National Emergency Training Center
16825 S. Seton Avenue
Emmitsburg, MD 21727-8998

FEMA

N0673

Dear National Fire Academy Student:

Congratulations on being selected to attend the U.S. Fire Administration's (USFA's)/National Fire Academy's (NFA's) "Service Area Risk Reduction" (SARR) course.

This course is designed for Company Officers (COs) who want to learn about community risk reduction and how it is done at the station level. You will conduct a risk asessment of your station area. This will lead you to develop an action plan with effective intervention strategies and activities targeting a specific risk. You will learn the steps to follow to complete a risk reduction program in an organized and planned process. This course is also directed at chief officers, administrative personnel and firefighters who want to learn more about community risk reduction to support the CO in station based delivery.

This course is about how COs can plan, implement and evaluate risk-reduction activities to benefit the citizens they serve. The course features the role of the officer as an inspirational leader for the risk-reduction cause. The course also provides an opportunity for you to apply risk-reduction activities in communities with diverse populations. A portion of the course is devoted to learning how to interact and work effectivity in intercultural settings.

Your pre-course assignment, as well as an example of a completed pre-course assignment, is enclosed with this letter. The example is provided to help you complete the assignment and to show you the level of detail expected to be successful in this course. Please follow the instructions on the assignment, and bring it to class.

This class is a six day with evening classes possible. Check with your host site for the schedule.

The Student Manual (SM) for this course is now available in a Bring Your Own Device (BYOD) format which will function on any electronic device. Please see the page following this letter for complete instructions on successfully downloading your SM. Please note: If you plan to bring/use an iPad, you may experience issues saving/storing/printing course assignments since there is no USB/thumb drive capacity for these devices.

If you need additional information related to your course's content or requirements, please contact Mr. Michael Weller, Fire Prevention Management Curriculum Training Specialist, at (301) 447-1476, or by email at michael.weller@fema.dhs.gov.

Sincerely,

Eriks J. Gabliks, Superintendent
National Fire Academy
U.S. Fire Administration

Enclosures

National Fire Academy Bring Your Own Device (BYOD)
Course Materials/Download Instructions

If you own an electronic device (laptop computer, tablet, etc.) and are familiar with its document reader functions, we are asking you to download the Student Manual (SM) before you travel to class and bring the preloaded device with you.

The **first step** is to download ADOBE Reader to your device. This will enable you to read and manipulate the course materials. ADOBE Reader can be used to comment and highlight text in Portable Document Format (PDF) documents. It is an excellent tool for note-taking purposes.

For Laptops and Computers

ADOBE Reader can be downloaded from www.adobe.com/downloads/. It is a free download. Please note that, depending on your settings, you may have to temporarily disable your antivirus software.

For Tablets and Other Similar Hand-Held Devices

ADOBE Reader can be downloaded onto devices, such as iPads, android tablets, and other hand-held devices. ADOBE Reader, for these types of devices, can be found in the device's Application Store using the search function and typing in "ADOBE Reader." Follow the instructions given. **It is a free application.** Note: In order to have the editing capabilities/toolbar, the document needs to be "opened with ADOBE Reader." There should be a function on your device to do this.

After you have successfully downloaded the ADOBE Reader, please use the following web link to download your N0673, "Service Area Risk Reduction" (SARR) SM. (You may copy/paste this link into your web browser.)

https://nfa.usfa.fema.gov/ax/sm/sm_n0673.pdf

Note: Please make sure you download the ADOBE Reader first. To open the SM, you will need to open the ADOBE Reader, then open the SM, and save from the web through the ADOBE Reader in order for the note-taking tools to work properly.

If you need assistance, please contact nfaonlinetier2@fema.dhs.gov.

Name: _____
Department: _____
Position: _____
Daytime Phone: _____
Email: _____

Dates of Class: _____
Type of Profile:
___ Entire Community
___ Station Service Area Only

Service Area Risk Reduction
Graded Pre-Course Assignment

Welcome to the "Service Area Risk Reduction" (SARR) course. SARR is intended to inspire Company Officers (COs) to lead and conduct risk-reduction activities within the service area of their station/community.

SARR is about how the CO can plan, implement and evaluate risk-reduction activities to benefit the residents they serve and those in the fire and emergency services who provide the services. The course features the role of the officer as a champion for the risk-reduction cause. The course also provides an opportunity for the CO to apply risk-reduction activities in communities with a diverse population.

You will learn that a broader approach to risk reduction involves multiple interventions, and when all are applied to a specific community risk issue, a difference is likely to occur, reducing risk for civilians as well as those in emergency services.

As part of the SARR course, you will complete a series of activities that will result in the creation of a draft plan of action for addressing a risk in your service area or community. You will need data from your local community to successfully accomplish this task.

Please note: If you are a company-level officer, you will seek information pertinent to your service area. If you are in a position that oversees an operation that is communitywide, you will seek information covering the entire area that your department serves. At the top of the page, you will see "Type of Profile" for you to indicate which type of area you are building a profile for.

We realize that some of the information asked for may be challenging to obtain. Please do your best to obtain the data, as it will build the foundation for a risk assessment of your community and service area. The instructors want to see that you put forth a good effort in obtaining the information to the best of your ability.

Most National Fire Academy (NFA) community risk-reduction courses have a pre-course assignment. While each pre-course assignment has sections that are exclusive to the specific course, nearly all require students to come to the NFA with data about their community's demographics and risk issues. Please check with colleagues who have recently (within the last year) attended an NFA risk-reduction course to see if they may be able to help you with data collection. Save the data you collect on your community, as you may be able to use it as a baseline should you attend future risk-reduction courses.

