

Ministry of Education and Science of Ukraine
Ukrainian-American Concordia University
Faculty of Management and Business
Department of International Economic Relations, Business & Management

BACHELOR'S QUALIFICATION WORK

**MACROECONOMIC IMPLICATIONS OF NATURAL
DISASTERS IN THE UNITED STATES
(based on THE BOY SCOUTS OF AMERICA ORGANIZATION case)**

Bachelor student of the 4th year of study

Field of study 29 – International Relations

Specialty 292- International Economic
Relations

Educational program – International
Business

Elina Vlasova

Research supervisor

Natalia Chaplynska
Ph.D. in Economics

Abstract

The work focuses on the economic impact of the natural disasters. It was found that natural disasters have significant impacts on the economy, including supply chain disruptions, businesses closures, infrastructure damage, etc. At the same time, such areas as banking and construction can have a positive affect from these devastating events. Natural disasters can also lead to long-term economic stagnation in the effected areas.

When making the research, the materials of “The Boys Scouts of America” organization were used, which included their fundraising information, tax returns, handbooks, etc.. The work draws conclusions about the overall good preparedness of the organization in terms of natural disasters and their positive impact on the U.S. society and economy. The work also provides recommendations for more effective ways to have easier disaster relief process.

Keywords: macroeconomic implications, natural disasters, emergency preparedness, business recovery, revenue diversification, economic disaster relief.

Анотація

Робота зосереджена на економічних наслідках стихійних лих. Було виявлено, що стихійні лиха мають значний вплив на економіку, включаючи збої в ланцюзі поставок, закриття підприємств, пошкодження інфраструктури, тощо. У той же час такі сфери, як банківська справа та будівництво, можуть мати позитивний вплив від цих руйнівних подій. Стихійні лиха також можуть призвести до тривалої економічної стагнації в постраждалих районах.

При проведенні дослідження були використані матеріали організації «The Boys Scouts of America», які включали інформацію про збір коштів, податкові декларації, довідники тощо. У роботі зроблені висновки про загальну хорошу готовність організації до стихійних лих та їх позитивний вплив на суспільство та економіку США. Робота також містить рекомендації щодо більш ефективних способів полегшити процес надання допомоги при катастрофі.

Ключові слова: макроекономічні наслідки, стихійних катастрофи, готовність до надзвичайних ситуацій, відновлення бізнесу, диверсифікація доходів, економічна допомога при катастрофі.

PHEE-institute «Ukrainian-American Concordia University»

Faculty of Management and Business

Department of International Economic Relations, Business and Management

Educational level: **Bachelor degree**
Specialty **292 “International Economic Relations”**
Educational program **“International Business”**

APPROVED

Head of Department

Prof. Zharova L.V.

May 12, 2024

TASK

FOR BACHELOR'S QUALIFICATION WORK OF STUDENT

Elina Vlasova

Topic of the bachelor's qualification work **“MACROECONOMIC IMPLICATIONS OF NATURAL DISASTERS IN THE UNITED STATES (based on THE BOY SCOUTS OF AMERICA ORGANIZATION case)”**

Supervisor of the bachelor's qualification work *Chaplynska N.M., Ph.D. in Economics, Associate Professor*

Which approved by Order of University from **“25” September 2023 № 25-09/2023-5к**

2. Deadline for bachelor's qualification work submission **“25” April 2024.**

3. Data-out to the bachelor's qualification work: *Materials from open resources, official sites of international and national organizations, and organization where a student had her internship (the Boy Scouts of America).*

4. Contents of the explanatory note (list of issues to be developed)

- *To develop an understanding of the frequency and vulnerability of natural disasters.*
- *To clarify how natural disasters affect the businesses and the U.S. economy.*
- *To provide understanding of the role of non-profit organizations (especially on the case of “The Boys Scouts of America”) in the U.S. economy.*
- *To conduct general characteristics, organization's environment, structure of the Boy Scouts of America Organization.*

- *To research natural hazard situation in America and conduct their awareness in the Boy Scouts of America.*
- *To analyze the effectiveness of the organization.*
- *To make recommendations for improving activity of the organization in the framework of possibility of natural disasters.*

5. List of graphic material (with exact indication of any mandatory drawings)

Figures: 10 countries that experienced the greatest number of disasters in the last years; Map of the Vulnerable Places in the United States, Organization structure of organization.

Tables: Direct and Indirect Losses from a Disaster, Annual expenses on salaries, employee benefits and other compensation and other financial indicators of the organization.

6. Date of issue of the assignment

Time Schedule

№	The title of the parts of the qualification paper (work)	Deadlines	Notes
1.	I part of bachelor thesis	10.12.2023	
2.	II part of bachelor thesis	27.02.2024	
3.	Introduction, conclusions, summary	25.04.2024	
4.	Pre-defense of the thesis	30.04.2024	

Student _____ 

Supervisor _____ 

Conclusions: *The Bachelor's qualification work is designed at the good level, its content and structure meet with methodological requirements. The study provided a meticulous analysis of macroeconomic implications of natural disasters of the USA, describes The Boy Scouts of America Organization as an example with providing all necessary details for its analyzing.*

The work contains all the important parts of scientific research with some empirical and theoretical recommendations. The paper includes basic theoretical approaches to the category "natural disasters", include analyze of their influence on economy of the country, and the role of Boy Scouts organizations in solving problems. The practical recommendations were formulated correctly and focused on the main goal and tasks of the work.

In general, if successful defense, the bachelor's qualification work can claim to be "good" score.

Supervisor _____ 

CONTENT

INTRODUCTION.....	3
CHAPTER I. MACROECONOMIC IMPLICATIONS OF NATURAL DISASTERS.....	6
1.1. Overview of the types of natural disasters	6
1.2. The factors determining dynamic nature of vulnerability	9
1.3. The macroeconomic short- and medium- term impact of disasters	15
CHAPTER II. EDUCATION ON DISASTERS AND EMERGENCIES AT THE BOY SCOUTS OF AMERICA ORGANIZATION.....	27
2.1. Analysis of the organization’s environment, structure, and economy	27
2.2. Research of natural hazard situations and their awareness in the Boy Scouts of America	40
2.3. Analysis of the effectiveness of trainings in the organization.....	47
CHAPTER III. WAYS AND MEANS OF MITIGATING ECONOMIC EFFECT OF NATURAL DISASTERS	50
3.1. Recommendations for improving the enterprise’s activity in the framework of possibility of natural disasters.....	50
3.2. Natural hazard and disaster information as a way to their reduction or ways of overcoming the economic difficulties facing natural disasters in US .	55
CONCLUSIONS AND PROPOSALS.....	57
LIST OF REFERENCES	61

INTRODUCTION

Natural disasters offer significant challenges to economies around the world. They appear without a warning in most cases, bringing devastation with them. Such events have been happening for centuries, and completely destroying cities and whole civilizations in a matter of seconds. They disrupt societies and cause substantial economic repercussions. Annually, the world experiences thousands of disasters. Each geographical location has its own qualities and more attracted to one disaster event, than another. However, there is one place in the world, which has experienced almost every type of natural disaster, and keeps experiencing them each year.

Nation of the United States is frequently affected by a variety of catastrophic events. Events are ranging from tornadoes and hurricanes to wildfires and flooding. The macroeconomic implications of these events are profound.

Understanding the implications can be crucial for economists and policymakers. They shape strategies for disaster preparedness, response, and recovery.

Despite immediate destruction and catastrophic consequences that disasters impose, they can also have negative effects on the economy. Organizations suffer losses in the aftermath. Natural disasters destroy tangible assets such as buildings, human capital, and equipment. Often these impacts may be fatal to the firms and result in closure. The impact results in a loss of production capacity, which in turn leads to the economic repercussions.

Despite the commonly assumptions and information that natural disasters have a negative impact on the country's economy, few studies prove that in some cases they influence a positive growth. The possible mechanisms, which underlying the positive impact involves an increase of corporate productivity.

The United States economy is standing vulnerable to natural disaster devastating impacts. The significance of this topic is underscored by the challenges that can be caused by catastrophic events. The effects of these disasters are not limited to specific sectors, or regions, they can be found throughout the whole economy, affecting many businesses and industries.

Frequency and severity of natural disasters keeps escalating, due to the climate change and urbanization. Therefore, it is important to deepen our understanding of their macroeconomic implications.

The theoretical and analyzed knowledge will then help us to understand what the cause of the vulnerability is and why is it increasing. The work will also study the American non-profit organization “The Boy Scouts of America” through completing an internship, analysing its environment and structure, its economic factors, and seeing how they participate in the events of natural disasters. Finally, we will apply all the research material and see what non-profit companies can do in order to secure their survival during the devastating events and what the United States government need to consider to have an easier disaster recovery.

In total, the following work will discuss natural disasters and their frequency in the United States, their impact on the country and businesses, what role do volunteers have in such situations, and suggest ways of improving the organization development.

The bachelor thesis consists of an introduction, three chapters, conclusion, and list of references. The thesis has been outlined in the chapters in the following order: macroeconomic implications of natural disasters, education on disasters and emergencies at “The Boys Scouts of America” organization, and ways and means of mitigating economic effects of natural disasters. The first section provides the necessary theoretical framework for understanding the frequency and economic consequences of natural disasters, how businesses react and survive after them, what vulnerability is, what the U.S. government does do to support businesses and individuals, and short- and medium-term impact. The second section will provide a detailed analysis of the “Boy Scouts of America” organization in the terms of the natural disasters, will provide the information on their emergency relief funds, and how they help when disaster strikes. The third section gathers all the previous information, and establishes ways that will help both organizations and government to overcome the issues of the natural disasters.

The **relevance** of this work is defined by the rapid increase of the natural disasters, increase in their cost, and that is they have effects on various areas of life, including the businesses.

The **aim of the bachelor's qualification work** is to study and analyze the economic impact of the natural disasters and what are the ways to overcome them. We will also explore the effect on key economic indicators, and long-term economic growth, through doing theoretical research into economic aspect of natural disasters.

In order to achieve this aim, the following **tasks** were set:

- learning the types and frequency of the natural disasters;
- developing an understanding of the vulnerability of natural disasters;
- learning to understand how natural disasters affect the businesses and the U.S. economy;
- providing the understanding of the role of non-profit organizations in the U.S. economy by completing an internship in the American organization “The Boys Scouts of America”;
- analyzing the effectiveness of trainings in the organization;
- conducting the research into understanding how revenue diversification can save a business;
- establishing ways of achieving an easier disaster economic relief;
- giving recommendations to non-profit organizations in the natural disaster scenarios.

The **methodological basis** for the work is the overarching premises of disaster management theory, theory of disaster prevention and preparedness, governmental reports and data, and scientific works of American and foreign scientists on economic impact on the natural disasters.

The **research objects** are to examine the short- and long-term economic effects of natural disasters and analyzing the shift in productivity in the economy.

The **research subject** is theoretical, methodological, and practical approaches to establish the ways of “The Boy Scouts of America” organizations’ security improvement.

Bachelor thesis consists of an introduction, 3 chapters, conclusion, and list of references. Work is carried out on 74 sheets, containing 5 tables, 2 formulas, and 13 figures. References include 96 literature sources.

CHAPTER I. MACROECONOMIC IMPLICATIONS OF NATURAL DISASTERS

1.1. Overview of the types of natural disasters

A natural disaster is a tragic event that is caused by the forces of nature. Such events can cause damage to infrastructure, human lives, livestock, and can have long-term effects on businesses and local or global economies.

The United States of America is considered to be one of the most disaster-prone countries, having a range of natural disasters like hurricanes, tornadoes, floods, wildfires and a lot more (Fig 1.1). The effect of these natural events on the economy is significant and must be carefully analyzed to understand how they affect business operations and destroy structures. Natural disasters can cause billions of dollars' worth of damage, with the effect being felt in such industries as transportation, housing, agriculture, and tourism. Since 1980 there were 376 climate disasters, of which overall damages/costs reached or exceeded \$1 billion (National Centers for Environmental Information, 2024).

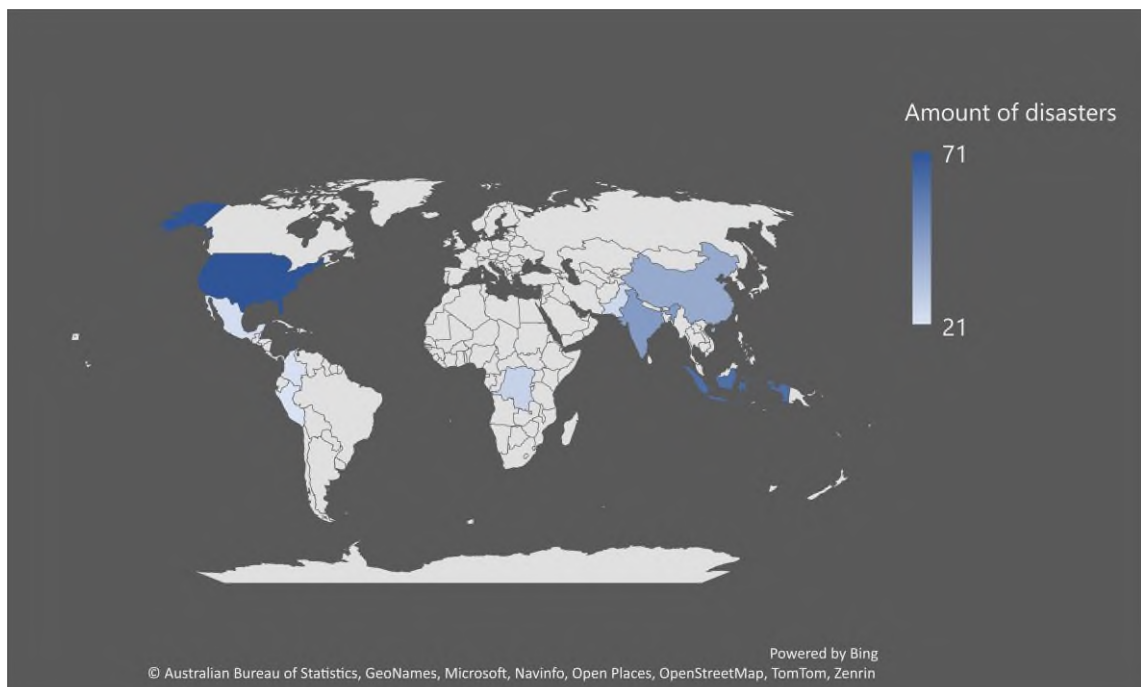


Fig. 1.1 The 10 countries that experienced the greatest number of disasters in 2020–2021

Source: compiled by the author on the basis of (Al Kazimi et al., 2019)

Natural types of catastrophes can affect businesses through physical damage to infrastructure and assets, disruption to supply chain, and interruptions to services. Direct financial impact can be significant, but the indirect effects such as lost revenue can be equally significant, affecting both short-term and long-term performance.

Natural disasters occur frequently in the US, with different types of disasters having different frequencies. For example, hurricanes on average occur every few years, while floods can occur on average every month.

Natural disasters that are most common in the US are floods, tornadoes, hurricanes, thunderstorms and lightnings, winter storms and extreme cold, and wildfires.

Floods can be considered to be one of the most common and dangerous natural hazards. Such events can be caused by many factors, such as storm surge, heavy rainfall, breaking of rivers, lakes, and dams, and large amounts of snow melting in spring. It can cause significant damage to infrastructure and properties, including businesses, and homes. It can have a devastating effect on local economies, disrupting trade. It also affects people's livelihood, destroying crops, livestock, and damaging water sources.

Flood events increase their frequency and become more severe due to climate change and other environmental factors. Between 1900 and 2015, around 40 percent of the 35,000 disaster events in the U.S. were major floods (Cigler, 2017). Only in 2020, flood events caused around \$1 billion in damages (NWS Office of Climate, Water and Weather Services & National Climatic Data Center, 2020).

Tornadoes are one of the most destructive types of natural hazards in the US. Over the period 1994–2012 there was an average of 1265 tornadoes per year with an interquartile range of 256 tornadoes (Elsner et al., 2014b). Tornadoes can cause significant damage to infrastructure, property, businesses, and lead to loss of life. 75% of the world's tornadoes events occur in the United States. Every state has experienced tornadoes, with Texas having the highest number - over 8000 tornadoes reported for over the last 50 years (Brown et al., 2015). Tornadoes were also the second highest damage cost disaster in 2020, with total damage of \$2,531 million (NWS Office of Climate, Water and Weather Services & National Climatic Data Center, 2020).

Hurricanes are tropical cyclones that usually occur from June to November. They can produce powerful winds and heavy rainfall, causing significant damage to the southern states, damaging infrastructure. A typical hurricane season in the United States can include 6 hurricanes, 3 of which are category 3 and above. On average, 47 deaths will occur in the U.S. from hurricanes each year (Hurricane learning module, n.d.). Hurricanes are considered to be the most damaging disaster, since they affect a big territory. In 2020 the total damage cost of tropical storms and hurricanes was over \$17 billion (NWS Office of Climate, Water and Weather Services & National Climatic Data Center, 2020).

