internet sites, and grocery store circulars to find at three appropriate housing options for the family. Then, use *Activity Sheet 3-3 Cost-Benefit Housing Analysis* to determine which of your choices best meets the needs of your clients.

The Consentino family of five has asked for your assistance in finding a new home. They have a gross annual income of \$75,000.

- The family wishes to find housing in a good school system (the children, ages 8, 15, and 17 are in elementary, middle, and high school).
- The family also would like to have a two-car garage, at least three bedrooms, a dishwasher, and prefers a lot with at least 3 acres of land.
- They are trying to sell their current home and will be paying the mortgage payments until the home sells.

Using information about available housing from local newspapers, advertisements, Internet sites, and grocery store circulars to find at three appropriate housing options for the family. Then, use *Activity Sheet 3-3 Cost-Benefit Housing Analysis* to determine which of your choices best meets the needs of your clients.

Mr. and Mrs. Pak have asked for your assistance in finding a new home. They are a single-income family with a gross annual income of \$65,000.

- The family wishes to find housing in a good school system (Mrs. Pak is expecting a child in six months).
- The family also would like to have a two-car garage, a garbage disposal, dishwasher, at least three bedrooms, and prefers a yard with mature trees.
- They currently own a small two-bedroom house and would like to move as soon as possible.

Using information about available housing from local newspapers, advertisements, Internet sites, and grocery store circulars to find at three appropriate housing options for the Pak family. Then, use *Activity Sheet 3-3 Cost-Benefit Housing Analysis* to determine which of your choices best meets the needs of your clients.

The Ishiyama family of four has asked for your assistance in finding a new home. They are a single-income family with a gross annual income of \$59,000.

- The family wishes to find housing in a good school system (the children, ages 6 and 8 are in elementary school).
- The family also would like to have a two-car garage, at least three bedrooms, and prefers to live in an area with strong community activities.
- They currently own a condominium and would like to move as soon as possible.

Using information about available housing from local newspapers, advertisements, Internet sites, and grocery store circulars to find at three appropriate housing options for the family. Then, use *Activity Sheet 3-3 Cost-Benefit Housing Analysis* to determine which of your choices best meets the needs of your clients.

The Berkemeir family of four has asked for your assistance in finding a new home. They are a single-income family with a gross annual income of \$35,000.

- The family would like to have a garage, three bedrooms, and a fenced yard.
- Mrs. Berkemeir would like to be within walking distance to a library, and Mr. Berkemeir would like to have close highway access.
- They are currently trying to sell their current home (a two-bedroom house) and would like to move as soon as possible.

Using information about available housing from local newspapers, advertisements, Internet sites, and grocery store circulars to find at three appropriate housing options for the family. Then, use *Activity Sheet 3-3 Cost-Benefit Housing Analysis* to determine which of your choices best meets the needs of your clients.

Ms. Fredette has asked for your assistance in finding a new home. She has a gross annual income of \$38,000.

- She would like to have two bedrooms, two bathrooms, and a storage area.
- Ms. Fredette and her son also would like to have central air-conditioning, carpeting, and a laundry room. It would also be nice if there were a fireplace in the home.
- They are interested in mobile housing, manufactured homes, condominiums, and single-family homes.

Using information about available housing from local newspapers, advertisements, Internet sites, and grocery store circulars, find three appropriate housing options for the family. Then, use *Activity Sheet 3-3 Cost-Benefit Housing Analysis* to determine which of your choices best meets the needs of your clients.

Mr. Jankowski has asked for your assistance in finding a home. He has a gross annual income of \$48,000.

- Mr. Jankowski is planning to work from home, so it is necessary that the housing have ample space for a home office.
- He also would like to have off-street parking, a guest bedroom, and prefers more than one bathroom.
- He prefers a planned community and has an interest in unique buildings.

Using information about available housing from local newspapers, advertisements, Internet sites, and grocery store circulars, find three appropriate housing options for the family. Then, use *Activity Sheet 3-3 Cost-Benefit Housing Analysis* to determine which of your choices best meets the needs of your clients.

ACTIVITY SHEET 3-3 COST-BENEFIT HOUSING ANALYSIS

Directions: Using your Client Request Card and the information about available housing in your community complete the cost-benefit analysis grid below to evaluate the advantages and disadvantages of the options you selected. After you have brainstormed several points for each housing option, discuss the choice of the housing you would most like to recommend to your client. Complete the analysis by using these five steps in the decision making model:



Step 1: State the Problem: _____

Step 2: List the Alternatives in the first column.

Step 3: List the Criteria in the first row.

Step 4: Evaluate each alternative by placing a "+" or a "-" in the box below each criteria.

Step 5: Make your Decision: _____

Criteria ↓ Alternatives	1.	2.	3.	4.
1.				
2.				
3.				

Now that you have made your decision, write a persuasive letter to your client to explain why the alternative you selected in step 5 above is the best housing option to meet his/her needs.

ACTIVITY SHEET 3-4 HOUSING OF THE FUTURE

Directions: Using the information provided below, design and draw a floor plan for your predicted house of the future.



When designing housing, architects help consumers turn their housing vision into reality. According to the American Institute of Architects, architects are educated to help define what the consumer would like to build, present options to the consumer, and help the consumer get the most out of his/her investment.

Architects are also creative problem solvers who can help reduce building costs, decrease a home's energy needs, and increase its future resale value through good design. The architect also looks out for their client's interests and makes the building process go smoother by finding qualified construction contractors, and visiting the worksite to make sure that the floor plans are constructed as planned. *

Architects also keep in mind the architecture and style of other buildings in the neighborhood where the housing is to be constructed. The building should enhance the surroundings as well as satisfying the owner's needs. In addition, the design must comply with city planning and zoning laws.

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- Now is your chance to be an architect. Design and draw a floor plan for your predicted house of the future. Be sure to specify the scale. Think about how factors such as geography, natural resources, energy sources, zoning and planning laws and restrictions, and technology will fit into your plans. Also, include details such as scale, roof type, primary exterior material, accent materials, windows, details, color, and architectural style. You may want to research some ideas through the Internet in addition to books from your school or local library.

*Information from the American Institute of Architects' web site at: <http://www.aiaaccess.com/>.

Other sources of information about architectural style include the following books:

John Blumenson. Identifying American Architecture.

Virginia and Lee McAlester. A Field Guide to American Houses.

Mary Mix Foley. The American House.

