



UNIT 10

HOUSING AND REAL ESTATE ON THE WORLD WIDE WEB

Because of the breadth and depth of the housing and real estate industry, there are a number of important statistics and reports which can be used to track its status and progress. Most of these sources are in the form of series compiled by the federal government, and almost all of them are on the web.

The purpose of this unit is to give students some research skills so that they will be better able to locate data and other information on the web. Some statistical series, such as housing starts and building permits will be examined, but there will also be a short exercise on building bibliography with a search engine which they should be able to carry over to other disciplines. As a result, the focus of this unit is on using the world wide web to retrieve data and to do research. The subject matter will be reports and statistics relating to the real estate and housing industry.

Student Learning Objectives:

- Students will examine state and national data on households, housing units, building permits, and housing starts—data which is used to help monitor the health of the housing industry.
- Students will learn about the Cabinet-level HUD agency and the role it plays in the housing industry
- Students will learn how to use the web to locate information on housing affordability. They will also use a search engine to build a bibliography of sites relevant to a particular housing topic.
- Students will visit the web site at the Federal Reserve System to examine national historical interest rate data.

Key Concepts:

housing unit	Federal Reserve System	mortgage rates
household	leading indicator	Treasury bills
interest rate	monetary policy	prime rate

LESSON 10-1: HOUSING UNITS IN THE UNITED STATES

The U.S. Census Bureau collects an enormous amount of information about various aspects of the economy, and housing is no exception. The **housing unit**—a house, apartment, mobile home, group of rooms, or single room that is occupied (or if vacant, intended for occupancy) as separate living quarters—is one such measure that is tracked on an annual basis.

The Population Estimates Program produces annual estimates of households, housing units, distribution of households by age of householder, and, persons per household, for each of the 50 states. In this lesson, students are going to explore some of their own state data as well as some housing and Census terms.

Materials Needed:

- Duplicate *Activity Sheet 10-1: Household and Housing Unit Estimates in My State* for each member of the class.
- Internet access to the www.EconSources.com web site.

Teaching the Lesson:

1. Tell students that they are going to use the web to research **households**—a unit that includes all people such as a single family, one person living alone, two or more families living together, or any other group of related or unrelated people who share living arrangements—in their state.
2. Distribute copies of *Activity Sheet 10-1: Household and Housing Unit Estimates in My State* to everyone in class.
3. Review the worksheet directions and then have students complete the activity sheet. After students have completed their work, discuss the student's findings.
4. *Answers to responses (1), (3), and (5) will vary according to date of assignment and state. Other responses: (2) housing units always outnumber households because some units are vacant; (4) the **householder** is the person in whose name the household is owned, rented, or being bought.*

Debriefing the Lesson

Tell students that the type of data they found on this site is typical of the vast amount of data the federal government has on the web. In many instances, especially at the Census Bureau, they will be able to find out specific data about their own state. Encourage them return to this site in the future to explore other links on their own.

LESSON 10-2: WHAT IS HUD?

The purpose of this lesson is to acquaint students with the U.S. Department of Housing and Urban Development, more commonly known as HUD. HUD is a Cabinet-level agency whose mission is to foster a “decent, safe, and sanitary home and suitable living environment for every American.”

As students do the lesson, they will examine HUD’s mission and history, its advice and tips about owning a home, as well as a wealth of other housing-related information. HUD is one of the most important federal bureaucracies in the housing industry, and all real estate professionals need to well acquainted with the agency.

Materials Needed:

- Duplicate *Activity Sheet 10-2: What is HUD?* for each student or group of students.
- Internet access to HUD at <http://www.hud.gov/> or print hard copies of the information for the students.