Thunderstorms and lightnings is a weather condition that involves a thunderstorm developing from cumulonimbus clouds. Such thunderstorms can produce strong winds, rain, lightning, and even hail. Lightning is strong electrical discharges that can strike and cause severe damage to property, infrastructure and lives. The peak thunderstorm season for the United States is during the summer months, with lightning strikes causing around 40 deaths per year. Around 29,245 Dangerous Thunderstorm Alerts (DTAs) were issued in 2021, and over 35 million lightning strikes occurred the same year (Earth Networks, 2021). The total damage cost for 2020 was \$237 million.

Winter storms can be extreme disruptions to the environment, damaging plant life and wildlife population. It also affects people's health, with extreme cold causing increased risks of hypothermia. The most affected states in the U.S. are Texas, Kansas, Oklahoma, and Kentucky. In 2020 the total damage cost was \$37,15 million (NWS Office of Climate, Water and Weather Services & National Climatic Data Center, 2020).

Wildfires are unplanned large fires that were caused by either people or natural events such as lightning. Such fires spread quickly over woodland or brush and can cause huge economic loss. Such industries as agriculture, real estate, and forestry can be threatened the most by wildfires. From 2013 to 2022, there were an average of 61,000 wildfires per year. On average around 7.2 million acres are affected annually (NICC, 2023). The average for federal suppression costs is around \$2.8 billion each year (Noris, 2023).

From 1980-2023, the United States faced 376 weather disasters with losses of over \$1 billion each year (Fig.1.2).

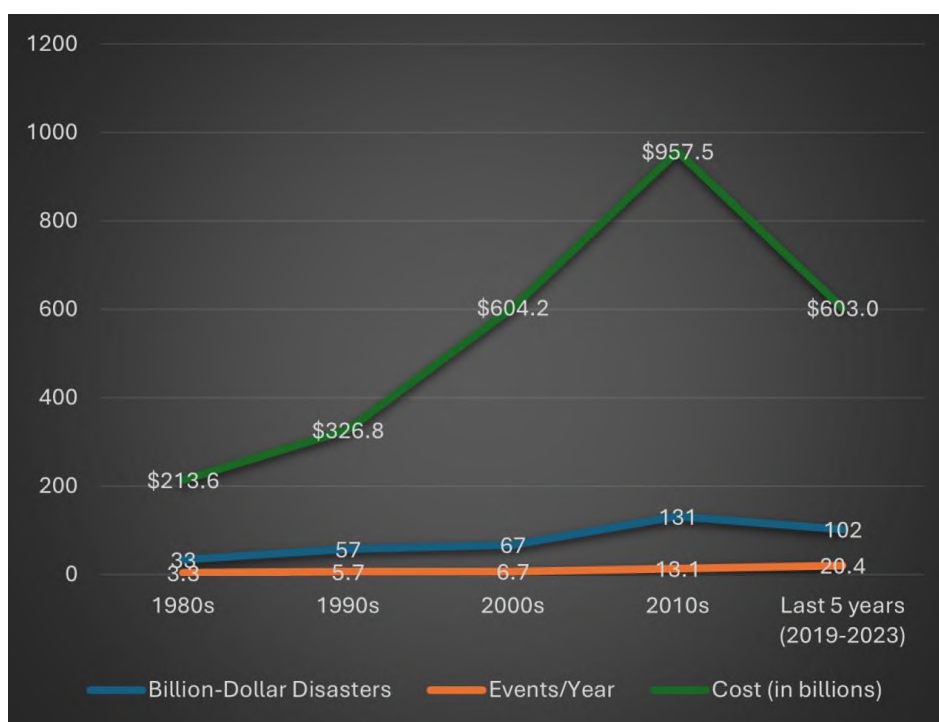


Fig 1.2 United States Billion-Dollar Events Frequency and their Cost (1980-2023)

Source: compiled by the author on the basis of (NCEI, 2024).

1.2. The factors determining dynamic nature of vulnerability

The level of impact of weather and climate events on human populations depends on many factors, such as vulnerability and exposure to these events. Understanding all the factors is essential for effectively managing the risk, and in order to implement the right strategies for disaster management and adaptation.

Vulnerability is not something that is static, it varies and changes across time, depending on many factors, such as socio-economic, geographic, cultural, and environmental factors. Extreme weather and climate events can have long-term effects on individuals and communities, by making them more vulnerable to future events. The concept of disaster risk can be associated with different levels and types of adverse effects.

Vulnerability refers to the ability of exposed elements such as people, systems, or assets to withstand stress and shock. It takes into consideration various factors: exposure to events, ability to cope with the incident and its outcome, and ability to bounce back.

Vulnerability is different for each hazard event and is not applicable to all scenarios. A population in a specific area can be vulnerable to hurricanes, but not to wildfires. Climate change can also bring new risks for societies, as the environmental conditions change rapidly (Cardona et al., 2012).

It is also important to understand that vulnerability is not just about what happens at the time of the disaster event, it also can be measured in terms of future livelihoods. Vulnerable groups are those, who find it difficult to recover from disasters, and it makes them more vulnerable to future events.

Hazard events can affect places individually, or in combination. They also occur at different times, such as season of the year and time of the day. “Hazard” refers to natural events, which may affect places depending on location and time of year.

When vulnerability and hazard interact, it turns into the risk of disaster. The relationship between these three elements can be explained in the following simplified equation:

$$R = H \times V, \tag{1.1}$$

, where R = risk of disaster, H = hazard intensity, and V = vulnerability (Wisner et al., 2003).

A disaster occurs when a vulnerable population suffers from the effect of a hazard, and its recovery becomes difficult without external aid.

The vulnerability to natural hazards has increased significantly in the past few decades. The key reason for that is the high concentration of people and infrastructure in vulnerable regions, due to urbanization and population growth. Other reasons for observed trends are development of exposed coastal regions, uncertainties about future natural hazards due to climate change, and increased reporting and insurance uptake. One of the examples of coastal regions development can be found in the Hurricane Katrina case. It was only the third most powerful hurricane that has ever hit the U.S, however it became the most expensive natural disaster in terms of finance. Total damage of this hurricane was estimated at \$75 billion (Hill et al., 2011).

Exposure is another factor that can be defined as a part of vulnerability. Some concepts, however, consider it to be its own factor that is similar to vulnerability. The geographical range of the hazard, and patterns of occurrence can be used to characterize exposure. It describes the livelihoods, assets or infrastructures in places that can be affected.

Susceptibility is another term that is important to understand in this topic. Compared to exposure, susceptibility refers to the system experiencing adverse impacts, when exposed to hazards. It is expressed through physical, social, cultural, economic, and institutional dimensions (Birkmann, 2012).

When analysing **physical dimensions** of vulnerability, we can link physical or natural phenomena to human groups. Physical vulnerabilities include such aspects as geography, location, settlement patterns, and physical structures including infrastructure. Developed and developing countries face risk levels and exposure differently. High economic status of developed countries and robust infrastructure can hide the vulnerabilities. While a similar percentage of people in both regions is exposed to natural hazards, only 1% of the population of developed countries becomes a victim of natural hazards.

The rapid process of urbanization usually occurs in regions that are already vulnerable to disasters. Potential disaster risks are triggered by poor infrastructure, and poor living conditions. While large cities have increased risk of hazards, smaller towns and rural areas can be even more vulnerable to disasters. Rural regions have limited resources to respond to the hazard events. Small communities tend to be a smaller priority for the government and receive less financial support.

The **social dimension** includes many aspects: demography, education, migration, social groups, culture, institutions, and governance structures and systems. Demography can be influenced by climate changes and socio-economic factors. Migration refers to people moving to different places permanently or temporarily, due to natural disasters. Socio-economic status is responsible for the wealth of population, and if they are able to face climate change and its effects. Well-being is also a crucial factor that determines vulnerability. Different population groups are vulnerable to different risks.

Cultural dimension includes practices that can either heighten or reduce vulnerability to climate change. Traditional usage of the environment with no adjustments, or unequal gender norms are practices that can increase vulnerability. On the other hand, cultural knowledge and traditions can help in adapting to changing environmental conditions. Cultural theory gives the understanding of how people see the world and define risks accordingly to their beliefs, and cultural backgrounds.

In the context of disaster and risk management, the **institutional dimension** covers the relationship between top-down and bottom-up approaches. The top-down approach considers that policies are translated into action on the ground. The bottom-down approach, on the other hand, acknowledges the role of other actors in policy implementation shaping. The institutional model can be a major factor in either increasing or reducing vulnerability. It can create or reduce vulnerability based on level of participation.

The degree of **economic dimension** vulnerability can be determined after an event. It is demonstrated by the magnitude and duration of the following effects. Such effects include businesses not being able to obtain inputs from suppliers or provide services to customers, income losses, lesser tax collection, and reconstruction. These effects can also have significant impact on macroeconomic level, affecting GDP, tax revenue, financial markets, etc. Extreme weather and climate events can impact livelihoods as well, by causing job losses and economic damage. On macroeconomic level, vulnerability is driven by such factors like low levels of income, limited savings, low level of GDP, and constrained tax revenue (Cardona et al., 2012).

A major natural disaster can cause a sudden and unexpected disruption to the economy of an affected area. Among the direct losses such as homes, assets, and businesses, there are also indirect ones – unemployment, lesser business revenue, reductions in tourism, etc. On a regional level, natural disasters are most likely to cause a disruption in the local economy. They reduce economic activity right after the event but may also increase this activity in later periods.

If the risk of a specific event is different in one place than other, the more-prone area has a better chance of being prepared.

The United States is becoming more vulnerable to natural hazards due to changes in population and national wealth density. Such phenomena as global climate change, and rising sea levels impact the frequency and can influence overall effects of climate events. Technology improvement is another factor that increases awareness of vulnerability of different events. For example, implementation of Doppler radar system let to have a clearer reporting on the frequency of tornadoes since 1980s. It gives us the data, that we didn't have access to before, therefore we have an understanding if some areas are actually vulnerable to these disaster events or no. The global process such as climate change and rising sea levels explains a lot, but is not fully responsible for the significant increase of events in US costs. These areas are more prone to climate events because they are located in vulnerable areas, despite the risks. Responsible land use has been limited by artificially low insurance rates and federal aid programs. Therefore, a significant proportion of housing and infrastructure remains in high-risk zones.

Nowadays businesses can face many different problems and emergency situations, which can impact the business itself. Hackers, embezzlers, and litigants have caused damage to organizations and companies all over the world in the last decades. Companies can prepare for these types of hazards by implementing different strategies, training their employees, and investing in security. However, such an event as a natural hazard can be a lot more unpredictable and a lot harder to be prepared for. Nature does not have a conscious intent, and neither aims to benefit nor harm an organization. It demands attention in unforeseen and inescapable ways. It also often occurs without a proper warning or remorse. Since the USA is full of different natural hazards, every business is at risk. The diversity of nature makes certain areas more dangerous (Fig. 1.3.). This is why it is so important for businesses in this country to be prepared (Alesch et al., 2007).

Leaders are primarily focused on people and physical assets when assessing the aftermath of natural disasters. However, financial assets, and reputation can be severely damaged as well, along with shareholder value unpredictability. Disasters do not even need to be happening in the country of where the business is. Even a flood or typhoon can affect the supplier in another country, disturbing shipping. This means that even if the company remains safe, it can still be impacted by hazard events elsewhere. The

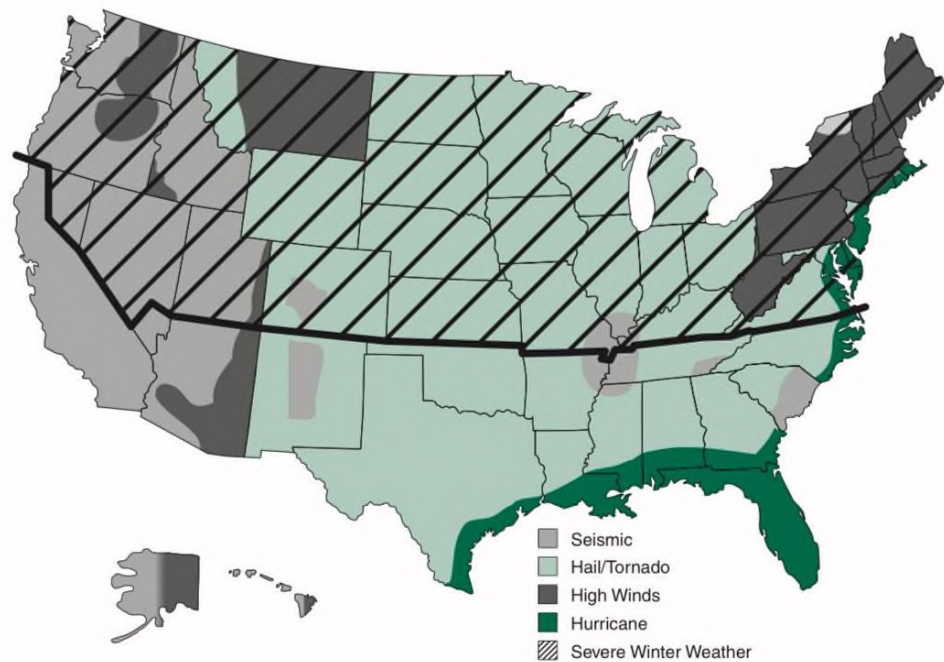


Fig.1.3 Map of the Vulnerable Places in the United States.

Source: (Wisner et al., 2003)

devastation caused by the natural disaster events is often significant and covers many business areas.

The number of businesses that fail to recover after the disaster is significant. Approximately 40% of businesses do not reopen after the disaster event, and another 25% of businesses close a year after, according to Federal Alliance of Safe Homes. Furthermore, they also advise that 75% fail three years after, if no continuity plan is made (Cavallo et al., 2010).

Multiple studies have collected data on the different obstacles between small and large businesses after the catastrophic events. Small businesses tend to have limited emergency resources, which makes them vulnerable to closure after a disaster event.

Businesses that face extra challenges in recovery are usually those who mostly rely on supply chains, and local markets. Retail businesses can be a good example of this.

The federal government usually provides aid to local businesses and other organizations through different loan programs. For example, SBA's Disaster Loan Program offers businesses the capital needed for the recovery. However, businesses are

then required to make occasional payments, which can compromise the long-term financial outlook (Cavallo et al., 2010).

When talking about real estate, research suggests that climate risks are reflected in housing values. They also influence lending and consumer behaviour. Minorities, and those with limited credit are expected to face more of a risk. It can negatively impact the affordability of homeownership. Insurance and perceptions are other factors that influence the impact of disasters on real estate markets.

Insurance is critical to limiting the losses caused by mortgages after tragic events. Rising insurance costs or insurance market failures can negatively affect the property values in damaged areas (Contact et al., 2023).

1.3. The macroeconomic short- and medium- term impact of disasters

Natural disasters can be considered to be a special form of macroeconomic risk. They can affect economic growth in a complex and nonlinear way. Macroeconomists became more involved in studying natural disasters, because of their increased frequency and intensity. Macroeconomists had to apply their theories and models to better understand these catastrophic events. Climate change has emerged as a driving factor in development and population growth in disaster-prone areas. Due to these trends, it is important to investigate both short- and long-term economic impacts of natural disasters. Government needs to examine how such events affect income, employment, property values, everything that can directly affect tax revenues. It can be also challenging sometimes to estimate the full damage caused by natural disasters, both in theory and in practice. The systematic data on catastrophic events can be lacking or incomplete.

Natural disasters can have influence on local and regional levels in the terms of output, wages, employment, capital stock, etc. Sometimes catastrophic events can skew the numbers at the national level as well, if the economic activities are impeded across different regions, or impact a large percentage of population (Kliesen, 1994).

In the immediate aftermath of all natural events, damages tend to be significantly overestimated. Estimates, which are calculated shortly after the disaster have inflated estimates.

A natural disaster event can be imagined as a timeline, that has three phases:

- Phase 1: Direct losses (Building damage, damages to infrastructural components, etc.)
- Phase 2: Indirect losses (Lost employment, taxable receipts, etc.)
- Recovery

If we consider the preshock path of the economy was a sustainable starting point, then the policymakers' goal is to return to the same pathway as quickly as possible. Managing disaster requires balancing multiple objectives. The first is to protect core consumption expenditures, along with supporting temporarily higher disaster-related expenditures. A well-designed macroeconomic response should aim to mitigate to the extent more vulnerable groups. At the same time, it should seek to reconcile competing objectives without jeopardizing the future growth of the economy.

Natural disasters are often a sad reality for major cities in the United States. They can have multiple effects on the local economy: disrupting supply chain, damaging productive capital, partially destroying the housing stock, etc. Such channels can lead the local economy to “reset”, creating a new economic equilibrium. After the 1980s, local responses to disasters have increased due to events becoming more frequent. Each event is associated with a higher risk of future events, leading to increasing resilience and preparation efforts (Boustan, 2017).

There are two different kinds of impacts from natural disasters: direct and indirect (Fig. 1.3).

