

# Exploring Challenges and Changes of German voluntary based relief organizations. The Case of THW.

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### Abstract:

This master's thesis examines the challenges and changes faced by voluntary local sections of the German Federal Agency for Technical Relief (THW). The study aims to identify key factors influencing volunteer recruitment, training, and retention within these sections, particularly focusing on the impact of societal changes, workload, training limitations, and administrative burdens on the volunteer base. Data was collected through semi-structured interviews with local section leaders across the country and analyzed to identify patterns and areas of concern. The findings reveal that smaller, rural sections struggle more with recruitment and retention compared to larger, urban areas, primarily due to demographic shifts and limited volunteer pools. Training limitations, including insufficient training slots and outdated programs, hinder the preparedness and qualifications of volunteers, affecting their motivation and staffing of vacant positions. High operational workloads and administrative burdens further exacerbate these challenges, leading to volunteer fatigue and burnout. Additionally, property and financial constraints also play a significant role, as smaller sections often lack the resources necessary to support extensive recruitment campaigns and volunteer incentives. The study concludes that to enhance volunteer recruitment and retention, THW should modernize its training programs, increase training capacity, and streamline administrative processes to reduce volunteer workload. Additionally, fostering a supportive and appreciative environment, along with leveraging e-learning opportunities, is recommended to better accommodate volunteers' needs and improve their engagement. Addressing these issues is crucial for maintaining an effective disaster response system and ensuring the sustainability of THW's volunteer-based operational model.

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## Summary:

The research explores the challenges and changes perceived by experts in the local sections of the THW. This study aims to fill existing research gaps by providing a local-level perspective on the issues faced by volunteers and volunteer management within the THW. It outlines the growing concerns about volunteerism, particularly against the backdrop of demographic changes and shifts in societal behavior and increasing disaster events. The primary objective of the research is to understand the specific challenges experienced by local THW sections in managing their volunteer workforce and overall operationality. The study employs an inductive qualitative research design using an exploratory approach. Purposeful sampling was used to select respondents who could provide meaningful insights relevant to the research questions. Data collection was conducted through semi-structured interviews, allowing for in-depth discussions and the flexibility to explore various aspects of volunteer management in the THW. The goal was to understand the situation comprehensively across Germany, accounting for various perspectives from different regions and municipality sizes.

The findings reveal significant challenges in volunteer recruitment, retention, and management at the local level within the THW. One of the main issues identified is the discrepancy between urban and rural sections. Urban areas generally have less difficulty attracting volunteers due to larger population sizes and greater public visibility. In contrast, rural sections face more pronounced challenges in recruiting new volunteers, often due to demographic factors. This urban-rural divide results in rural areas struggling to maintain sufficient volunteer numbers, which impacts their operational capabilities and effectiveness in disaster response. The study also highlights volunteer fatigue and burnout as prevalent concerns in management and leadership, primarily stemming from the high workload and administrative burdens placed on volunteers. The demanding nature of both operational and bureaucratic tasks not only deters potential new recruits but also contributes to the attrition of existing volunteers. The pressure to balance voluntary commitments with personal and professional responsibilities further exacerbates these challenges, leading to decreased motivation and increased turnover. Moreover, the results suggest that societal changes, such as an increase in the average age of volunteers and a shift in the motivations and expectations of younger generations, are impacting volunteer engagement. Younger volunteers often seek more flexible and short-term commitments, contrasting with the long-term integration that traditionally characterized volunteer involvement in the THW.

In addition to these issues, training difficulties are highlighted in local THW sections, including limited training slots and outdated programs. These issues lead to a lack of qualified personnel, directly impacting on the ability to staff key positions. This challenge of staffing vacant positions is mentioned by several interviewees. Geographic location poses specific challenges for some THW sections. Rural areas often suffer from inadequate infrastructure, which can complicate recruitment, activity, and retention efforts. Volunteers in these regions may face longer commutes to attend weekly training sessions or activities, increasing the burden on their personal time and resources. Furthermore, the properties of some local sections are

outdated. The buildings are too small for modern standards hindering appropriate housing conditions for the volunteers and posing challenges in recruitment and retention for the management. This ultimately also leads to work safety issues in some cases. Financial constraints also emerged as a significant concern. Even though previous investments have been sufficient, many local sections face local budget limitations that restrict their local operability. Insufficient funding can make it harder to attract and retain volunteers. Those concerns arise mostly from current debates about future budget cuts in the media. The financial strain is often more pronounced in rural sections, which may have fewer opportunities to secure additional funding through local sponsorships or community fundraising events compared to their urban counterparts.

