February 2015

N0833

Leadership Strategies for Community Risk Reduction

Pre-Course Assignment Workbook

TABLE OF CONTENTS

Introduction to *Leadership Strategies for Community Risk Reduction* 3

Key Concepts for Risk-Reduction Leaders.....4

Pre-Course Assignment 5

Part One: Examination of America's Continuing Fire Problem.....6

Part Two: Building a Demographic Profile of Your Community.....6
- Use American FactFinder 7
- Assignment for Part Two 24

Part Three: Building a Risk Profile of Your Community.....26
- Section One — Your Local Fire Profile 27
- Section Two — Other Human-Created Risks.....45
- Section Three — Naturally Occurring Risks 48

Part Four: Identifying Root Factors of Risk and Populations at Greatest Risk 50

Pre-Course Assignment Checklist 58

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Introduction to *Leadership Strategies for Community Risk Reduction*

Welcome to *Leadership Strategies for Community Risk Reduction* (LSCRR). LSCRR is a 6-day adapted version of *Executive Analysis of Community Risk Reduction* (EACRR), the second year Executive Fire Officer Program (EFOP). This course was created in response to requests from non-Executive Fire Officers who are responsible for developing, leading and evaluating risk-reduction initiatives in their community, specifically at the company level. Students examine their community's leading risks and identify determinants that may challenge mitigation. LSCRR culminates with students designing a plan to overcome potential obstacles.

Since successful community risk reduction requires use of combined preventive interventions, the target audience for LSCRR is broad. Chief officers, company officers, public educators, inspectors, plan reviewers, fire marshals, and investigators are ideal candidates.

The goal of LSCRR is to develop leaders in comprehensive multi-hazard community risk reduction. As an LSCRR class member, you will apply a strategic process to address risk challenges present in your home community. While a primary focus should be placed on your **local** fire problem, it is prudent to consider two overall categories of challenges:

1. Human-created and naturally occurring risks that affect your community on a regular basis. Examples include fires, preventable injuries, and frequently occurring forms of severe weather.

2. Human-created or naturally occurring risks that may only happen once every 5, 10 or even 20 years **but** have the **potential** for a devastating outcome. To qualify for this category, the risk should have affected your community in the past or be a major emerging issue. Examples include major hazardous materials release, domestic terrorism, hurricane, earthquake, etc.

The process of addressing your local risk(s) begins with pre-course research, continues through guided practice while at the National Fire Academy (NFA), and culminates in actions implemented upon returning home. The ultimate goal is for you to implement a plan to reduce preventable occurrences and/or mitigate loss from risks that cannot be stopped.

To be effective at leading a risk-reduction process, you must understand both your community **and** organization. LSCRR will help you develop that understanding and create a strategy of how to effectively reduce risk in your home community. LSCRR goes beyond simply teaching skills. The course provides insight into the steps necessary to carry out a successful community risk-reduction process. Further, it is designed to impart a set of specific key concepts and attitudes that are needed to lead the community risk-reduction process.

KEY CONCEPTS FOR RISK-REDUCTION LEADERS

- Risk is influenced by social and economic issues. If community risk reduction is to be effective at improving community vitality, the community risk-reduction process must address socioeconomic issues.

- Risky behaviors result in consequences (e.g., residential fires, car crashes involving drunk drivers, etc.). These consequences are the events to which fire departments and Emergency Medical Services (EMS) agencies respond on a daily basis. Therefore, the purpose of community risk reduction is to prevent or minimize these events.

- Any effective community risk-reduction strategy integrates emergency response, code enforcement, legislative processes to adopt codes, standards, and prevention-related ordinances, plans review and design, fire and life safety education, public information and relations, risk-reduction-related economic incentives, and other mitigation activities.

- Prevention and response functions within an organization must be integrated into one team. In many organizational cultures, the prevention function is viewed as separate and distinct from the response mission. In fact, *both response and prevention have the same goal: prevent or reduce harm to the public from fire, preventable injuries, etc.* Same mission. Same team. Same organization. Same community. The synergy that results from integrating operations and prevention makes both functions considerably more effective.

- Risk is a community problem. The process of community risk reduction also must involve the community: its leaders, its groups, its neighborhoods, etc. Any community risk-reduction process that fails to engage the community and its citizens is doomed to fail.

- There may be some communities where an emergency organization is unable to gain community endorsement for a risk-reduction process. However, *every* organization can apply the process to create a culture that embodies the philosophy of community risk reduction. The organization then is prepared when an opportunity for community change occurs.

- Community vitality is the product of numerous factors, including the absence of fires, absence of injuries, physical health, economic health, etc. A community risk-reduction process must apply risk management to all those areas that affect community vitality. This includes fires, injuries, terrorism, natural hazards, social crises, and environmental hazards.

PRE-COURSE ASSIGNMENT

Introduction

While LSCRR is not an EFOP course, its content remains at a high level — and for good reason. Through pre-course readings, you will discern that one of the reasons why the U.S. fire problem is far worse than in many developed countries is because a great number of our communities fail to dedicate adequate resources and strategically address their local issues effectively.

LSCRR will empower you with the knowledge and skills to make executive level modifications to your community's risk-reduction strategies. This process will require a significant commitment on your part. It begins with the pre-course assignment.

Completion of the pre-course assignment is mandatory for acceptance into LSCRR. Information from the assignment will be used to process in-class activities and ultimately develop a draft plan for a risk-reduction initiative that can be used in your home community.

Some of the material you will read dates back several years (or even decades in the case of the original *America Burning*). The pre-course assignment for LSCRR is comprehensive because reducing and mitigating community risk is our industry's **ultimate** responsibility. Accomplishing the task successfully demands a strong foundation of knowledge. This knowledge base will be developed through completion of the pre-course assignment and LSCRR experience.

You will be collecting and analyzing a considerable amount of **local** data as part of the pre-course assignment. It is permissible (and encouraged) to have colleagues or staff assist you with data collection and interpretation. Use of **current** data is expected. Try to research back at least five years.

You should budget approximately 1 month of intermittent development time for completing the pre-course assignment. Each of the assignment's sections includes an estimate of the minimum amount of time you should budget to complete the directives. Each section also includes a brief rationale of why you are being asked to complete the work and how it will apply to the LSCRR course.

A checklist for the assignment is included at the end of this packet to serve as record of completion. Attach the checklist to your pre-course assignment, and give it to your instructors on the first day of class. The assignment is worth 10 percent of your final grade.

Your instructors know some of the data may be difficult to obtain. You will **not** be penalized for this. Do the best you can in doing the assignment.

PART ONE: EXAMINATION OF AMERICA'S CONTINUING FIRE PROBLEM

Estimated time to budget for completion of this section: 2 hours.

Information from this section will be used in Units 1 and 2.

Peruse *America Burning*. Be sure to read page x in the introductory section (www.usfa.dhs.gov/downloads/pdf/publications/fa-264.pdf).

Peruse Vision 20/20 — National Strategies for Fire Loss Prevention (www.strategicfire.org).

PART TWO: BUILDING A DEMOGRAPHIC PROFILE OF YOUR COMMUNITY

Estimated time to budget for completion of this section: 5 hours.

Information from this section will be used in Units 1, 2 and 3.

Background Information

Building a community profile is an initial step in risk-mitigation planning. Unfortunately, it is a step **often** overlooked or mishandled. Two factors that contribute to suboptimal performance are 1) relying solely on national data for local risk analysis and 2) failure to build an objective profile of the local community and its associated risks.

While the risk-reduction leader is **not** expected to be a social scientist or front-line practitioner, s/he needs an understanding of how to build a profile of their community's demographics and risks. This knowledge is essential to **directing** a comprehensive mitigation process.

One of the most reliable sources of demographic information is the U.S. Census Bureau. Data for the Decennial Census is collected by the Bureau every 10 years. Data from the Decennial Census is utilized to determine congressional districts. The Decennial Census seeks to determine the *number of people* who live in a community.

A second type of census, the American Community Survey (ACS), is an on-going task of the Bureau. The American Community Survey is mailed to over three million U.S. residents annually. The Bureau's goal is to survey each U.S. resident every seven years to create demographic profiles of local communities. ACS data is important to risk-reduction specialists because it provides information about *where **and** how* people live.

Data from the American Community Survey is available to the public through the American FactFinder database. FactFinder is an important tool for risk-reduction practitioners because it allows us to explore demographic data both community-wide and by census tracts.

Census tracts are defined geographical areas within a city, town, county, or village. Each tract carries a numerical identification. The number of census tracts that are in your community are based upon its size. You may be from a geographical area that has anywhere from a few to hundreds of census tracts.

Most likely, you will find risks in your community are confined to certain areas. **If you are from a large community (greater than 50,000), select no more than four census tracts from what you believe to be your highest risk areas to analyze. If you are from a mid to smaller size community (under 50K), you should examine all census tracts.**

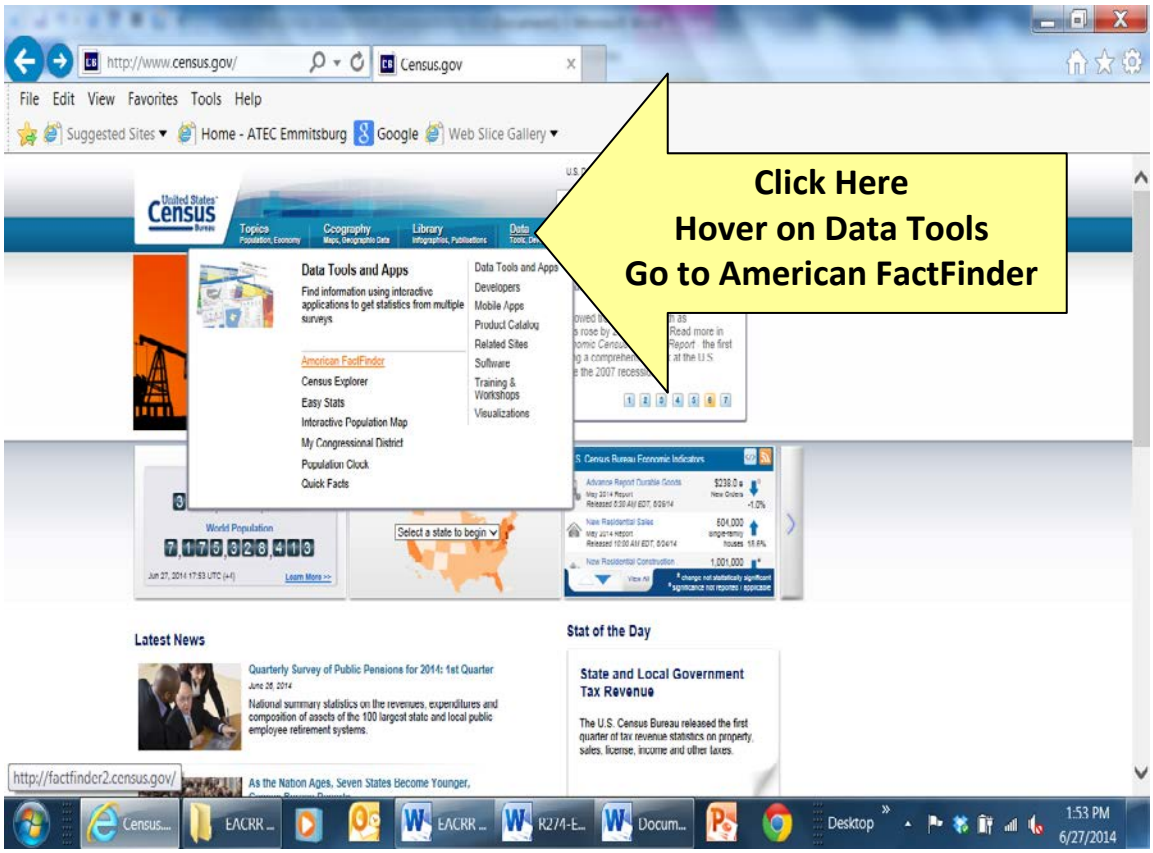
You are also encouraged to use other local resources that may be useful in obtaining information on local community demographics. These can include Economic/Community Development, Board of Education/School Districts, Social Services, etc.

Note: As you navigate through the websites that follow, some of the links may not function or may not function as reported. If this is encountered, please refer to the website tutorial.

Use American FactFinder

Census Bureau data is collected and analyzed by trained professionals. It is made available for public use through the Bureau's website. The following tutorial will show you how to use the Bureau's site.

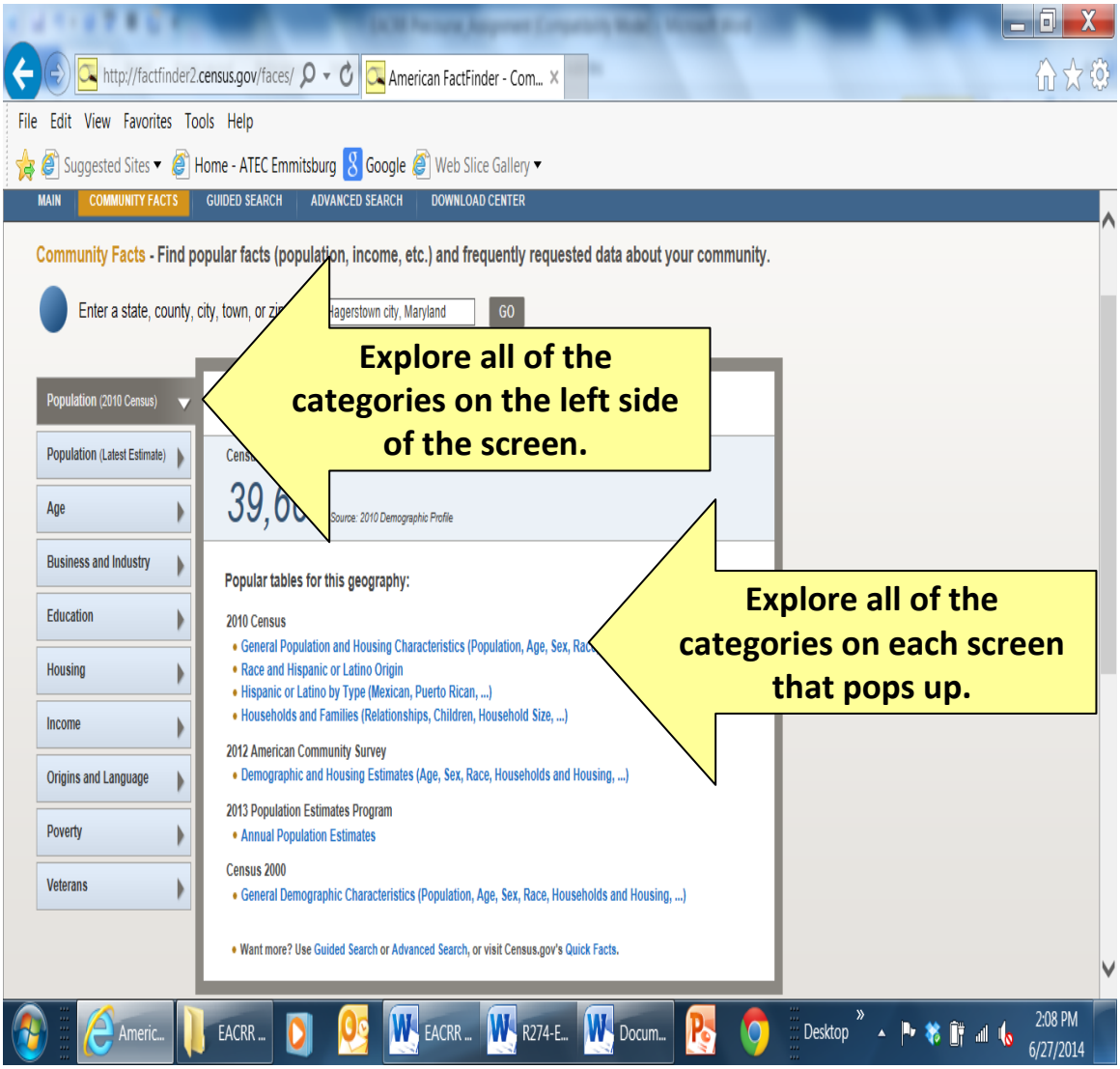
1. To get started, go to the Bureau's website located at www.census.gov. Once you are there, you should see a screen that looks like the one displayed in the screen shot on the next page. Go to the Data section on the top of the Census Bureau's home page. Click on the ***American FactFinder*** link.