Direct losses are the immediate costs after a disaster. They usually appear as a result of the physical phenomenon of a disaster. They can also be classified into two categories: direct market loss and direct non-market loss. Direct market loss involves the destruction of market assets, while non-market loss refers to the loss of personal property, human lives, etc.

Direct market losses are about damaged assets, destruction of the built environment, or manufactured goods and products. It is quite easy to calculate the losses by estimating the cost of repairing or replacing the damaged assets. The value of these losses can be determined by market prices. However, it is important to remember that the replacement cost can vary for several reasons. Some materials can be in short supply and value more after the catastrophic event. This can be referred to as demand surge. Emergency response and clean-up is also considered a direct cost. These types of costs are borne by the government, so care must be taken in order to correctly assess the costs. Issues that are considered include whether new taxation is needed, and how funds that are allocated for the disaster relief could have been spent differently (Hallegatte, 2010).

Non-market direct losses refer to the losses that cannot be replaced or repaired by market prices. Such losses can include damage like health effects, loss of life, damage to historical or natural assets. Indirect methods can be used sometimes to estimate the prices, but they might not be as objective. There is quite a high debate on how to value the loss of life or an injury (Kousky, 2012).

Indirect losses refer to losses that are caused by disaster's consequences. They include economic production losses due to long-term infrastructure damage, or disruption in water or electricity supplies. Non-monetary indirect consequences such as social impacts or increased national debt can also be added to this category. Consumer demand may also be higher for some sectors after the disaster. For example, the construction sector can have a higher demand since homeowners receive aid and insurance funds to be rebuilt. At the same time, consumer demand can decrease due to spending on rebuilding. This can potentially lead to negative effects in the supply chain (Kliesen, 1994).

Using Hurricane Katrina as an example, we have the following information. Hurricane Katrina was a powerful and destructive storm. The total economic loss of \$149 billion was estimated for this disaster. Direct costs totalled \$107 billion, with housing sector losses at \$19 billion (Al Kazimi, 2019).

Table 1.1**Direct and Indirect Losses from a Disaster**

Direct losses	Indirect Losses
Damage to assets	Business interruption
Damage to homes and contents	Production losses
Damage to infrastructure	Utility reduction
Life losses	Multiplier effects
Injuries	
Response clean-up	
Environmental degradation	

Source: compiled by the author.

There are also situations where disaster can cause the extinction of vulnerable economic activities in a region. It can happen in cases where activities are unable to recover, or can be moved somewhere with lesser risks. In situations like this it leads to permanent negative shock, which is a lot harder and more challenging to define the disaster cost. However, it is also important to remember that in some cases, reconstruction can lead to the development of more productive economic sectors. It can contribute to a more desirable economy before the disaster occurred.

Most economic studies evaluate the impact of natural disasters using macroeconomic indicators, such as GDP. It is easier than attempting to estimate direct or indirect costs. Natural disasters can have huge effects on macroeconomic indicators. This includes GDP, balance of payments, debt levels, fiscal revenues, and investment rates. In case if damages are severe, output can be declined, but can also be increased due to reconstruction. The overall effect on the economy can be unclear, as government spendings could change debt levels, and price increases can fuel inflation.

Disaster recovery costs cut into the annual income of economically vulnerable population. The proportion of income spent on disaster recovery was 2.44%, while annual income was reduced by 21.49%. Due to this significant reduction in household income, lower class's economic capacity declines considerably. It can have effects on disaster

recovery and cause vulnerable populations to suffer from financial stress (Songwathana, 2016).

The United States faced a high number of weather and climate disasters in the past few years. From 2015 to 2019, there were 69 events, which economic losses exceeded one billion us dollars. They caused devastating damage to infrastructure and took many lives. These disasters cost nearly four thousand lives and caused an economic damage of half a trillion us dollars. The average cost of the disasters increased significantly, from \$35 billion in 1980 to \$300 billion in 2017. The frequency of these disasters increased 2.5 times since 1980. Various agencies and climate-economic models noted that the cost and frequency of natural disasters is increasing. GDP increased by more than 172% from 1980 to 2018, but the average cost of disasters increased by more than 750%. The cost of natural disasters has increased at a much faster rate than the increase in GDP. After the natural disaster happens, government agencies and institutions, along with insurance companies issue the estimated disaster cost. The estimations are based on varied methodologies and data collection techniques. Therefore, there can be different estimations (Shukla, 2022).

The short-term macroeconomic impacts are considered to be the ones happening up to 5 years after the disaster. Most research finds small negative impacts on macroeconomic variables. The impacts are a lot worse when looking at a smaller scale on small geographic areas. Short-term effects include changes in consumer and business confidence. There are disruptions to economic activities, such as trading, potential decrease in employment, and increasing in the insurance market cost. The government's budget may be used for reconstruction efforts. It can cause further fiscal tightening and displacement of other economic activities.

Some sectors, however, can benefit from the disasters, while others incur losses. While overall economic effects may be neutral, some of the sectoral impacts may cause changes to specific industries. Construction employment can increase but recover to baseline levels quickly. Agriculture and forestry areas usually suffer the most, having significant losses.

Other areas like retail trade, transportation, and public utilities, are the eras that decline immediately post-event, and then increase beyond baseline for a long period of time.

Natural disasters can affect growth, in the cases when events are minor. Droughts and storms negatively influence the agricultural sector, however, floods, on the other hand, can have positive impact for moderate cases. There was a study made on a tornado that happened in 2000 in Fort Worth, Texas. It was concluded that employment rates were lower in the two years after the tornado, but the response was heterogeneous across firms. Industries like construction, real estate, transportation and utilities, were not affected in employment growth rate. Other sectors had higher employment rates, like the mining sector. Negative impacts were noticed in areas like services or retail.

When talking about natural disasters, it is hard to imagine any positive impacts to take place. Short-term impacts are rarely close to being positive, however medium-term can have positive economic impact. A number of studies explored the effects of natural disasters on local economies, mostly focusing on short-term effects. USA Today reported that after such events like Hurricanes Ivan, Frances, and Charley several local businesses benefited from them. Another U.S. newspaper reported that tornadoes can benefit local businesses and property markets as well, reinforcing the positive effect. In the case with Hurricane Andrew, taxable sales declined, however in some time they surged, giving Miami an unexpected bump in sales. Another study showed that Hurricane Bret in 1999 in Corpus Christi, Texas reduced the natural unemployment rate. It does not mean that natural disasters can benefit the economy, however, they still can cause increasing in some of its sectors.

Annual per capita income growth falls significantly in the year of a hurricane but returns to pre-hurricane growth during the following year. Another data from Florida counties found a negative impact on employment but a positive on earnings. In simple terms, the growth pattern implies an initial loss in income due to disaster, which does not fully recover in the following year. This scenario can correspond to “no recovery” scenario.

For the long-term consequences, the evidence can be limited when developing models. Studies show that short- and medium-term effects of natural disasters report the impact disappearing in a few years after the event. There are still arguments that severe disasters may cause long-term effects, when they overlap with other factors. Most of the sectors experience no significant impacts in the long run, except for the manufacturing and mining industries. The manufacturing sector shows a negative effect and has lesser incomes and employment levels after the event. This suggests that long-term effects may also be present. Natural disasters can damage the capital stock, or infrastructure, requiring replacement. This process can increase investment, which can promote economic growth.

A government that supplies money to cover the costs benefits the firms which receive the money. The rebuilding following the disaster could lead to infrastructure improvements. The government may not invest in infrastructure upgrades causing net benefits, if no disaster has occurred. It is more likely, after a disaster, government to perform upgrades in infrastructure that may bring net benefits (Kousky, 2012).

Another long-term effect that can be spotted is a reduced migration among highly skilled workers. In terms of housing, catastrophic events tend to reduce house values. This leads to a positive relation with the migration of low-skilled workers. Impacts of natural disasters on migration in areas with higher population growth and housing prices are more pronounced. A disaster can have different impacts on productive and unproductive areas. Productive areas can have a low density of housing and inefficient mix of commercial and residential space. In a case of a disaster, it allows the area to reset and attract new population. If a region's historical past is a constraint on its development, it is safe to assume that unproductive areas will react to disasters stronger than productive areas. Productivity is defined by using local employment growth in the past. Low and high growth groups are separated, and disaster factors are then added. Areas with high growth rate tend to experience higher out-migration. These areas attract new people and have a higher turnover. This allows for a more flexible response to local shocks to happen (Boustan et al., 2017).

When large external events occur, such as natural disasters, the stock market is expected to be affected in different ways, revolving around industry or index. The worse

and the more unexpected tragic event is, the higher stock market reaction will be. During severe disasters, the stock market tends to have more negative reactions. However, even though the reaction is negative, and returns go down, on a long-term scale the returns don't go down by much. The reaction is not that significant due to the size of financial markets in the US. For example, the NYSE (New York Stock Exchange) alone trades a daily volume of \$169 billion. Comparing it to the Hurricane Katrina damage cost of \$149 billion, \$62 billion of which was covered by insurance, we can see that it is less than a single percentage point of movement on the NYSE (Giraldo, 2019).

When talking about the impact on banking, the potential effects can be interesting too. Disaster channel is less likely to be a material source of instability for banks. Even small banks are not highly threatened. Despite all the risk associated with the natural disasters, banks might have a degree of sturdiness, which helps to withstand the effects. According to the findings, disasters can create a demand for loans. This, in turn, can offset losses on loans on the books. Moreover, in some cases, disasters can increase the income for larger banks after they pass. After a disaster, businesses and households may need credit for a variety of purposes, like rebuilding. These credits not only have an impact on the borrowers, but also offset losses of existing loans. Lending typically increases significantly after the disasters. However, it mostly happens only at multi-county banks (Blickle, 2021).

When comparing different countries, natural disasters do not typically have significant risks to the banks in developed countries. In the United States, disasters lead to risk increasing in banks, however the effects are small and short-term ones. Higher profits and interest spread has been noticed in the United States, following the disaster.

Another research shows that only very large-scale natural disasters can have effects on GDP growth. These effects can have significant impact on long-term economic prospects of countries, which face disasters. The average GDP per capita in affected countries is 10 percent lower than before the disaster. Otherwise, it would be expected to be 18 percent higher (Cavallo et al., 2010). For instance, flooding has caused the GDP growth rate to decline by 0.005% for every thousand people directly affected. In less developed countries these effects can stay permanent (Shabnam, 2014).

Disaster relief and rebuilding activities often generate increased sales tax revenues and additional employment. Many aspects influence the economic effects of the recovery. Among these factors, there is a stage of the business cycle that the local economy was in. The second factor is the timing and extent of the disaster assistance by the local and state governments. Although emergency funds, like food and shelter, are usually distributed immediately by the Presidential directive, longer-term assistance is appropriated by the Congress, and it can take some time (Kliesen, 1994).

The third factor includes incomes generated during the recovery period of time, and they usually do not remain with the local economy. In most cases, third-party contractors are brought in from other states to handle assistance and rebuilding activities.

Finally, the percentage of insured losses among the damage is something that influences the recovery period. The more uninsured losses increase, the more reliant on private and governmental funding the area is.

Private organizations like Red Cross or The Boy Scouts of America also provide their own funds to the affected regions. For example, the Red Cross organization allocates about \$45 million dollars to the victims of the Midwest Flood in 1993 (Kliesen, 1994).

We can determine the following negative impacts on the country's economy after the natural disaster:

- Severe short-term effects.
- Reduction of individuals' incomes and expenditure of those who were affected.
- Businesses not being able to cope and their closure.
- Population displacement.

Employment aspects can weaken and lead to a net decline in demand for goods and services. It then results in lower demand for the labour necessary to produce these products or offer these services. For example, if tourism falls in the disaster-affected area, demand in the hospitality sector labour will significantly drop too.

It is hard to believe that such devastating events can have positive economic effects as well, however, there are few of them:

- Migration after the natural disaster can reduce the number of affected individuals in future events.

- Labour market appears to be resilient to disasters on the long term.
- Banks having more profits.
- Rebuilding attracts new workers to an area and can raise wages in some cases.
- Attracting new investments.

Some have theorized that disaster events can have positive effects on the income and growth due to “creative destruction”. The idea is that natural disasters destroy suboptimal infrastructure for free, letting the economy adopt better and more efficient organization of urban areas more quickly during the rebuilding process (Deryugina, 2022).

Natural catastrophic events can fuel economic growth in the long run by attracting new investments. Investments from local and federal governments, along with donations can boost the economy of the affected area.

While natural disasters can cause significant damage on a local scale, from an economic point of view, the effects of natural disasters tend to stay regional. Hurricane Harvey’s created \$8.5 billion dent in economic output. A small fraction of the U.S. GDP, which was approximately \$19 trillion in 2017 (Kurt, 2022).

Since natural disasters cost billions of dollars each year, the US government has created the Disaster Relief Fund (DRF). This fund is managed by the Federal Emergency Management Agency (FEMA) and is a primary source of funding for the general disaster relief programs. The DRF is funded by the congress. All the programs that are supported by this fund are authorized under the Robert T. Stafford Disaster Relief and Emergency Assistance Act. The programs help outlining the federal role in the supporting state and territorial governments during the disaster recovery and response. When local governments are overwhelmed with the responsibility, these programs take effect.

Despite the disaster relief being relatively small part of the budget, it has grown rapidly in the past few years and is expected to be growing in the next years (Fig. 1.4.). There are debates surrounding the deficits and the remaining debt in Congress, new agreements will still be necessary to be done in order to determine the extent of resources, which are allocated to disaster relief fund. When in the end of the 1980s the budget control has been implemented, there exception made for the emergency relief and recovery efforts.

However, nowadays the budget control has expired and the limitation for the disaster relief spending disappeared. A similar mechanism, however, was introduced in the fiscal year 2022 budget resolution. Congress will need to consider if the process should continue, which will allow most of the annual relief fund appropriation to be provided without competing against other expenditures (The disaster relief fund: overview and issues, 2023).

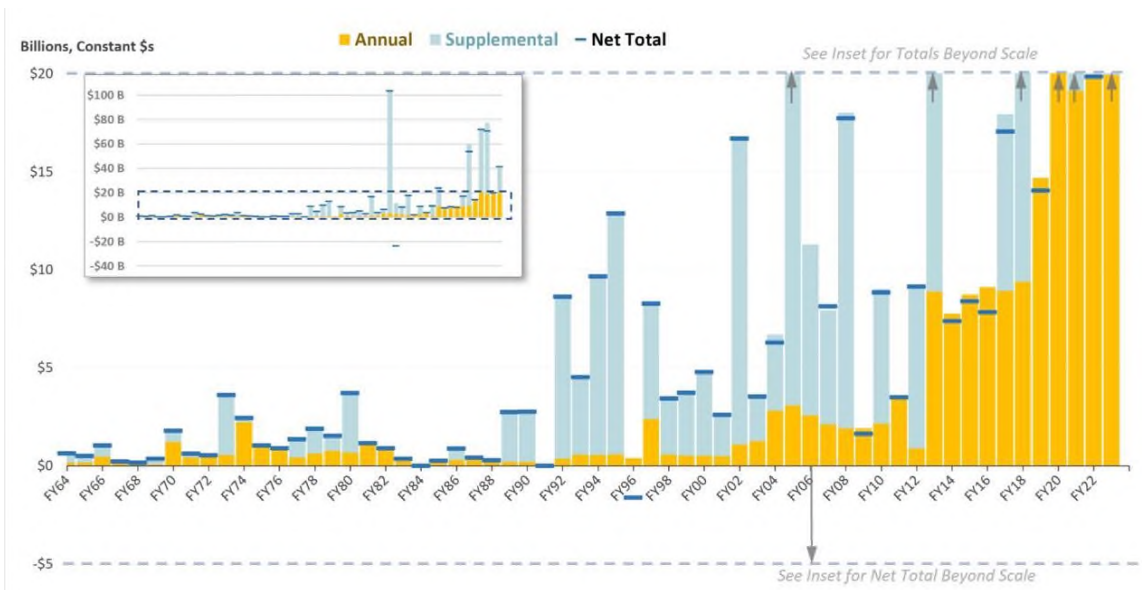


Figure 1.4. FY2021 Dollar Disaster Relief Appropriations, FY1964-FY2023
 Source: (Painter, 2024)

Meanwhile, the European Union has a similar fund, called the European Union Solidarity Fund (EUSF). It was established in 2002 after the Central European floods. It is interesting to compare them.

In the events of major natural disasters, EU member states and candidate countries can request aid from the EUSF. The fund primarily provides financial aid for emergency measures for disasters over EUR 3 billion or 0.6% of GNI. Figure 1.5. Shows the actual costs and EUSF payments for the member states and accession countries which received assistance since 2020. The total amount of assistance was EUR 530 million, which is almost 566 million in US dollars.