Teaching the Lesson:

1. Ask students if they have ever heard about HUD or have some idea as to what the initials stand for (U.S. Department of **H**ousing and **U**rban **D**evelopment.)
2. Distribute copies of *Activity Sheet 10-2: What is HUD?* to each student and review the directions.
3. Direct students to the HUD web site or have printouts of the information available for the students. *(The exact dates and events for question #3 are not important; the question is asked simply to focus the student’s attention. For question #4, possible answers are: Homebuyer’s kit, homes for sale, Buy a HUD home, Home improvements, Refinancing, Housing counseling, Senior citizens, Keep your home, HUD refunds, Selling your home. For question #5, there are over 50 links that cover virtually all topics of home ownership.)*
4. Discuss the student responses to the activity sheet. What information did they find that was new and especially interesting?

Debriefing the Lesson

Because of the wealth of information available on the HUD site, the students have a lot of latitude when selecting specific items or topics for their responses. Rather than grade them as right or wrong, remind students of the objective of the assignment—to acquaint them with one of the most important federal bureaucracies in the housing industry. Encourage them to come back to topics that are especially interesting.

LESSON 10-3: HOUSING AFFORDABILITY STATISTICS

We have already seen that the U.S. Census Bureau has a wealth of information on housing related topics. One of the more interesting areas contains national data on housing affordability.

Students will start by going to EconSources.com where they will find the link to the U.S. Census Bureau's web site. From there they will follow the link to "Housing Affordability" where they find out what percent of Americans could afford to purchase a modestly priced house in the area where they live. The site will also discuss changes in affordability over time, and will present some of the most important barriers to home ownership,

Materials Needed:

- Duplicate *Activity Sheet 10-3: Housing Affordability in the United States* for each member of the class.
- Internet access to the www.EconSources.com web site.

Teaching the Lesson:

1. Provide a general description of the lesson to the class before they have a chance to visit the web site. Ask if they have ever given thought to the percent of American families that could afford to actually own their own homes.
2. Distribute copies of *Activity Sheet 10-3: Housing Affordability in the United States* to everyone in class and review the directions. Direct students to the <http://www.EconSources.com> web site or have copies of the information from the site available for them to examine.
3. Have students complete the activity. Ask for volunteers to present their answers. (*Note that responses will change slightly every time the survey is renewed.*) Ask for other volunteers to comment on data or statistics which were not part of the assignment, but were ones that they found particularly interesting.

Debriefing the Lesson

One objective of the lesson is to give students the opportunity to research actual government data on the web. Another is to expose students to the prevalence of home ownership in the United States. A third objective is to remind students of the barriers of home ownership (and the answer to question #5: excessive debts, insufficient funds for down-payments, or high interest rates). Use this opportunity to remind students of the things they need to do—pursue educational opportunities, invest their money wisely, manage their credit—so that they can someday join the ranks American homeowners.

LESSON 10-4: BUILDING PERMITS AND HOUSING STARTS

Two of the more popular statistics in the U.S. economy is that of building permits and housing permits. Both are monthly statistics that give us some idea of the number of new housing units that will soon be made available to the American public.

The two statistics are closely related in that a homebuilder will have to secure a permit in order to build a home. The monthly numbers are also slightly different in that permits are often secured in one month, while the actual housing may not be started until one or two months later. In this lesson, students are going to familiarize themselves with the monthly press release that describes both these numbers.

Materials Needed:

- Duplicate *Activity Sheet 10-4: Building Permits and Housing Starts* for each member of the class.
- Internet access.

Teaching the Lesson:

1. Introduce the lesson by telling students about the similarities and differences (see above) between building permits and housing starts.
2. Tell students that both series behave as **leading indicators**—economic series that tend to go up before the economy goes up and turn down before the economy turns down. As a result, economists can often have some idea of where the economy is headed by following leading indicators like building permits and housing starts.
3. Distribute copies of *Activity Sheet 10-4: Building Permits and Housing Starts* to everyone in class and review the directions. Direct students to the web site on the worksheet or have copies of the information from the site available for them to examine.
4. Have students complete the activity and then ask for volunteers to present their answers. Ask for other volunteers to comment on data or statistics which were not part of the assignment, but were ones that they found particularly interesting.