http://www.census.gov/
Census.gov
File Edit View Favorites Tools Help
Suggested Sites
Home - ATEC Emmitsburg
Google
Web Slice Gallery
Click Here
Hover on Data Tools
Go to American FactFinder
Data Tools and Apps
Find information using interactive applications to get statistics from multiple surveys
American FactFinder
Census Explorer
Easy Stats
Interactive Population Map
My Congressional District
Population Clock
Quick Facts
Data Tools and Apps
Developers
Mobile Apps
Product Catalog
Related Sites
Software
Training & Workshops
Visualizations
Latest News
Quarterly Survey of Public Pensions for 2014: 1st Quarter
Stat of the Day
State and Local Government Tax Revenue
http://factfinder2.census.gov/
1:53 PM
6/27/2014

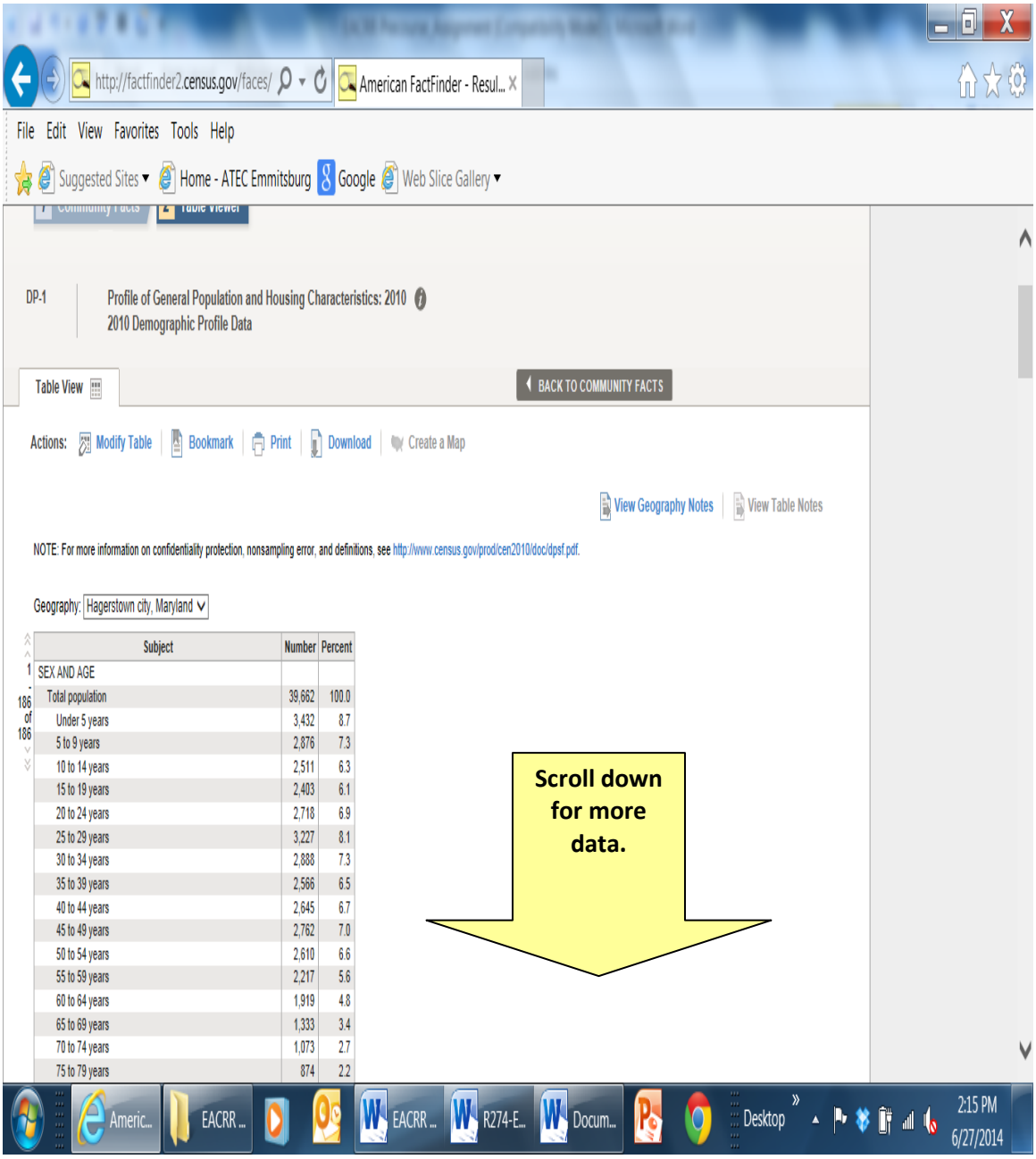
2. Upon arriving at the FactFinder site, you should see the screen displayed below. Enter the name of your community (the city *or* county you are searching for — plus the state); then hit Go. For this example we are using the city of Hagerstown, Maryland.

3. For the sake of this tutorial, we entered Hagerstown, Maryland, as the example community. The following two screen shots will walk you through the various types of demographical data that is available about a community at large.

   We will begin by examining data from the Decennial Census and then ascend to data from the American Community Survey.



4. The screen shot displayed below represents only a small portion of what is available pertinent to the 2010 Decennial Census. Be sure to scroll down and see all of the data available on both people and housing characteristics.



Upon completing the exploration of general census data, return to the American FactFinder home screen that is shown on the next page.

5. Now that you have developed a demographic profile of your community at large, the next step is to learn how to find data on specific geographical areas known as census tracts. Let's go back to the example on Hagerstown, Maryland.

   Return to the American FactFinder home page. Locate the Advanced Search category located on the left side of the screen and click it. Next, click the Show Me All link.

   Now click on Geographies on the page that now appears on the left side.

6. When the screen that is displayed below appears, perform the following process:

   Step 1 — Locate the geographic type, click on it, and select Census Tract.

   Step 2 — Select your state.

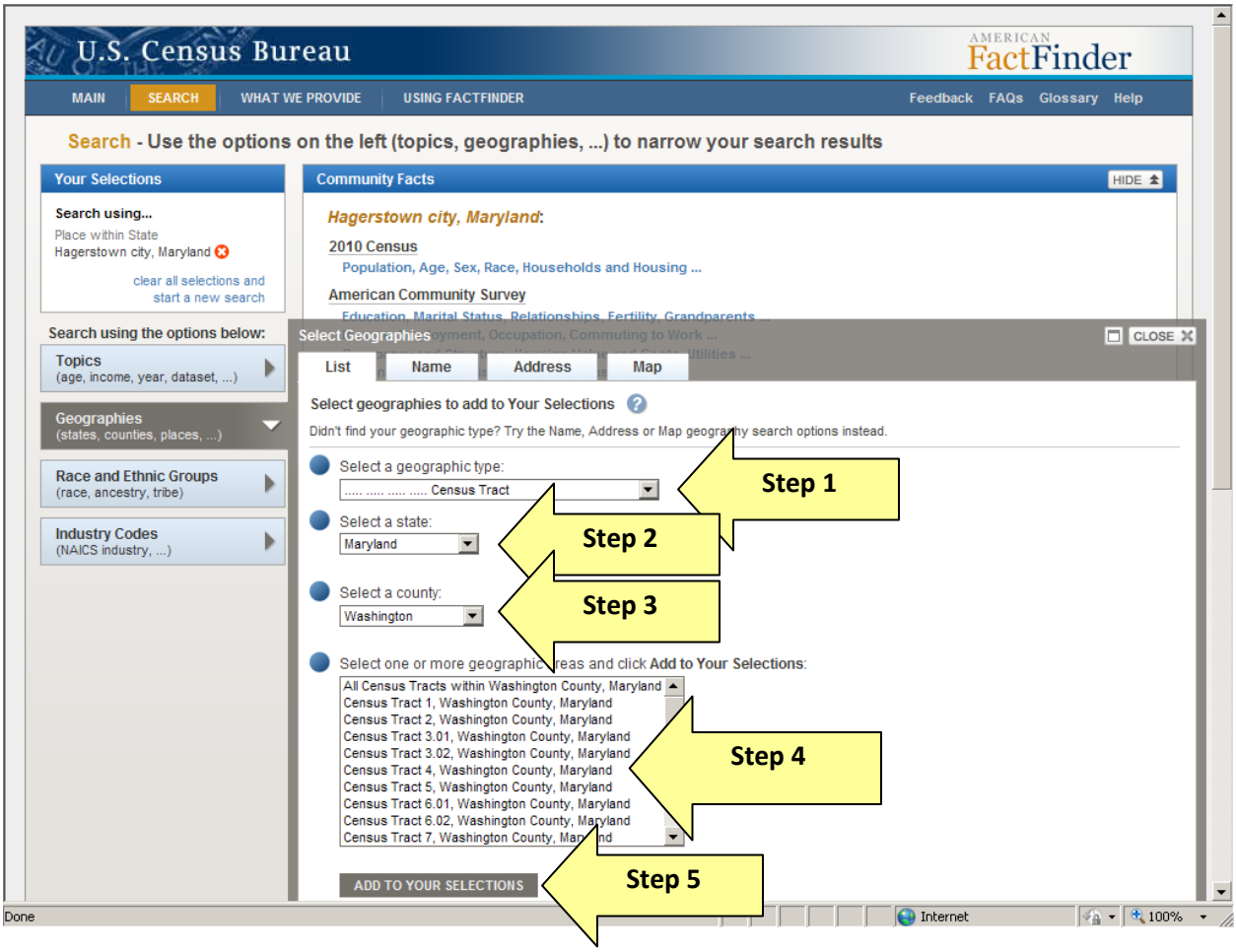
   Step 3 — Select your county.

   Step 4 — Select the census tract you wish to explore.

   Step 5 — Click on Add to Your Selections

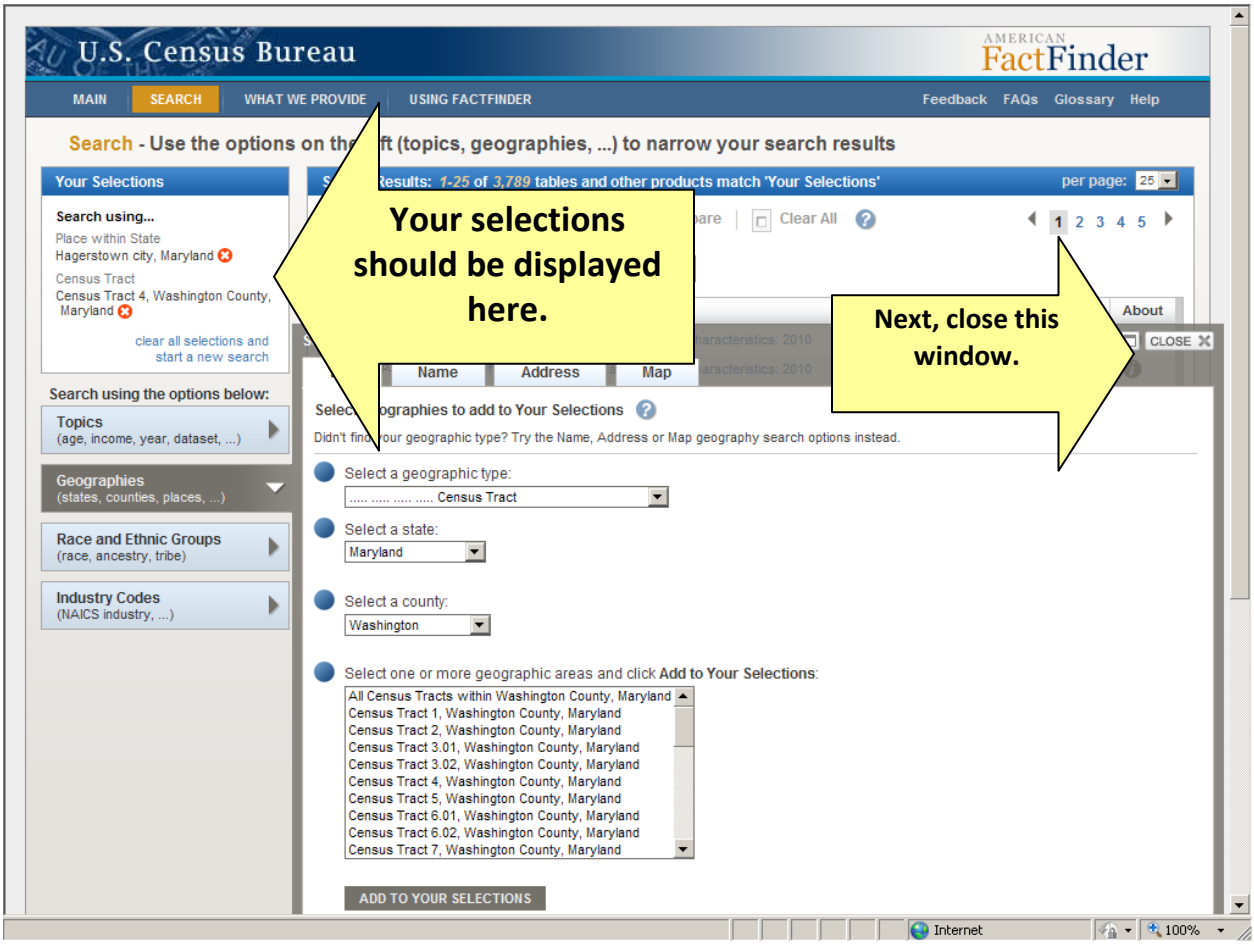
The field with census tracts for your county will become populated. You now have the option to explore your community by census tract. For this example, we will examine Census Tract 4 in Washington County, Maryland.

Note: You will need to know which census tract corresponds to the area of your community that you wish to explore. All census tracts in your entire county will be available for exploration. If you need a map of tracks within your jurisdiction, click on map below, select Geographies.



7. If you have done the process correctly, you will see your city and census tract displayed in the Your Selections section.

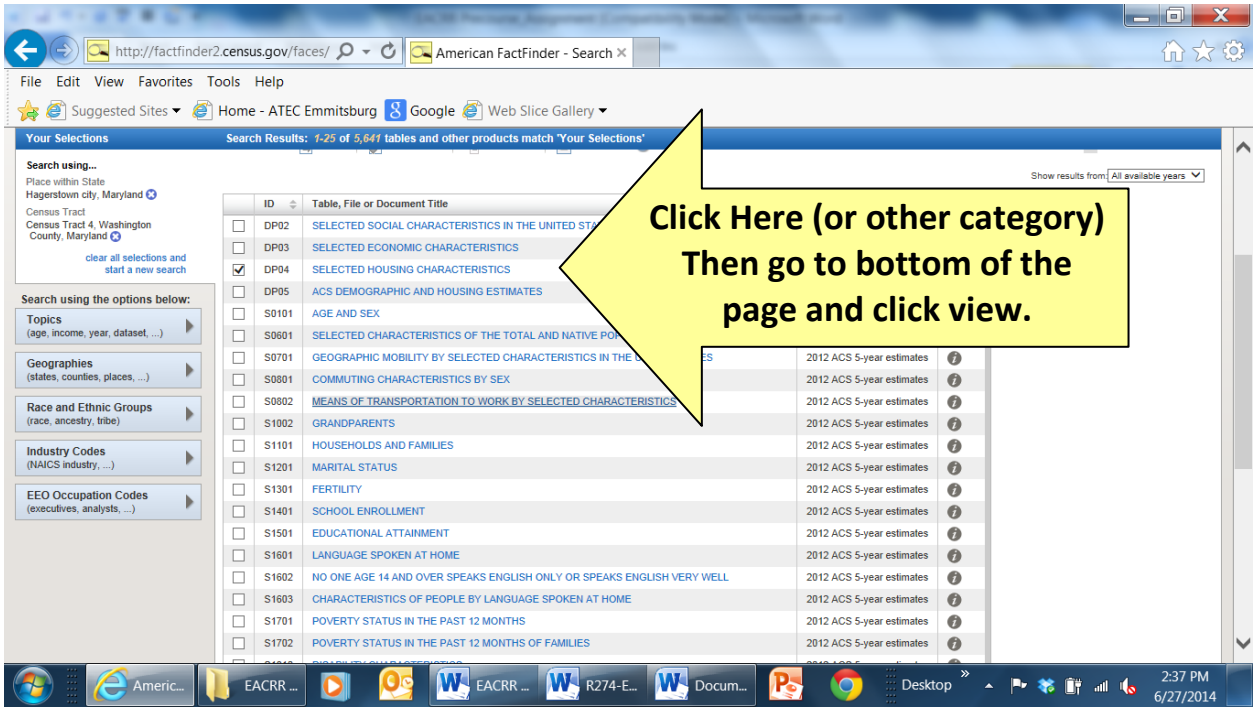
   Next, close the overlay screen that offers census tract options.