The study discusses the implications of the findings, emphasizing the need for robust volunteer management strategies to address the emerging challenges for the THW and similar organizations. It argues that to maintain a robust volunteer workforce, local sections need to adapt their recruitment and retention strategies and get individual support from the full-time staff. This could include implementing targeted outreach programs to attract more volunteers, offering flexible participation options, and reducing administrative burdens through streamlined processes and better resource allocation. The study highlights the importance of fostering a supportive environment that values volunteer contributions and addresses the risk of burnout by ensuring adequate rest and support. The discussion also acknowledges the broader social and economic factors influencing volunteerism, such as changing work environments and demographic shifts, suggesting that these trends should be considered in future strategic planning.

In conclusion, the thesis underscores the need for a proactive approach to managing volunteer challenges within the THW. While societal changes and urban-rural disparities present significant obstacles, they also offer opportunities for innovation in volunteer management practices. By understanding the specific needs and motivations of volunteers, the THW can enhance its recruitment and retention strategies. The study calls for further research into the social dynamics affecting volunteer engagement and emphasizes the importance of adapting organizational practices to meet the evolving expectations of volunteers. This will not only improve the effectiveness of the THW but also ensure the sustainability of volunteer-based disaster management in Germany.

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# 1. Introduction

In recent years, Germany has experienced an increase in the frequency of disasters. In addition to the global pandemic, several events have affected the country. Most recently, since December 2023, three major flooding incidents have occurred in various locations across the country. These events have posed a considerable threat to human lives and caused billions of dollars in damage (Deutscher Wetterdienst, 2024a, 2024b, 2024c). Just three years ago, Germany already experienced a devastating flooding event, the most severe in decades. The consequences of the flooding in 2021 include 183 deaths, extensive damage to the built environment and infrastructure amounting to approximately 40 billion euros, and significant psychological and mental impacts on the population (BMI, 2021). In 2021, the total damage caused by extreme weather events in Germany exceeded 80 billion euros. Since the year 2000, the mean annual damage caused by disaster events has been approximately 6.6 billion euros (BMUV, 2022). However, the country was not solely affected by flooding. In 2018 and 2019, two significant heat and drought events caused multiple fatalities and collectively approximately 35 billion euros in damage (Trenczek et al., 2022). Unfortunately, this trend is not slowing down. The frequency and intensity of disasters have increased markedly due to climate change, posing significant challenges to communities around the world. Scientific evidence indicates that rising global temperatures, resulting from increased greenhouse gas emissions, are exacerbating extreme weather events (IPCC, 2022). The most frequently occurring hazards in Germany over the past three decades have been storms, followed by floods and extreme temperatures. However, extreme heat and heat waves result in the majority of fatalities (DKKV, 2024). Therefore, disasters are impacting Germany increasingly and potentially more frequently in the future. In addition, new geopolitical tensions are also emerging in Europe, stressing the system even further (Brix, 2023).

The increasing prevalence of disasters and their impacts has presented a significant challenge for disaster management organizations. Most of these organizations in Germany are based on volunteerism, heavily relying on motivated volunteers at the local level. It is therefore essential to have a sufficient number of volunteers throughout the country in order to guarantee the safety of the population and the continued functionality of the systems (Wenzel et al., 2012). In recent events, the Federal Agency for Technical Relief (THW)<sup>1</sup>, a key actor in this field, was involved in all major incidents. In the 2021 flooding event, the THW deployed 17,000 volunteers from all 668 of its local sections, amounting to 2.6 million operating hours for the volunteers (Technisches Hilfswerk, 2022). In May and June 2024, the THW deployed several thousand volunteers from approximately 100 distinct local entities throughout the country to provide assistance (Technisches Hilfswerk). The THW is experiencing an increase in demand to address the consequences of these events and provide essential assistance. In addition to the THW, other significant actors include private relief organizations (ASB, DLRG, DRK, JUH, and MHD) and the (voluntary) fire brigades (Lange & Gusy, 2015, pp. 23–24). At the local level, operational capabilities are based on volunteer efforts active in the organizations. This

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<sup>1</sup> For more information about the THW, see Appendix A.



volunteer network, comprising over 1.8 million individuals, constitutes the backbone of the system (Karutz et al., 2017). Therefore, volunteerism represents a fundamental aspect of disaster management in Germany.

Furthermore, societal challenges may put additional pressure on the voluntary system. Long-term commitment to a particular team or organization is becoming less common, while more flexible forms of voluntary engagement are emerging (Holwitt et al., 2017). One significant phenomenon that is occurring across most of Europe is demographic change. The potential of a shrinking and aging society in Europe is a consequence of demographic change affecting the population composition and distribution (Davoudi et al., 2010). In Germany, however, the total population has been growing in recent years, but only as a result of immigration. The population of German citizens has been shrinking (Destatis, 2023a). For a variety of reasons, migrants and people with a migration background tend to be less active in volunteerism in Germany, representing a challenge for the system (Halm, 2011; Simonson et al., 2021).