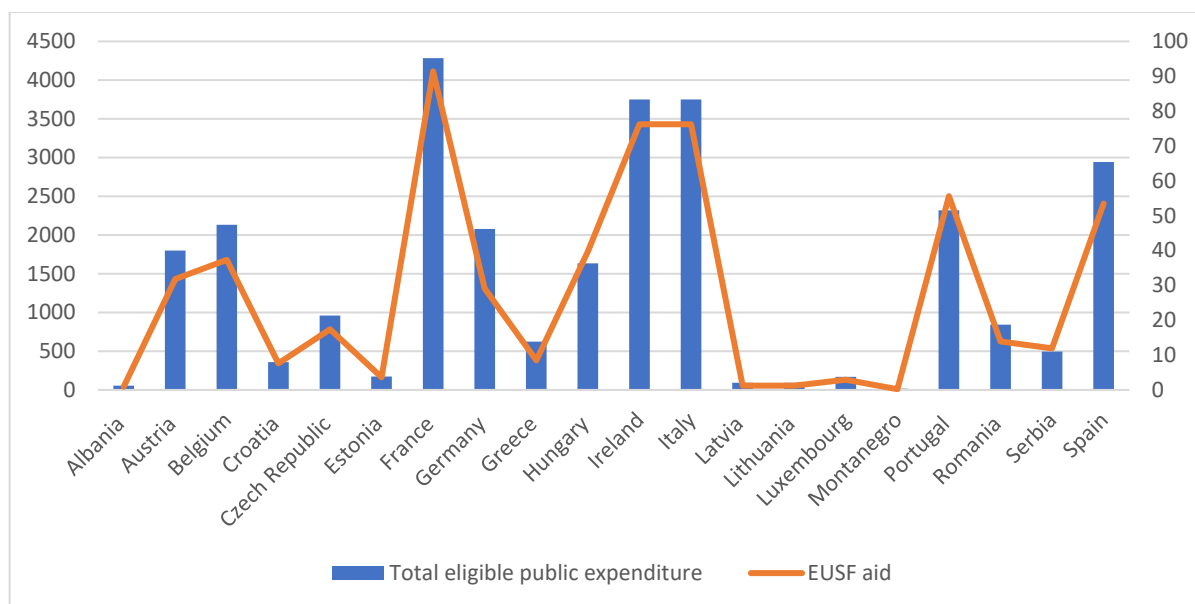


Figure 1.5 EUSF contribution to states in 2020

Source: compiled by the author on the basis of (Hochrainer-Singler, 2022).

There are a lot of negative effects from natural catastrophic events, however, the economy can rebound after the recovery. In the long run, the impacts of natural disasters are positive on the economy. It is due to the new investments, creation of new jobs, and development efforts contribution through purposeful planning.

While the economic effects are complicated, their impact on communities should not be forgotten. The consequences on livelihood, access to resources, physical infrastructure, welfare, and a lot more should be considered.

CHAPTER II. EDUCATION ON DISASTERS AND EMERGENCIES AT THE BOY SCOUTS OF AMERICA ORGANIZATION

2.1. Analysis of the organization's environment, structure, and economy

The Boy Scouts of America (BSA) was established in 1910. It is a non-profit organization, which is chartered by an act of Congress, signed into law by President Woodrow Wilson in 1916. Its main mission is to prepare young people for life by developing such character traits like kindness, trustworthiness, helpfulness, etc. The BSA trains youth to be responsible and to have self-reliance through participation in various outdoor activities.

This organization remains to be one in the top of character-development organizations in the United States. A lot of American leaders and successful people have benefited from having background in the Boy Scouts. The BSA empowers young people to develop many valuable skills. For each skill the scout learnt, he or she receives the badge as a symbol of the prize, and a prove that it has been learnt. The organization has a large membership of both adults and children. It emphasizes values and character development.

The organization provides opportunities for teaching youth ethical and positive traits. Scouting also teaches them to be active and involved in their local communities. Scouts are also able to practice civic duty.

The origin of this organization can be traced back to 1907, when Robert Barden-Powell led a group of 19 boys on a camping trip for two weeks. He implemented such skills to his training like camping, nature lore, first aid, racking, etc. People found this training really successful and useful, so it inspired similar troops in other countries to form. All this led to the Boy Scout movement. Later, Robert Barden-Powell published handbook called "Scouting for boys" to share his knowledge with others (Bateman, 2006).

Over a century, communities have used the Scouting program to benefit millions of youths. Its popularity increased significantly after the organization was fully established in the United States in 1910. In 1916 the United States Congress recognized organization's potential in educating children. Therefore, Congress granted a charter to

the BSA. It made Scouting more available through community organizations. This also allowed the BSA to issue charters to local councils in every area (Boy Scouts of America, n.d.).

Main BSA mission is to prepare young adults to make ethical and moral choices, by installing the values of the Scout Law. By the 1960s, girls also became a part of the Boy Scouts of American programs. By 2019, female was included at all levels.

The values of the BSA are heavily influenced by the World Organization of Scouting Movement (WOSM). WOSM is responsible for the global scouting movement. Both the BSA and WOSM follow the Scout Method. It aims to guide scouting programs and foster the youth development. This method is focused on self-education (Koontz, 2021).

There are more than 81,000 Scouting units across the United States. Each one of them is organized and supported by a Local Council, assigned according to the geographic area. Each Local Council is a separate non-profit corporation that exists under the state laws in which one operates. Each one of them also has its own leadership, management, and officers. There are more than 260 Local Councils across the country (Debtors' informational relief, 2020).

The Scouting program's main basis is education. Under this program, Scouts can learn outdoor and practical skills. They also develop leadership skills and can gain experience and knowledge in self-chosen fields. Scouting allows young people to expand their horizons and develop a wide range of interests. The BSA facilities offer opportunities to explore technology, outdoors, career and life skills, and a lot more. Nearly three quarters of companies advise that people who participated in scouting programs are more likely to get a college internship with them. The organization can be known by its slogan, "Prepared for life". This makes scouting to be a valuable youth development resource in the United States.

Scouting also builds strong communities giving the opportunities in involvement. Only during 2016, Scouts contributed over 15 million hours of service to their communities around the country. It can be valued at over \$363 million, based on an average volunteer hour value. All the projects that are planned and developed by Scouts have a value of \$196 million in the service alone (Surbaugh et al., 2017).

In the Scout movement, a Scout troop is the basic organizational unit, consisting of a number of Scouts patrols. Troops participate in academic and career programs, and often have special events. The troop is usually supported by a chartered organization. Such organizations include schools, religious organizations, service clubs, etc. Such organizations approve adult leaders, provides a meeting place, and makes sure that troop is following the guidelines and rules of the Boys Scouts of America. The chartered organization is the communication point between the BSA and the troop.

Each council consists of four major functions: finance, program service, unit service, and membership (Fig. 2.1). How each of these functions is accomplished is based on local circumstances and factors. Councils are managed by volunteer Scouters, who were elected to the executive board. Officers of the board consist of president, council commissioner, vice presidents, treasurer, and committee chairs. Each council also has a professional employed Scouter, who is also known as the Scout Executive. The Scout Executive reports to the council board.



Fig. 2.1. Four major functions of council.

Source: compiled by the author on the basis of (Boy Scouts of America, 2012).

Most councils are divided into smaller administrative areas, which are called districts. These districts are determined by the council executive board. Each such district has all council members, who lobe in the same geographic area. The District Committee is the one who manages the work there. District' leadership positions usually include: district

chairman, district commissioner, district committee members, and district committee chairs.

The organization's hierarchical structure is important for understanding the BSA operations. To simplify the structure, local units are small groups that usually serve a single small area, like a town or part of a bigger city. The council, on the other hand, has a larger area coverage, usually including few towns or counties. The National Council is the one, that covers the entire country of the United States, and oversees regions (Fig. 2.2).

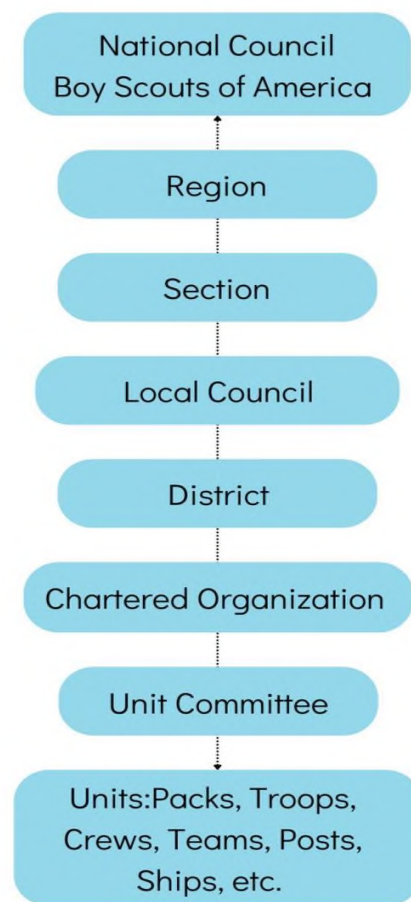


Fig. 2.2 BSA Organization – Top-Down.

Source: compiled by the author on the basis of (Koontz, 2021).

Local councils also consist of vice presidents of different areas (Fig. 2.3)

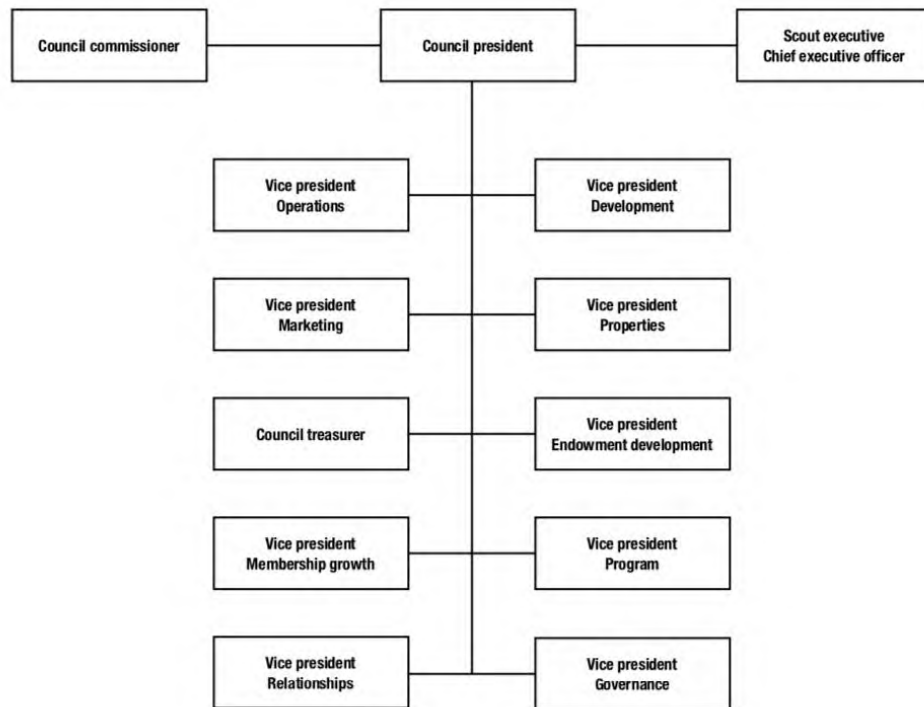


Fig. 2.3. Local Council Executive Board Organization Chart.

Source: (Boy Scouts of America, 2013)

While the unit-level focuses mainly on the youth and its involvement, national-level organizations deal with the international systems, and cultural considerations.

The National Council of the Boy Scouts of America, that can be shortened to National BSA or National Council, is the highest level of the BSA, it is spread across the United States, and oversees every council, and the national high adventure bases. The four bases that are operated by the National BSA are known as Philmont Scout Ranch, Summit Bechtel Reserve, Northern Tier, and Florida 10 Sea Base. The United States is also divided into various regions. Currently, there are four main regions in the BSA: the Northeast regions, the Western region, the Southern region, and the Central region. These regions can shift based on the membership change across the time. They are collectively can be referred to as the regional level (Koontz, 2021).

Scouting also exists in other countries. The World Organization of the Scout Movement (WOSM) reaches over 57 million members in network shared by 174 National Scout Organizations. It is a confederation that includes over 1 million local Scout groups and an equally vast number of adult volunteers, resulting in a huge multiplier effect. They

are based in Ukraine as well, so it will be interesting to compare their organizational structures (Fig. 2.4).



Fig. 2.4. The WOSM Organization – Top-Down.

Source: compiled by the author on the basis of (World Scout Bureau Global Support Centre, 2023).

The World Scout Bureau (WSB) is the Secretariat of WOSM. It comprises of approximately 130 professional staff, based in nine locations worldwide:

- Belgium, Brussels (Europe Support Centre)
- Egypt, Cairo (Arab Support Centre)
- Kenya, Nairobi (Africa Support Centre)
- Malaysia, Kuala Lumpur (Global Support Centre)
- Panama, Panama City (Interamerica Support Centre)
- Philippines, Makati City (Asia-Pacific Support Centre)
- Switzerland, Geneva (Europe Support Centre)

- Switzerland, Geneva (Global Support Centre)
- Ukraine, Kiev (Eurasia Support Centre)

The Boy Scouts of America is a non-profit organization; however, it still needs funds in order to operate. Most councils use similar approaches in fundraising. They usually rely on donation dinners, campsites, special events, merchandise, and direct mail solicitations (Fig.2.5). Council income from these sources can be considered to be stable. Most of the special events generated additional income for the councils. The BSA's National Executive Board has reviewed the fundraising policies in 1983, in order to give councils additional ways of fundraising. After the Product Sales and Commercialism Taskforce examined the fundraising procedures in 2010, the National Executive Board revised the organization's rules to accommodate fundraising activities (Boy Scouts of America, 1983).

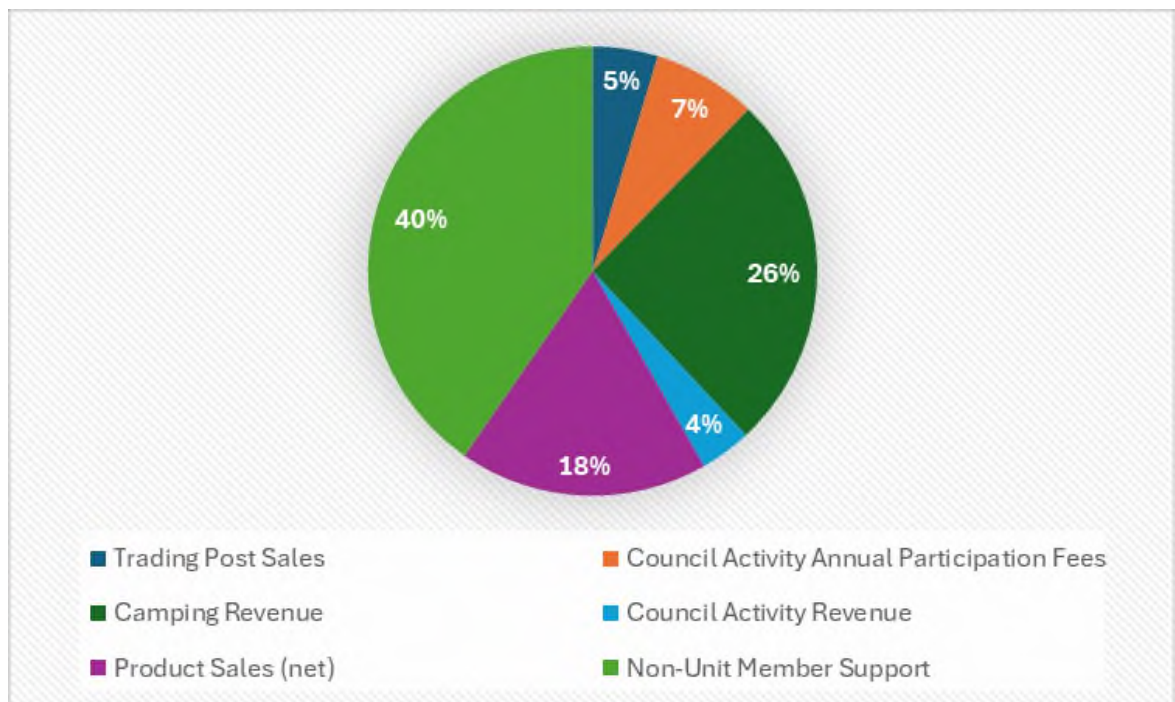


Fig 2.5 Overall Council Revenue Chart

Source: compiled by the author on the basis of (Mount Baker Council BSA, 2022)

The unit leadership may participate in approved fundraising projects, as long as the BSA regulations are followed. The Boy Scouts of America are trying to avoid

commercialization, and this will help to ensure that the quality of the products and services is high, and that all the participants of events are safe. The fundraising program is headed by the Finance Impact Department. It creates and implements annual fundraising plans. Such programs are divided into three categories: product sales, donations, and sponsored projects. Donations consist mostly of donations from existing members. Councils host fundraising events, which are held throughout the year to encourage more contributions. Product sales consist of sales of popcorn or biscuits, camp cards, and merchandise. Finally, sponsored projects refer to events and activities, which are funded by private companies, donors, etc.

Youth members can sell approved products during fundraising projects and events, as long as these products are consistent with the organization's purpose and value. The products must be manufactured by the BSA licensee, in order to have emblems, brands, and logos associated with the Boy Scouts of America. Additionally, the BSA has a rule that youth members can participate in such activities only for 12 weeks in any 12-month period (Fundraising Policies and Procedures Manual, n.d.).