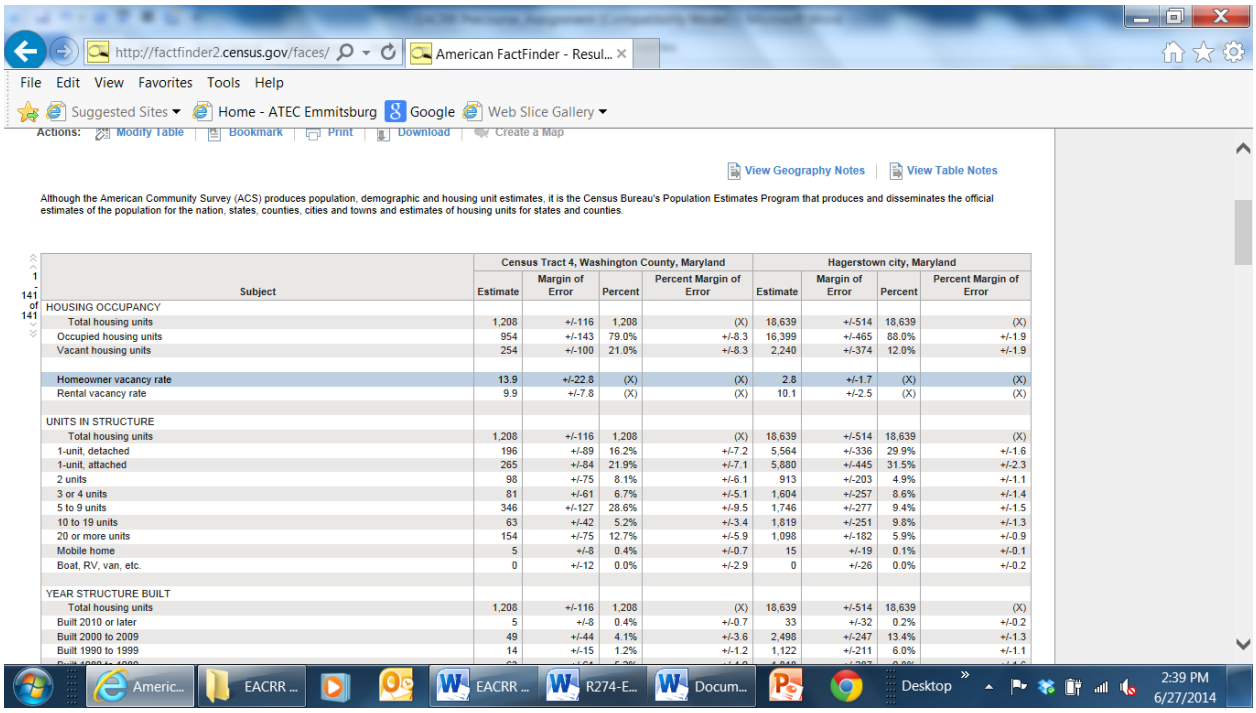
8. You should now see a screen that displays the data specific to the census tract you selected. In our case, it is for Census Tract 4 in downtown Hagerstown, Maryland.

   Each specific category of data can now be explored by census tract. For this example, we will select (check) the Selected Housing Characteristics.

   Once you click on a category, the field will become populated. You may view your data by clicking on the view option at the bottom of the page.



9. You now have data for the specific census tract requested and can compare the demographics of the tract with the community at large.



http://factfinder2.census.gov/faces/ American FactFinder - Resul...

File Edit View Favorites Tools Help

Suggested Sites Home - ATEC Emmitsburg Google Web Slice Gallery

Actions: Modify Table | Bookmark | Print | Download | Create a Map

View Geography Notes | View Table Notes

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

1 - 141 of 141

Subject	Census Tract 4, Washington County, Maryland				Hagerstown city, Maryland			
	Estimate	Margin of Error	Percent	Percent Margin of Error	Estimate	Margin of Error	Percent	Percent Margin of Error
HOUSING OCCUPANCY								
Total housing units	1,208	+/-116	1,208	(X)	18,639	+/-514	18,639	(X)
Occupied housing units	954	+/-143	79.0%	+/-8.3	16,399	+/-465	88.0%	+/-1.9
Vacant housing units	254	+/-100	21.0%	+/-8.3	2,240	+/-374	12.0%	+/-1.9
Homeowner vacancy rate	13.9	+/-22.8	(X)	(X)	2.8	+/-1.7	(X)	(X)
Rental vacancy rate	9.9	+/-7.8	(X)	(X)	10.1	+/-2.5	(X)	(X)
UNITS IN STRUCTURE								
Total housing units	1,208	+/-116	1,208	(X)	18,639	+/-514	18,639	(X)
1-unit, detached	196	+/-89	16.2%	+/-7.2	5,564	+/-336	29.9%	+/-1.6
1-unit, attached	265	+/-84	21.9%	+/-7.1	5,880	+/-445	31.5%	+/-2.3
2 units	98	+/-75	8.1%	+/-6.1	913	+/-203	4.9%	+/-1.1
3 or 4 units	81	+/-61	6.7%	+/-5.1	1,604	+/-257	8.6%	+/-1.4
5 to 9 units	346	+/-127	28.6%	+/-9.5	1,746	+/-277	9.4%	+/-1.5
10 to 19 units	63	+/-42	5.2%	+/-3.4	1,819	+/-251	9.8%	+/-1.3
20 or more units	154	+/-75	12.7%	+/-5.9	1,098	+/-182	5.9%	+/-0.9
Mobile home	5	+/-8	0.4%	+/-0.7	15	+/-19	0.1%	+/-0.1
Boat, RV, van, etc.	0	+/-12	0.0%	+/-2.9	0	+/-26	0.0%	+/-0.2
YEAR STRUCTURE BUILT								
Total housing units	1,208	+/-116	1,208	(X)	18,639	+/-514	18,639	(X)
Built 2010 or later	5	+/-8	0.4%	+/-0.7	33	+/-32	0.2%	+/-0.2
Built 2000 to 2009	49	+/-44	4.1%	+/-3.6	2,498	+/-247	13.4%	+/-1.3
Built 1990 to 1999	14	+/-15	1.2%	+/-1.2	1,122	+/-211	6.0%	+/-1.1

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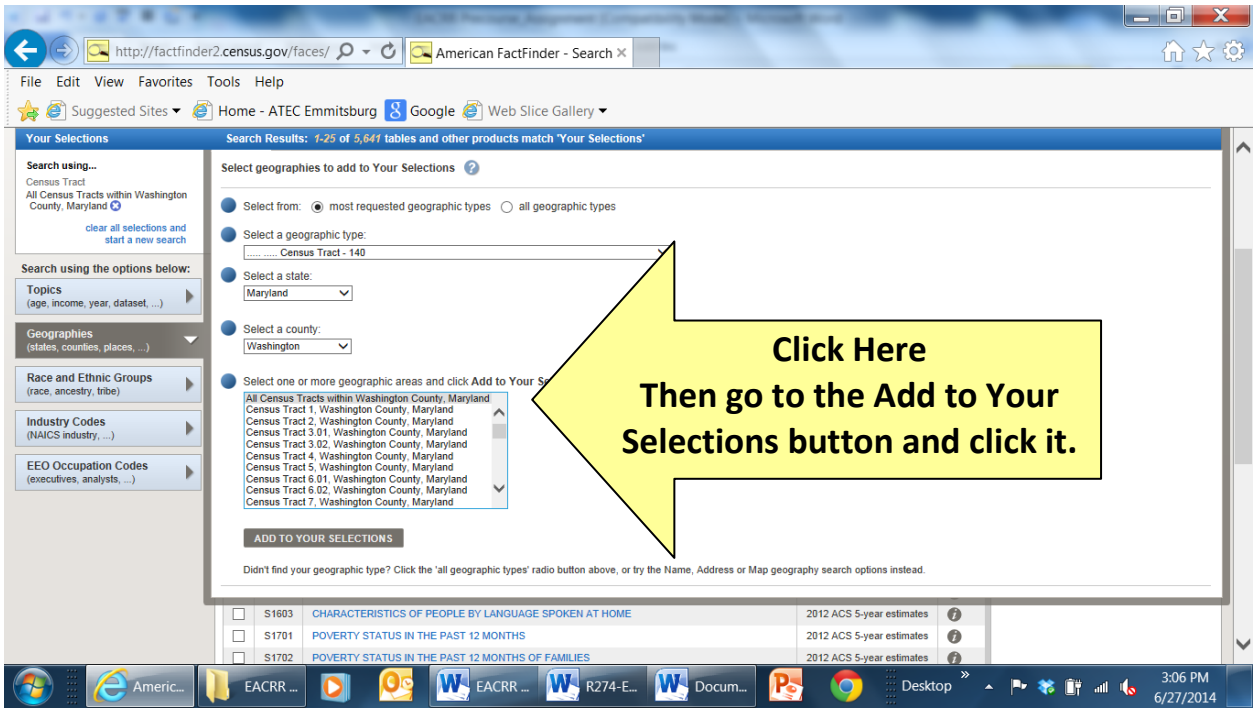
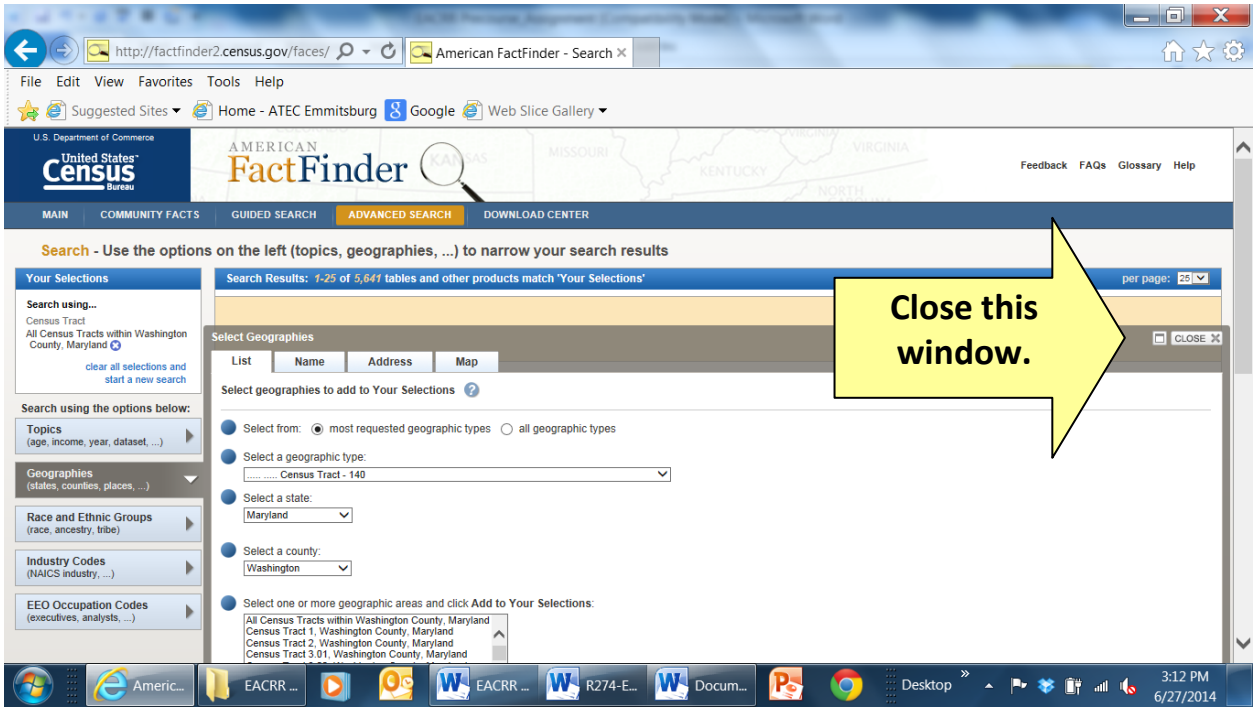
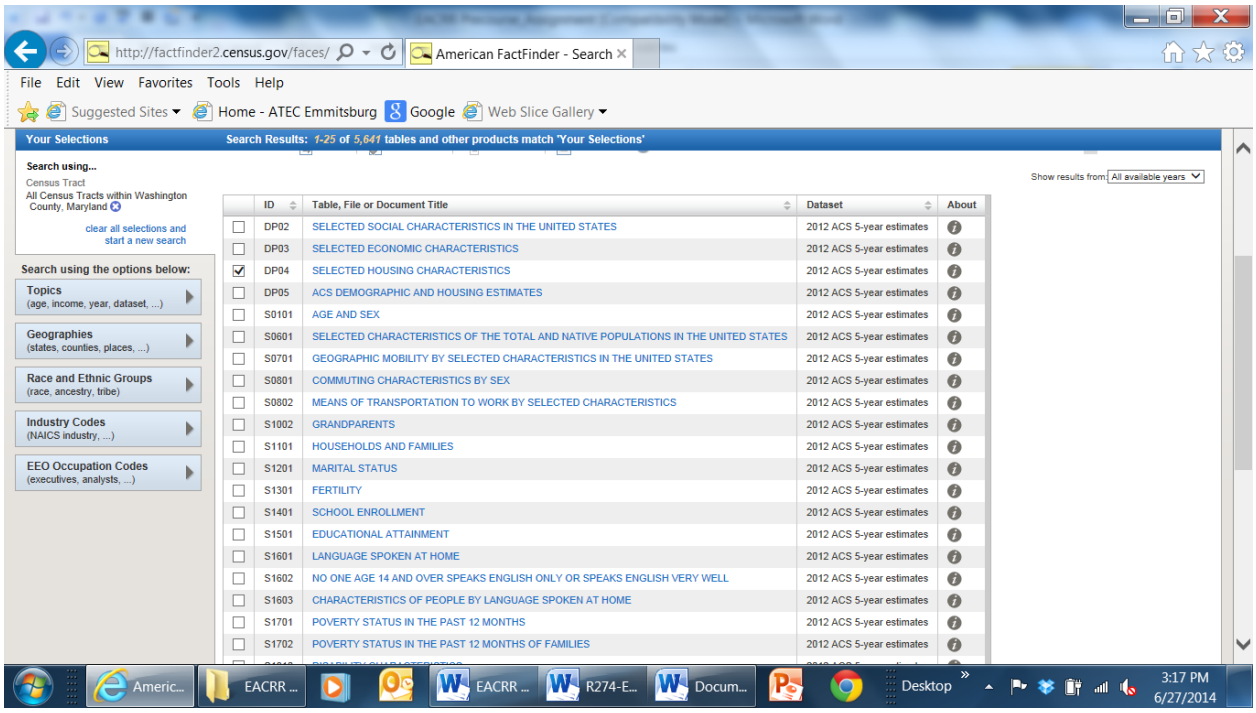
10. Now let's explore how to view all of your community's census tracts simultaneously. Return to the page shown below that you located in Step 7. If you live in a smaller city like Hagerstown, you will need to display all the census tracts in the county. If you are from a larger city, you will find your data listed by your city's name.