Additionally, the prevailing political trends at the national and European levels appear to be shifting towards a more conservative stance, which could potentially lead to limitations in migration legislation and regulations. This could affect the influx of people to Europe and Germany. This could result in a further reduction in the population of Germany in the coming years (Henley, 2023; Jones, 2024). The spatial distribution of demographic change in Germany is considerably heterogeneous. While most urban areas are experiencing growth, rural areas, particularly in eastern Germany, are already undergoing a decline (Demografieportal, 2024a). Moreover, the country is already facing the challenge of an aging population. Over the past three decades, the average age has increased by more than five years, with eastern Germany exhibiting an even more pronounced increase of over eight years (Destatis, 2023b). Considering the projections regarding the increasing prevalence and severity of disasters in Germany, coupled with the demographic trends of an aging population, a number of significant challenges are likely to emerge in the future. It is therefore important that a robust, effective, and resilient disaster management system is in place to withstand the potential risks that may arise in the future. As the analytical focus, this thesis will focus on the THW, excluding all other voluntary actors in the field. The THW is the federal agency responsible for providing assistance in disaster situations in Germany (Lange & Gusy, 2015).

The purpose of this research study is to discover and explore the challenges and transformations occurring at the local level within THW local sections, and to assess their impact on the volunteer base. A particular focus will be on geographical and urban-rural disparities. To date, no comprehensive research has been conducted from the perspective of the local sections. Consequently, this research addresses existing gaps in the field and offers a local-level perspective on the challenges facing volunteerism. This objective will be attained through the utilization of semi-structured interviews with experts from a selection of local entities of the Federal Agency for Technical Relief, located across Germany. Hence, the research question for this thesis is as follows: *What challenges and changes do experts experience and perceive in their local sections of the THW?*

## **2. Methodology**

### **2.1. Research design**

This exploratory research study employed an inductive qualitative research design to produce an understanding of challenges and changes experienced and currently underway at the THW local sections from their perspective. A purposeful sampling approach was adopted to ensure the selection of respondents who could provide rich and relevant insights pertinent to the research questions. The objective was to gain a comprehensive understanding of the situation across the entire country of Germany. Consequently, the research endeavored to encompass a multitude of perspectives from a diverse array of individuals and entities. The researcher chose this method to explore the social actors' meanings and interpretations and analyze them (Blaikie, 2010).

### **2.2. Sampling approach**

This research utilized purposeful, non-probabilistic sampling, whereby the researcher selects individuals and sites for study based on their ability to provide insight into the research problem and central phenomenon. (Creswell, 2013). The sample comprised experts responsible for or involved in the recruitment and management of the voluntary workforce at the local level within the THW. The experts are volunteers who occupy management roles at the local level within the THW. They purposefully informed an understanding of the research problem and central phenomenon in the study (Creswell, 2013). The experts were selected based on their affiliation with local entities, matching the criteria set out in the next paragraph, their knowledge and experience with this topic, and their ability to provide insights and inform an understanding of the research questions.

The sampling for interviews has been preceded by the identification of appropriate cases. Maximum variation sampling, based on the elaborated criteria, was employed to obtain a diverse range of entities (Creswell, 2013). The selection of diverse cases enabled the application of maximum variation sampling, facilitating the description of multiple perspectives on the topic (Creswell, 2013). To ensure a comprehensive understanding of the entities affected by the phenomena, specific criteria and categories were established. These were informed by an analysis of the current and future trends of demographic change in Germany, resulting in the identification of spatial patterns and variations across the country.

The first dimension is based on geographical differences within Germany. Demographic changes vary significantly across the historical East-West divide. Analysis of current demographic trends reveals distinct patterns reflecting the country's past division (Demografieportal, 2024a, 2024b). Consequently, interviews were selected from both former East and West Germany. East Germany includes the states of Saxony, Thuringia, Saxony-Anhalt, Brandenburg, Mecklenburg-Western Pomerania, and the city-state of Berlin. In West Germany, no clear geographical variations are evident, but the region was divided into three subdivisions to explore potential spatial differences. This division aimed to ensure a broad spatial distribution of selected entities and consider regional variations in voluntary engagement. For

this study, North Germany comprises Schleswig-Holstein, Lower Saxony, and the city-states of Hamburg and Bremen. West Germany includes North Rhine-Westphalia, Rhineland-Palatinate, Hesse, and Saarland, while Southern Germany consists of Bavaria and Baden-Württemberg. While further subdivision into smaller regions could enhance the research, it would exceed the manageable scope of a master’s thesis when combined with the second dimension.

The second dimension for selecting entities and interview partners addresses the urban-rural disparity. Demographic changes vary notably based on the population size and distance of municipalities from larger urban centers (Demografieportal, 2024a, 2024b). The German Federal Institute for Research on Buildings, Urban Affairs, and Spatial Development (BBSR, 2024) classifies municipalities into two main categories: those with fewer than 5,000 inhabitants are termed “Landgemeinden” (villages), while those with more than 5,000 inhabitants are classified as “Städte” (cities/towns). Of the 4,500 municipalities, 1,700 are villages, and the remaining 2,800 are cities. Cities are further divided into three groups based on their population size: up to 20,000 inhabitants are “Kleinstädte” (small cities/towns), 20,000 to 100,000 inhabitants are “Mittelstädte” (medium-sized cities), and those with over 100,000 inhabitants are “Großstädte” (large cities). Figure 1 illustrates these categories. In this study, large cities (Großstädte) are further differentiated, as cities with 150,000 inhabitants may have different developments and trends compared to major cities like Hamburg or Berlin. Therefore, an additional category for cities with populations exceeding 500,000 inhabitants has been introduced, termed “urban cities” for the purposes of this research.