There are five parts to the SARR pre-course assignment. Directions are provided that identify the depth of effort you are expected to put into each part. The actions you need to take are in blocks and noted as "Action Items." Before you begin, here is a general overview of what you will be doing:

- Part 1 involves researching your department's mission statement. In addition, you will develop speaking points so you can discuss a current risk-reduction program that your department offers.
- Part 2 involves developing a demographic overview of your service area.
- Part 3 requires exploration of the man-made and naturally occurring hazards/risk issues that are impacting your service area. This section is the most labor intensive of the overall assignment. It also includes several Action Items.
- Part 4 requires you to describe a high-risk location within your service area.
- Part 5 asks you to sign up for Fire is Everyone's Fight®.

The SARR pre-course assignment is a graded assignment worth 100 points. Here is how you will be evaluated:

Assessment Area	Fair (8 Points)	Good (16 Points)	Excellent (25 Points)	Points Awarded
Part 1: Locate mission statement and identify current community risk-reduction programs.	Made minimal effort to locate the requested information.	N/A	Both mission statement and a current community risk-reduction program offered by your department are identified; **(or)** ample research concluded that your department has limited/ no such records available.	_____/25
Part 2: Define your service area and its associated demographics.	The geographic boundaries of the service area are defined but are missing details. Community demographics are explained, but details on two or more of the four environment types were missing.	The geographic boundaries of the service area are mostly defined. Community demographics mostly explained, but details on one or two of the four environment types were missing.	Both the geographic boundaries of the service area are clearly defined, and community demographics are effectively explained.	_____/25

Part 3: Analyze service demand data.	After analyzing service demand data, a profile of one or two types of fire and (if applicable) EMS incidents is created. Where a student is unable to gather the requested data for analysis, no explanation is provided in writing as to why the data could not be obtained.	After analyzing service demand data, a profile of two to three types of fire and (if applicable) EMS incidents is created. Where a student is unable to gather the requested data for analysis, some explanation is provided in writing as to why the data could not be obtained.	After analyzing service demand data, a profile of at least four types of fire and (if applicable) EMS incidents is created. Where a student is unable to gather the requested data for analysis, a thorough explanation is provided in writing as to why the data could not be obtained.	_____/25
Part 4: Explore high-risk sections of your service area.	Demographic and/or service demand data is explored to identify some potential high-risk neighborhoods or facilities in the service area. Many details on the contributing factors are missing, along with locality or building specifics.	Demographic and service demand data is explored to identify potential high-risk neighborhoods or facilities in the service area. Some details on the contributing factors are missing, and/or locality or building specifics are missing.	Demographic and service demand data are fully explored to identify potential high-risk neighborhoods or facilities in the service area.	_____/25
			Total Points	_____/100

Please plan to invest several hours working on the pre-course material. The written components of your assignment should be word processed, saved and brought with you to the NFA on your laptop computer (or other portable device).

So we can grade your work, please print a hard copy of the written components of the assignment. You will submit it to the instructors on the first day of class. The assignment should be placed in a binder or notebook and divided into sections. The instructors want to see you put forth a good faith effort in completing the assignment. It is not possible for us to evaluate your data. We know many of you will have issues in acquiring what is asked for in the assignment. The most important thing for you is to hand in your assignment the first morning of class. To ensure you receive credit, please use the correct format so we can see you completed the assignment to the best of your ability. Note: You do not have to print massive spreadsheets of response data. Simply bring those files with you in electronic format, as you will be using them in class.

Here is your assignment:

PART 1: YOUR DEPARTMENT'S MISSION STATEMENT AND COMMUNITY RISK-REDUCTION PROGRAMS

Most fire departments have a mission statement that provides a high-level directive as to the services it provides. Also, most fire departments offer community-based risk-reduction programs.

Action Items:

1. Copy your organization's mission statement and bring it to class.
2. Networking with peers is an important component of the NFA experience. You should be prepared to discuss a current risk-reduction program being offered by your department **that your station is involved with.** This could be any type of risk-reduction program, not exclusively fire-related. As part of the discussion, you will be asked to:
   - Explain the scope of the program.
   - Highlight both the strengths and challenges associated with the program.
   - Offer an opinion as to the level of impact the program is making and how it is being measured.
3. Please develop a brief (one or two paragraph) summary of each bullet point topic listed above. You will also need to be prepared to discuss the program during class.
4. Also, bring whatever you would like to support the above. Often, students will bring an overview of a program that can be shared electronically with others, such as a written overview, PowerPoint presentation, etc.

PART 2: DEFINE YOUR SERVICE AREA

A logical first step in the risk-reduction assessment process is the ability to succinctly explain the demographics of your overall city/community and the specific service area you protect. Think of this as being able to explain to a stranger what your city and specific service area look like within two minutes (you will be doing this in class, so be prepared).

As you learned in the online self-study courses, a good way to build a basemap of what your existing service area looks like is to divide it into four environments.

- Natural environment: includes the geography (landscape) of your service area, such as hills, valleys, vegetation, bodies of water, climate, weather, wildland interface, etc.

- Built environment: includes everything put in place by man. Includes the buildings, types of occupancies, housing density, construction types, etc. It also includes other critical infrastructure, such as highway systems, utilities, communication networks, etc.

- Social environment: includes everything relating to people, such as population distributions, ages, race, gender, culture, ethnicity, languages spoken, education levels, socioeconomics, etc.