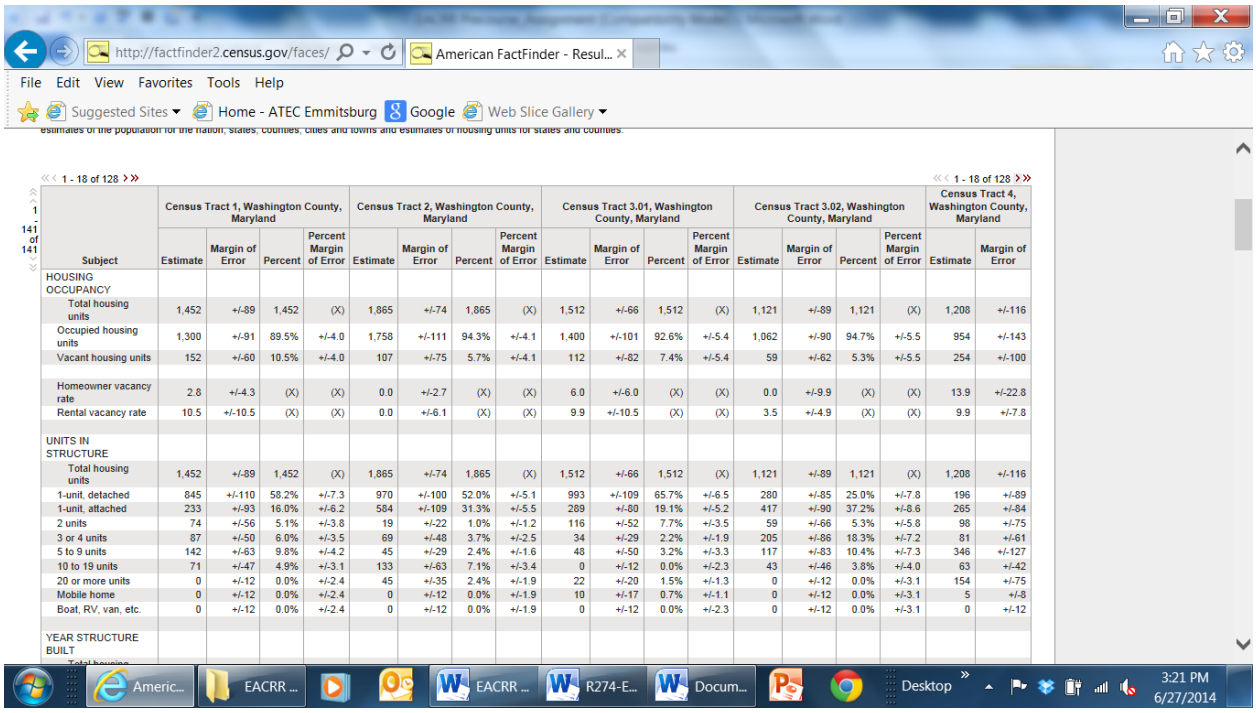
11. Close the Select Geographies window.



12. Select the category of data you wish to display, populate the field, and click view at the bottom of the page.



13. You will now have access to the category of data you searched, and it will be displayed for all census tracts.



1 - 18 of 128

Subject	Census Tract 1, Washington County, Maryland				Census Tract 2, Washington County, Maryland				Census Tract 3.01, Washington County, Maryland				Census Tract 3.02, Washington County, Maryland				Census Tract 4, Washington County, Maryland	
	Estimate	Margin of Error	Percent	Percent Margin of Error	Estimate	Margin of Error	Percent	Percent Margin of Error	Estimate	Margin of Error	Percent	Percent Margin of Error	Estimate	Margin of Error	Percent	Percent Margin of Error	Estimate	Margin of Error
HOUSING OCCUPANCY																		
Total housing units	1,452	+/-89	1,452	(X)	1,865	+/-74	1,865	(X)	1,512	+/-66	1,512	(X)	1,121	+/-89	1,121	(X)	1,208	+/-116
Occupied housing units	1,300	+/-91	89.5%	+/-4.0	1,758	+/-111	94.3%	+/-4.1	1,400	+/-101	92.6%	+/-5.4	1,062	+/-90	94.7%	+/-5.5	954	+/-143
Vacant housing units	152	+/-60	10.5%	+/-4.0	107	+/-75	5.7%	+/-4.1	112	+/-82	7.4%	+/-5.4	59	+/-62	5.3%	+/-5.5	254	+/-100
Homeowner vacancy rate	2.8	+/-4.3	(X)	(X)	0.0	+/-2.7	(X)	(X)	6.0	+/-6.0	(X)	(X)	0.0	+/-9.9	(X)	(X)	13.9	+/-22.8
Rental vacancy rate	10.5	+/-10.5	(X)	(X)	0.0	+/-6.1	(X)	(X)	9.9	+/-10.5	(X)	(X)	3.5	+/-4.9	(X)	(X)	9.9	+/-7.8
UNITS IN STRUCTURE																		
Total housing units	1,452	+/-89	1,452	(X)	1,865	+/-74	1,865	(X)	1,512	+/-66	1,512	(X)	1,121	+/-89	1,121	(X)	1,208	+/-116
1-unit, detached	845	+/-110	58.2%	+/-7.3	970	+/-100	52.0%	+/-5.1	993	+/-109	65.7%	+/-6.5	280	+/-85	25.0%	+/-7.8	196	+/-89
1-unit, attached	233	+/-93	16.0%	+/-6.2	584	+/-109	31.3%	+/-5.5	289	+/-80	19.1%	+/-5.2	417	+/-90	37.2%	+/-8.6	265	+/-84
2 units	74	+/-56	5.1%	+/-3.8	19	+/-22	1.0%	+/-1.2	116	+/-52	7.7%	+/-3.5	59	+/-66	5.3%	+/-5.8	98	+/-75
3 or 4 units	87	+/-50	6.0%	+/-3.5	69	+/-48	3.7%	+/-2.5	34	+/-29	2.2%	+/-1.9	205	+/-86	18.3%	+/-7.2	81	+/-61
5 to 9 units	142	+/-63	9.8%	+/-4.2	45	+/-29	2.4%	+/-1.6	48	+/-50	3.2%	+/-3.3	117	+/-83	10.4%	+/-7.3	346	+/-127
10 to 19 units	71	+/-47	4.9%	+/-3.1	133	+/-63	7.1%	+/-3.4	0	+/-12	0.0%	+/-2.3	43	+/-46	3.8%	+/-4.0	63	+/-42
20 or more units	0	+/-12	0.0%	+/-2.4	45	+/-35	2.4%	+/-1.9	22	+/-20	1.5%	+/-1.3	0	+/-12	0.0%	+/-3.1	154	+/-75
Mobile home	0	+/-12	0.0%	+/-2.4	0	+/-12	0.0%	+/-1.9	10	+/-17	0.7%	+/-1.1	0	+/-12	0.0%	+/-3.1	5	+/-8
Boat, RV, van, etc.	0	+/-12	0.0%	+/-2.4	0	+/-12	0.0%	+/-1.9	0	+/-12	0.0%	+/-2.3	0	+/-12	0.0%	+/-3.1	0	+/-12
YEAR STRUCTURE BUILT																		

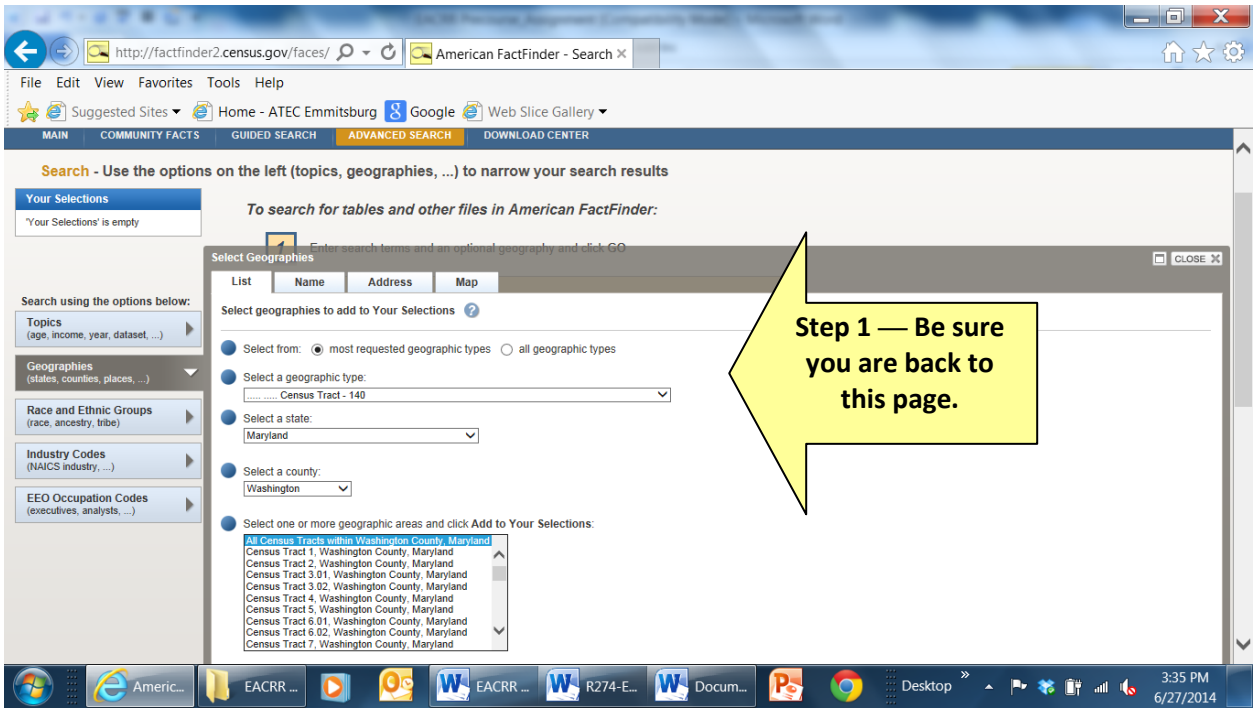
Special Section — Building a Map of Census Tracts

If you don't know the numerical designations of the census tracts in your community, you can build a map to identify them. Here's how:

Step 1 — Return to the Advanced Search screen for your community.

Step 2 — Click on the Geographies feature.

Step 3 — Locate the Map feature on the Select Geographies menu and click on it.

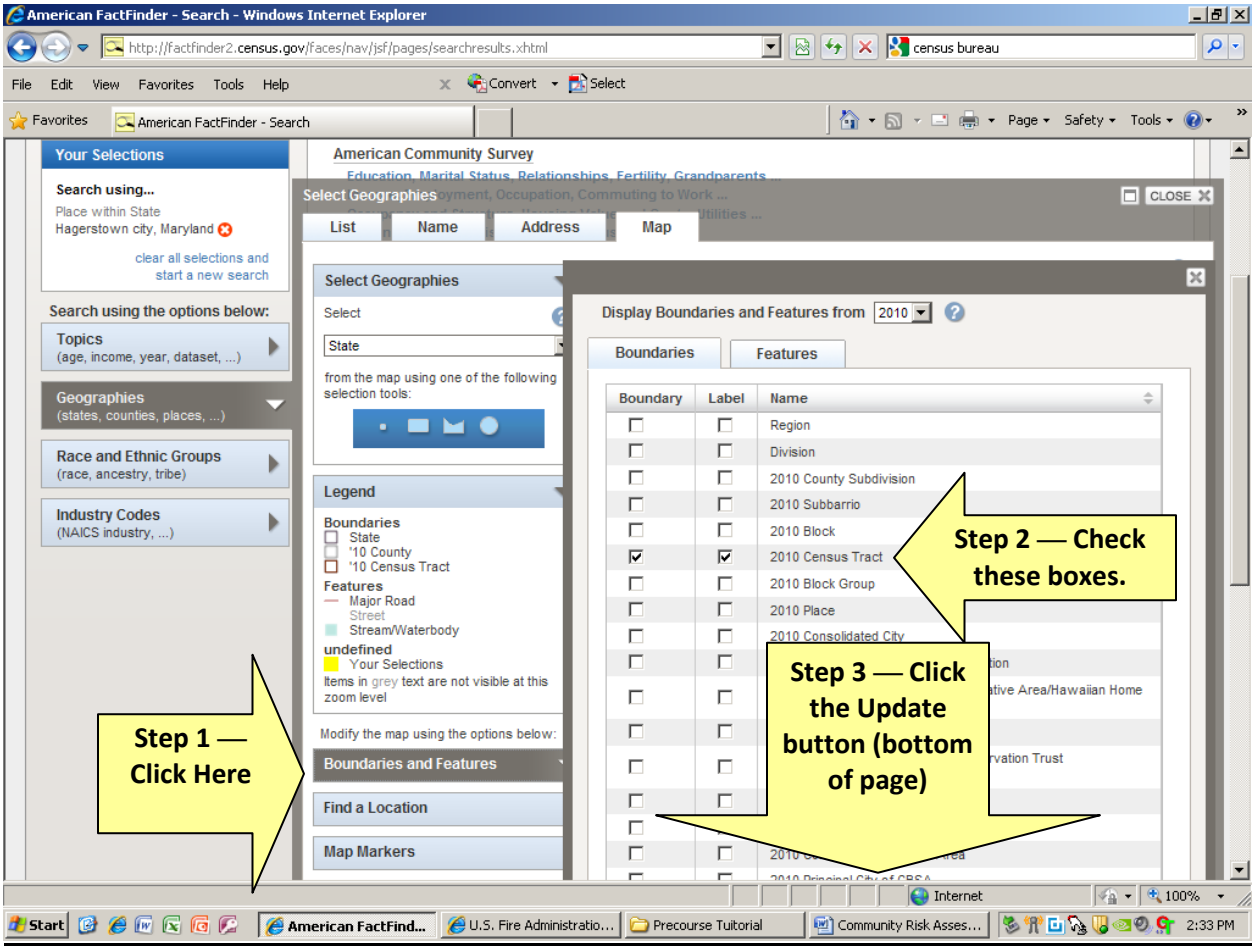


You should now have the screen displayed below.