Councils, which use the fundraising activities need to remember:

- Rules specified in the BSA Charter need to be followed.
- Councils are responsible for supervising and controlling fundraising activities that involve their youth members.
- The National Council lets local councils to be decision-makers related to the fundraising methods.
- Such activities demand time and effort and cannot be considered to be “easy money”.
- Council leaders cannot entirely rely on volunteers, they need to be responsible for the organization's fundraising.

Another way a council can raise funds is through the Friends of Scouting campaign. People donate money through such campaigns to support the council. Later, the raised amount is used to maintain and operate camps. It also employs the staff and volunteers needed for the support. There is training that needs to be provided, and activities to be planned and implemented.

Under the campaign, those people who support Scouting can enrol as Friends of Scouting by making financial contributions. It is often the main source of income raised by volunteers. The Friends of Scouting campaign consists of three parts:

- District or division enrolment

It includes committee members, commissioner staff, and others who support the program. They demonstrate their support by their service and enrolment.

- Family enrolment

Once families become members of the BSA, they are enrolled in the Family enrolment. Parents can participate in various programs and contribute money; however, this is completely voluntary. It is important to make it clear that money that is contributed to Friends of Scouting helps to support and build Scouting. Another ideal time to conduct Family enrolment is during different ceremonies, when a large number of parents will be participating.

- Community enrolment

This covers all prospects, which are not covered in the district and family enrolments. It includes non-district members, former youth and adult members, community business, etc. (Cub Scout Roundtable, 2019).

Each year local scouts also conduct an annual popcorn sale and discount cards. The fundraising event of a popcorn sale is one of the most popular ones in the Boy Scouts of America. It is an annual event, where scouts sell popcorn door-to-door in the local communities. Such events usually take place throughout the annual season. Each local council has its own procedures and policies for such sales. Local councils also usually provide training sessions for their scouts to learn how to sell. Such sales are made by small groups, walking from door to door, or they also can set up carts and tables in public locations, like shopping malls, to attract more people. The council is able to fund the management, who pays for everything including product costs and marketing. The council also shares the profit with participating units. The sale proceeds to support council's programs and services, both for scouts and charter organizations (Income tax return, 2021).

According to the Fig. 2.5, we can see that camping facilities bring a big part of the BSA revenue. The Boy Scouts of America own and manage thousands of acres of recreational land. The camps that are located on these lands are special outdoor facilities. They provide youth with a range of different activities, allow them to earn badges, provide food, and organize different events. Scout summer camps provide a healthy environment for children. They are distracted from technology and can receive valuable skills that would be hard to receive in urban areas. The time away from the media gives scouts an opportunity to develop social skills. Research shows that scouts which attend camps advance and improve way quicker (A parent’s guide to summer camp, 2021).

All camps ensure that their staff is trained, and that health and safety protocols are followed. Sometimes the program also includes facilities to accommodate adult-only events. The BSA camps are so successful in creating revenue due to having many ways of earning money: fees from the participants (registration fees, meal plans, etc.), rental income (campsites and cabin rentals not only during the summer, but also throughout the year), and trading posts (selling merchandise and camping equipment). For example, the Ed Bryant Scout Reservation, where I had my internship, has the following fees for a week of staying (see Table 2.1)

Table 2.1

Fees for Ed Bryant Scout Reservation

Registration Type	Regular Fee	Late Fee
Youth Registration	\$365	\$385
Adult Registration	\$130	\$130
Campsite Reservation	\$250	\$250

Source: compiled by the author on the basis of (Leaders guide, 2020).

In 2021 the Boy Scouts of America had a total number of individuals employed estimated of 3,411. The same year the number of volunteers who participated in the BSA activities was 412,395 (Table.2.3) (Income tax return, 2021).

Many volunteers donate their time to the National Council. The National Council records this time as contributions and as expenses. Not all donated services may be

recorded in some cases. However, where practical and of significant materiality, donated services are recorded at fair value (2014 Report of the treasurer and consolidated financial statements, 2015).

The amount of money that BSA spent on salaries, employee benefits, and other compensation was a little bit over \$57 million in the year of 2021 (Income tax return, 2021).

Local councils work with limited resources, since they cannot generate profit by raising prices like for-profit corporations do. Many local councils are located in the areas where organizations cannot support annual salaries of \$50,000 and more. Therefore, staff members usually earn between \$30,000 and \$35,000 per year. It is quite difficult to raise any funds in order to pay for salary increases. Funders and donors tend to give bigger contributions to specific programs, rather than general operating expenses. The salaries expenses and employee benefits also decreased for the past couple years, most likely because of the COVID (Fig 2.6). Since BSA doesn't offer big salaries, its employees are usually people who have been scouts when being children, and who want to continue being the part of this organization (Ziegler et al., 2015).



Fig. 2.6. Annual expenses on salaries, employee benefits and other compensation in the BSA organization 2017 – 2022

Source: conducted by the author.

Another way for the BSA organizations to get funds is by receiving grants. In the most recent years 477 scouting organizations received at least \$11.6 million in grants

(Table 2.2). The annual amount of grants that scouting organizations receive is more than 1200, with a median grant size of \$1,000 (Grants for scouting organizations, n.d).

Table 2.2**Top 5 grants made to Scouting organizations**

Grantee	Grant size	Grantmaker
Arrow WV	\$5,687,320	BSA
Girl Scouts of Greater Iowa	\$3,698,912	Community Foundations of Greater Des Moines
GSVSC	\$5,000	Charlottesville Area Community Foundation
BSA	\$5,000	Charlottesville Area Community Foundation
Camp Fire National Headquarters	\$5,000	United Way of Central Carolines

Source: (Grants for Scouting Organizations, n.d.)

The National Executive Board offers insurance programs to its employees, such as health, dental, life, vision, and disability insurance. In 2014, the National Council spent more than \$7000 on employees' insurance coverage. This was also included in the cost of benefits for Supply operations, Magazine publications, and functional areas, which are included in the Consolidated Statement of Functional Expenses (2014 Report of the treasurer and consolidated financial statements, 2015).

Table 2.3**Basic data about the BSA Organization (2021)**

Full name	Boy Scouts Of America
Employer Identification Number (EIN)	22-1576300
Net Assets or Fund Balances	\$ 254,651,463.00
Average number of employees	3,411
Average number of volunteers	412,395

Source: compiled by the author.

Strengths of the BSA organization are clear. The objectives and goals are spelled out and the aim is simple but important. The top two positions are volunteer-based (National President and National Commissioner), which gives the organization strength due to the fact that organization heavily relies on the volunteers. Clear position descriptions, structure, and organized operations allows everyone to feel flexible and more adaptable.

Other strengths that can be listed are:

- National financial stability.
- Brand recognition.
- Encourages volunteerism.
- Online resources available for volunteers and staff.
- Youth protection training every 2 years.

Weaknesses include large organizational structure, which can confuse of how the organization operates. Ineffective structure and processes can lead to inefficiencies and increase organizational vulnerability. Other weaknesses are:

- Difficult access to online resources, lack of annual reports for the past couple years on their website
- Recruiting volunteers from the community
- Assessing all volunteers with large-scale assessments has not been conducted in a long time, which is hindering the assessment's efficiency.

There are many *opportunities* for this organisation in the next years. Opportunity to create new strategic plans, addressing recruiting and retention of volunteers by making the recruiting process easier. Conduction large-scale assessments of volunteers. The rest of the opportunities are:

- Increasing retention of new members
- Updating website to be more accessible and user-friendly
- Providing online training opportunities
- Simplify the process for adults to volunteer, such as by providing more opportunities or creating a platform.
- Conduct more surveys to measure volunteer satisfaction.

When talking about *threats*, there are few of them that the BSA organization needs to be aware of. For example, ineffective recruitment and training of volunteers could endanger the organizational structure and success. The Boy Scouts organization depends heavily on volunteers with long-term commitments, so a shift to volunteers with shorter-term commitments could endanger its structure. Other threats that the BSA can face are:

- Many troops lack a robust orientation process for volunteers, leading to inconsistencies and confusion.
- Trainings are optional for volunteers in most cases.
- Only certain roles are clearly defined.
- Recruitment is left to individual troops.

One of the first times when the BSA was recognized for its achievements, was in 1941, when Franklin D. Roosevelt, 32nd president of the United States, gave a speech to the scouts. “I am most favourably impressed with the scope and magnitude of the emergency service training program now being developed by the Boy Scouts of America” (Speech of the president to the boys scouts of America, 1941).

2.2. Research of natural hazard situations and their awareness in the Boy Scouts of America

Scouts are taught from a young age that it is important to help and be involved in the support of their communities.

Since natural disasters is a common thing the United States, it is vital to have an awareness and prepare young individuals to different situations and teach them to always

be there for their communities in case of any disasters happening. Otherwise, such events can have a significant risk to individuals and communities, if not properly prepared.

In the Boy Scouts of America, scouts can learn about different situations that can happen and about preparation and actions steps they will need to follow in case of an emergency. They are able to learn by exploring environments during outdoor activities.

Scouts are encouraged to share their awareness of natural hazard risks with their families, friends, and neighbours, to help prepare everyone for potential events.

Since scouts have crucial skillsets ideal for disaster recovery (leadership, first aid, navigation), they can be an extremely valuable resource. Scouts and BSA volunteers are often the first ones to be called when disaster strikes.

The BSA councils and scouts can provide important assistance like:

- Providing emergency shelters and basic resources
- Assisting with disaster recovery: rebuilding, cleanup, repairs, etc.
- Mental support
- Search and rescue operations.

The Boy Scouts of America owns thousands of acres of land and real property. This makes them very exposed to different natural disaster risks. The risk and impact of natural disasters is not only limited to cleanup and reconstruction process. Natural events can affect camps in many different ways, like physically, financially, and socially. Due to significant damage, councils can lose income. The common natural disasters to happen and affect the BSA organization are wildfires, floods, hurricanes, storms and tornadoes.

The Boy Scouts of America faced quite a few situations where they were either in the middle of the event or were helping their communities to recover.

One such situation happened when the Hurricane struck the states of Virginia and North Carolina in 1938. That hurricane brought a lot of destruction. The hurricane caused millions of us dollars' worth of damage. There were many volunteers after the event that helped deal with the consequences of the hurricane. Boy scouts, who were trained for situations like this, have played a leading role in helping the community to recover after the event. Local councils coordinated emergency response, cleanup and restoration activities. The Boy Scout summer camp, Camp Wampanoag, also had few damages,

however they were not as big as other areas experienced. The main damage was the loss of several trees along the shore front, and them falling several feet away from the cabins (Simpson, 2012).

Another major event happened in 2005. Due to many factors like spring rainstorms, snowmelt, and tropical storms, there was a cause of the major flooding in the Delaware River Basin. In such counties as Sussex, Warren, Hunterdon, Mercer and Morris, about 1,800 homes and businesses were flooded, 25 homes were destroyed, and about 4,000 people were evacuated. Total damage was estimated at \$52 million dollars. The Boy Scout Camp that was located between Pt. Pleasant, PA and Frenchtown, NJ had to be closed for the whole year due to the severe flooding in that area (FEMA & NJDEP, 2008).

However, it did not stop there. There was another flooding in the same region in 2006. In the middle of Delaware River, about 200 scouts and counselors had to be evacuated from the Treasure Island Boy Scout Camp. That area was so badly damaged by the flooding, it caused extensive damage two years in a row (Scouting outdoor program, 2021).

In 2017 the Alaska Incident Management Team headed to the Willamette National Forest in order to take over the wildfire. The fire consumed over 100,000 acres of wild land and it required a lot of firefighter work to put it down. There was a high public interest in helping and protecting the local Boy Scout camp, called Camp Melakwa. Liaison staff and camp program director coordinated and worked together, providing reports about the camp. It is unclear if the camp was directly affected by the fire, however everyone in the camp had to be evacuated once the fire started. That led to camping programs being interrupted.

There were also situations when Boy Scouts became the reason for the natural hazard occurring. One such situation happened in 2002, when scouts decided to camp in the Unita Mountains on the border between Utah and Wyoming without any adult present. The scouts built the campfire and left without properly extinguishing it. It led to the wildfire to happen, also known as East Fork Fire. The U.S. suit against the Boy Scouts of America organization, since the fire caused \$14 million in damages and affected more than 14,000 acres of the land. In 2002 Boy Scouts reported \$78 million of revenue, which

means the suit claimed almost 18% of their annual revenue (Forest fire damages in transition, 2009).

In 2017, January 2nd a tornado went through the Camp Osborn in Worth County. At the moment of the event, there were 15 scouts and leaders on the territory of the camp. Even though it was only an EF-1 tornado, it caused devastating damage. Every power pole at the camp was broken, twenty-three buildings were damaged, and a couple buildings were completely destroyed. Thanks to the prior training scouts moved to the dining hall, hiding in the walk-in refrigerator, once they learnt about the storm warning. Everyone survived (Forest fire damages in transition, 2009).

Unfortunately, not all similar stories end well. On June 11th, 2008, four Boy Scouts lost their lives due to the tornado that struck Little Sioux campsite (Georgia forestry commission, 2017).

One of the biggest and most devastating tornadoes that happened in the United States history, happened in 2011 in Joplin, Missouri. With winds over 200 mph, and a track three-quarters of a mile wide and six miles long, this tornado destroyed most of the city. Thousands of structures were gone, more than 1,000 people injured, and over 150 deaths. The Ozark Trails council is the one who serves in the Joplin area. They started receiving inquiries from young scouts from all over the country, who wanted to help. The council gathered more than 1,000 scouts from seven different states to pick up the debris, help with the cleanup, and support mentally those who needed help. Additionally, the council also hosted a camp program for Joplin children, who could get away from the destroyed city for a couple of days and be distracted from a nightmare they had to experience (Safeguard Iowa Partnership, 2008).

In 2005 after Hurricane Katrina passed and brought distractions to many counties, the slow response from the government agencies left storm victims to rely on the help of volunteers. The Boy Scout troop from Warner Robins, Georgia visited the Gulf Coast seven times, helping with rebuilding the damaged homes. After their help there, they travelled all the way to Waveland. They brought \$5,000 worth of equipment for the local fire station. They also loaded two trailers with supplies for the storm-damaged areas, and

provided local residents with tools, bottled water, supplies, etc. (Emergency preparedness, 2019).

The 2017 Atlantic Hurricane season was a hard season for the coastal regions. Three major storms brought much damage to Texas and Florida. Scouts from all over the country responded to the tragic events. They came to the affected areas, helping with water and food, providing emergency supplies, and provided needed relief. When help was needed during the hurricane season, it came from scouts nearby and from scouts on the other side of the country. No matter how far away they are, they are always happy to help, with whatever they can. For example, the same year scouts from Minnesota collected games and shipped them out to Texas to children, who lost them due to the weather conditions (Derr et al., 2018).

In the immediate aftermath of the disaster, every scout needs to have an understanding between being helpful and getting in the way, and that is something they are being taught from a young age. There were so many cases when young men and women in youth-serving networks would be one of the first ones who volunteered to help rebuild the communities, immediately following the disaster.

The United States Department of Homeland Security (DHS) is partnering with the Boy Scouts of America to spread awareness and preparedness across the country. They want the BSA to build upon the foundation of the Ready campaign and assist citizens with preparing for emergencies of all kinds.

Emergency management and preparation is common across the United States and is a major aspect of many communities. Such activities cover different types of emergencies, both natural and national security related. The focus is on being prepared for all kinds of risks, respond quickly, and help communities to return back to a normal life. Emergency Preparedness programs in the BSA are planned to inspire and teach scouts and volunteers to be prepared. The Scout motto is “Be Prepared”, and these words carry a huge meaning when talking about emergency situations. Since emergencies are becoming more often events, being ready is crucial.

Scouting, from the beginning, has been focused on serving the community and nation in times of crisis. Scouting units around the country are planning an emphasis on training,

which needs to be completed first before any emergency service is made. Whenever the disaster occurs, it affects every individual in the area. It becomes the BSA responsibility to respond. They need to respond as an individual first, then as a member of the family and lastly as a member of the Scouting unit. These multiple levels of responsibility require training for individual, family and unit preparedness (DHS, n.d.).

The Boy Scouts of America and Red Cross organization have partnered for over 80 years to help people during difficult times. Volunteers from both organizations make a huge difference in millions of lives every day, by helping communities in a time of need, or even helping the military during international conflicts. Good Turn for America is a call to service by the Boy Scouts of America where they work along with the Red Cross, Habitat for Humanity, and Salvation Army. Together these organizations work in order to help communities with health, hunger, and housing. This project provides thousands of hours of service to many communities.