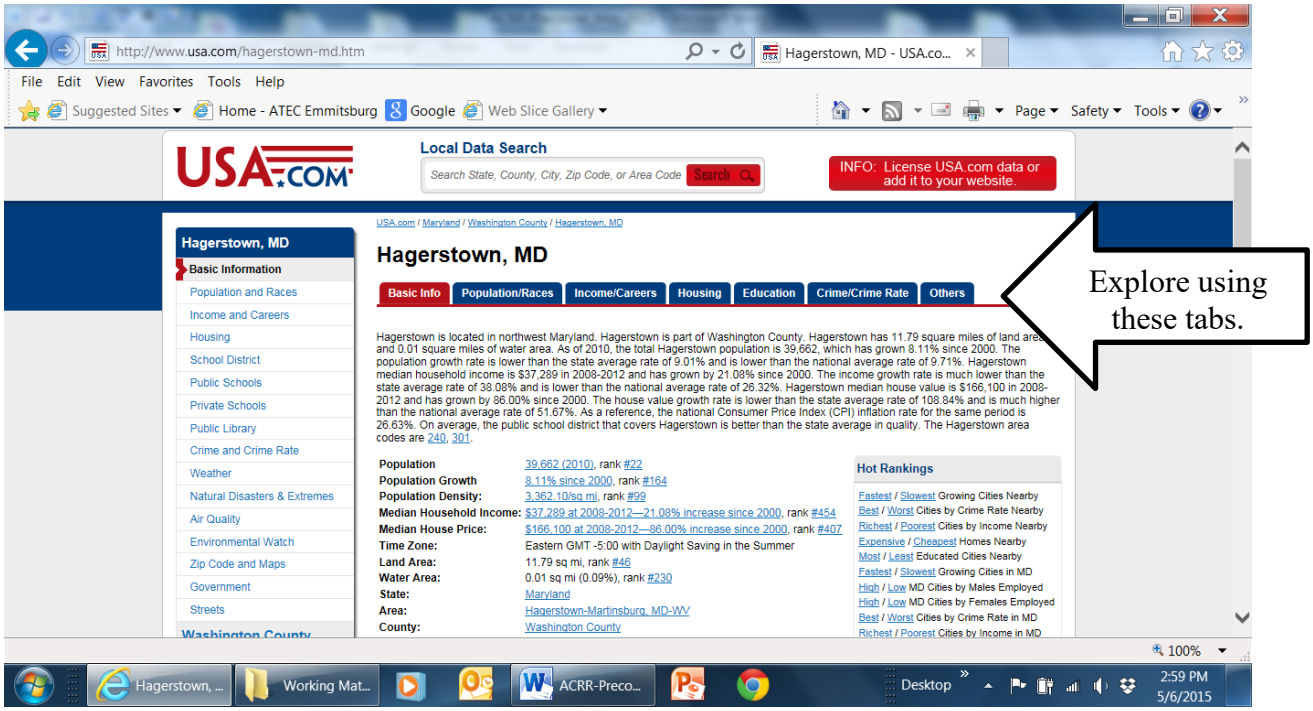
- Response environment: the Standards of Cover currently in place to provide response services. This includes station locations, equipment, staffing, training levels, response times, etc.

When exploring the social environment, a good web-based tool to help you build a brief but informative demographic profile of your community can be found at www.usa.com. This site provides up-to-date demographic information from the U.S. Census Bureau. Data for the Decennial Census is collected by the Bureau every 10 years and is used to determine congressional districts. The Decennial Census seeks to determine the number of people who live in a community.

Let us look at an example of how to get demographical information for a city (or community) as a whole.

You simply go to the website, search for your city and click on the basic information tab. Next, explore what is available under categories, such as population/race, income/careers, etc. An example screenshot featuring Hagerstown, Maryland, is displayed below.

Note: When initiating the search, please use your city's name followed by the abbreviation for your state, such as "MD," "PA," etc.



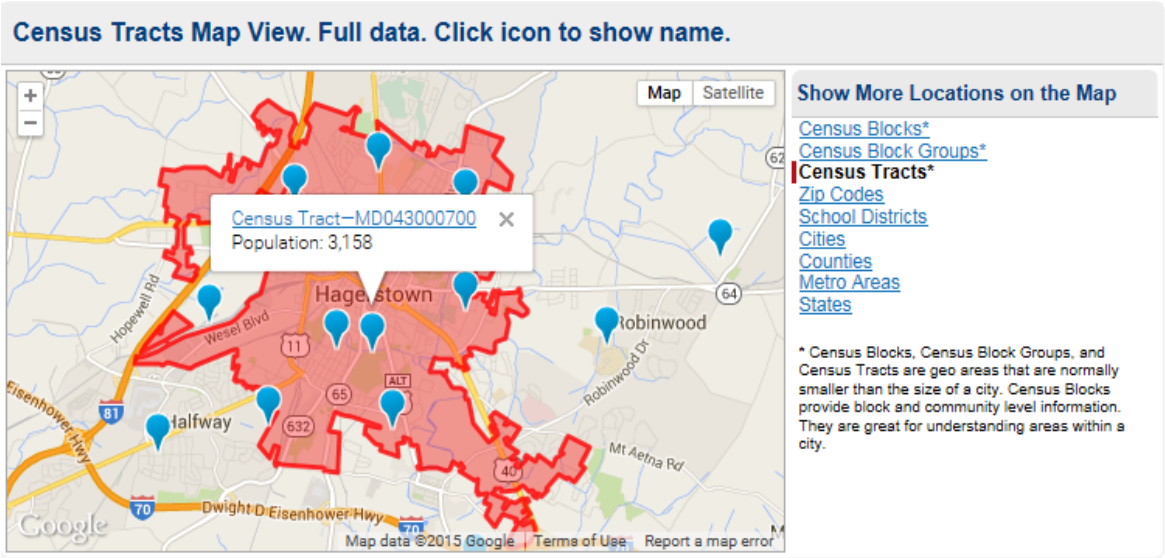
Stop and explore your city or community demographics, as a whole, to gain practice using the tool.