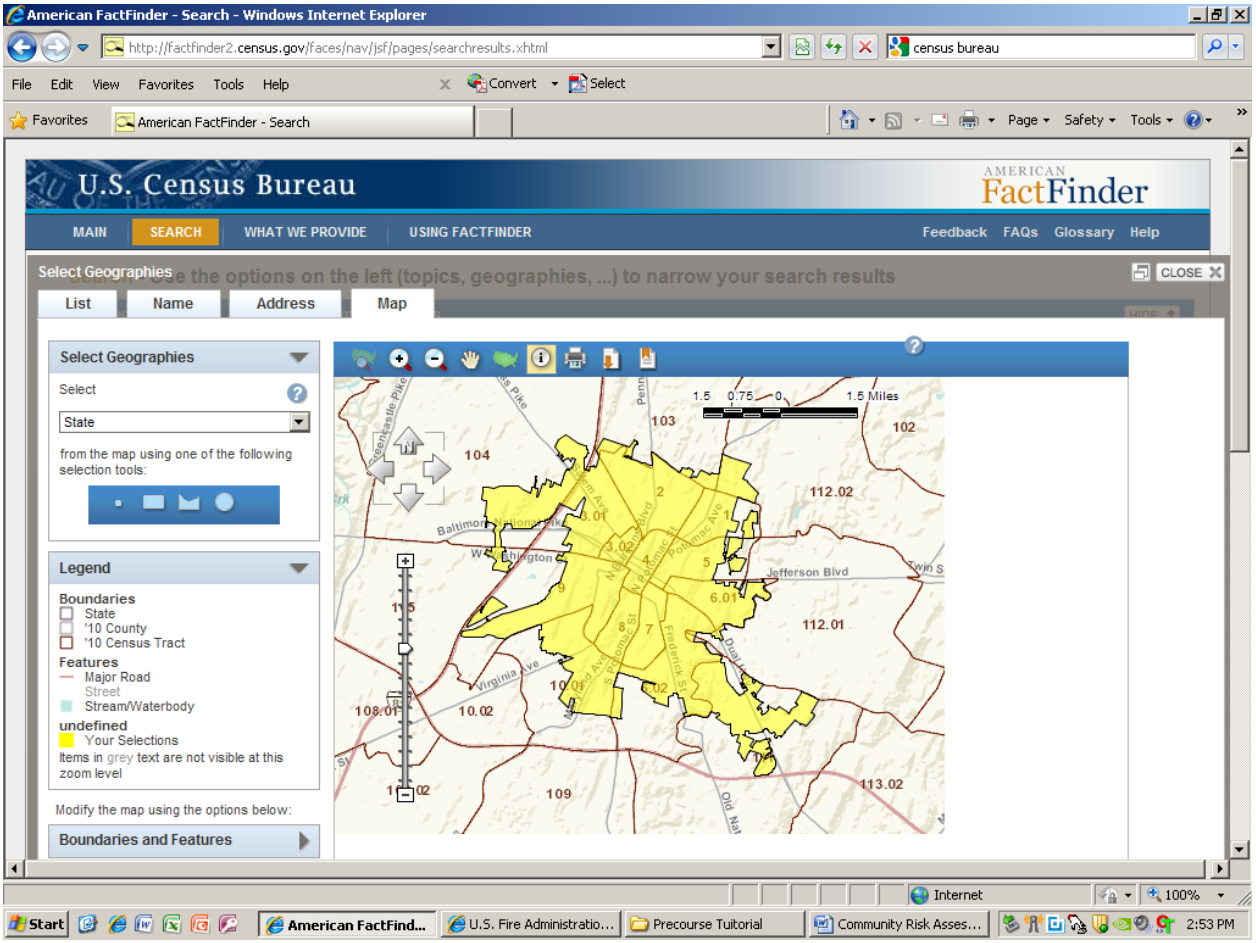
Step 1 — Locate the Boundaries and Features category and click on it.

Step 2 — Once the Boundaries and Features are displayed, click on both boxes for census tracts.

Step 3 — Click the Update button at the bottom of the screen. Note: This is not visible on the screen shot below.



Your map with census tracts should appear. You may also print this map.



Summary of Tutorial

While the process of gathering data from the U.S. Census Bureau may appear intimidating at first, it is a task mastered with experience. Each time you work with the Bureau's database, the process will get easier.

The Census Bureau's data analysis tools are very powerful instruments that can provide you with a wealth of information about the demographics of your local community. As more resources become available, the Bureau plans to incorporate enhanced capabilities that will allow communities to integrate Geographic Information System (GIS) tracking/mapping with local demographics.

Demographic Worksheet

Use FactFinder to build a complete profile of your community including demographics, social, economic, housing, and employment. Bulleted summary statements are acceptable.

Note: If you represent a community of 50,000 or less, please consider all of your census tracts in the following sections. If your population is greater than 50K, please consider what you believe are your **four** highest risk census tracts.

Category	Description	Questions to answer — your community
Demographic (people-related information)	Population size, distribution, age, ethnicity, and cultures	• What is the total population of your community? • How many census tracts are in your community? • Which census tracts have higher populations of these groups that are confirmed to be at higher risk from fire: - Children under age 5 - Older adults (age 65+) - People living below the poverty level - People challenged by disabilities
Economic characteristics [Employment]	Employment profile and rates, income levels	• What is the employment profile of your constituency? - Types of jobs? - Work in community or commute? - Major **local** employers? - Unemployment rate? - Income level ranges?

Housing profile	Age of homes and occupants, types of residential occupancies, home ownership versus rental properties, transience among residents	• What is the overall housing profile of your community? - Average age of homes? - New (or recent) construction? - Homes with automatic detection **and** suppression equipment? - Types of residential construction? - Types of residential properties? (single family, duplex, multi-unit) - Renter versus owner occupied? - Transience? (How often do people relocate to another residence?)

Part One Completion Date:

PART THREE: BUILDING A RISK PROFILE OF YOUR COMMUNITY

Every 79 seconds, fire occurs in someone's home. Residential fire affects over 400,000 families each year.

Seventy-nine percent (79%) of fire deaths occur in residential occupancies. Three quarters of all fire-related citizen injuries occur in residential fires.

Over 90 percent of America's homes have at least one smoke alarm. Up to 30 percent of these alarms don't work. **One third of all fires and 60 percent of fire fatalities occur in *these* homes**. That's high-risk!

USFA and NFPA identify the national leading causes of fire to occur most frequently in the following order:

- Unattended cooking — also leading cause of fire-related injury.
- Arson — also second leading cause of fire death. Youth firesetting and fireplay are included in this area.
- Heating appliances.
- Electricity.
- Smoking — remains leading cause of fire death.

The USFA's objective to reduce the loss of life from fire by 15 percent provides a tangible goal for America to reach. Unfortunately, many emergency service organizations plan risk-reduction strategies solely on *national* statistics. While national statistics play an important role in identifying common risk issues, close examination of the **local community** and its needs is essential to effective risk reduction.

The National Fire Incident Reporting System (NFIRS) represents an option for use in obtaining the requested information. However, you must ensure that **accurate and objective** information has been obtained by your organization.

The USFA logically places emphasis on reducing America's fire problem. In addition to reducing the occurrence of fire, today's risk-reduction leaders must examine community risk from a broad perspective.

USFA calls for development of comprehensive multi-hazard risk-reduction plans within 2,500 American communities. These initiatives are to be led by or include the local fire service. In response to this challenge, community risk-reduction leaders should create an all-hazard profile

that includes an overview of human-created and natural risks that currently threaten or could threaten their community.

For this reason, Part Two is divided into three sections.

- **Section One — Your Local Fire Profile**
  Create an objective profile of the fire incidents currently affecting your community. While you should consider frequency of occurrence as a baseline for selection, other factors must be examined as well. These factors are listed on the worksheet. You may use NFIRS data, departmental data, or a combination of both to create the profile. Just make sure you are drilling down on the **local** problem. If you are not sure where to locate data, please visit with the person responsible for fire incident data recorded/reported by your department. A minimum of five years of data is needed. Smaller communities may need to look back at least 10 years.

- **Section Two — Other Human-Created Risks**
  Identify preventable injuries and other human-created incidents that frequently affect your constituency. Consider frequency of occurrence and the other factors listed as you make selections. Use of EMS or local health department data can be helpful here.

- **Section Three — Naturally Occurring Risks**
  Reflect on the naturally occurring risks that have a history of or significant potential to affect your community. More information is provided prior to the worksheet.

Note: Information from all three sections must be compiled and interpreted prior to attending LSCRR. You will *not* be able to process an effective risk analysis of your community without it.

Section One — Your Local Fire Profile

Using **local** data, list the top five fire concerns in your community using the following attributes:

- Frequency of occurrence (listed by percent and contrasted with total number fires).
- Morbidity and mortality (number civilians injured or killed annually by this type fire).
- Rate of rise for occurrences (is occurrence of fire rising, steady, or declining?).
- Geographic distribution of occurrences (examine by Census Tract).
- Financial impact to fire hosts, the community, and your organization.
- Population(s) most experiencing the specific type of fire.

A **Fire Risk Worksheet** is provided for your benefit (beginning on the next page). Please produce a copy for each of the five causes of fire you select. It is suggested that you consider all of the above-listed categories as you select your types of fire to profile.

See page 30 for information on how to access NFIRS data for your community.

Fire Risk Worksheet

(You will need to make 5 copies of this worksheet.)

Fire Cause: _____

Frequency (%)	
Morbidity/ Mortality	
Rate of rise	
Geographic distribution	
Cost (in $)	
Population(s) experiencing this cause of fire	

Section One Completion Date:

As mentioned earlier, data on fire experience in the U.S. is available through the USFA. USFA began NFIRS in 1975. Under NFIRS, local fire departments forward fire incident data to a state coordinator. The coordinator collates statewide fire incident data and reports information to the USFA.

The following is an overview of how to obtain and review NFIRS data for your local community.

1. Obtain an NFIRS Account.

    a. Request an NFIRS account from the person in your department responsible for NFIRS reporting. Your state NFIRS program manager or your local NFIRS person with an account with system administration permission assigns accounts. The NFIRS Support Center at the USFA can provide you with the contact information of your state NFIRS program manager. Call (888) 382-3827 from 8:30 a.m. ET to 4:30 p.m. ET or email FEMA-NFIRSHelp@fema.dhs.gov.

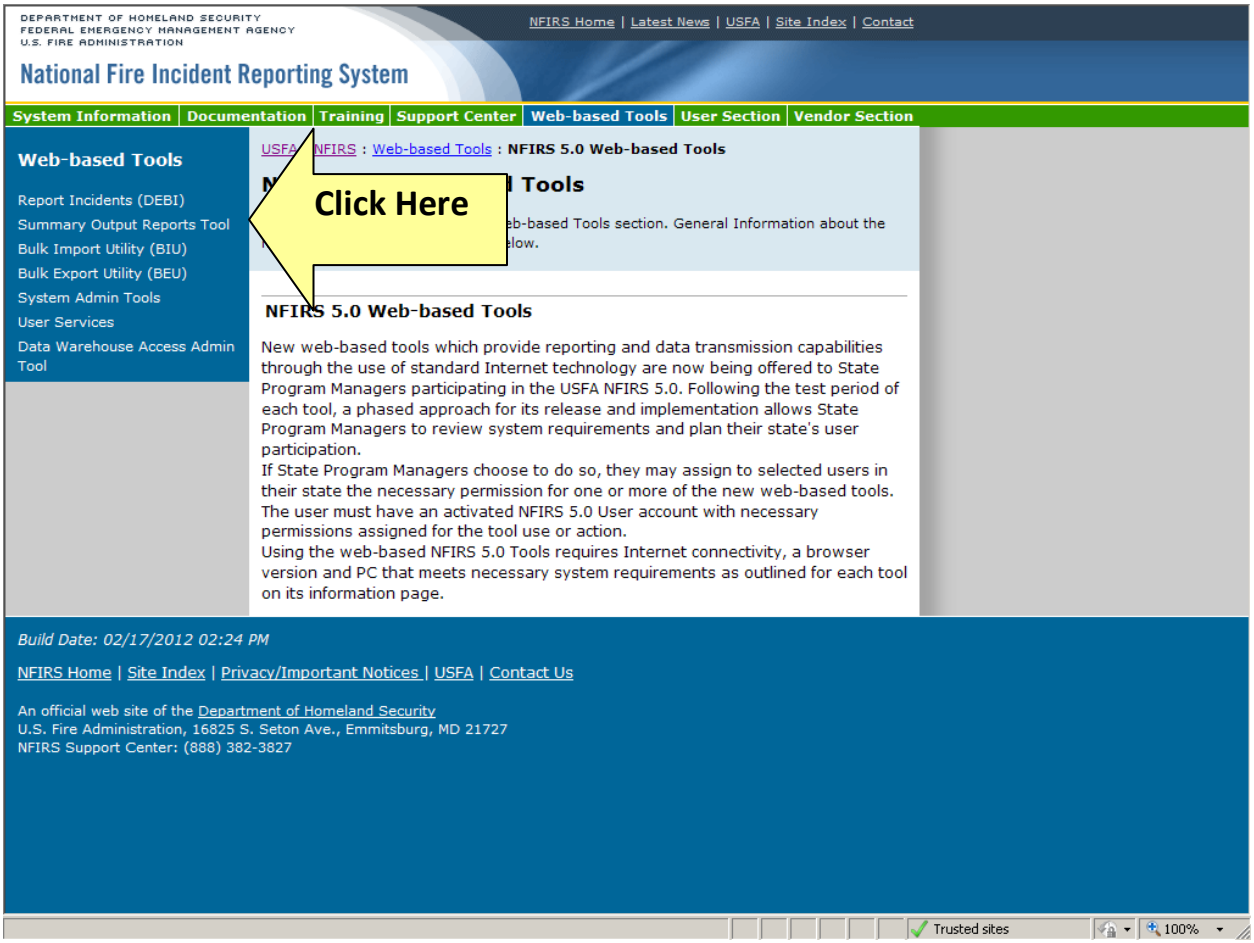
    b. Your NFIRS account needs only the following four permissions: Startup, Report Submit, Report Fetch, and Report Generate.

2. Log into the NFIRS Summary Output Reports Tool (a.k.a. SORT).

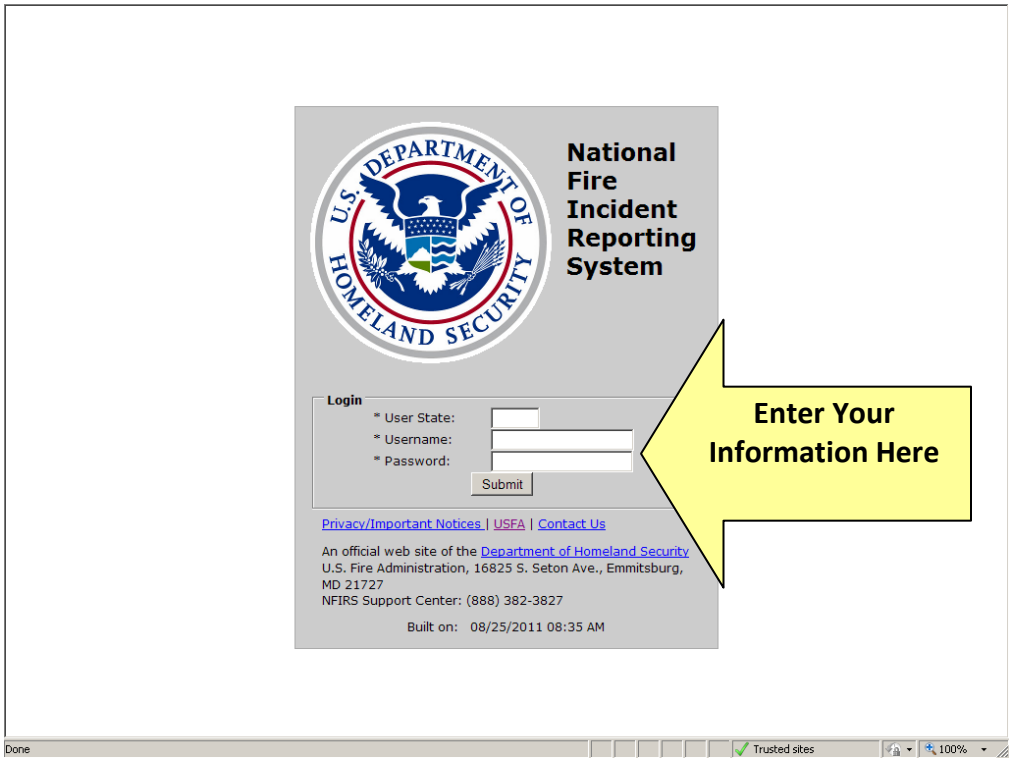
   a. Go to the following website: www.nfirs.fema.gov.

   b. Select Web-based Tools from the menu bar.