As it was mentioned before, fundraising is a big part of the BSA programs. The main categories of funds that Boy Scouts have are (Fig. 2.4.):

- Charitable Remainder Trusts: The percentage of assets is transferred to charities and or other non-profits, while providing income to the donor.
- Gift Annuities: Trusts that are generating income for the charities.
- Donor-advised Funds: Central pool of donations, that can be contributed to charities, if requested by donors.
- Other specific Purpose Funds: Usually used for specific projects, not listed on the file (new equipment or building, national event, etc.).
- Scholarships: This fund is used to help scouts to cover the costs of participation in scouting activities.
- Regional funds: Local fund-raisers for the BSA.
- National Scouting Museum Funds: Funds to support the National Scouting Museum.
- World Scouting Funds: Funds to support the World Scouting Movement.
- Emergency and Discretionary Funds: Used to support the BSA preparedness for disaster relief.

The Boy Scouts of America can use all its funds for disaster relief activities. However, the emergency and discretionary funds are specifically allocated to the purpose of natural disaster relief. The emergency funds are usually used after a natural disaster event for immediate needs. These needs can include emergency equipment, supplying aids, water and food, etc.

The discretionary funds are used for long-term planning and development, like training, disaster relief activities, and local initiatives.

The funds that are raised for disaster relief are comparably smaller than other funds, however, they are still very helpful. For example, in 2011 the Emergency and Discretionary fund was estimated at a little over \$1,000,000 dollars. In 2013, this amount increased to almost \$2,430,00 dollars. However, in 2019 this fund decreased to \$781,536 (Fig. 2.7.) (BSA foundation annual report, 2019).

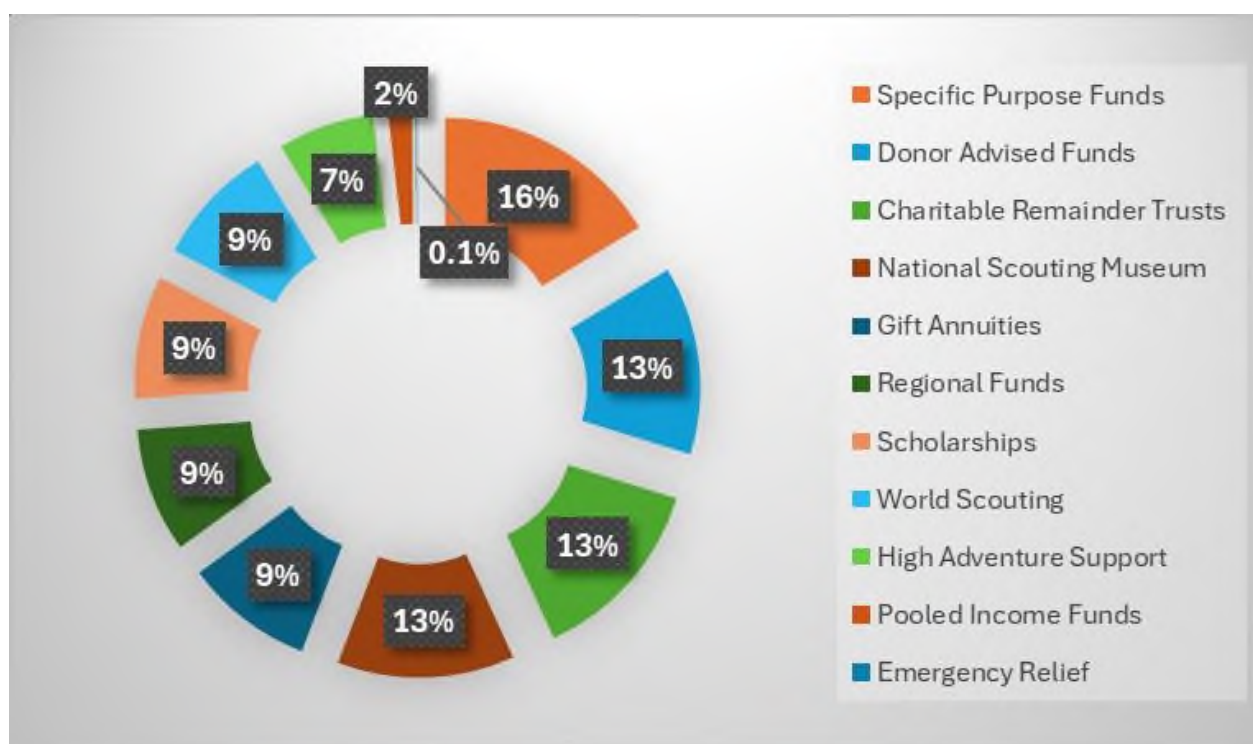


Fig. 2.7 BSA Foundation Fund Categories 2019. Total Funds (as of December 31, 2019): \$78,153,683

Source: compiled by the author on the basis of (BSA foundation annual report, 2019).

Besides the natural disaster awareness, scouts all around the world help those in need no matter what devastating event is happening. It is important to note that they have been

helping with the Russian war in Ukraine as well. Both American and Worldwide divisions of scouts have been giving support to Ukrainians right after the beginning of invasion. More than \$100,00 in funding has been donated by scout groups, and individual supporters for an emergency response and relief efforts in Ukraine. The funds have been directed to the National Organization of the Scouts of Ukraine, in order to help provide vital food, medical, and sleeping equipment for those impacted. Part of these funds were also directed to provide psychological support. The Odessa Scouts also organized an online meeting for children with a special musician to help lift their spirits and entertain them during the conflict.

At a virtual meeting on 27th February, over 100 volunteers and staff from Scout organizations across Europe gathered to discuss the support that they can give to Ukraine. The discussion focused on how organizations in neighboring countries could provide aid and support and how to help keep Scouting and Guiding activities going despite the war. World Scouting has also directed \$10,000 emergency grants to support efforts in a number of NOSU's neighboring NSOs (World Scouting, 2022).

2.3. Analysis of the effectiveness of trainings in the organization

Disasters can have significant impact on communities, both social and economic. Through the programs and initiatives, the BSA has provided training and support to areas affected by natural events. In this section we will try to analyse the effectiveness of natural disaster training within the BSA organization.

Voluntary and non-profit organizations, play a critical role in dealing with the aftermath of a disaster. They can provide external resources and training, along with the support to local groups. Such networks allow communities to coordinate and maximize the support giving.

The Boy Scouts of America has a proactive support of disaster relief, it is one of the core parts of the organization's mission. This has led to the development of effective training courses for both scouts and employees. By using the skills, knowledge, and

valuable resources of volunteers, the BSA is one of the leading organizations that is providing support.

Volunteer labour can be considered to be the foundation of the disaster training program. Partnerships with local emergency groups and certified trainers can help with training courses, which are adjusted to the needs of participants of all the levels. Economically, volunteers help to soften the costs associated with the disaster relief. They offer unpaid labour, expertise, and their time. Every year, the BSA contributes more than 25 million volunteer hours across the country. This can be estimated to be equivalent to over \$500 million dollars, based on national volunteer hour value of \$21.36. The significant contribution is made to the organization and the economy by the volunteers, which provides a positive economic impact (Scouting Magazine, 2012).

The average annual economic value of the volunteer is \$1,224 dollars per each volunteer (The value of volunteers, 2011).

Scouts can receive an Emergency Preparedness Badge, a training that provides young people with the information and skills like emergency planning, response, recovery, first aid. It also includes the efforts to minimize the environmental and economic effects.

All the employees who join the summer campsite facilities are also required to do both online and in-person training. The online one includes Weather Hazard training, which is valid for two years. The proof of finished training is required for all staff completing the course in advance. It will be then later repeated in-person with other staff members during the first week of work in the camp. The other training that is required to be done is first-aid training. At least 50 percent of staff must be currently certified in American Red Cross CPR/AED or approved equivalent. And at least 50 percent of staff must be currently certified in American Red Cross Standard First Aid or approved equivalent.

The 2021 financial report of BSA provides us with the organization's financial data. It shows that the organization spends a significant amount of money on training for its employees. The training expenses reached around 3.7% of the total expenditure in 2021. That is about \$5.4 million dollars, out of the total expenditure of \$143 million dollars (Francis et al., 2021).

In previous years, expenses for training were even bigger. \$11.3 million in 2019 and \$13.1 million in 2018 (Boy Scouts of America, 2019).

Bringing together relief and development efforts in cases of disasters can be challenging for agencies that respond to these events. However, the way these organizations engage with young people can be crucial in the context of effectiveness. Providing people with improved access to the information before and after an emergency, gives them the opportunity to respond to the future events more effectively (Breazeale et al., 2013).

Experiences scouts have been helping in disasters across the states for over a century now. They are often called upon to provide needed help by supporting local agencies with catering, cleanup and general support. The Explorer program, which was developed by the Boy Scouts of America in 1959, became a national program in the same year. This training provides young people, both inside and outside of the organization with useful information, and practical experience. Scouts were able to show more than once that they can and know how to effectively respond to any emergency events (Hartley, 2020).

CHAPTER III. WAYS AND MEANS OF MITIGATING ECONOMIC EFFECT OF NATURAL DISASTERS

3.1. Recommendations for improving the enterprise's activity in the framework of possibility of natural disasters

The Boy Scouts of America is a big non-profit organization that operates all around the United States. Like any other organization or business in this country, it is vulnerable to the many devastating events, including the natural disasters. Therefore, all the discussion above is valid and important for this organization. However, the BSA is one of the biggest non-profit organizations in the United States. As discussed above in previous sections of this work, this organization has multiple revenue streams:

- Membership fees
- Property and equipment rentals
- Products and service sales
- Training programs and certifications

All the above leads to the fact that the organization can rely on multiple revenue sources and ensure its financial stability. Therefore, it would be logical to assume that the BSA is well-protected from disaster events that can happen. They have people (volunteers and scouts) and funds to cover any possible emergency events. However, other non-profit organizations can be a lot more limited in their resources and therefore more vulnerable to such events. Therefore, in this chapter, I will be viewing other non-profit organizations, what they can do to ensure their stability, and what the BSA can do in order to improve their security.

Nonprofit organizations have an important role in the terms of disaster response. They can provide services for the vulnerable populations. Therefore, the demand for such organizations increases a lot during the disaster event. Financial resources can be crucial during this time. Being able to sustain normal financial conditions during normal day-to-day life can be hard, in case of emergency it is even harder.

Financial vulnerability of non-profit organizations is usually tied to their organizational characteristics, along with the financial ratios. Unlike business, the non-profit sector is usually supported by donations. Due to this fact, they have other priorities and strategies when disaster strikes. Natural disasters pose challenges for all the non-profit organizations, however, the impact in each organization can be different. One of the research projects (Chen, 2021) found that smaller organizations are more likely to experience the consequences, such as financial distress. Therefore, smaller nonprofits need to take the potential economic pressures into consideration.

Another hypothesis that was proven during that research was that non-profit organizations that rely on the commercial revenue sources were less financially vulnerable. That means that nonprofits that rely on non-commercial revenue sources should be more prepared for the negative effects that natural disasters can bring (Chen, 2021).

One of the terms that will be useful for us in this discussion is revenue diversification. It is responsible for a strategy that an organization is using, when generating multiple revenue sources instead of relying on only one source. A good example of this is the BSA itself. For nonprofit organizations, this strategy helps to diversify the revenue channels, for example adding commercial revenue in addition to the donations, grants, etc. To calculate the revenue diversification, the Hirschman–Herfindahl index (HHI) can be used:

$$\text{Revenue diversification (HHI)} = \frac{1 - \sum_{i=1}^3 \left(\frac{\text{revenue source}_i}{\text{total revenue}} \right)^2}{2/3}$$

where i denotes donative, commercial, or investment (Chen, 2021).

According to the study conducted in Marquette University (Chikoto et al., 2016) nonprofits face resource dependency, and happen to have financial distress in the cases where the organization does not have a diverse mix of funding. Even though, almost half of the organizations tend to have income from more than four sources, each organization needs to be viewed individually in order to understand if the number of sources will be enough (Table 3.1).

Table 3.1

Number of revenue streams	Number of nonprofits	Percent of total	Cumulative percent
1	5080	4.90	4.90
2	13,209	12.74	17.64
3	19,239	18.55	36.19
4	20,942	20.19	56.38
5	18,349	17.69	74.08
6	13,082	12.62	86.69
7	7790	7.51	94.20
8	3807	3.67	97.88
9	1548	1.49	99.37
10	510	0.49	99.86
11	115	0.11	99.97
12	28	0.03	100.00
13	2	0.00	100.00
Total	103,701	100.00	

Source: (Chikoto et al., 2016)

Recent studies show that benefits of revenue diversification can be achieved by optimizing the revenue sources. It will be more helpful than adding new revenue streams.

It is also important to remember that equity by itself is not a significant predictor of financial distress when talking about natural emergencies. Most of the non-profit organizations lack the financial servers for emergency response. Therefore, additional support from the government and other charitable foundations will be needed. (Chen, 2021).

Just like any other crisis, natural disasters can present complex and unique challenges that organizations need to overcome. They can be met by adopting the scenario planning, simulations, and intense preparations. As opposed to other crises, natural ones do not respect borders and jurisdiction. The organizations can adopt a comprehensive approach, which combines consideration, resilience, respect and joint planning can overcome these horrific events and become stronger after them (Overcoming natural disasters, n.d.)

Regional communities around the country rely a lot on the local businesses and nonprofit organizations. They need to remain open in order for the community to recover faster after a disaster. This underscores the importance of the business to be prepared and equipped to face such big challenges.

Disaster risk reduction is an increasingly crucial aspect of the business world nowadays. Companies are strengthening their risk management capabilities in order to stay competitive and ensure the sustainable growth. (Mc Grath, 2014).

Some companies have strong contingency plans, ready to assist them when faced with devastating events. However, there are still many organizations that still lack a proper plan and are not even thinking about having one. The disaster recovery plan does help with mitigating big losses. Since disasters have unpredictable and sudden nature, organizations need to have an optimal plan to minimize disaster effects and being able to continue with critical business functions. Even if business manages to survive after a disaster, the lack of preparation can be crucial for the business. It can have massive costs, in the form of money, time, and resources. (Jorrigala, 2016).

Emergency management is a complex and dynamic process that involves preparation, management, and response to emergency situations. Planning is an essential component but is not the only one. Training, testing, and conducting drills are other important functions.

There are four main steps in planning process for an emergency management:

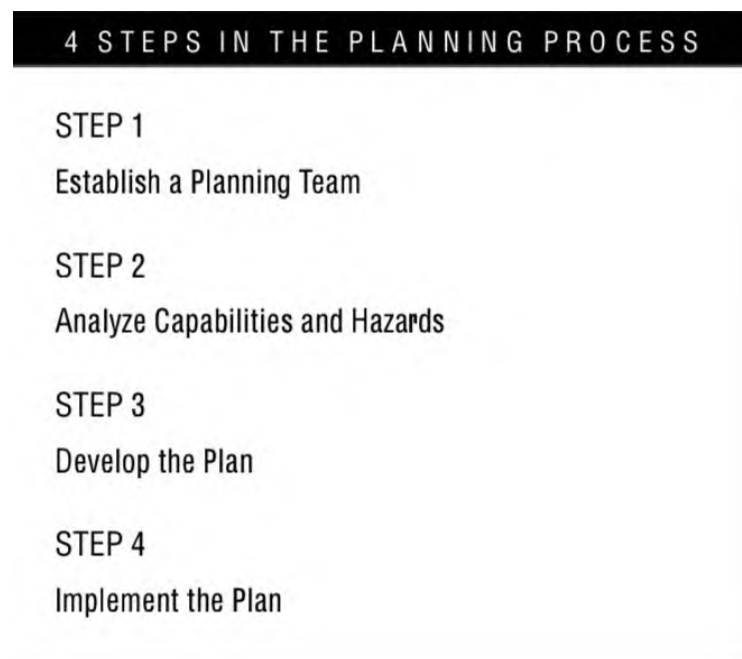


Fig. 3.1. Steps in the planning process.

Source: (FEMA et al., 1993)

1. Establishing a planning team

Organization needs to have an individual or a group of people who will be in charge of emergency management plan development. The planning team will then need to issue the mission statement, outlining the organization's commitment to emergency management. An effective planning process also involves formulating a work schedule and deadlines. Alongside this, the planning team needs to come up with a viable budget that will help to cover necessary expenses.

2. Analyzing capabilities and hazards

Organization needs to gather detailed information about existing capabilities and potential threats to the business. This includes doing assessments and risk analysis to gain insights into the business's resilience and abilities to address emergencies. This step requires a lot of research and has its own steps to be done, such as: reviewing internal plans and policies, meeting the outside groups, identifying regulations and critical operations, identifying internal and external resources, and meeting the insurance carriers in order to review the policies.

3. Developing the plan

The plan needs to include emergency response procedures, explaining how the facility will respond in case of emergency events. Besides writing an actual plan, identifying the challenges and goals, along with making the list of tasks, the planning team also needs to come up with a training plan. Training is essential for efficient emergency response. Plans need to follow both internal and external regulations and policies. After the plan approval, the organization can finally work on the last step of the planning process.

4. Implementing the plan

Effective implementation of an emergency management plan involves not only running the drills and training, but also addressing the recommendations and suggestions from the vulnerability analysis (Wahle et al., 1993).