Let us continue with the next step. A second type of census, the American Community Survey (ACS), is as an on-going task of the Bureau. The ACS 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 ACS allows us to explore demographic data both communitywide and by census tracts. Census tracts are defined geographical areas within a city, town, county or village.

Census tracts generally have a population size between 1,200 and 8,000 people, with an optimal size of 4,000 people. Each tract carries a numerical identification. The number of census tracts in a community is based upon its size and population. The size of the tract is related to the number of people living there. You may be from a geographical area that has anywhere from a few census tracts (rural area) to hundreds of census tracts (urban city).

To drill down on smaller parts of specific geographical areas, census tracts can be divided further into census block groups and then into individual blocks. A census block group is a geographical unit that's between the size of a census tract and a census block. A block group is the smallest geographical unit for which the bureau publishes sample data (i.e., data which is only collected from a fraction of all households). Typically, block groups have a population of 600 to 3,000 people. A census block is the smallest geographic unit used by the bureau for tabulation of 100 percent data (data collected from all houses rather than a sample of houses). In an urban city, census blocks are often as small as one or two city blocks. Let us look at an example:



Recall the first screenshot example from Hagerstown, Maryland. What you see above is a screenshot displaying the bottom of the basic information page. We have clicked on the census tract field shown on the right side of the screen. The example is displaying the number of census tracts in Hagerstown. The red shaded area represents the corporate boundary of the city. Each blue balloon represents a census tract.

The only way to become proficient at using this tool is to practice with it. While it may appear a little intimidating as you begin practicing, this tool is very user friendly. You should now take some time to explore your city or community in a magnified scale.

Begin by searching for your city. (Remember to use the state abbreviation, such as “MD” or “PA.”) A map will be displayed showing the outline of your city. Go to the right side of the screen, locate the “Cities” tab and click on it. On the map, there should be a blue balloon identifying your city and the incorporated towns around it. There will also be a red dash beside the city category on the right side of the screen.

Next, locate the census tract feature and click on it. You should see a display similar to what is displayed on the Hagerstown screenshot above. Note: If you are searching an urban city, do not panic when you see a huge amount of blue balloons. Hagerstown has a population of 39,000. The larger the city, the more census tracts there are. Simply drill down on the area you wish to explore by clicking on it or using the zoom feature.

Find the census tract or tracts that represent the area you wish to explore. Click on the blue balloon for the census tract, and then click on the underlined link. You will notice the census tract area is highlighted, and there is an option to click on the purple balloons for census block groups. **Do not click on the block groups yet.** Stop and explore the demographics of the census tract first. Clicking on the map will give you a larger view of the area, including street names.

Next, click on one of the purple block group balloons. The area will enlarge on the screen and then give you balloons for block groups. Use the same process as listed above to explore the block

group you want to look at. **Caution: Do not click on the green balloons yet, as they will take you to individual blocks.**

Once you have explored the block group, click on one of the green balloons, and start exploring at the individual block level.

Note to our friends representing a Fire Protection District: In addition to census tracts, you may wish to explore data by ZIP code because of the size and geographical layout of your district.

Action Items:

This is not a major writing activity. Simply create notes so you can articulate the demographic characteristics of your city/community **and** your particular service area. You can either make your notes as bulleted points or in paragraph format.

1. Please build, and be prepared to present, a brief profile that includes:
   - Natural environment.
   - Built environment.
   - Social environment.
   - Response environment.
2. As part of the social environment, please be sure to include:
   - Total population of your city, community or district.
   - The geographical and population size of your service area.
   - Presence and distribution of races, cultures, age groups, etc., present in your service area.
   - Economic drivers that support the community's tax base, such as key businesses, industries, sports complexes, etc., located in your service area.
   - Social issues that challenge your service area, such as poverty, educational levels, crime/violence, gangs, substance abuse, etc.
   - The presence and distribution of high-risk populations in your service area, such as young children under age five, older adults age 65 and over, people with disabilities, people impacted by poverty, and those who speak limited or no English.
   - Other high-risk conditions, such as aging buildings, high-density housing, absentee landlords, building construction types and key target hazards.
   - Any other demographic that is unique to your service area.

PART 3: ANALYZE SERVICE DEMAND DATA

Accurate risk assessment is essential to a strategic and successful risk-reduction process. As part of the NFA experience, you will be graded on how well you define and prioritize the risk issues facing your service area and its people. You will also be graded on how well you **justify** your decisions.

A key first step is creating an accurate profile of the risk issues that are impacting the **city or community as a whole.** Risk issues are generally explored in two categories.

- Man-made incidents, such as fires, preventable injuries and intentional acts of violence.
- Naturally occurring events, such as violent weather and its associated impacts.

As a CO candidate, the NFA wants you to have background information about the risk issues impacting your city/community as a whole **and** at the service area level. In addition, if your jurisdiction provides emergency medical services (EMS), you should also explore data so your fire problems can be compared with medical response. The same holds true if your city is in an area that is impacted by severe weather and there is a history of major (or very frequent) events.

Building an accurate and objective risk profile of a community takes time and effort. Accurate means that you need good data; objective means you need enough of it. Before you begin searching for data, a logical first step is to find out if your department has ever completed a communitywide risk assessment.

Action Items:

1. Check with your organization's senior leadership to find out if your department has ever conducted a community risk assessment. Please indicate whether the answer is yes or no.
2. If yes, what specific risk issues were identified, and what is your department doing to address them? Also, how does your station fit into the overall process of community risk reduction?

Unfortunately, many fire departments have limited or even no experience with community risk assessment. Whether your department has or has not done a risk assessment, the following section is critical, as you will be prioritizing a risk, population(s) and service area to address as part of the SARR course.