3. Select Summary Output Reports Tool from the Web-based Tools menu.

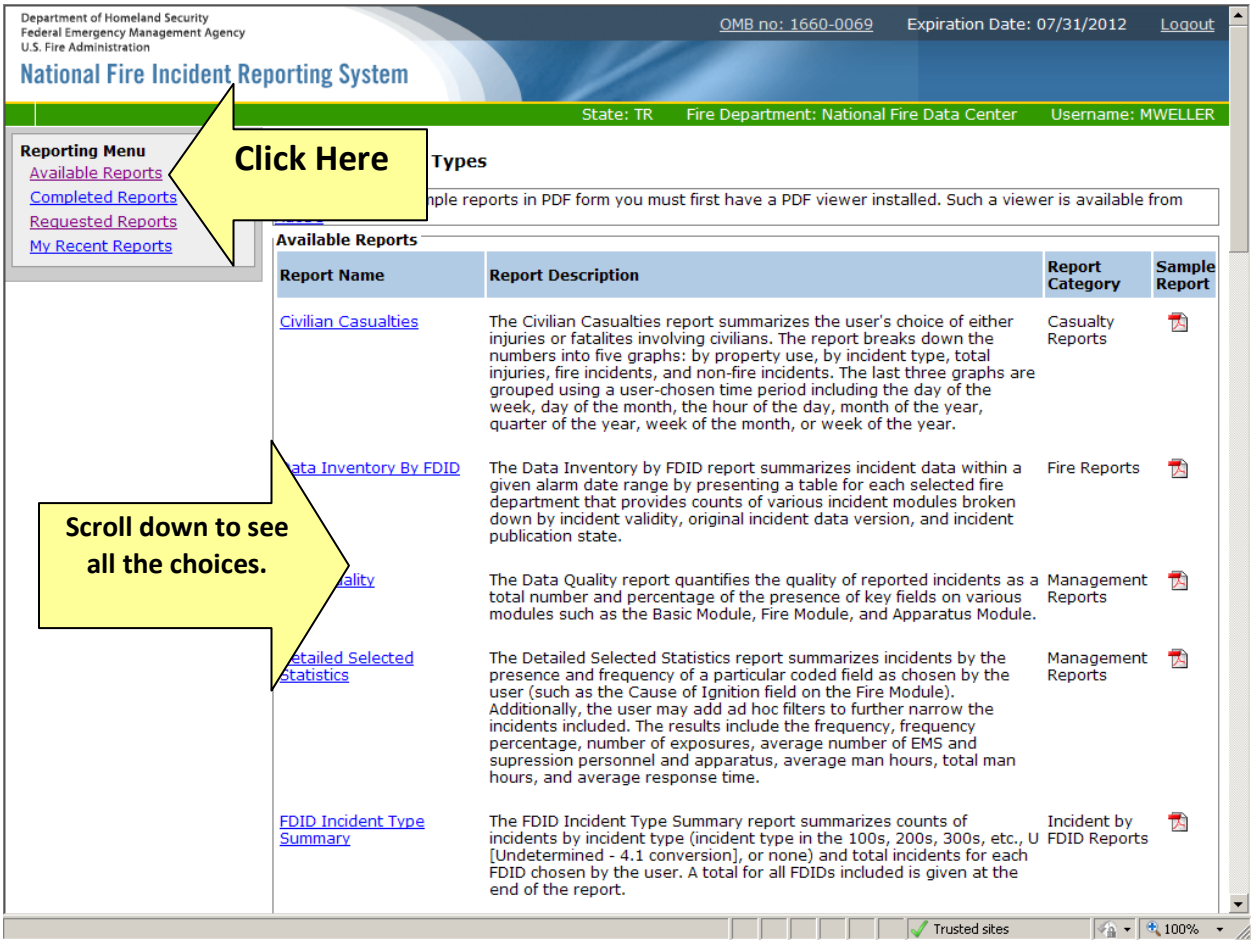


4. Log in using your NFIRS account (i.e., state abbreviation, username, and password).



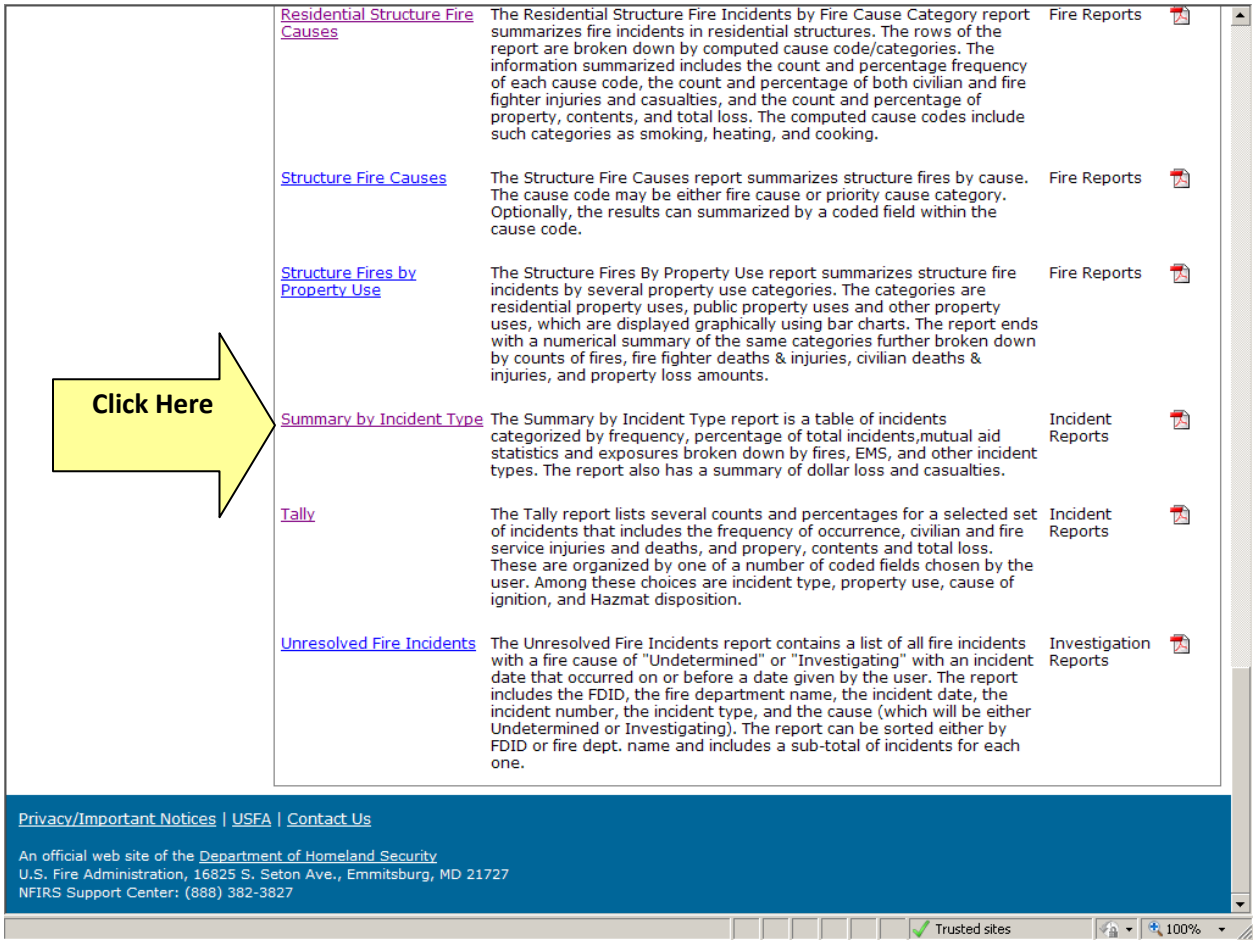
5. Click OK from the USFA Banner Page to go to the next page.

6. You should see the screen that is displayed below. Click on the Available Reports option in the Reporting Menu section. Note the report types that are available for you to develop. Scroll down the list so you see all the choices.

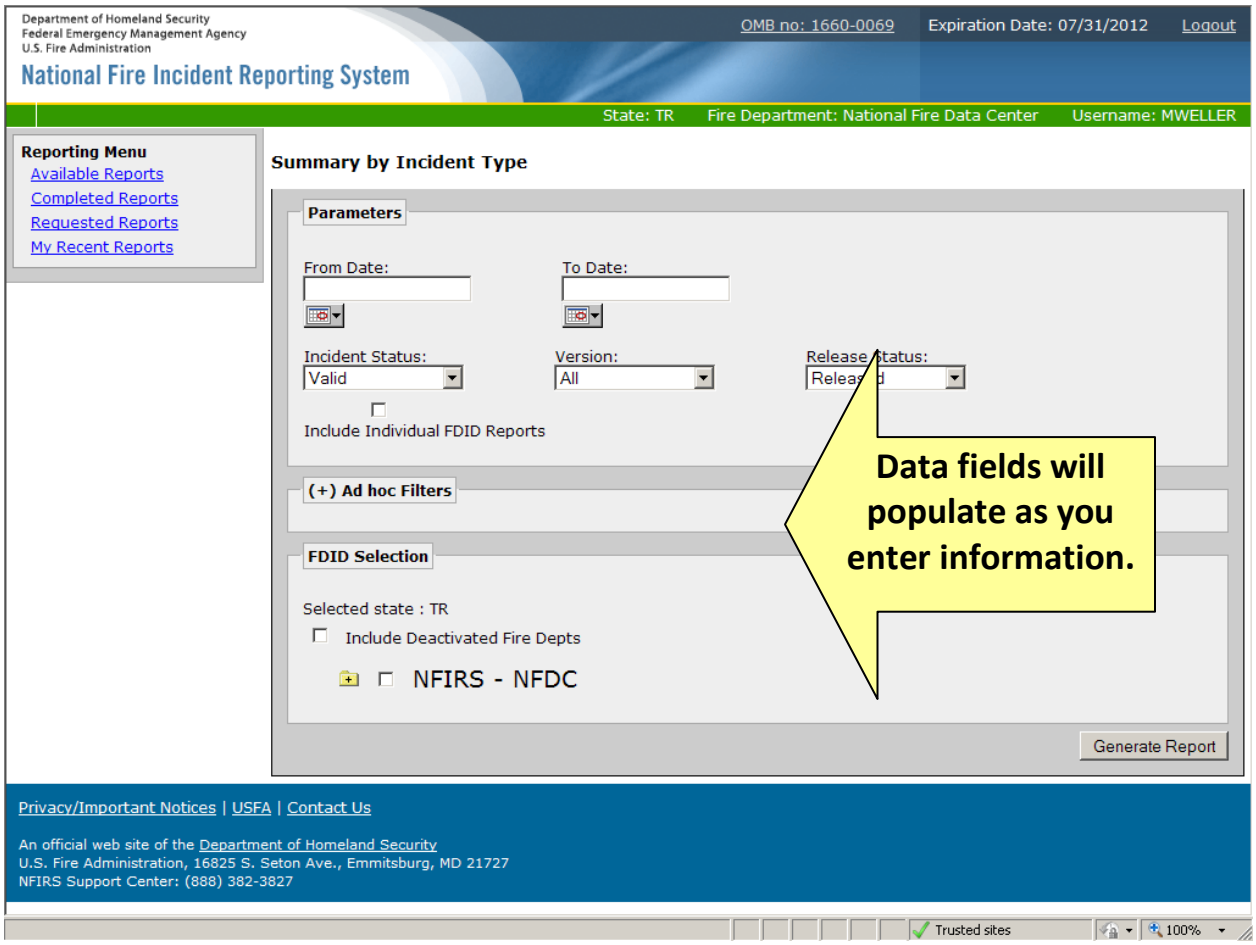


Note: For the sake of this tutorial, we will be focusing on how to create and print the following reports: Summary by Incident Types, Tally, and Residential Structure Fire Causes.

7. Select the Summary by Incident Type report from Available Reports.



8. You should see the screen displayed below. Follow the directions listed at the bottom of this screen shot.



A. Enter the following parameters:

1. From Date (format mm/dd/yyyy)
2. To Date (format mm/dd/yyyy)
3. Incident Status = All
4. Incident Version = All
5. Release Status = All
6. Include Individual FDID Reports = blank

B. Select the fire department to include in the report.

1. In the FDID Selection section, drill down to the fire department.

2. Check the box next to the fire department.

C. Generate the report.

1. Move down to the button named Generate Report.

2. Select Generate Report.

D. Print the report.

1. Select My Recent Reports from the Reporting Menu.

2. View the status of the report.

   a. Submitted — the report is waiting to be processed.

   b. In Process — the report is being created.

   c. Completed — the report is created.

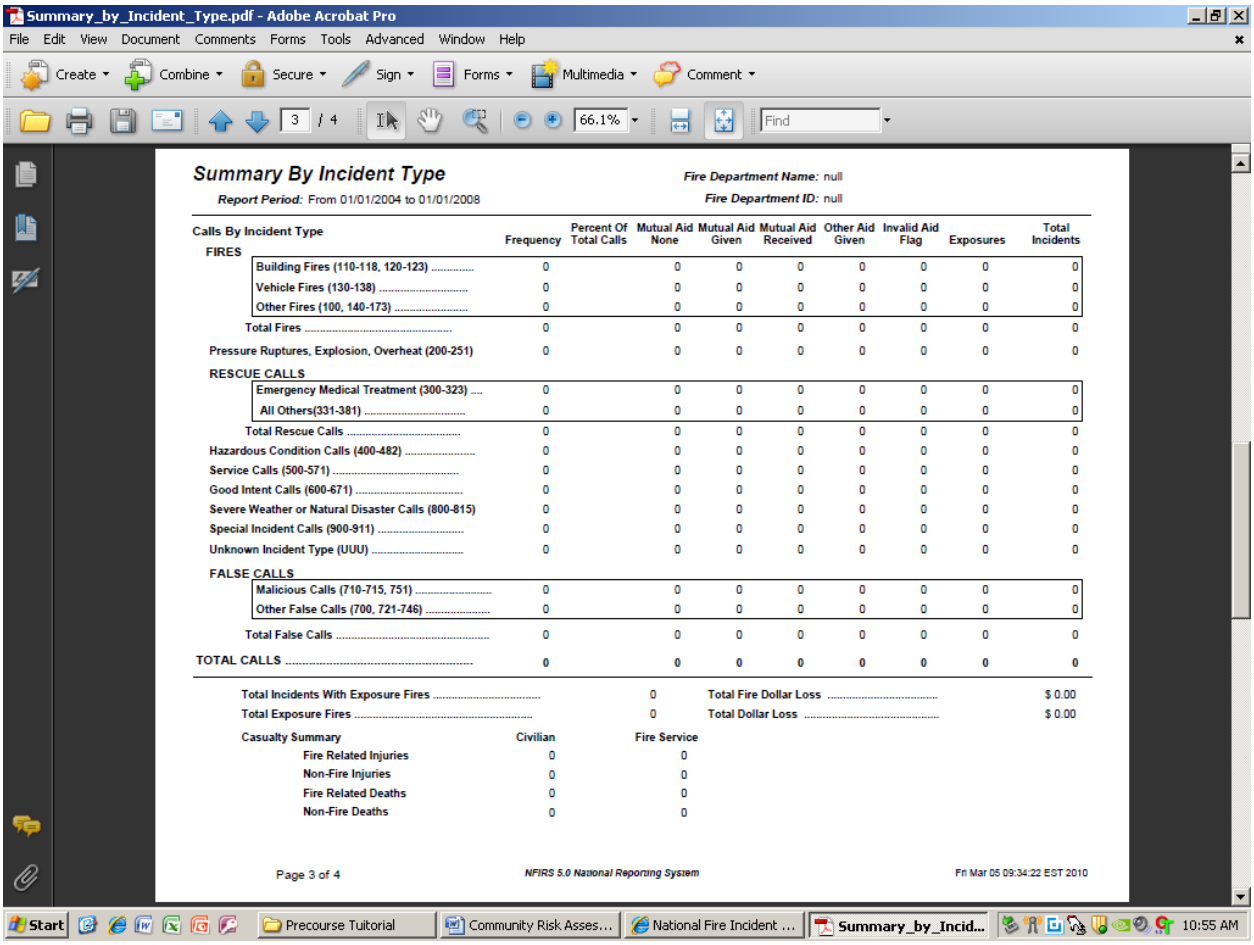
3. If the status of the report is completed, select the PDF version of the report from the Report Format section.