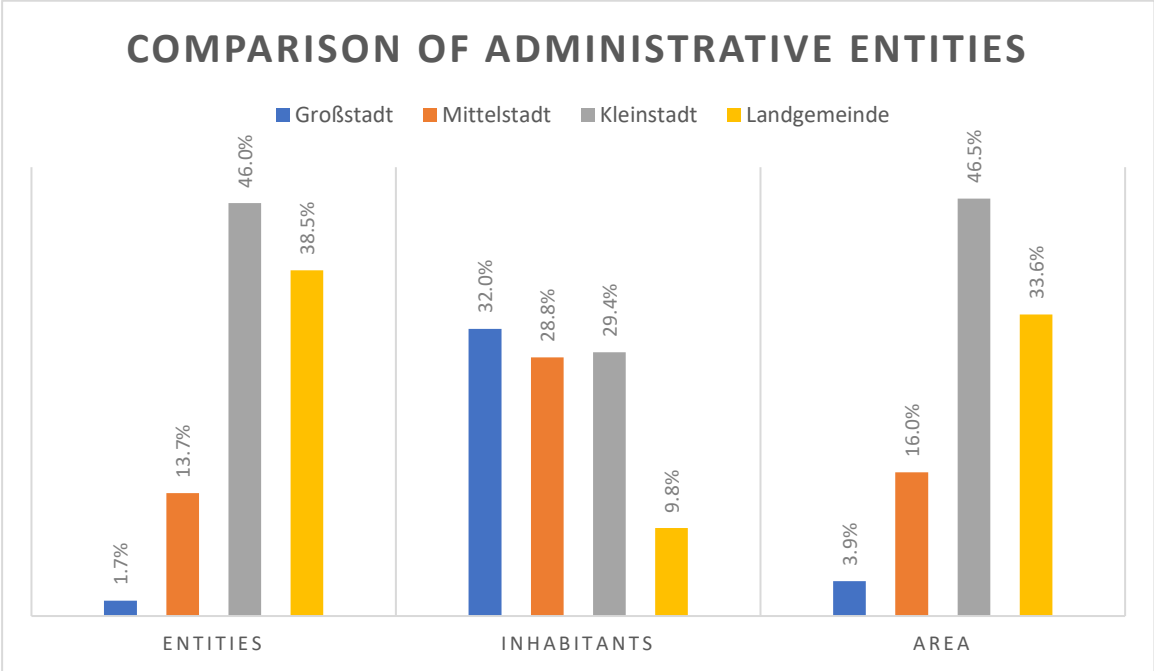


Figure 1: Comparison of different settlement sizes (Milbert & Porsche, 2021).

The research aimed to encompass all categories within both dimensions, a minimum of 20 interviews must be conducted. In contrast to the approximately 4,500 municipalities in Germany, the THW comprises just 668 local sections (Stube et al., 2023). Several smaller

communities have been consolidated into single units, whereas larger cities continue to comprise several sections. The selection of entities based on the categories was only limited applicable. However, the local sections still exhibited variation in their urban-rural characteristics. To operationalize this fact, it was necessary to consider the municipality that was hosting the local section as the relevant entity for the selection. The category of villages was almost entirely absent among the local entities, due to the larger service areas. It is common to select at least one small city as the local base for the local sections. Consequently, the category of villages (Landgemeinden) was not applicable to the selection process and was therefore combined with towns/small cities.

During the process, the researcher reached out to 92 local sections, of whom 5 declined an interview, 23 offered their help and the remaining did not respond in time. Small and medium-sized sections had a lower response rate. Table 1 provides a summary of the interviews conducted.

#### **Federal Agency for Technical Relief (Technisches Hilfswerk)**

	Eastern Germany	Northern Germany	Western Germany	Southern Germany
Small city	2	1	1	1
Medium city	1	1	1	1
Large city	1	2	1	1
Urban city	1	1	1	1

*Table 1: Conducted interviews representing combination options.*

Table 2 provides information about the interviewees. While most information has been retrieved through the interviews, the age range is based on estimations.