Part of the NFA learning experience is for you to discover the abilities, strengths and weaknesses of your data-collection systems. Without good data, it can be very hard to objectively drill down to the nitty-gritty and prioritize risk issues that deserve attention. This is particularly true when an incident type is slowly rising over time.

Please do your best on this next action item, as you may find that obtaining what is being asked of you turns into a challenging process. You will need to come to the NFA with an objective profile of **at least four risk issues/service demands** that **could be considered** a potential priority to address. You will make a decision during class on what issue to focus on for your final course project.

To determine the risk issues/service demands that are worthy of priority consideration, you should explore the following:

- How often the incident(s) occurs.
- Are the numbers of incidents rising, falling or remaining steady?
- Where the incidents are happening and who they are impacting.
- The cost of the incidents in terms of deaths, injuries and property damage.
- The impact on the quality of life and vitality of the city and service area.
- The impact/cost to your department for providing service caused by the incidents.

Gathering a broad spectrum of evidence on the issues you explore will make it easier to select a specific type of incident to focus on during the SARR course. Please note: You do not have to (and should not) build this profile alone. **Seek help from others within your department who have the data.** Also, to help you create this profile, talk with those who respond to and/or investigate incidents.

Action Items (cont'd):

The following Action Items begin with exploration of residential structure fire response data.

To support this assignment, the U.S. Fire Administration (USFA) will provide you with (or direct you on how to get) five years of residential structure fire data that your department has reported to the National Fire Incident Reporting System (NFIRS). However, the NFIRS will only be able to show you the response data pertinent to your department, not your specific station/service area.

Examine the residential structure fire data that has been reported to the NFIRS by your department.

Next, because NFIRS data only reflects the incidents handled by your department as a whole, it is important to seek information from your department's Records Management System (RMS) so you can drill down to what is happening in your station's response area. Most departments use a third party's RMS software like Firehouse, FIRE RMS or others.

Action Items (cont'd):

Ask your data collection supervisor to provide data from your department's RMS (if you have one) so you can explore data pertinent to your service area. Note: There is no writing involved until you reach the bolded directive at the end of this Action Item.

- Examine the residential structure fire incidents your department responds to and compare the responses with those that your specific station is making. As with the NFIRS data, collect one-year summaries for a five-year period so you have a data set to work with.

- Compare this set of data with NFIRS data to explore if any gaps or discrepancies in reporting are identified. If you discover any issues (and you well may), be prepared to discuss your challenges when you come to the NFA.

- Next, using your RMS data, attempt to get specific on the types and causes of residential structure fires that your department responds to and those that your specific station is handling. Try to build a profile that will show the number of incidents, injuries, deaths and property loss per type of structure fire, such as cooking, heating, smoking, arson, etc.

- Next, if your department provides (or supports) EMS, please generate a data set that will allow you to explore the types and frequency of EMS calls your department responds to and those handled by your specific station. As with fire data, try to get specific so you can track motor vehicle collisions, falls, cardiac-related incidents, overdoses, poisonings, etc. Local hospital and state health department data can help build a profile of preventable injury events, such as falls, motor vehicle collisions, poisonings, assaults, etc.

Caution: Try to avoid putting your data into huge categories like building fires, preventable injuries, weather-related, etc. Attempt to get specific and identify the types of fire incidents, such as unattended cooking fires, portable heater fires, smoking-related, youth firesetting, arson, etc. Do the same for injuries, such as ground-level falls, car crashes, pedestrians struck, overdose, poisoning, etc.

- This is a part in the assignment where you may encounter frustration and discover weaknesses in how your department is reporting/tracking incidents. Consider this question for discussion at NFA: How can you drill down and identify incidents, such as cooking, heater and smoking-related fires, if these causes are only tracked as building or structure fires? The same holds true for EMS incidents.

- Do not give up here. **Do your best with the data you have to work with.** What the NFA expects is that you come to class being able to show that you have worked to identify/justify several risk issues that deserve attention.

- Next, explore the number of nonemergency issues your department and your station are responding to. Reducing the number of false alarms due to some sort of malfunction or cutting the number of calls for lift assists involving uninjured people are also components of risk reduction. These types of incidents may be costing your department a lot of money and tying up resources, making them unavailable for emergencies. They also may be contributing to continuous wear and tear on your emergency equipment and staff. Sleep deprivation is a contributing cause of work-related mistakes and depression.

- 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 preplanning, 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 southern. Lightning-initiated wildland fires often occur in forests. Flash flooding can happen anywhere.

- If naturally occurring risk issues are prevalent in your city, please create a profile of what happens, when, how frequently, where, who is impacted, and the overall costs associated with the risk(s) identified.

- Finally, talk to your fellow officers, firefighters and EMS providers. Ask those who serve with you their opinions of what constitutes the most pressing risk issues facing your department and the service area you cover.

Writing assignment

Identify at least four types of incidents that you deem to be worthy of further investigation. Create bullet point statements under each risk that provide justification of why you believe the type of incident should be considered. If you can, try to build a profile of where incidents occur most frequently in the community and who they impact.

Note: It is a wise strategy to identify a fire incident, an EMS-related issue and a nonemergency service demand as part of your four selections.

While at the NFA, you will select a specific risk and create an action plan to address it.

PART 4: EXPLORING HIGH-RISK SECTIONS OF THE SERVICE AREA

Comparing demographics and service demands can help identify potential high-risk neighborhoods in your service area.

Action Items:

1. The final step in this pre-course assignment is to select a location that you believe is a high-risk environment in your service area.