4. Open the report.

5. View and print the report.

6. Close the report after it prints.

Note: The report you ultimately generate will look similar to the one displayed below. The report should be populated with data pertinent to your department.



Summary By Incident Type

Report Period: From 01/01/2004 to 01/01/2008

Fire Department Name: null

Fire Department ID: null

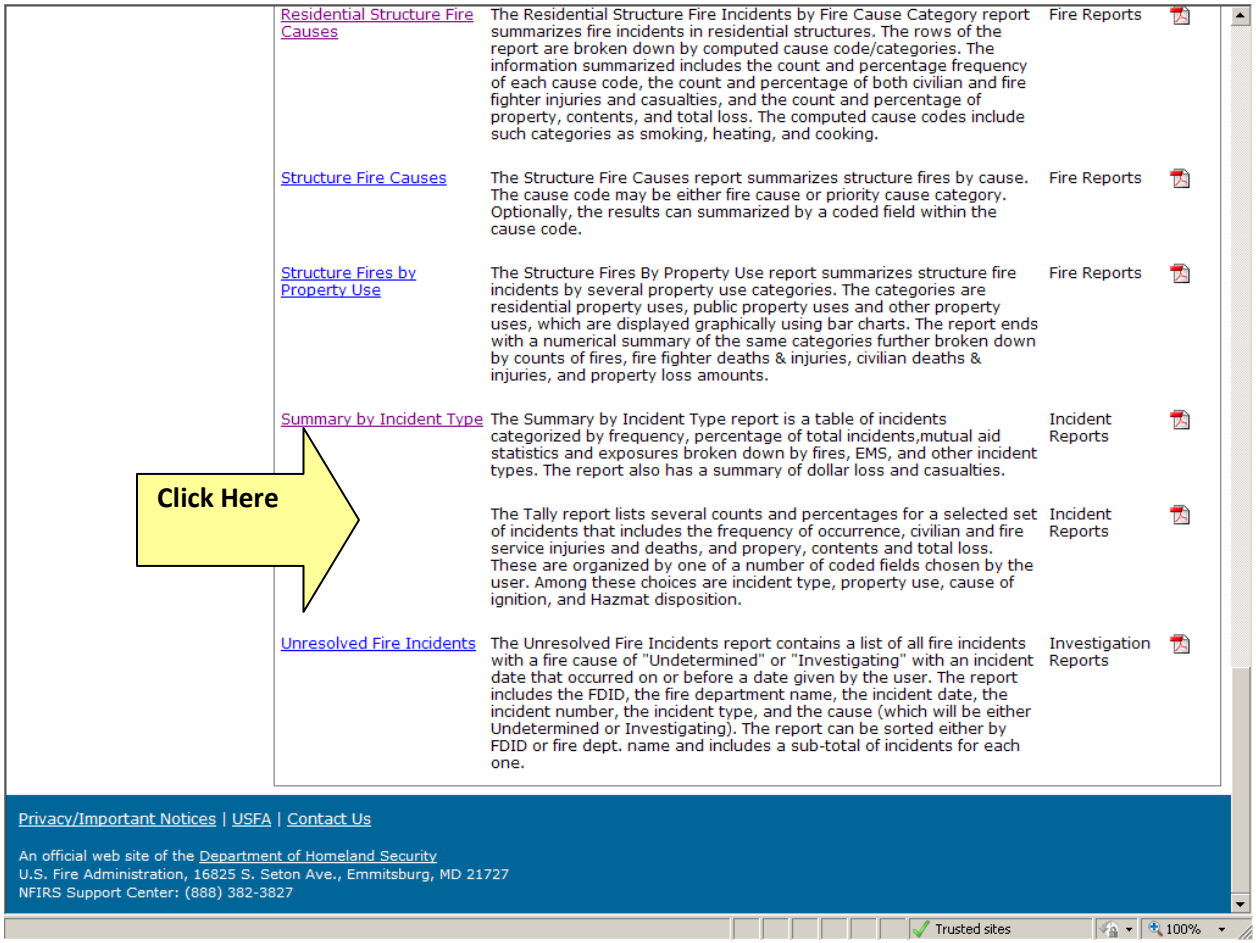
Calls By Incident Type	Frequency	Percent Of Total Calls	Mutual Aid None	Mutual Aid Given	Mutual Aid Received	Other Aid Given	Invalid Aid Flag	Exposures	Total Incidents
FIRES									
Building Fires (110-118, 120-123)	0		0	0	0	0	0	0	0
Vehicle Fires (130-138)	0		0	0	0	0	0	0	0
Other Fires (100, 140-173)	0		0	0	0	0	0	0	0
Total Fires	0		0	0	0	0	0	0	0
Pressure Ruptures, Explosion, Overheat (200-251)	0		0	0	0	0	0	0	0
RESCUE CALLS									
Emergency Medical Treatment (300-323)	0		0	0	0	0	0	0	0
All Others(331-381)	0		0	0	0	0	0	0	0
Total Rescue Calls	0		0	0	0	0	0	0	0
Hazardous Condition Calls (400-482)	0		0	0	0	0	0	0	0
Service Calls (500-571)	0		0	0	0	0	0	0	0
Good Intent Calls (600-671)	0		0	0	0	0	0	0	0
Severe Weather or Natural Disaster Calls (800-815)	0		0	0	0	0	0	0	0
Special Incident Calls (900-911)	0		0	0	0	0	0	0	0
Unknown Incident Type (UUU)	0		0	0	0	0	0	0	0
FALSE CALLS									
Malicious Calls (710-715, 751)	0		0	0	0	0	0	0	0
Other False Calls (700, 721-746)	0		0	0	0	0	0	0	0
Total False Calls	0		0	0	0	0	0	0	0
TOTAL CALLS	0		0	0	0	0	0	0	0

Total Incidents With Exposure Fires	0	Total Fire Dollar Loss	$ 0.00
Total Exposure Fires	0	Total Dollar Loss	$ 0.00

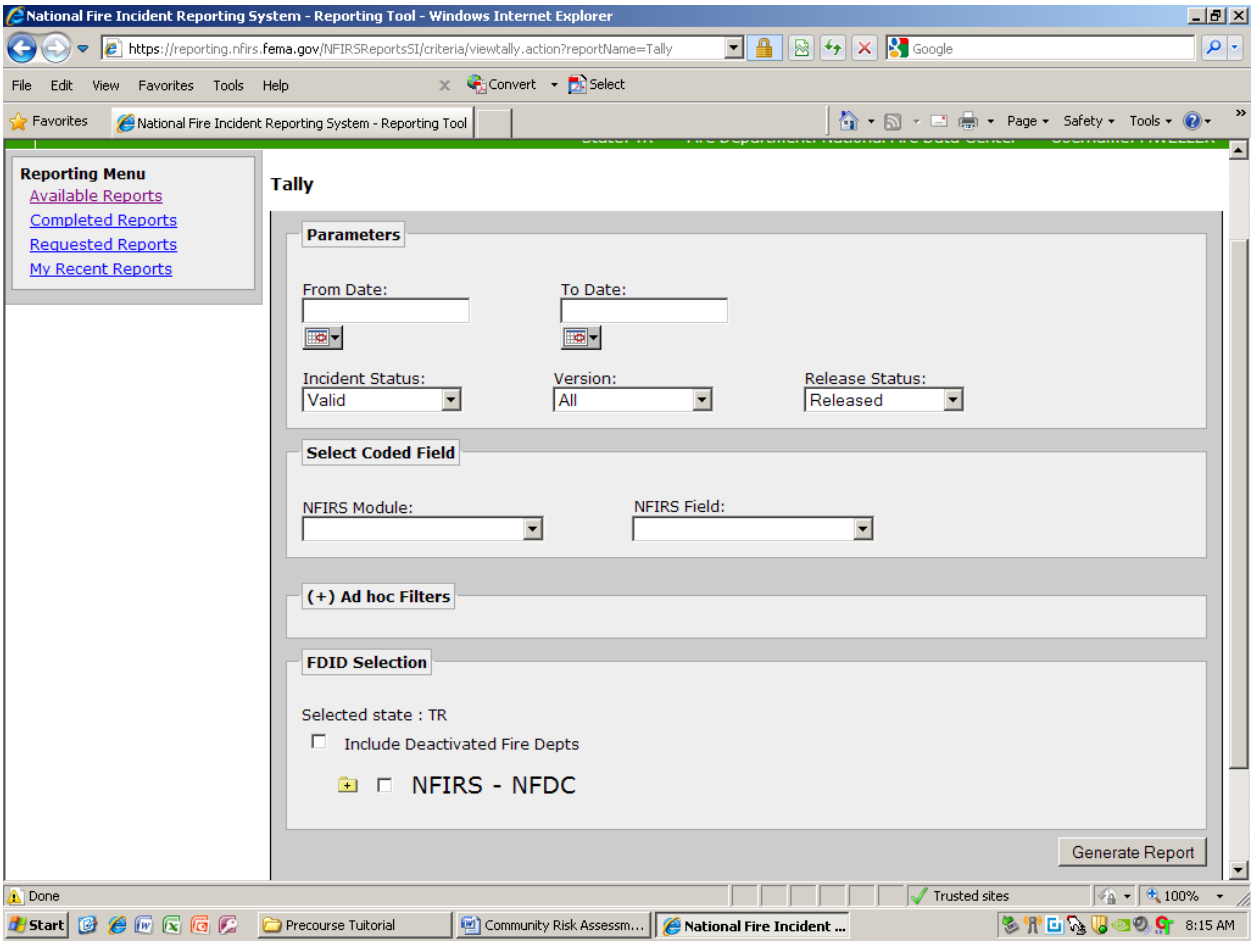
Casualty Summary	Civilian	Fire Service
Fire Related Injuries	0	0
Non-Fire Injuries	0	0
Fire Related Deaths	0	0
Non-Fire Deaths	0	0

Page 3 of 4 — *NFIRS 5.0 National Reporting System* — Fri Mar 05 09:34:22 EST 2010

9. Next, return to the Available Reports screen and select the Tally category.



10. You should see the screen that is displayed below. Follow the directions listed at the bottom of this screen shot.



A. Select the Tally report from Available Reports.

B. Enter the following parameters:

1. From Date (format mm/dd/yyyy)

2. To Date (format mm/dd/yyyy)

3. Incident Status = All

4. Incident Version = All

5. Release Status = All

C. Select the data field to display on the report.

1. NFIRS Module = (e.g., Basic Module)

2. NFIRS Field = (e.g., Incident Type)

D. Select the fire department to include in the report.

1. In the FDID Selection section, drill down to the fire department.

2. Check the box next to the fire department.

E. Generate the report.

1. Move down to the button named Generate Report.

2. Select Generate Report.

F. Print the report.

1. Select My Recent Reports from the Reporting Menu.

2. View the status of the report.

a. Submitted — the report is waiting to be processed.

b. In Process — the report is being created.

c. Completed — the report is created.

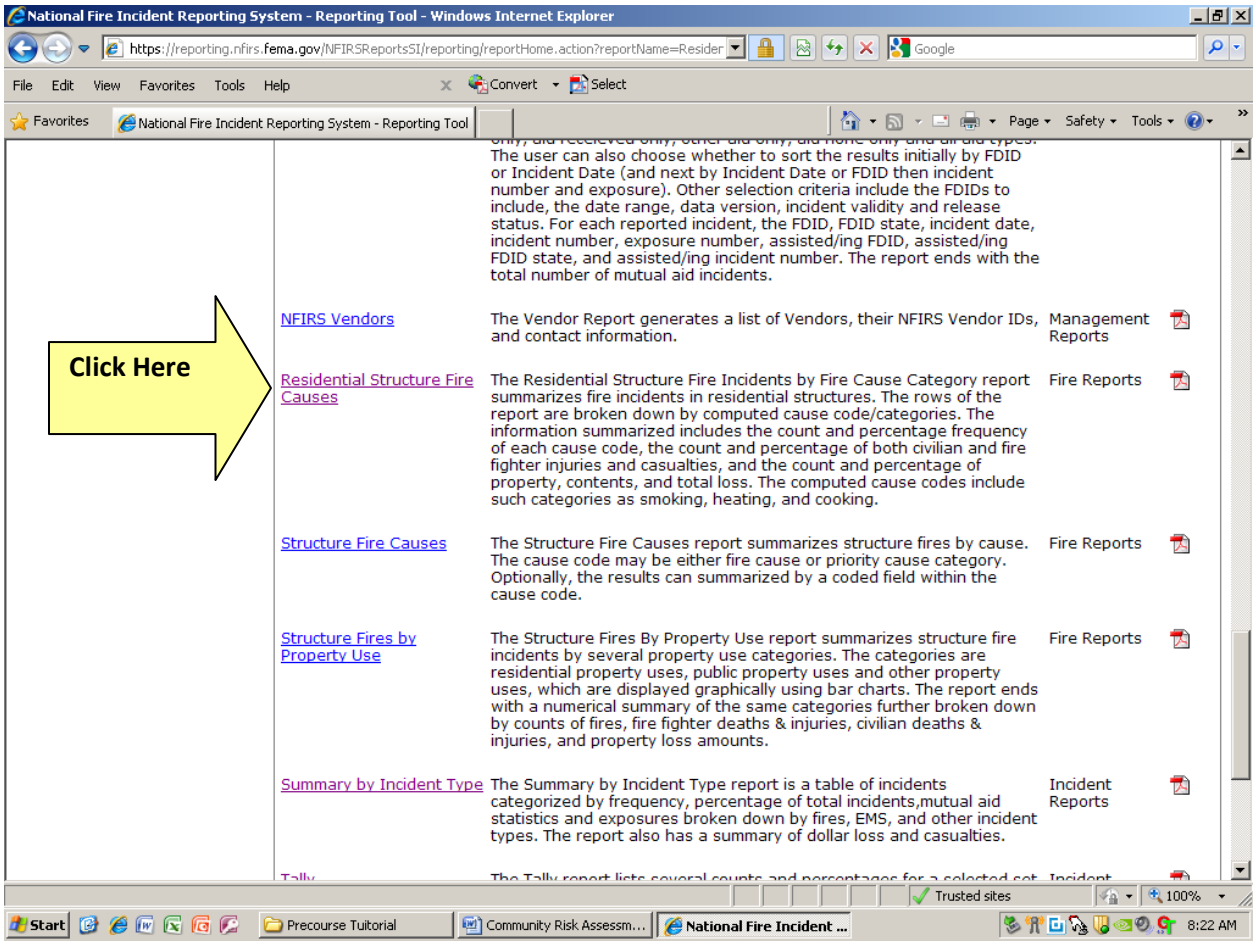
3. If the status of the report is completed, select the PDF version of the report from the Report Format section.