<b>Interviewee number</b>	<b>Sex</b>	<b>Age range</b>	<b>Position</b>	<b>Years in position</b>	<b>Years in THW</b>
<b>1</b>	male	20 – 35	Head of local section	3	23
<b>2</b>	male	50 – 65	Head of local section	10	11
<b>3</b>	male	> 65	Head of local section	36	38
<b>4</b>	male	50 – 65	Head of local section	3	37
<b>5</b>	male	35 – 50	Head of local section	6	18
<b>6</b>	male	20 – 35	Head of local section	6	15
<b>7</b>	male	> 65	PR & training officer	4	4
<b>8</b>	male	> 65	Head of local section	28	n/a
<b>9</b>	male	35 – 50	Head of local section	6	26
<b>10</b>	male	35 – 50	Head of local section	16	24
<b>11</b>	male	50 - 65	PR officer	1	3
<b>12</b>	male	50 – 65	PR officer	15	38
<b>13</b>	male	50 - 65	Head of local section	5	10
<b>14</b>	male	50 – 65	Specialist adviser	10	27
<b>15</b>	male	20 – 35	Training officer	3	14

16	male	35 - 50	Head of local section	1	3
17	male	50 - 65	Deputy head of local section	2	7
18	female	20 – 35	PR officer	3	17

Table II: Information about interviewees.

The sample size was moderate to ensure a variety of cases and to gather a wide perspective on the issue (Creswell, 2013). For this research, one interview was conducted per selected entity, with two exceptions. A total of 18 interviews were conducted. The interviews were conducted online via video calls (Zoom) between May and July 2024. The interviews have been recorded and transcribed for analysis. The mean duration of an interview was about 33 minutes, with the longest exceeding 52 minutes and the shortest 16 minutes. Map 1 shows the distribution of the THW offices on all levels across Germany.



Map 1: THW locations in Germany (Stube et al., 2023).

### **2.3. Data collection approach**

Data were collected through semi-structured interviews with selected experts from the entities. A semi-structured interview guide was developed, comprising open-ended questions designed to elicit detailed responses. The guide included prompts and follow-up questions designed to facilitate in-depth exploration of the key themes. The interview questions were divided into two categories: primary questions and follow-up questions and probes, which were employed depending on the progression of the interview (Rubin & Rubin, 2005). The structure was designed to facilitate an in-depth and detailed discussion of the topic. Moreover, the interview questions and structure were designed to ensure vividness in the responses, guarantee nuance in the answers, and facilitate richness in the process (Rubin & Rubin, 2005). During the interviews, the research followed up on any inconsistencies, to explore their meaning (Rubin & Rubin, 2005).

The overarching concept of setting up the main questions, a tree-and-branch structure has been applied. The research problem was divided into equal parts, each of which was covered by a main question. Those main questions have been supported by additional questions to explain the interesting processes or phenomena in greater detail. The transitions between the main questions were designed logically to ensure that the interviewee could follow the reasoning process (Rubin & Rubin, 2005).

The interview process was designed to revisit earlier stages, incorporating new insights as the interviewer gains wisdom and refines the questions throughout the interviews (Kvale & Brinkmann, 2009). Additionally, the interview was structured to delve into the details, allowing for a deeper understanding of the issue (Rubin & Rubin, 2005).

### **2.4. Data reduction and analysis**

The interview data was analyzed using embedded analysis, focusing on identifying themes (Creswell, 2013). Coding was developed concurrently with data collection, based on interview transcripts. The researcher used NVivo software for coding and data analysis.

The transcripts were read multiple times to gain a broad understanding of the data. Initial codes were generated from recurring ideas and statements to pinpoint key themes related to the research questions (Blaikie, 2010). These themes were categorized to provide a comprehensive overview of the challenges facing the local sections. The themes were then reviewed, defined, and clearly named to ensure accurate data representation. Finally, the themes were interpreted, with the results categorized into themes and patterns identified. Cross-case analysis was then conducted to uncover general outcomes and develop naturalistic generalizations (Creswell, 2013).

The coding process consisted of two main phases: an initial phase where segments of data were named, and a focused phase where the most significant or frequent initial codes were used to organize large amounts of data and develop key categories (Charmaz, 2006). During the initial phase, the researcher employed line-by-line coding to stay open to the data and ensure accurate capture (Charmaz, 2006). Focused coding was then applied to synthesize and

explain larger segments of data, developing theoretical categories based on their frequency and significance. These categories and their relationships were subsequently compared and evaluated to identify dominant themes. Axial coding was used to bring the data back together into a coherent whole (Charmaz, 2006). This systematic approach enabled a thorough initial data examination and the analytical integration of ideas (Charmaz, 2006). In the second round of analysis, memo writing was used to record thoughts, comparisons, and connections related to the research questions. Through constant comparison and categorization, the researchers engaged actively with the data, gaining new insights (Charmaz, 2006).

## **2.5. *Limitations & Ethical Considerations***

The researcher ensured that respondents received detailed information about the study and their rights. An informed consent form was provided and signed by respondents before the study commenced. Additionally, the respondents' information has been, and will remain, confidential. Data has been anonymized and securely stored, with access restricted to the researcher (Kvale & Brinkmann, 2009).