3.2. Natural hazard and disaster information as a way to their reduction or ways of overcoming the economic difficulties facing natural disasters in US

Natural hazard information, along with the disaster reduction measures are crucial for dealing with the economic fallout in case of natural disasters. The United States experiences a lot of damage and disruption due to the frequency of disaster events. Efficient utilization of the information, as well as effective application of mitigation strategies can help to ensure the economic stability and help with economic recovery. In this section, we will discuss what the US government is already doing in terms of reducing the costs and helping in the recovery, how to improve that, and what they can do in order to be more efficient.

In order to reduce the risks associated with natural disasters, and their impacts along with the potential damages, governments at all levels need to be prepared to respond effectively. There are different ways, which can help to prepare, both ahead of time and in response to emergencies. Let us examine some of the key elements and mechanisms for disaster preparedness across different levels of government.

During the planning process, when preparing for the large-scale incidents, which can impact multiple regions, or even states, plans should take into consideration the competition for limited resources and potential movement of populations. Plans should also include nontraditional partnerships to ensure a comprehensive community-wide approach. Planning for widespread disasters should take into account the wide range of dependencies and cascading impacts within a community. Specifically, the following should be considered:

- Community dependence on public transportation systems and related infrastructure.
- Potential for reduced tax revenues and economic damage.
- The potential for panic buying and hoarding.
- The potential for neighboring states to accept an overwhelming number of evacuees.

The plan should also address aspects of policy, guidance, and governance:

- A framework for senior leadership on managing complex barriers during such incidents.
- Solutions to address evacuation hesitancy.
- Additional federal guidance on:
 1. How to report information to senior leadership.
 2. Hazardous materials detection and protection protocols for first responders.
 3. Evacuee tracking and reintegration strategies.

When talking about the organization process, there are a few things that need consideration. For example, federal, state, and local governments can face big challenges when hiring qualified personnel for catastrophic incidents. Increasing training for senior leaders across the governments, on how to use available data, will help with the decision making (FEMA, 2023).

Unfortunately, governments can take more risks when it comes to the size of the disasters. While individuals suffer from devastating effects of natural disasters, governments face damage in a small part of their economy. Information on natural hazards plays a crucial role in the disaster risk management. Therefore, investing in research and supporting scientists and their projects can be the key to the damage reduction. Reliable and quality data is necessary for effective disaster risk management. As an example, people use the Bangladesh's cyclone warning system, or Doppler radar, both help providing an early and more accurate warnings for storms (Benson et al., 2003). Better tropical cyclone forecasts helped to reduce the amount of fatalities, while early warning systems helped to reduce the flood damage. Probabilistic forecasts have improved hazard forecast strategies by adding probabilities to forecast predictions. Determining the accuracy of a forecasting system requires a lengthy sample size of forecasts, which can be inhibited by the rare occurrence of actual events. Although this lack of reliability will diminish in the coming decades, probabilistic forecasts remain imperfect. Technology can be utilized in a predictable manner to both soften consequences of natural hazards and reduce vulnerability. Scientific and technological advances have enabled significant alterations in the collective approach to the problem of natural disasters. Understanding the mechanisms and

interactions of various types of natural hazards, as well as associated disaster impacts requires contributions from various fields, including physical, engineering, natural, social and human sciences.

Since the United States have experienced devastating events for many years, they know what to do and how to behave in different situations. However, given the recent increase in natural disasters, and therefore increase in damages, I believe that the U.S. government should invest more in the scientific fields which will help with disaster risk reduction. Scientific studies on hazards can help them to understand the mechanisms behind disasters and improve the response efforts. With increased investments in the scientific research related to natural hazards and disaster risk reduction, they will be able to better prepare for and mitigate against the hazards and disasters. While the investment in scientific fields has increased for the past couple decades, only small portion of that is going to the disaster research (Fig. 3.2)

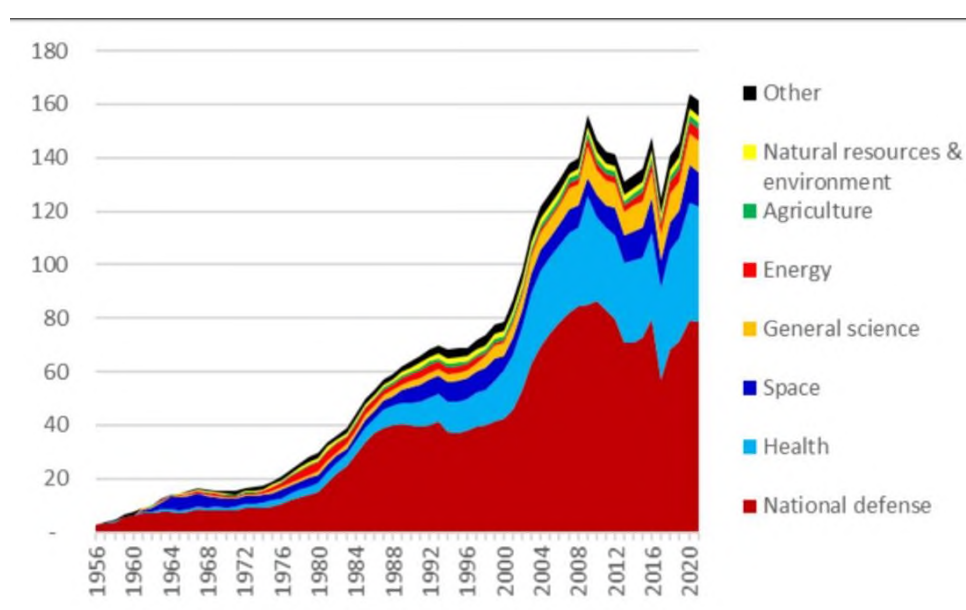


Fig. 3.2. US investments from 1956 to 2020.

Source: (Congressional Research Service, 2022b)

As of this year 2024, only 18 projects have been funded so far. The US National Science Foundation (NSF) and the National Institute of Standards and Technology (NIST), which falls under the US Department of Commerce, have recently collaborated to invest \$7.1 million this year. Since the U.S. government spends a lot more on the disaster damage, I believe more can be spent on research to prevent the disaster risk.

CONCLUSIONS AND PROPOSALS

In this study we learnt about the significant impact of natural disasters on the economy of the United States. We also explored the role of the Boy Scouts of America (BSA) in mitigating the impacts. The findings help to reveal the complex interplay between natural devastating events and economic stability.

Natural disasters such as hurricanes, floods, tornadoes, etc. can have significant long-term impacts on the economy, including costly physical damage and loss of life. They also disrupt supply chains, decreasing productivity and income loss. The damages from disasters can cost billions of dollars annually, along with less evident indirect costs that further exacerbate the economic burden.

The economic impacts have long-lasting consequences on the country, further making disaster preparation an important task.

The vast geographical diversity on the United States, makes specific locations be more vulnerable and more exposed to varying hazards. This can complicate the management of the disaster risk.

In addition, changes in climate increase the frequency and intensity of natural disasters. We can see the proof of this statement in data collected for the past couple years, with a rapid increase in billion-dollar disasters. Rising seas, shifting weather patterns, and increasing temperatures contribute to increased vulnerability of communities. This demands comprehensive and urgent approaches for disaster risk management.

Non-profit organizations, such as the Boy Scouts of America, play important roles in disaster relief. The BSA's commitment to service and leadership development help during devastating events. Community-focused projects primarily involve addressing local needs and strengthening communities. This helps to mitigate the effects of natural disasters. Whether it's constructing emergency shelters, conducting disaster drills, or lending a helping hand to impacted communities, Boy Scouts across the nation prove that they can and are willing to use their skills when needed.

As an additional advantage, the BSA's partnering with a variety of public and private stakeholders also helps to prepare for disasters and to strengthen the community

resilience. This collaboration fosters communication and coordination between stakeholders. This enhances the effectiveness of disaster responses and diminishes their economic impacts. The BSA's extensive and inclusive network and resources allow it to effectively facilitate community readiness and recovery during challenging times. Partnerships with organizations such as the American Red Cross and FEMA further facilitate coordination, ensuring an efficient and synchronized response to situations of crisis. Thanks to the huge network of volunteers in the Boy Scouts of America organization, along with the number of scouts and scout leaders that they have, they are very helpful during crises and emergencies.

Volunteers lend their time, skills, and compassion to uplift communities that are devastated by the disasters. Whether providing medical aid, supplying food and water, or clearing debris, they play a crucial role in the prompt response and extended rehabilitation phases of disasters. They represent a cost-effective resource in a disaster relief process. Moreover, when they come to disaster-hit areas, they spend money on accommodation, meals, transportation, etc., which helps the local economy. Such expenses also help to support small businesses, who struggle a lot during such events. By supporting recovery and rebuilding efforts, volunteers help restore economic stability, promote business continuity, and revitalize local economies.

The Boy Scouts of America play a significant role in disaster relief efforts through fundraising, donation drives, partnerships with charitable organizations, emergency preparedness initiatives, and volunteerism. They raise funds each year and are happy to use them for assisting those in need. Even in the situation with Russian invasion. By leveraging its resources and mobilizing its network of scouts and volunteers, the BSA contributes to the resilience and recovery of communities affected by natural disasters. The training that they provide to their employees, volunteers, and young scouts shows to be effective and useful when the disaster strikes. The Boy Scouts of America help deal with the consequences of the disasters by fostering a culture of service and promoting collaboration across different sectors.

The economic impact of natural disasters on the United States is profound. It encompasses direct and indirect costs that can strain both public and private sectors.

However, using proactive measures and collaborative efforts the adverse effects of natural disasters can be mitigated.

Investing in scientific research is also essential for reducing the economic impact of natural disasters. It helps with the understanding of hazards, improving early warning systems, developing technologies, and informing climate adaptation strategies. It will be possible to build more resilient communities and strengthen critical infrastructures by prioritizing research and innovation.

Revenue diversification can play a crucial role in the terms of saving the non-profit organization, or a business. It shows exactly how many streams a business needs in order to overcome emergency situations, and how they can reduce the financial risk. Such approach can also increase the stability of the business in non-related to natural disasters situations.

In conclusion, the economic impact of natural hazards on the United States underscores the urgency for active measures, along with collaborative efforts. This will help to mitigate vulnerabilities and improve resilience. Alongside the contribution of volunteers, non-profit organizations, and charities, investing in scientific research is essential. By fostering a culture of preparedness, leveraging resources, and prioritizing information, strong communities will appear. This will significantly help with the economic impact, disaster relief process, and the most important – it will help saving lives.

LIST OF REFERENCES

1. Summary of Natural Hazard Statistics for 2020 in the United States. (2022, April 8). <https://www.weather.gov/media/hazstat/sum20.pdf>
2. Smith, A., Lott, N., & Ross, T. (2024). U.S. Billion-Dollar weather & Climate Disasters 1980-2024. NOAA National Centres for Environmental Information. <https://www.ncei.noaa.gov/access/billions/events.pdf>
3. Elsner, J. B., Jagger, T. H., Widen, H. M., & Chavas, D. R. (2014). Daily tornado frequency distributions in the United States. *Environmental Research Letters*, 9(2), 024018. <https://iopscience.iop.org/article/10.1088/1748-9326/9/2/024018/pdf>
4. Brown, T., Riemer, N., Snodgrass, E., Ortiz, A., & University of Illinois at Urbana-Champaign. (2015). Tornado Learning Module. https://www.atmos.illinois.edu/~nriemer/education/tornado_module.pdf
5. Hurricane Learning Module. (2015). https://www.atmos.illinois.edu/~nriemer/education/hurricane_module.pdf
6. Cigler, B. A. (2017). U.S. floods: the necessity of mitigation. In *State and Local Government Review* (pp. 1–13). https://napawash.org/uploads/Standing_Panel_Blogs/cigler-floods-and-mitigation-Sept.-20172.pdf
7. Earth Networks. (2021). 2021 U.S. Lightning Report. In *Earth Networks Total Lightning Network [Report]*. https://aem.eco/wp-content/uploads/2022/04/US-Lightning-Report_2021_Final.pdf
8. National Interagency Coordination Center (NICC). (2023). Wildfire statistics. In *Wildfire Statistics*. <https://sgp.fas.org/crs/misc/IF10244.pdf>
9. Loris, N. (2023, March 8). A burning issue: the economic costs of wildfires. *Budget Senate*. <https://www.budget.senate.gov/imo/media/doc/Mr.%20Nicolas%20Loris%20-%20Testimony%20-%20Senate%20Budget%20Committee3.pdf>

10. NCEI.Monitoring.Info@noaa.gov. (n.d.). Billion-Dollar Weather and Climate Disasters | National Centers for Environmental Information (NCEI). <https://www.ncei.noaa.gov/access/billions/state-summary/US>
11. Cardona, O. D., Van Aalst, M. K., Birkmann, J., Fordham, M., McGregor, G., Perez, R., Pulwarty, R. S., Schipper, E. L. F., & Sinh, B. T. (2012). Determinants of risk: exposure and vulnerability. In C. B. Field, V. Barros, T. F. Stocker, D. Qin, D. J. Dokken, K. L. Ebi, M. D. Mastrandrea, K. J. Mach, G.-K. Plattner, S. K. Allen, M. Tignor, & P. M. Midgley (Eds.), *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* (pp. 65–108). Cambridge University Press. https://www.ipcc.ch/site/assets/uploads/2018/03/SREX-Chap2_FINAL-1.pdf
12. Wisner, B., Blaikie, P., Cannon, T., Davis, I., & Routledge. (2003). *At Risk: natural hazards, people's vulnerability and disasters* (Second edition). https://www.preventionweb.net/files/670_72351.pdf
13. Hill, L. J., Sparks, R. S. J., & Rougier, J. C. (2011). *Risk assessment and uncertainty in natural hazards*. Cambridge University Press. <https://www.bristol.ac.uk/cabot/media/documents/jonty-chapter1.pdf>
14. Birkmann, J. (2012). *Measuring Vulnerability to Natural Hazards: Towards Disaster Resilient Societies* (Second Edition). United Nations University Press. https://collections.unu.edu/eserv/UNU:2880/n9789280812022_text.pdf
15. Boustan, L. P., Kahn, M. E., Rhode, P. W., Yanguas, M. L., & National Bureau of Economic Research. (2017). *The Effect of natural disasters on Economic Activity in US Counties: A Century of data* (Working Paper 23410). https://www.nber.org/system/files/working_papers/w23410/w23410.pdf
16. Hallegatte, S., Przulski, V., Centre International de Recherche sur l'Environnement et le Développement, Paris and Ecole Nationale de la Météorologie, Météo-France, Toulouse, Ecole Nationale de la Météorologie, Météo-France, Toulouse, & European Community's Seventh Framework Programme (FP7/2007-2013), ConHaz Project, Contract No. 244159. (2010). *THE ECONOMICS OF NATURAL DISASTERS*. In CESifo Forum (Vol. 2, pp. 14–15). <https://www.ifo.de/DocDL/forum2-10-focus2.pdf>

17. Kousky, C. (2012). Informing Climate adaptation: A review of the economic costs of natural disasters, their determinants, and risk reduction options. In Discussion Paper. <https://media.rff.org/documents/RFF-DP-12-28.pdf>
18. Venezuelan Red Cross. (n.d.). World Disasters Report 2022. In World Disasters Report (Vol. 2022, pp. 210–240). https://www.ifrc.org/sites/default/files/2023-01/20230130_2022_WDR_DataAnnex.pdf
19. Al Kazimi, A., Mackenzie, C. A., & Iowa State University. (2019). The Economic Costs of Natural Disasters, Terrorist Attacks, and Other Calamities: An Analysis of Economic Models that Quantify the Losses Caused by Disruptions [Journal-article]. <https://www.imse.iastate.edu/files/2016/04/Al-Kazimi-and-MacKenzie-The-Economic-Costs-of-Natural-Disasters-Terrorist-Attacks-and-Other-Calamities.pdf>
20. Shukla, C., & MacKenzie, C. A. (2022, August 9). Analyzing the financial risk of billion-dollar disasters in the United States: Simulating the frequency and economic costs of U.S. natural disasters. Research Square.
file:///C:/Users/Grad/Downloads/Analyzing_the_financial_risk_of_billion-dollar_dis.pdf
21. Boustan, L. P., Kahn, M. E., Rhode, P. W., Yanguas, M. L., & National Bureau of Economic Research. (2017b). The Effect of natural disasters on Economic Activity in US Counties: A Century of data (Working Paper 23410). https://www.nber.org/system/files/working_papers/w23410/w23410.pdf
22. Van Der Vink, G., Allen, R. M., Chapin, J., Crooks, M., Fraley, W., Krantz, J., Lavigne, A. M., Lécuyer, A., MacColl, E. K., Morgan, W. J., Ries, B. J., Robinson, E., Rodriguez, K., Smith, M., & Sponberg, K. (1998). Why the United States is becoming more vulnerable to natural disasters. *Eos*, 79(44), 533–537. <https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/98EO00390>
23. Giraldo, E. (2019). Relationship between financial markets and natural disasters in the US. Rhode Island College. https://digitalcommons.ric.edu/cgi/viewcontent.cgi?article=1156&context=honors_projects