4. Open the report.

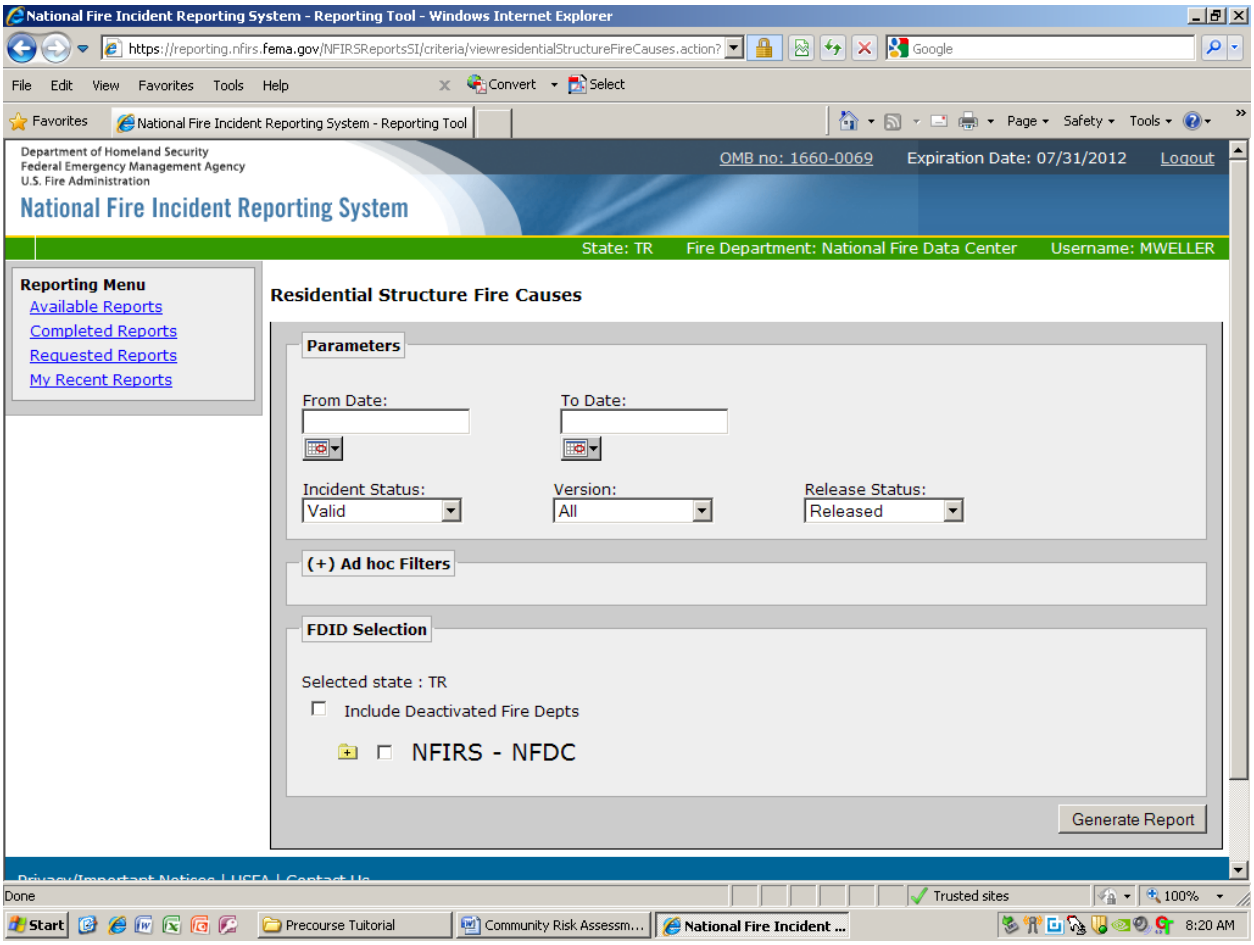
5. View and print the report.

6. Close the report after it prints.

11. Next, return to the Available Reports screen and select the Residential Structure Fire Causes category.



12. You should see the screen that is displayed below. Follow the directions listed at the bottom of this screen shot.



A. Select the Residential Structure Fire Causes report from Available Reports.

B. Enter the following parameters:

1. From Date (format mm/dd/yyyy)
2. To Date (format mm/dd/yyyy)
3. Incident Status = All
4. Incident Version = All
5. Release Status = All
6. Include Individual FDID Reports = blank

C. Select the fire department to include in the report.

1. In the FDID Selection section, drill down to the fire department.

2. Check the box next to the fire department.

D. Generate the report.

1. Move down to the button named Generate Report.

2. Select Generate Report.

E. Print the report.

1. Select My Recent Reports from the Reporting Menu.

2. View the status of the report.

a. Submitted — the report is waiting to be processed.

b. In Process — the report is being created.

c. Completed — the report is created.

3. If the status of the report is completed, select the PDF version of the report from the Report Format section.

4. Open the report.

5. View and print the report.

6. Close the report after it prints.

Summary of NFIRS Tutorial

Because fire departments and states take part in NFIRS voluntarily, NFIRS conclusions may not completely reflect the entire nation's fire experience.

Also, remember that when utilizing any type of data collection software, it is critical that everyone responsible for incident reporting does his or her job in an objective manner. Simply stated, this means that your department must set a protocol for how incidents are classified.

Here is an example: Consider the typical unattended cooking fire that occurs when a person forgets about a pan of oil being heated on a stovetop. Unless your department has agreed on how your staff will classify the incident, you may end up reporting one of several selections. Over a period of time, this subjectivity in reporting can lead to the creation of an unreliable set of data about unattended cooking fires whereby you cannot discern how many incidents of people walking away from a stove you actually respond to.

If you submit data to NFIRS, it is a very wise strategy to explore the NFIRS webpage thoroughly. There are many sections that include helpful suggestions on how to classify and report incident data.

Section Two — Other Human-Created Risks

1. In addition to fire, other human-created risks currently affect your community. Among them are motor vehicle collisions, pedestrian incidents, falls to older adults, and other preventable occurrences.

   These occurrences may happen so frequently that a community doesn't pay attention to their magnitude. Even worse, constituents (and even the fire service) may grow complacent toward solving complex, yet frequently occurring, preventable risks.

   This section begins by requiring you to examine the U.S. preventable injury problem. It culminates as you profile preventable occurrences other than fire that currently (or have great potential to) affect your home community.

   Access the CDC websites to source your data:

   - Centers for Disease Control and Prevention
     Youth Risk Behavior Surveillance System (YRBSS)
     http://www.cdc.gov/HealthyYouth/yrbs/index.htm
     Updated February 27, 2013

   - Centers for Disease Control and Prevention
     Injury and Violence Prevention and Control
     http://www.cdc.gov/injury/
     Updated January 31, 2013

- Centers for Disease Control and Prevention
  Injury Prevention & Control: Data & Statistics
  WISQARS™ (Web-based Injury Statistics Query and Reporting System)
  http://www.cdc.gov/injury/wisqars/
  Updated December 17, 2012

2. Using a reliable source of local data, profile the causes of preventable injury and death that affect **your** community most frequently. If your organization is responsible for EMS, the source may be your own response data. If not, consider your local EMS authority, hospital(s), or health department.

   If you cannot locate data specific to your community from a local source, consider using data published by your state.

   You should profile five causes of preventable injury or death using the following attributes:

   - Frequency of occurrence (by percent contrasted with total number injuries/deaths).
   - Morbidity and mortality (number civilians injured or killed annually by this type of incident).
   - Rate of rise for occurrences (are number of incidents rising, steady, or declining?).
   - Geographic distribution of occurrences (examine by Census Tract).
   - Financial impact to the victim, community, and your organization.
   - Population(s) most experiencing the specific type of incident.

   A **Human-Created Risk Worksheet** is provided for your benefit (beginning on the next page). Please produce a copy for each of the five causes of preventable injury you select. It is suggested that frequency of occurrence be used to select your leading occurrences to profile.

Human-Created Risk Worksheet

(You will need to make 5 copies of this worksheet.)

Incident: _____

Frequency (%)	
Morbidity/ Mortality	
Rate of rise	
Geographic distribution	
Cost (in $)	
Population(s) most affected by this risk	

Section Two Completion Date:

Section Three — Naturally Occurring Risks

While the majority of human-created risks are preventable, naturally occurring events are not. Examples include severe weather, earthquakes, extreme cold/heat, and drought. Although a community may not be able to prevent such events, loss can be greatly mitigated through a combination of pre-planning, resource allocation, and citizen preparedness.

While not preventable, most naturally occurring risks are predictable. Coastlines are more vulnerable to hurricanes. The South and Midwest regularly experience tornados. More snow falls in the northern portion of the country than in the South. Lightning-initiated wildland fires often occur in forests.

In addition to reducing fires and preventable injury, LSCRR advocates study of naturally occurring risks that currently (or have a potential to) threaten the risk-reduction leader's home community. Keep in mind potential loss of life, personal property, and overall vitality of the community.

A good source for information on naturally occurring risks is the University of Colorado — Natural Hazards Center

Look under the *Resources* tab to locate *Selected Web Resources* where you will be able to link to data on all-hazard issues.

Check it out ⇩

http://www.colorado.edu/hazards/

Please select three naturally occurring risks that currently (or likely will) affect your community. These should be significant events that don't occur often, but when they do, there is great potential for high impact.

Follow the instructions on the **Naturally Occurring Risk Worksheet** (beginning on the next page) to profile the risk. Next, offer an objective opinion as to your community's preparedness to mitigate the effects of a significant occurrence.

Naturally Occurring Risk Worksheet

(You will need to make 3 copies of this worksheet.)

Incident Type: _____

Prior frequency of event	
Past history of loss (life, property, and community vitality)	
Areas of community most affected	
Projected frequency of event	
Potential future losses (life, property, and community vitality)	
Current preparedness/ areas of concern	

Part Three Completion Date:

PART FOUR: IDENTIFYING ROOT FACTORS OF RISK AND

Read this section. Information from this section will be used in Units 1, 2 and 3.

Background Information

The roots of the U.S. fire problem are similar to those of the majority of other life safety risks in our country. Social, cultural, economic, and environmental factors are contributing elements that often lie at the core of risk.

Risk-reduction leaders must master how to identify, understand, and address how these factors are affecting fire risk at the **local** level. Of interest: many social, cultural, and economic risk elements often remain consistent regardless of community size; differences most frequently occur in environmental factors.

Social Factors

Social problems such as a lack of quality housing, affordable health care, inadequate or unavailable childcare, lack of education and job opportunities, etc., are all social factors that contribute to risk.

Government systems, or lack of systems and services, can greatly affect social factors. Peers, family members, societal trends, and commercial marketing efforts also can generate social influences.

Cultural Influences

Cultural influences are the values, beliefs, behaviors, etc., of a specific group. Cultural beliefs are learned over time and through experiences. These beliefs can have a great influence on a person or group's behavior.

Social and cultural influences are so interconnected that they often appear one and the same. Don't get hung up trying to overanalyze the differences. The point to consider is that both social and cultural factors/influences can have a huge impact on risk in America — both positively and negatively.

Economic Factors

Income levels often affect the risk of fire or preventable injury among populations. Families with low income may not be able to afford fire protection systems, quality housing, regular day care, etc.

National statistics clearly indicate that the risk of fire and preventable injury is higher among populations with low income. Economic factors include family, societal, and workplace influences that affect personal finances.

A strong local economy and workforce can influence the level of potential community risk in a positive manner. A broad-based spectrum of employment that offers an adequate number of jobs can lead to stable employment rates and a healthy, diverse community.

In contrast, a community that offers limited employment options with the majority being lower paying manufacturing positions may see higher numbers of people challenged by preventable risk.

Environmental Elements

The environment in which populations live and work can affect risk. Lack of fire protection systems, cluttered living conditions, fire load, poorly maintained housing, and substandard construction are examples of such factors.

Often environmental factors are compounded by a lack of building and fire codes, or the lack of retroactive application of those codes. The lack of fire protection systems in aging multifamily housing is a common environmental factor that contributes to the U.S. fire death rate plateau.

Contrasting Urban, Suburban, and Rural Fire Risk

Fire risk affects all communities regardless of size. Risk-reduction practitioners should be able to identify risks and associated factors specific to their community regardless of size.

Historically, emergency providers believed the demographics of urban, suburban, and rural communities were vastly different. As technology continues to affect our society, many of the old stereotypes about the starkly different characteristics of urban, suburban, and rural communities will gradually disappear. A common fact will remain: The lifestyles of families are influenced by social, cultural, economic, and environmental factors.

It is important to have an understanding of these elements and how they contribute to fire and other preventable risks. It also is important to examine populations that are more vulnerable to risk.

Identifying Risk Factors in Specific Populations

Community risk is best addressed based on the objective study of data. Many national organizations (i.e., the USFA, FEMA, NFA, and NFPA) have conducted extensive research and identified four populations known to be at higher risk from fire:

1. Young children (aged 5 and under).

2. Older adults (aged 65 and older).

3. People with disabilities.

4. People living in poverty.

Of interest, these populations consistently represent the groups that are most at risk from a plethora of other preventable occurrences.

Several factors can place people at greater risk for fire and preventable injury:

- age and gender;
- cognitive ability and intellectual level;
- physical, mental, and emotional condition;
- socioeconomic status; and
- community demographics and personal living conditions.

This is an important point to consider during the entire LSCRR course: When the risk factors that contribute to fire or preventable injury occur in combination, a person's vulnerability to risk may increase dramatically. For example: A visual-, hearing-, and mobility-impaired older adult living below the poverty level may be at much higher risk from fire than an older adult with only one of these challenges.

High-risk populations are at greater risk from the effects of most hazards, both natural and human-created. In addition to the four groups listed above, populations who speak little or no English can be included as a high-risk group in some communities.

In addition to the Census Bureau, there are many other community resources that may be useful when researching high-risk populations. Other sources for obtaining information on **local** community demographics:

Children age 5 and under:	Office of Community Development, Board of Education/School Districts, Head Start programs, child care associations.
Adults over age 65:	Office of Community Development, Commission on Aging, older adult advocacy agencies.
People with disabilities:	Office of Community Development, people with disabilities advocacy agencies.
People living in poverty:	Office of Community Development, Office of Housing and Urban Development, social service agencies, community action councils, advocacy agencies for low-income families.
English as second language and diverse cultures:	Office of Community Development, Board of Education/School Districts, Head Start programs, child care associations, social services, and community action council.

Complete the **High-Risk Populations Worksheet** for your community. Using data for your community, identify the current and projected population size of the groups listed on the worksheet.

High-Risk Populations Worksheet

High-Risk Group	Current Population Size	Current Geographic Distribution of the Population (ID Census Tracts/areas having the greatest populations of high-risk groups)	Projected Demographic Growth of Population over next 10 Years (ID Census Tracts/areas most likely to experience growth of high-risk populations)
Children age 5 and under			
Impoverished households			
Adults over age 65			

High-Risk Group	**Current Population Size**	**Current Geographic Distribution of the Population** (ID Census Tracts/areas having the greatest populations of high-risk groups)	**Projected Demographic Growth of Population over Next 10 Years** (ID Census Tracts/ areas most likely to experience growth of high-risk populations)
People affected by disabilities			
Populations who speak little or no English			

Impact of Fire and Preventable Injury Worksheet

Identify how fire and other preventable injury are affecting each confirmed high-risk group in your home community. Succinct summaries are encouraged. You will use this information during several EACRR units and the culminating course activity.

High-Risk Group	**How fire and other preventable injury is affecting the group at the *local* level**
Children age 5 and under	
Impoverished households	
Adults over age 65	
People affected by disabilities	
Populations who speak little or no English	

Part Four Completion Date:

Congratulations, you have completed the LSCRR Pre-Course Work.

The time and attention you have given to this process will provide context and meaning to the course you are about to take. Keep in mind that you will access this information, not only for the class but also as you develop future programs for your community.

Name _____

Date of class _____

Please note date completed	**Pre-Course Assignment Checklist**
	Part One: Examination of America's Continuing Fire Problem
	Peruse *America Burning*. Be sure to read page x in the introductory section (www.usfa.dhs.gov/downloads/pdf/publications/fa-264.pdf).
	Peruse Vision 20/20 — National Strategies for Fire Loss Prevention (www.strategicfire.org).
	Part Two: Building a Demographic Profile of Your Community
	Complete: Demographic Worksheet
	Part Three: Building a Risk Profile of Your Community
	Section One — Your Local Fire Profile
	Complete: Fire Risk Worksheet
	Section Two — Other Human-Created Risks
	Complete: Human-Created Risk Worksheet
	Section Three — Naturally Occurring Risks
	Complete: Naturally Occurring Risk Worksheet
	Part Four: Identifying Root Factors of Risk and Populations at Greatest Risk
	Read this section. Consider how fire and other risk issues are affecting high-risk groups in your community.
	Complete: High-Risk Populations Worksheet
	Complete: Impact of Fire and Preventable Injury Worksheet
	Should you have any questions about this assignment, please contact Mary Marchone, Training Specialist Email: mary.marchone@fema.dhs.gov Phone: 301-447-1476