Debriefing the Lesson

The information in the press release the students found in the activity is typical of many government publications. The format, however, is consistent from one month to the next, so it is quickly mastered. Also, remind students that the monthly estimates are just that—estimates, which is why each estimate is followed by a confidence level range for the estimates (the +/- percents listed in the parentheses).

LESSON 10-5: MORTGAGE AND OTHER INTEREST RATES

In addition to the many economic statistics that are important to our everyday lives, the **interest rate**—or the cost of credit—is of major importance. In fact, there are numerous interest rates today, not just a single one that dominates the economy. There is the so-called **prime rate**, which is the lowest rate banks charge to their best business borrowers. There are rates on **Treasury bills**, or formal debt obligations issued by the U.S. government, and there are **mortgage rates**, which are the interest rates that pertain to home mortgages.

In this lesson, students are going to look at interest rates that are compiled by the **Federal Reserve System (Fed)**, our nation's central bank. The Fed has the ability and authority to conduct **monetary policy**—actions that affect the cost and availability of credit—and it is the source of most of our national interest rate data.

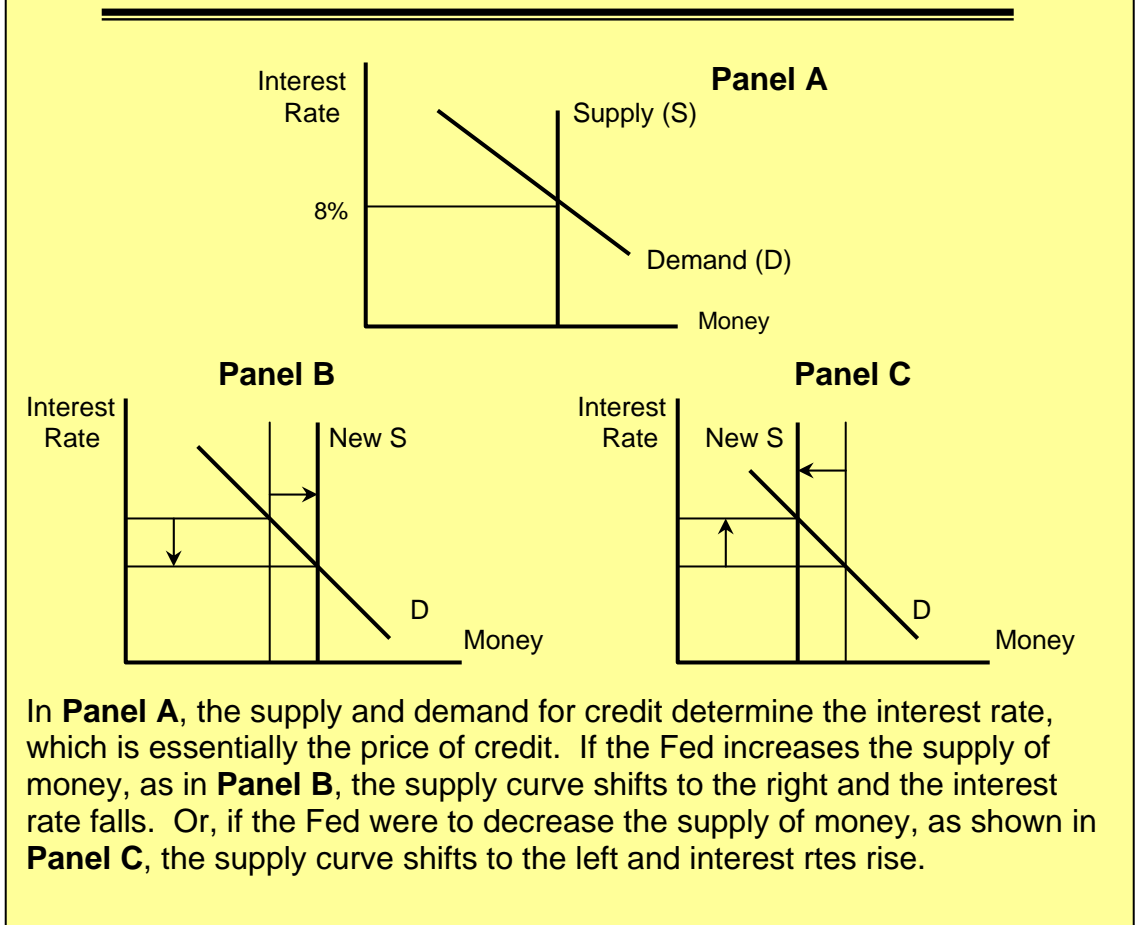
Materials Needed:

- Duplicate *Activity Sheet 10-5: Mortgage and Other Interest Rates* for each member of the class.
- Internet access to the www.EconSources.com web site.

Teaching the Lesson:

1. Because interest rates are the result of the supply and demand for credit, introduce the unit by showing Figure 10-1 which gives a brief overview of supply and demand.
2. While the actual mechanics of Fed's ability to expand and contract the money supply are beyond the scope of this lesson, assure students that the Fed does indeed have this ability. In fact, this is the very feature of the Fed that is the source of its power. As long as the Fed can expand and contract the amount of money, or the availability of credit in the economy, then it has the ability to influence interest rates.
3. If students have completed either Unit 5 or 6, they will understand the importance of the interest rate when it comes to determining the size of the monthly mortgage payment.
4. Distribute copies of *Activity Sheet 10-5: Historical Interest Rates* to everyone in class and review the directions. Direct students to the <http://www.EconSources.com> web site or have copies of the information from the site available for them to examine.
5. **WARNING:** The historical statistics listed on the Fed's web site are 6-7 pages long. Students are advised that they can answer the questions without printing the file, but you may still want to remind them.

Figure 10-1
Supply, Demand, and Interest Rates



In **Panel A**, the supply and demand for credit determine the interest rate, which is essentially the price of credit. If the Fed increases the supply of money, as in **Panel B**, the supply curve shifts to the right and the interest rate falls. Or, if the Fed were to decrease the supply of money, as shown in **Panel C**, the supply curve shifts to the left and interest rates rise.

6. Answers to Activity Sheet Questions: Question #1: The earliest month and year for the file will be approximately 30 years old. Question #3 and #4: October 1981 had the highest monthly mortgage rates at 18.45%, October 1998 had the lowest, at 6.71%. Question #6: If the Fed wanted to lower interest rates it would expand the money supply; it would contract the money supply to raise them.

Debriefing the Lesson

Interest rates are determined by the interaction of the supply and demand for money (or credit). The Fed can control the supply of money, but consumers, businesses, and governments can influence the demand for money. After all, if we all decide to borrow more, the demand curve shifts to the right and rates will go up (a situation not shown above). This interaction of supply and demand is what causes the mortgage interest rate to vary. And, as you can see from the lesson, it has varied considerably over time.

LESSON 10-6: EVALUATING SEARCH ENGINES

In just a few years, the World Wide Web has developed into one of our most valuable resources for finding and retrieving data. Information on the web is located on web “sites,” and sites are normally broken down into a number of “pages” which contain specific information or links to other pages and sites. Most web sites have a few lines of code in their structure which allow for keywords such as “housing,” “interest rates,” “appraiser,” and so on. These keywords are not visible when you visit the site, but they are nevertheless there.

A number of “search engines” such as Yahoo and AltaVista are available to “surf” the web, or move from one site to another with relative ease. These engines are guided by the keywords that users supply, keywords that the search engines then look for on other web sites. So, if someone using Yahoo types in the word “housing,” the search engine will then try to identify all (or the best) sites that have included the same keyword in its list of keywords. Some of the sites may be useful, others may only be marginally related, so using a search engine often becomes more of an art rather than a science. Even so, the web has become one of our most useful research tools. It is usually quicker than going to a library, and it certainly contains a great deal more information. An unavoidable problem is that it often contains a great deal of information that we don’t need as well.

Materials Needed:

- Duplicate *Activity Sheet 10-6: Evaluating Search Engines* for each member of the class.
- Internet access.