The main challenge with purposeful sampling is the potential for sampling bias in selecting cases objectively. Even with clear categories established, many entities could fit within them. The entities interviewed, though fitting the defined categories, were subjectively chosen by the researcher without further intent. Additionally, as the number of cases increases, it becomes harder to ensure depth in each one. Therefore, establishing clear boundaries and making a purposeful selection was crucial (Creswell, 2013). A practical limitation is the large number of local entities in Germany that could be relevant to the research. The results may not be generalizable due to the qualitative nature of the research, as not all entities in Germany were analyzed to draw conclusions. Moreover, the interviews were conducted online, which limited possible interactions and interpretations.

### **3. Results**

The analysis indicates eight central themes emerged from the interviews. Those themes are: (1) personnel situation, (2) recruitment, (3) volunteer retention, (4) training and qualification, (5) staffing management and leadership, (6) workload and stress, (7) financial situation, and (8) premises and property.

#### **3.1. *Personnel situation***

Every local section has a specific number of official positions which should be occupied. This depends on the equipment and teams offered by the local section and regulated by specific decrees. It ensures that the same units have a comparable tactical operational value throughout Germany (THW OV Ahrensburg, 2024).

The personnel situation varies across local sections. Some interviewees are pleased with their volunteer numbers and note positive trends in recent years. Seven are satisfied with their current staffing, with two exceeding 100% capacity. “The units are well staffed, in some cases above target, with almost 150-160% for individual components”, says interviewee 9. These well-staffed sections are mostly in large or urban cities, which have seen a strong influx of candidates in recent years. Two sections, despite having open positions, expect to fill them soon with trainees. Interviewee 11 mentions that while they aren’t fully staffed, it’s normal due to their large size and high staff turnover. Despite satisfaction, interviewee 5 would like more volunteers to cover future turnovers or retirements. However, respondent 5 cautions against having too many volunteers, as it could lead to operational and management challenges.

On the other side, many local sections are unhappy with their current personnel situation, particularly in small and medium-sized cities. Eight interviewees complain about a shortage of volunteers, from just a few positions to some sections barely filling one-third of the needed positions. Interviewee 16 mentions needing 50% more volunteers to ensure functionality, while respondent 2 highlights shortages at all levels, from management/leadership to basic roles. Most have open positions with no replacements in sight and hope for more volunteers in the future, including two urban sections. Four interviewees note that their numbers are stagnating, with new candidates offset by those leaving, and three sections from small cities report shrinking volunteer numbers compared to the past.

Regardless of the satisfaction with the absolute number of volunteers, six interviewees highlight a significant discrepancy between the number of volunteers on record and those who are actively involved. Two sections note that many volunteers are merely names in the books, with only a few being consistently active. Three others mention the gap between enlisted volunteers and those who are mission-capable, meaning they are up to date on training and meet health regulations. Interviewee 1 points out that of 170 enlisted volunteers, only 33 are operational, while section 7 has only half of its staff capable of duty.



Age structure within local sections is another important dimension. Ten sections, ranging from small to urban cities, express satisfaction with their age distribution. Most have a wide range of age groups, from freshly enrolled teenagers to retirees in their 70s and 80s. "The active respondents range from 18 to their mid-70s, we have a good mix", notes respondent 9. Two interviewees emphasize the benefits of a diverse age mix, including experience from older members, fresh perspectives and technical expertise from younger members, and stability from those in between. Four sections highlight the importance of knowledge transfer, with the older generation teaching essential skills to the younger. Interviewee 15 even laments the loss of knowledge when older members retire.

Two local sections report a shortage of volunteers aged mid-20s to late 30s, as many in this group are starting families and have less time for the organization. Two others face challenges with upcoming retirements, requiring replacements. Seven sections note an aging staff, with three urban areas seeing a slight increase, while small and medium-sized cities face more drastic situations. Two of these sections describe their volunteer base as too old, anticipating operational challenges. However, four other sections, including two from small cities, do not observe aging issues, and two sections have even seen a rejuvenation of their staff. No clear geographical pattern regarding age structure or aging can be determined.

Most local sections report they can handle required tasks in a "normal" scenario. However, some sections struggle. A small city section admits they can only fulfill duties by shifting staff within their groups, while another small city section says they can manage smaller events but quickly exceed their limits with larger or longer operations. An urban section also notes difficulties in sustaining continuance operations during extended events. Both would rely on support from other sections, with the smaller one unable to take the technical lead. An eastern medium-sized city section explains the existence of an assistance system in their area within nearby sections to maintain functionality, indicating that some sections are already facing operational challenges.

To maintain functionality, not only the number of volunteers is crucial but their engagement too, explains respondent 5. Four sections highlight a core group that carries most of the workload, acting as the organization's backbone. Two other sections add that those active volunteers are highly engaged, with some getting qualified for multiple positions to address potential shortages. Additionally, two sections report that their volunteers are highly active and motivated. However, three interviewees from smaller sections criticize their volunteers' lack of engagement. Some only show up for emergencies, avoiding training or equipment maintenance. Two others note that many volunteers only do the bare minimum, lacking motivation. However, they understand this, acknowledging that these volunteers might be overwhelmed by their jobs or personal lives and are simply glad to have them involved. This issue is closely tied to the staffing of management and leadership roles.