24. Blickle, K. S., Hamerling, S. N., Morgan, D. P., & Federal Reserve Bank of New York. (2021). How bad are weather disasters for banks? In Federal Reserve Bank of New York Staff Reports (Report No. 990). https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr990.pdf
25. Cavallo, E., Galiani, S., Noy, I., & Pantano, J. (2010). Catastrophic natural disasters and economic growth. In Inter-American Development Bank (IDB), IDB Working Paper Series (IDB-WP-183). Inter-American Development Bank (IDB). <https://www.econstor.eu/bitstream/10419/89155/1/IDB-WP-183.pdf>
26. Lawhorn, J. M., & Lindsay, B. R. (2023, July 17). Federal Disaster Assistance for Businesses: Summaries and Policy options. Congressional Research Service. <https://crsreports.congress.gov/product/pdf/R/R47631>
27. Contat, J., Hopkins, C., Mejia, L., Suandi, M., & FEDERAL HOUSING FINANCE AGENCY. (2023). When Climate Meets Real Estate: A Survey of the Literature. In FHFA Working Paper 23-05 (Working Paper No. 23–05). FEDERAL HOUSING FINANCE AGENCY. <https://www.fhfa.gov/PolicyProgramsResearch/Research/PaperDocuments/wp2305.pdf>
28. Songwathana, K. (2016). The Relationship between Natural Disaster and Economic Development: a panel data analysis. ScienceDirect. https://www.sciencedirect.com/science/article/pii/S1877705818301644?ref=pdf_download&fr=RR-9&rr=87b780564fe76542
29. Shabnam, N. (2014, June 21). Natural Disasters and Economic Growth: A review.
file:///C:/Users/Grad/Downloads/s13753-014-0022-5.pdf
30. Kliesen, K. L. (1994). The economics of natural disasters. Federal Reserve Bank of St. Louis. <https://www.stlouisfed.org/publications/regional-economist/april-1994/the-economics-of-natural-disasters>
31. Deryugina, T. (2022). Economic effects of natural disasters. IZA World of Labor. <https://wol.iza.org/uploads/articles/608/pdfs/economic-effects-of-natural-disasters.pdf>

32. Kurt, D. (2022, May 27). The financial effects of a natural disaster. Investopedia. <https://www.investopedia.com/financial-edge/0311/the-financial-effects-of-a-natural-disaster.aspx>
33. Bateman, G. W. (2006). Boy Scouts of America. http://www.glbqtarchive.com/ssh/boy_scouts_S.pdf
34. Boy Scouts of America. (n.d.). NATIONAL ALLIANCES Chartered Organizations Resource Guide. https://scoutingwire.org/wp-content/uploads/2016/05/Chartered-Organization-Resource-Guide_522-925_wb.pdf
35. DEBTORS' INFORMATIONAL BRIEF. (2020). In IN THE UNITED STATES BANKRUPTCY COURT FOR THE DISTRICT OF DELAWARE, IN THE UNITED STATES BANKRUPTCY COURT FOR THE DISTRICT OF DELAWARE (pp. 1–281). <https://s.wsj.net/public/resources/documents/Boy%20Scouts%20informational%20brief.pdf>
36. Surbaugh, M. B., Dahlquist, C. W., Stephenson, R., & Boy Scouts of America. (n.d.). Boy Scouts of America Annual Report. <https://www.scoutingnewsroom.org/wp-content/uploads/2017/03/2016-Report-to-the-Nation.pdf>
37. Adventures in Boy Scouting. (2014). Boy Scouts of America. <https://ppcbsa.org/wp-content/uploads/Adventures-in-Boy-Scouting.pdf>
38. Koontz, A. (2021). Servant leadership and adult volunteers in the Boy Scouts of America. Western Kentucky University. https://digitalcommons.wku.edu/cgi/viewcontent.cgi?article=1976&context=stu_hon_theses
39. Boy Scouts of America. (2012). Chapter Operations Guide (COG) [Book]. <https://oa-bsa.org/uploads/publications/cog-2012.pdf>
40. Boy Scouts of America. (1983). [Fundraising Policies and Procedures Manual]. In Fundraising Policies and Procedures Manual. https://filestore.scouting.org/filestore/financeimpact/pdf/CFD-Manuals/Policies_and_Procedures.pdf

41. Boy Scouts of America. (2021). Scouting's outdoor program. In Scouting's Outdoor Program (pp. 3–5). [https://filestore.scouting.org/filestore/outdoor%20program/pdf/420-800\(19\)_Outdoor_Programs_and_Properties_Manual_WEB.pdf](https://filestore.scouting.org/filestore/outdoor%20program/pdf/420-800(19)_Outdoor_Programs_and_Properties_Manual_WEB.pdf)
42. Leaders Guide. (2020). Ed Bryant Scout Reservation. https://scoutingevent.com/Download/62093716/OR/2022_Leader_Guide_531_Update.pdf
43. BRYANT, E. & GLACIER'S EDGE COUNCIL, BSA. (n.d.). GLACIER'S EDGE COUNCIL, BSA. https://scoutingevent.com/attachment/BSA620/16270_1394496672_1511.pdf
44. A Parent's guide to summer camp. (2021). In Pfeiffer Scout Reservation, Roy C. Manchester. Harry S Frazier Jr Scout Reservation, Camp Crooked Creek. <https://lhcbasa.org/wp-content/uploads/Parents-Guide-to-Summer-Camp-1.pdf>
45. Ziegler, M. & Boy Scouts of America. (2015). Comments on the DOL's proposed revisions to 29 CFR Part 541. In U.S. Department of Labor, Wage And Hour Division [Report]. https://www.uschamber.com/assets/archived/images/boy_scouts_of_america_comments_to_dol_proposed_regulations.pdf
46. Return of Organization Exempt From Income Tax 2021. Form 990. <https://www.scouting.org/wp-content/uploads/2022/11/BSA-2021-Form-990.pdf>
47. 2014 Report of the treasurer and consolidated financial statements. (2013). https://filestore.scouting.org/filestore/annualreport/2014/2014_Annual_Report.pdf
48. Cub Scout Roundtable. (n.d.). BSA structure. <https://www.scouting.org/wp-content/uploads/2019/03/BSA-Structure-2019.pdf>
49. Mount Baker Council, BSA. (n.d.). REVENUE SUPPORT CATEGORIES DIRECT AND INDIRECT EXPENSES. <https://www.mountbakerbsa.org/wp-content/uploads/2022/08/Who-pays-for-Scouting-for-2022.pdf>
50. Simpson, R. V. (2012). The Great Hurricane and Tidal Wave of 1938: Scenes of the disaster in Rhode Island's East Bay. Roger Williams University. https://docs.rwu.edu/cgi/viewcontent.cgi?article=1000&context=hurricane_1938

51. FEMA & NJDEP. (2008). Flood Mitigation Plan for the Non-tidal, New Jersey section of the Delaware River Basin. In Section 3 (pp. 49–51). https://www.nj.gov/drbc/library/documents/Flood_Website/NJmitigation/Nov2008final/Section3.pdf
52. *Incident summaries.* (2018). https://fire.ak.blm.gov/content/aicc/team_left/03.%20Alaska%20IMT%20Incident%20Archive/Alaska%20IMT%20Incident%20Summaries/2014-2018%20Summaries/2017%20Horse%20Creek%20-Rebel%20Summary%20.pdf
53. Forest fire damages in transition. (2009). In The Federal Lawyer. <https://www.fedbar.org/wp-content/uploads/2009/08/forestfirescoverstoryaugust09-pdf-1.pdf>
54. Georgia Forestry Commission. (2017). Appendix 135 to THE HISTORY OF SCOUTING IN SOUTH GEORGIA. <http://www.sgacbook.com/History/Appendix%20135%20-%202017%20New%20Years%20Storm%20Damage.pdf>
55. Safeguard Iowa Partnership. (2008). Safeguard Iowa Partnership After-Action Report. In Safeguard Iowa Partnership. <https://safeguardiowa.wildapricot.org/Resources/Documents/Response/Disasters/2008/sipjune2008response.pdf>
56. Emergency preparedness. (2019). Boys Scouts of America. <https://www.troop325.com/wp-content/uploads/2020/12/Emergency-Preparedness-c2019-p2019.pdf>
57. Emergency preparedness. (2009). Boy Scouts of America. https://troop577wichita.weebly.com/uploads/1/1/2/2/11225514/emergency_preparedness_2008.pdf
58. The United States Department of Homeland Security & Boy Scouts of America. (n.d.). Emergency Preparedness BSA. https://portal.ct.gov/-/media/cfpc/_old_files/emergencypreparednessbsapdf.pdf
59. Boy Scouts of America Foundation. (2013). Annual report. https://www.bsafoundation.org/wp-content/uploads/2015/12/110-102_2013.pdf

60. Boy Scouts of America National foundation. (2011). Annual report. https://www.bsafoundation.org/wp-content/uploads/2015/12/110-102_WB.pdf
61. Derr, A., W. Garth Dowling, & iStock by Getty Images. (2018). AftEr the Storms: Scouts help rebuild after deadly storms. *Boys' Life*, 22–25. <https://scoutlife.org/wp-content/uploads/2018/03/hurricane-mar2018.pdf>
62. Boy Scouts emergency preparedness badge. (n.d.). <https://www.everettwa.gov/DocumentCenter/View/23359/PDF-Boy-Scouts-of-America-Preparedness-Badge>
63. The 100 largest U.S. charities. (2023). *Forbes*. <https://www.forbes.com/top-charities/list/>
64. Scouting Magazine. (2011). <https://blog.scoutingmagazine.org/wpcontent/uploads/sites/2/2012/02/2011rtn.pdf>
65. International Federation of Red Cross and Red Crescent Societies. (2011). The value of volunteers. <https://volunteeringredcross.org/wp-content/uploads/2019/02/Report-Value-of-Volunteers.pdf>
66. Francis R. McAllister, David Biegler, Dennis H. Chookaszian, & Devang Desai. (2021). CONSOLIDATED FINANCIAL STATEMENTS DEBTOR IN POSSESSION. In Executive Board of the Boy Scouts of America. National Council of the Boy Scouts of America. <https://www.scouting.org/wp-content/uploads/2023/09/Treasurers-Report-2021.pdf>
67. Boy Scouts of America. (2019). UNAUDITED CONSOLIDATED STATEMENT OF REVENUES, EXPENSES, AND OTHER CHANGES IN NET ASSETS. https://ar2019.scouting.org/wp-content/uploads/2020/05/2019-Unaudited-Treasurers-Report-Final-5-13-201_2.pdf
68. Breazeale, N., International Committee of the Red Cross, International Federation of Red Cross and Red Crescent Societies, World Organization of the Scout Movement, & Young Men's Christian Association. (2013). Engaging Youth-Led and Youth-Serving organizations in disaster relief efforts (N. Servas, D. Bénard, J. Chaffin, C. Gladwell, J. Lowicki-Zucca, A. Rhoades, A. Seeger, M. Sinclair, & C. Triplehorn, Eds.).

https://inee.org/sites/default/files/resources/201212_INEEGuidanceDocEngagingYouthOrganizationsinDisasterReliefEfforts_1.pdf

69. Hartley, M. (2020). Engaging spontaneous volunteers in emergencies. https://media.churchillfellowship.org/documents/Hartley_M_Report_2019_Final.pdf

70. Speech of the president to the boys scouts of america. (1941). http://www.fdrlibrary.marist.edu/_resources/images/msf/msf01414

71. The Deloitte Center for Crisis Management. (n.d.). Focus on: Overcoming natural disasters. <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Risk/gx-cm-focus%20on-naturaldisasters.pdf>

72. Mc Grath, F. (2014). Disaster Response Business As Usual: How AT&T deals with Natural Disasters. https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/wp-content/uploads/2015/01/GSMA_Business-as-Usual-How-ATT-Deals-with-Natural-Disasters.pdf

73. Jorrigala, V. (2016). Business Continuity and Disaster Recovery Plan for Information Security. St. Cloud State University. https://repository.stcloudstate.edu/cgi/viewcontent.cgi?article=1068&context=msia_etds

74. FEMA, Wahle, T., & Beatty, G. (1993). Emergency Management Guide for Business and industry. Federal Emergency Management Agency. <https://www.fema.gov/pdf/library/bizindst.pdf>

75. Institute for Business & Home Safety, Alesch, D. J., Holly, J. N., IBHS Commercial Lines Committee, Cox, S., Dewald, B., Drake, P., Lord, T., Reiss, C., Shimberg, D., Zingarelli, R., & McClure, D. (2007). A Disaster Protection and Recovery Planning Toolkit for the Small to Mid-Sized business. https://www.preventionweb.net/files/7280_OpenForBusinessnew.pdf

76. The Disaster Relief Fund: Overview and Issues. (2025). Congressional Research Service. <https://crsreports.congress.gov/product/pdf/R/R45484>

77. The 100 largest U.S. charities. (2023). Forbes. <https://www.forbes.com/top-charities/list/>

78. Chen, X. (2021). Are disasters disastrous to nonprofit organizations? Investigating the financial implications of Hurricane Sandy for nonprofits. *Nonprofit and Voluntary Sector Quarterly*, 51(1), 53–75. <https://doi.org/10.1177/0899764021998454>
79. Chen, X. (2021). Nonprofit Financial Resilience: Recovery from Natural Disasters.
file:///C:/Users/Grad/Downloads/s11266-021-00415-w.pdf
80. Chikoto, G. L., Ling, Q., & Neely, D. G. (2016). The Adoption and Use of the Hirschman–Herfindahl Index in Nonprofit Research: Does Revenue Diversification Measurement Matter? Marquette University.
https://epublications.marquette.edu/cgi/viewcontent.cgi?article=1091&context=account_fac
81. Federal Emergency Management Agency. (2023). 2023 National Preparedness Report. https://www.fema.gov/sites/default/files/documents/fema_2023-npr.pdf
82. Benson, C., & Clay, E. (2003). Economic and Financial Impacts of Natural Disasters: an Assessment of Their Effects and Options for Mitigation. ResearchGate. https://www.researchgate.net/publication/228395565_Economic_and_Financial_Impacts_of_Natural_Disasters_an_Assessment_of_Their_Effects_and_Options_for_Mitigation
83. Government Office for Science, & Beddington, J. (2012). Foresight reducing risks of future disasters: priorities for decision makers. In Lord Ashdown & A. McLean (Eds.), Executive Summary. Government Office for Science, London. <https://assets.publishing.service.gov.uk/media/5a7484f6e5274a7f9c586a21/12-1322-reducing-risks-of-future-disasters-summary.pdf>
84. Congressional Research Service, 1. (2022). U.S. Research and Development Funding and Performance: Fact Sheet. In Congressional Research Service (No. R44307). <https://sgp.fas.org/crs/misc/R44307.pdf>
85. Hochrainer-Stigler, S., Zhu, Q., Ciullo, A., Reiter, K., & Policy Department for Structural and Cohesion Policies, European Parliament. (2022). EU tools to respond to natural disasters [STUDY]. In Policy Department for Structural and Cohesion Policies.

[https://www.europarl.europa.eu/RegData/etudes/STUD/2022/699637/IPOL_STU\(2022\)699637_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2022/699637/IPOL_STU(2022)699637_EN.pdf)

86. Return of organization exempt from income tax. (2017). Form 990. https://filestore.scouting.org/filestore/pdf/Form990_2017.pdf

87. Return of organization exempt from income tax. (2018). Form 990. <https://filestore.scouting.org/filestore/pdf/Form-990-2018.pdf>

88. Return of organization exempt from income tax. (2019). Form 990. https://www.scouting.org/wp-content/uploads/2020/11/2019BSA_Form990_publicdisclosure-1.pdf

89. Return of organization exempt from income tax. (2020). Form 990. <https://www.scouting.org/wp-content/uploads/2021/12/BSA-2020-Form-990.pdf>

90. Return of organization exempt from income tax. (2022). Form 990. <https://www.scouting.org/wp-content/uploads/2023/12/2022-BSA-Form-990.pdf>

91. Boy Scouts of America. (2013). How the Council Functions to Carry Out the Purpose of the BSA. <https://filestore.scouting.org/filestore/mission/pdf/33071.pdf>

92. Foundation Annual Reports – National Boy Scouts of America Foundation. (n.d.). <https://www.bsafoundation.org/about-us/foundationannualreports/>

93. Grants for scouting organizations. (n.d.). Cause IQ. <https://www.causeiq.com/directory/grants/grants-for-scouting-organizations/>

94. World Scouting. (2022, December 1). Scouts emergency response in Ukraine. WOSM. <https://www.scout.org/Ongoing-Scouts-Emergency-Response-in-Ukraine>

95. Наша гуманітарна діяльність – Національна Організація Скаутів України. (n.d.). <https://ukrscout.org/humanitarian-activities/>

96. World Scout Bureau Global Support Centre. (2023). Information Pack for the role of Manager, Fundraising and Public Affairs. https://www.scout.org/sites/default/files/2023-11/manager_fundraising_and_public_affairs.pdf