Teaching the Lesson:

1. Introduce the lesson by giving students some background on the way search engines search for keywords embedded in web sites (see above).
2. Tell students that they are going to “try out” several search engines to see if they can locate information pertaining to housing on the web. While this lesson is specific to housing, it can be generalized to any subject matter—science, geography, economics, etc.
3. Distribute copies of *Activity Sheet 10-6: Evaluating Search Engines* to everyone in class, review the directions, and let them begin.

Debriefing the Lesson

Because the purpose of this lesson is to acquaint students with various search engines, there are no right or wrong answers. Instead, you want to encourage students to be creative, as they hone their web-searching skills. As an extra activity, you might consider having a “runoff” that pits the leading web sites against one another as you search for even more terms.

UNIT RESOURCES:



Community Resources:

- Contact a local web developer in your community to talk to the class about web design and operation.
- Ask a member of your local Board of Realtors to come to class to demonstrate and talk about the web sites they use in their business. (Many boards have computerized listings of properties that can be searched over the web).



Teacher Resources:

- Miller, Michael. The Complete Idiot's Guide to Online Search Secrets. Great hints on finding what you want, especially good for novices. Que Education and Training. paperback. 425 pages. 1999.
- Glossbrenner and Glossbrenner. Search Engines for the World Wide Web. Concise, referenced, interesting, appropriate for all levels of experience. Addison-Wesley Publishing. Paperback. 224 pages. 1998
- Rex, Karen. Internet Search Techniques. Second edition paperback from Ziff-Davis, one of the leading names in computer publishing. ZD Education.



World Wide Web Resources:

<http://www.EconSources.com> Excellent source for general economic information, sources of data, and teacher resources in economic education

<http://www.pheonixgate.com> Site that features search engines; conduct a search for any term on any or all of the top engines on the web; frequent updates

<http://allonesearch.com> Site that features over 500 of the internet's best search engines, databases, indexes and directories

ACTIVITY SHEET 10-1
HOUSEHOLD AND HOUSING UNIT ESTIMATES IN MY STATE

Directions: The U.S. Census Bureau conducts an annual census that provides estimates of households, housing units, and the distribution of households by age of householder. To find this information, log on to EconSources.com and proceed to the "Federal Agencies" page. From there, select the "U.S. Census Bureau" and then select the "Housing" link on the Census Bureau page. When the page advances, click on "Housing Estimates" under the "Related Sites for Housing Data" page. The data you need will be for the most recent (1990 or 2000 when it is ready) census. Go to this page and either print it out or examine it on the screen as you answer the following questions.



1. When was this data posted on the internet?

2. Which of the first two columns of data, housing units or households is larger? Why do you think that this is so?

3. What is the most recent number of housing units and households for your state? What is the average number of persons per household?

4. What is the Census definition of a "householder?"

5. Which age bracket contains the largest number of households headed by a householder? How does this compare to statistics for the country as a whole?

ACTIVITY SHEET 10-2
WHAT IS HUD?

Directions: You will find the HUD web site at <http://www.hud.gov>. Go to this site and then answer the following questions:



6. What do the letters HUD stand for?

7. Select the “about HUD” link on the page and follow the link to “mission and history.” State HUD’s mission:

8. While still under the “mission and history” page, select three dates and events in HUD’s history that you find most interesting:

Date: _____ Event: _____

Date: _____ Event: _____

Date: _____ Event: _____

9. Return to the HUD home page and then select the “own a home” link. Describe three types of information you find on that page.

1. _____
2. _____
3. _____

10. Find the “buyer’s kit” page and go to it. Identify at least six links to home ownership topics that are found in this section:

- | | |
|----------|----------|
| 1. _____ | 4. _____ |
| 2. _____ | 5. _____ |
| 3. _____ | 6. _____ |

ACTIVITY SHEET 10-3
HOUSING AFFORDABILITY IN THE UNITED STATES

Directions: The U.S. Census Bureau conducts an annual census that provides estimates of households, housing units, and the distribution of households by age of householder. To find this information, log on to EconSources.com and proceed to the “Federal Agencies” page. From there, select the “U.S. Census Bureau” and then select the “Housing” link on the Census Bureau page. When the page advances, click on “Housing Affordability” under the “Census Bureau Housing Topics” heading. Go to this page and either print it out or examine it on the screen as you answer the following questions.:



1. Because of delays collecting Census data, the data is always several years old. The data for this study is from which year?