   - This could be a specific response area, neighborhood(s) or even buildings that create a high service demand for your station. Identify the contributing factors, such as poverty, an aging community infrastructure, an aging population, fires, EMS calls, crime, unemployment, older buildings, housing density, population transience, percentage of homeowners versus renters, cultures, language barriers, neglected buildings and systems, etc., that combine to make this a high-risk area.
   - Equally important: Are there specific buildings or localities (like a college campus or assisted living complex) that create a high service demand for your stations? (Do not forget to consider those nonemergency incidents that tax your time and effort.) If so, explain the factors that are contributing to the situation.

2. Use the RMS response data you gathered and discussion with your station staff as you process this section.

3. Please identify any high-risk/high-frequency areas in your service district, and justify your consideration with several bullet point responses.

PART 5: FIRE IS EVERYONE'S FIGHT

Sign up for Fire is Everyone's Fight. This national effort is led by the USFA to lower the number of home fires and home fire injuries in America. Along with USFA and partner organizations across the country, the fire community is speaking out with a unified message of fire prevention and safety to the public. The goal is to change how people think about fire and fire prevention, using social marketing strategies to address the broadest audience.

Action Items:

1. Go to https://www.usfa.fema.gov/prevention/outreach/fief/. Scroll down the page until you see the box on the right to register as a partner to use the Fire is Everyone's Fight logo on materials you create. The Fire is Everyone's Fight logo is trademarked, so we require that you complete a simple registration form to use it. Once you register, you will have access to various versions of the logo optimized for website, print and online materials.

2. You are encouraged to download the Fire is Everyone's Fight Guide at: https://www.usfa.fema.gov/downloads/fief/fief_outreach_guide.pdf. This will help you develop creative ways to engage your community.

Congratulations! You have completed the pre-course assignment for the SARR course. You, your department and the community you serve will benefit from this effort.

Parts 1 through 4 of this assignment are graded. If you have any problems or questions, please contact:

Mike Weller, Program Manager
Email: michael.weller@fema.dhs.gov
Phone: 301-447-1476

EXAMPLE

Applications of Community Risk Reduction
Graded Pre-Course Assignment

Name: Marta Wolfe
Department: Hamilton Fire Department
Position: Lieutenant

Dates of Class: June 20XX
Type of Profile:
___ Entire Community
X__ Station Service Area Only

PART 1: HAMILTON FIRE DEPARTMENT MISSION STATEMENT AND COMMUNITY RISK-REDUCTION PROGRAM

Mission Statement

The mission of the Hamilton Fire Department is to protect and enhance the quality of life for those who live, work, visit and invest in our community. We will accomplish the mission with proactive community risk-reduction strategies and quality emergency response.

Community Risk-Reduction Program — Hamilton Fire Department Door-to-Door Safety Canvassing

For over two decades, the Hamilton Fire Department (90 career staff/25 volunteers) has conducted comprehensive door-to-door canvassing of the community. The goal of canvassing is to personally discuss fire safety with residents and ensure working smoke alarm protection in all city homes. Departmentwide, firefighters personally visit more than 4,000 homes annually. There are approximately 19,000 residences in the city. Since 1983, Hamilton firefighters have installed close to 27,000 free smoke alarms in more than 12,000 homes.

Fire Station 4, where I am assigned as a lieutenant on the engine, participates in all community risk-reduction programs offered by the Hamilton Fire Department. We are very active with the Home Safety Visit Program because the demographics of our service area are high-risk.

Our station approaches the safety visits very strategically. We proactively visit homes/apartments in our service area during the time period of April through October (roughly during daylight saving time). Our mission is to speak face to face with citizens, educate them about our priority risk issues, evaluate smoke alarms and install them when needed.

A core impact objective of our home safety program is to get working smoke alarm protection that is less than 10 years old on each living level of homes.

Station 4 serves the greater downtown and immediate surrounding area within Hamilton. Our area includes the highest number of rental properties inhabited by financially challenged residents. Ninety percent of Hamilton's structure fires occur in rental units. Assuming that lower-income households are at an increased risk for a fire, the fire department has made a concerted effort to reach out specifically to this vulnerable population.

While going door to door is not the most popular task on our firefighter's list of duties, the majority of our station staff support the strategy because it works. We physically get into places where we should be, impart knowledge and check/install smoke alarms. Our firefighters also get to observe firsthand the layout of buildings and construction features, which enhances fire suppression abilities and firefighter safety.

PART 2: STATION 4 SERVICE AREA

The City of Hamilton

Hamilton is located in Woodward County in the heart of the beautiful Leighland Valley. Hamilton is home to approximately 41,000 citizens. The population of Woodward County is currently 145,000.

As Woodward County's largest city, Hamilton has a center core where small area specialty shops and restaurants offer a range of entertainment opportunities. The downtown area includes a university center, a stunning theater for the performing arts and one of the most beautiful natural parks in America.

Many restored Victorian-style homes dot the immediate periphery of downtown. The area adjoining downtown to the east and south includes multiple well-established neighborhoods sporting their own unique cultural flair. Several neighborhood markets serve as gathering points for residents.

The outside circumference of Hamilton includes areas of residential, commercial and retail development. These additions have boosted the city's tax base and permitted a modest expansion of public services prior to the great recession.

Station 4 Response Area

Station 4 is located just west of the immediate downtown periphery of Hamilton. The station houses an engine, tiller-ladder and medic unit. The fire units are staffed by an operator, lieutenant (or senior firefighter) and a line firefighter. The EMS unit is staffed by an emergency medical technician (EMT) and a paramedic. Our engine makes approximately five fire runs a day, and the truck averages two calls. The medic unit is busy and sees about 10 calls per shift.

Station 4's response district is the smallest in geographical size but serves one of the oldest and most densely populated areas. Housing stock is comprised mostly of old wood-frame homes that have been converted into duplexes and apartments. Eighty-four percent of homes are inhabited by renters.