### **3.2. Recruitment**

To maintain a functional staff, new volunteers must be constantly recruited. About two-thirds of interviewees find it easy to recruit candidates, including all urban and large city sections, and a few medium-sized cities. One respondent from a large city says, “We don't really need to worry about new help at the moment”. An interviewee from an urban section notes a “100% increase in the last 5 years” of new volunteers. Six sections state they don't need to actively recruit, as volunteers come on their own: “People come automatically from time to time” (interviewee 17). Other sections that do recruiting find it successful. Those sections feel recruitment has become increasingly easier in recent years, with more motivated people to volunteer. One urban section even feels overwhelmed by the influx and manages a waiting list like three others. Interviewee 9 explains, “We had to pull the ripcord last year and opened a waiting list” and adds that they now admit new volunteers once a year, taking up to 10 at a time. Due to high interest, it takes several months to be considered.

Conversely, eight local sections struggle with recruiting new volunteers, including all small city sections and half of the medium-sized city sections. Interviewee 16 describes it as “difficult. I find it incredibly difficult”. Respondent 1 says, “If we have 4 or 5 public events a year, we might gain 1 or 2 helpers”. Efforts often yield low results. Four sections, mainly from medium-sized cities, report a gap between initial interest and actual involvement. Interviewee 11 notes a ratio of “usually 9 to 1, so 9 people consider it, and one actually joins”. Many candidates who start basic training also drop out in the process. Four small cities and one medium-sized section find recruitment increasingly hard, requiring more effort and time than before.

Recruiting younger volunteers is particularly challenging. A large city section mentions the high effort needed to attract younger candidates. Six other interviewees note that the older generation, roughly 40 and above, is more interested and easier to recruit. Respondent 2 explains, “Then the 40-somethings come back because their children are old enough and they finally want to get out of the house”. Interviewee 12 notes that pensioners are also becoming more active. Two eastern sections prefer older volunteers for their reliability and longevity in the organization but acknowledge the need to recruit younger volunteers as well. Interviewee 16 emphasizes the importance of including all age groups, as each is a valuable addition.

The main reason for recruitment difficulties is the general decline in willingness to volunteer. This issue is noted by all five small city sections, three medium city sections, and surprisingly, two urban sections. Interviewee 3 attributes it to a “social problem, we must continue to emphasize the importance of volunteering in our current society”. Respondent 2 observes, “In the past, there was a much greater willingness among the population to take on voluntary work, which has now declined over the last few years”. Two interviewees feel that society has become less active and engaged in any association. This problem is particularly evident among the younger generation. “From the age of 16 to early 30s, it is difficult to find people who want to spend their free time giving back to society or engaging in disaster management, it has decreased a lot already” notes a respondent from southern Germany.

Four sections highlight the need for more flexibility. Interviewee 14 notes, “The younger generation doesn't want to commit long-term. They prefer short-term projects but are

reluctant to join indefinitely. I think that will become a bigger problem". Interviewee 12 sees this issue extending beyond the younger generation to the whole society. Respondent 14 feels that altruistic help is declining, while interviewee 7 observes that people prefer unrestricted free time. Only section 10 reports an increase in motivation.

Three interviewees attribute the disinterest to the greater burden on young people today compared to previous generations. They are often willing but struggle with university and side jobs, leaving little time. Two others note that job demands have also increased, "with many people saying, I'm just completely exhausted in the evening and don't want to put any additional strain on it" (interviewee 15). Additionally, interviewee 6 mentions that modern family structures make it harder for one parent to be flexible enough to join the THW.

Five respondents note that the abundance of leisure activities today makes it harder to find new candidates. Interviewee 1 complains about hobbies attracting children early, saying, "It feels like they're still sucking on a bottle". Additionally, five sections report recruitment competition with other disaster management organizations. "We are also in competition with all the other disaster management units, whether voluntary fire brigade, voluntary government teams, or the Red Cross", says interviewee 2. These organizations are often more locally present or directly involved with people. Despite this, some sections highlight the unique benefits of the THW, noting its more structured and predictable involvement compared to other associations. Interviewee 14 acknowledges that recruitment issues are not unique to the THW, as other organizations face similar challenges. All sections emphasize strong cooperation among disaster management organizations, seeing no "real competition" as they work towards the same goal. Two entities even engage in joint recruitment efforts to showcase the system's diversity.

Three interviewees criticize the lack of visibility and awareness of the THW in society. Respondent 16 notes, "The biggest problem is that the THW has only one local organization per district, whereas the fire brigade is in every village. Most people don't even know we exist until an emergency". All three view the THW's unique nature as a disadvantage in recruiting new volunteers.