2. What is the Census Bureau definition of a “moderately priced home”?

3. What percent of American families in the study could afford to purchase a modestly priced home?

4. Of this group, what percent of the families actually owned a home?

5. What are the major barriers to home ownership as identified by the Census Bureau?

ACTIVITY SHEET 10-4
BUILDING PERMITS AND HOUSING STARTS

Directions: Two of the most eagerly-awaited statistics in the United States economy are the series on housing starts and building permits. The monthly press release by the U.S. Census Bureau appears during the third week of the month and contains a graphic showing homebuilding activity for up to five years back. To find the most recent data, log on to <http://www.census.gov/pub/indicator/www/housing.html>. When you get to this page, either print it out or examine it on the screen as you answer the following questions:



1. What is the month and year of the press release?

2. How many privately owned housing starts were there for the reported month? How did that number compare to the number of housing starts for the previous month?

3. How many building permits were there for the reported month? How did that number compare to the number of permits for the previous month?

4. Why do you think that the number of monthly building permits would differ from the number of housing starts?

5. Do you think the most recent monthly report on starts and permits is good or bad for the industry? Explain your answer

ACTIVITY SHEET 10-5
MORTGAGE AND OTHER INTEREST RATES

Directions: To find the data for this activity, log on to EconSources.com and proceed to the “Federal Agencies” page. From there, select “Federal Reserve System” and then chose the “Research and Data” link on the Fed page. When the screen advances, click on “Statistics: Releases and Historical Data” and then scroll down until you find the “Monthly Releases – H.15 Selected Interest Rates” option. Next, select “Historical Data” and then go down the page of interest rates until you find “Conventional mortgages” near the bottom. Finally, click on the “monthly” option to see historical mortgage rates for approximately the last 30 years. (***NOTE:** The mortgage rates from the Federal Home Mortgage Corporation will require 6-7 pages to print, so try to answer the questions without printing the file.*)



5. What is the earliest month and year for the data?

6. What is the source of the data, and what is the frequency (daily, weekly, etc.)?

7. During what year and month were mortgage interest rates the highest?

8. During which month and year were mortgage interest rates the lowest?

9. What are the most recent mortgage interest rates listed in the table? From a historical point of view, how do the most recent rates in the table compare to earlier ones?

10. If the Fed wanted to lower interest rates, what would it do? What would it have to do to raise interest rates?

ACTIVITY SHEET 10-6 EVALUATING SEARCH ENGINES

Directions: The World Wide Web has become one of the most important sources of information that we have today—and it shows no signs of slowing down. Navigating the web is done with the help of a search engine, and there are many from which to choose, well over 500 at the last count. In this lesson, you are going to evaluate five search engines as you look for terms that deal with housing and home ownership. The questions below will guide you through the exercise.



1. Before you begin your search you need a topic. So, select a term that deals with real estate or home ownership. Any term—mortgage, mortgage calculator, real estate, home ownership, home values, home insurance, mortgage rates, etc.—will do. Write your term below.

2. Select five search engines from the list below and then conduct a search for your keyword.

AltaVista.com AOL/Netfind.com Ask.com
Chubba.com LookSmart.com Lycos.com
MetaCrawler.com NationalDirectory.com NorthernLight.com
ScrubTheWeb.com DjaNews.com DogPile.com
Excite.com Google.com GoTo.com
HotBot.com InfoSeek.com Search.com
Searchopolis.com Snap.com WebCrawler.com Yahoo.com

3. Which of the search engines gave you the best results? Why do you think so?

4. Which of the search engines gave you the worst results? Why do you think so?