Census Bureau data/maps show that the Station 4 area covers roughly two of the 14 census tracts in Hamilton. There are approximately 2,800 residential "units" in the response district. A "unit" counts as a residence. Hence, a 10-unit apartment counts as 10 homes. A little over 8,000 people reside in Station 4's response area.

While the majority of Hamilton is inhabited by Caucasians, Station 4 serves the most diverse population. Fifty-nine percent of residents are Caucasian, 26 percent are African American, 9 percent are Hispanic and the remainder are defined as "other." Census data indicates the number of Hispanic residents to be rising. Discussion with firefighters supports this finding as well. Several dialects of Spanish are spoken in our district. There are no Hispanics in the fire department.

Census data indicates the number of older adults (age 65 and older) to be increasing in Station 4's service area. Again, response data and discussion with firefighters support this trend. While there are no notable economic drivers that support the community's tax base, such as key businesses, industries, sports complexes, etc., located in Station 4's service area, there are a very high number of rental occupancies. Of course, the owners of these occupancies pay taxes on their investments.

In addition, there are two elementary schools and a Head Start center in Station 4's area, along with several child care facilities. There are two public housing complexes, and each has a community center. There is a chain grocery store, several neighborhood convenience stores, two fast-food restaurants and multiple pizza establishments. There are several liquor stores, and the convenience stores are permitted to sell wine and beer.

There are a number of social issues that challenge the quality of life in Station 4's area. Poverty is disproportionately higher in our response area as compared to other districts in the city. There are two public housing complexes and a high number of Section 8 homes. The unemployment is high, and many residents do not work. Very few residents in the service area have greater than a high school education. While organized gangs are relatively nonexistent, delinquent adolescents are an issue. The area is also plagued by a significant substance abuse problem, most specifically alcohol and heroin. In turn, this has created domestic violence issues, assaults and petty-level crime.

There are several high-risk populations/demographics in the Station 4 service area:

1. Nearly 90 percent of the households are low to moderate income.

2. Many households are led by a single mother with several young children under age 5. Supervision of small children is often an issue in the homes.

3. People who display an overall "lack of personal responsibility" are frequent users of Station 4's emergency services. Our personnel get very frustrated when they visit a home where a free smoke alarm had been installed by the fire department, only to be removed by an occupant. These properties often have other issues as well, such as occupants who are substance abusers.

4. The working poor are a concern to our staff. In some homes, the adults work so many hours that they are not at home often. This, in turn, creates issues with unsupervised children and teens. It also leaves little time for adults to receive or focus on safety information.

5. The number of older adults who are attempting to age in-place within their home, but lack an organized support system, is a rapidly growing high-risk population. Physical disability challenges many of these residents. Hoarding is an issue in some homes. In general, the older adult population in Station 4's area is staunchly independent and wary of accepting assistance from anyone.

6. Last decade's recession brought with it an unexpected challenge to Hamilton: an increasing number of non-English-speaking citizens. Desperate to find work in the fruit orchards within Woodward County, many Hispanic families moved to the lower-rent housing which is located in Station 4's area. The Hispanic population is comprised of large families with many households being multigenerational. Hoarding is an issue, as the population seldom discards possessions. This group also requires multiple sleeping areas. Language barriers are an issue for city staff (including the fire department) who attempt to serve this population. Those who live here are working hard but struggling to make ends meet. In general, this population keeps to themselves and does not trust public officials. While Station 4 does not make many fire runs to Hispanics households, we struggle to communicate with residents who summon EMS care.

7. The construction and density of the housing stock is a huge concern to Station 4 personnel. Other than the public housing complexes, most of the residential housing stock is old wood-frame buildings that were built prior to 1940. Many are Victorian-style homes that were formerly grand, single-family homes when the railroad supported the bulk of commerce in Hamilton from the 1920s to the 1960s. When the railroad industry faltered, homes were sold to investors who transformed them into multioccupancy rental properties. There are multiple blocks of these balloon-frame buildings standing just a few feet apart in our service area. Many are inhabited by various high-risk populations. Absentee landlords, many of whom neglect their obligations as property owners, are a major problem in this area. Property owners have vehemently resisted efforts on behalf of the City of Hamilton to address the substandard housing issues.

PART 3: ANALYZE SERVICE DEMAND DATA

Risk Assessment and Community Risk-Reduction Programs

The Hamilton Fire Department has a community risk-reduction unit. It includes four personnel who are cross-trained as fire scene investigators, building inspectors and community risk-reduction specialists. One of the staff members has extensive training/experience in leading strategic community risk reduction. He is the team leader of the unit.

The Hamilton Fire Department conducted their first communitywide risk assessment over 20 years ago. Fire department personnel were not surprised to learn that risks, such as unattended cooking fires in rental properties, electrical issues in old buildings, vehicle crashes and pedestrians struck, occurred very frequently.

The community risk-reduction unit developed programs to address the issues listed above. While the unit led the overall community risk-reduction process, the actual program delivery has always been a co-responsibility of the line firefighting staff (including officers).

Over time, most of the community risk-reduction programs have proved to be effective. The leader of the community risk-reduction unit advised that cooking fires have been reduced by nearly 20 percent over a long-term period. While vehicle collisions are still a significant issue, the occurrence of vehicle versus pedestrian incidents has reduced steadily through the years. He attributes the success to a task force that has been addressing the issue over the long-term. Electrical issues in the old buildings are still a problem. We see that at the station response level as well.

National Fire Incident Reporting System Data Review

The Hamilton Fire Department NFIRS coordinator is the community risk-reduction team leader. He was able to run me 10 years of Tally by Incident Sheet reports so I could look at the overall run experience of our department as a whole. I have the tally sheets on my computer and a thumb drive for review.

We looked at the data together, and he pointed out what a mess our data reporting system was when he became the community risk-reduction team leader 20 years ago. He further explained how the senior leadership and station officers worked together to create a "cheat sheet" (per se) so those entering reports into NFIRS would do so in a more objective manner. Seeing the data in "big picture format" made me understand even better why our department has such a strict reporting protocol.

The community risk-reduction team leader next pointed out some trends that are concerning him and other senior officers:

1. The Hamilton Fire Department, as a whole, is seeing a steady increase in smoke alarm malfunction calls. He believes it is due to aging electrical units that are simply outdated and need to be upgraded.

2. The department is seeing a slow but steady rise in the number of electrical fires in older commercial structures and aging apartment buildings. This is an expensive issue.

3. The number of EMS calls in general is increasing. He believes a lot of that has to do with the number of established residents who are either aging in-place in their home or moving to nursing care facilities in our city.

Hamilton Records Management System Data Review

The community risk-reduction team leader provided me with 10 years of RMS data for our department (both fire and EMS). We reviewed the data together and compared it with NFIRS data. Overall, the RMS data seemed to match up with that from NFIRS. We both agreed that the Hamilton Fire Department still reports too many "other" entries to NFIRS. He said the reason our RMS data would likely be more accurate is because it will not let an entry of "other" be made

without an exception being noted. I have this RMS data on my computer and thumb drive and will be prepared to display it while at the NFA.

Four Specific Incidents to Consider at the National Fire Academy

The following represents four types of incidents (specific to their occurrence in Station 4's response area) that I feel are worthy of consideration to address as a project when I attend the NFA:

1. Heroin Overdose — This is the most rapidly rising type of EMS call that our medic unit handles. Further inquiry revealed that nearly 15 percent of the heroin overdose calls we answer end up being fatalities. Most of the incidents involve people between the ages of 19 and 40. There seem to be an equal number of male to female patients. The location of incidents is spread pretty evenly throughout our response area. I spoke with a close friend who is part of the police department's narcotic unit, and she indicated the heroin problem is "way out of control."

2. Falls Among Older Adults — This incident type has been steadily rising for the past several years. The typical incident involves an aging person who lives alone in their home. He or she (usually female) slips, trips or experiences a balance or dizziness issue causing them to fall. Sometimes the person simply cannot get up and call for help. More times than not, the patient experiences a significant injury. Sometimes the patient lies injured for hours or days before they are discovered. Many of these patients are not able to return home. These incidents occur throughout our response area. Our firehouse staff is very passionate about this issue. Everyone wants to help our aging population because everyone has parents or grandparents.

3. Youth Firesetting and Adolescent Fire/Explosive Device Use — This incident type is rising (albeit slowly).

   First, we experience our share of unsupervised young children playing with lighters in their homes. This type of incident is typically brought to our station's attention when a parent brings their child to the station seeking help with an on-going situation. Thankfully, we do not respond to many fires caused by this type of behavior. These types of incidents occur throughout our response area.

   Second, we are responding to injuries involving adolescents who are experimenting with fire and explosive devices (including bottle bombs). These are injuries caused by adolescents who have obtained information about fire and explosives on the internet and are experimenting with various products. The experimentation gets out of control, and an injury occurs. Fortunately, no serious fires, major traumatic injuries or deaths have happened yet. These types of incidents occur throughout our response area.

4. Significant Residential Structure Fires — This incident type is tricky to explain, but expensive and potentially deadly. Station 4 is experiencing a steady increase of working residential structure fires. The fires are occurring in rental properties (not public housing) across our response area. While we cannot pin down one (or even three) specific fire causes, the root behaviors surrounding the fire incidents involve some type of irresponsible action, such as unattended cooking, portable heater use near a bed, unsupervised children, unsafe smoking practices, overloaded extension cord, etc. This type of incident/scenario (albeit generic) is one that frustrates, and frankly scares, our firefighters, as they are the ones who have to risk their lives to extinguish fires in these occupied homes. The location of incidents is spread area-wide with the exception of our public housing complexes. The population most impacted seems to be low-income, large families who reside in rental occupancies that are in some state of disrepair.

Note: I have not assigned a priority to any specific type of incident. I will do so as part of the NFA experience.

PART 4: HIGH-RISK ENVIRONMENT

Without question, I had to further explore the locations of the multiple working structure fires that I outlined in the last section (Number 4). The Red Cross Mapping Tool helped me further define a specific "neighborhood" where a higher frequency of the working fires is occurring. That area is Franklintown.

Franklintown is roughly an eight-block area located just two blocks north of our station. I used the USA.com website and explored the demographical data at the census block group and individual census block level. It showed me that we are looking at only about 250 homes but a population of about 1,500 people.

People in this neighborhood are challenged by low education levels, very low income and a high rate of unemployment. This neighborhood is right in the middle of the multiple-block area where the wood-frame homes stand very close to one another. Buildings are in poor condition. Residents and landlords do little or nothing to make them better.

I next looked at our RMS response data for this particular neighborhood. To no surprise, we run more fire and EMS calls to this neighborhood than in others. My colleagues echoed this opinion, and so did the police officers who frequent our station. The police also said that population transience is extremely high in Franklintown with families moving in and out regularly for a multitude of reasons.

If pressed to proclaim a leading type of fire cause in this area, it would have to be unattended cooking. We run a lot of fires that cause significant damage after people put oil in a pan late at night to fry food, turn the stove on high and then leave the kitchen for whatever reason. With regard to EMS incidents, it would have to be drugs, alcohol and domestic violence.

Franklintown does not have a neighborhood association. The primary gathering points for people during warm weather months are in front of homes and in back yards.