Additionally, only two interviewees from small cities explicitly mention demographic changes as a recruitment issue. Most sections either see no problem or cannot assess the impact of demographic changes on their organization.

The interviewees mention various recruitment channels, divided into locally controlled and external categories. Generally, ten sections emphasize that constant exposure to the THW is crucial for successful recruitment. Regular media presence, events, and news coverage are key. Interviewee 9 notes, "We have grown simply because THW has also become more effective in the media".

The first external recruitment "channel" is simply disaster events, which are beyond local sections' control. Seven interviewees report that disasters increase THW's media presence and volunteer influx. Respondent 2 notes, "The main factors are the major disaster events in recent years and their media coverage". Interviewee 17 adds, "As sad as it is, those events always

bring new volunteers to us". Three interviewees find that local or regional affectedness of disasters is particularly effective for recruitment. Many agree that the occurrence of disasters is the most effective way for recruitment, aligning with the nationwide increase in THW volunteers. However, two respondents from small cities disagree, noting no influx of interested people. Respondent 4 emphasizes that local or regional impact is necessary to see any effect.

Media campaigns by the federal or state level of the THW are additional frequently mentioned recruitment channel. These campaigns have had mixed results. While local sections in larger cities report positive impacts, most smaller city sections see little effect. Interviewee 5 notes, "The major marketing campaign 2-3 years ago had a very, very high impact on our organization". However, only one medium-sized city section feels an increase in volunteers after the utilization of those campaigns. Most small-city and medium-sized city sections do not notice any increase in volunteers. "No, we don't benefit from the nationwide campaigns as a local section", says a respondent from a small city, criticizing the campaigns' lack of effectiveness in rural areas. They hope for better local adaptation, with respondent 7 stating, "You can't just run blanket adverts that might work in urban areas but won't be accepted in the countryside". Even one urban and one large section report no positive impact from these campaigns. Those statements highlight challenges in their effectiveness for rural sections.

Additionally, local sections promote the organization through various channels such as social media, events, and word-of-mouth. Utilization and success with these channels depend on the local section's leadership. The main challenges are adequately staffing public relations roles and financing advertising. Interviewee 3 declares that local campaigns "always mean a certain financial commitment, which the local sections cannot provide". Despite this, some sections manage active advertising, with effective budget management being crucial. Overall, successful local recruiting hinges on having motivated staff in key positions, sufficient funding, and a supportive and active team. "If a section is smoothly working, the success rate is much higher", says interviewee 9.

### **3.3. *Volunteer retention***

Retention of volunteers is a significant challenge for local sections. Seven interviewees note that keeping volunteers is challenging and has become increasingly difficult. "If I'm not continuously entertained, i.e., given development opportunities or activities, many will leave sooner or later", says respondent 5. Interviewee 18 adds that understanding and managing the mood of volunteers requires more effort and time nowadays. Managers must address the specific needs of individuals more closely, increasing the burden on the management. There's also a growing demand for interesting training opportunities and events. The younger generation, especially those aged 16 to mid-20s, is particularly hard to retain due to their numerous life changes and shifting interests. Interviewee 6 reports that keeping volunteers around 18 is the toughest. Overall, maintaining motivation and commitment has become more challenging, necessitating greater focus on retention efforts. Those efforts increased significantly, particularly after the end of mandatory military service, which could be fulfilled through involvement in relief organizations.

In addition, two local sections highlight that increasing workload and burdens lead to overworked staff, diminishing their enjoyment of volunteering. This issue is linked to the appreciation of their efforts. From a political standpoint, two big-city sections commend the support they receive, while a small-town section in western Germany feels political appreciation is lacking. Societally, two interviewees believe appreciation for their work has increased, while two others feel it is decreasing and that their voluntary efforts are taken for granted. Section 4 also criticizes higher levels of the THW for not showing enough respect and appreciation for their work. Respondent 14 adds that a lack of appreciation hinders volunteer retention and makes them question their involvement for society. The level of appreciation appears to vary significantly based on unique local circumstances.

From an operational standpoint, staff turnover is a significant issue for local sections. Over a third (8) of the sections, ranging from small to urban cities, report high and constant turnover. Many view this as a natural part of having volunteers, as interviewee 13 notes, “being part of the organization is just a hobby”, and people leave for various reasons like new job opportunities or personal changes. Younger volunteers are particularly prone to leaving due to life changes such as moving for jobs or university. Three sections from small and medium-sized cities find it especially challenging to recruit and retain young people. The younger generation is also more likely to leave as they are starting their own family, mention two interviewees, not having enough time to continue their activity in the team. Two respondents also explain that many volunteers are returning but often face barriers like lack of childcare. Four interviewees note that vacancies created by departing volunteers take time to fill, especially for specialized or management roles. Finding replacements and training them can be lengthy and challenging, as highlighted by an interviewee from a small town, who notes that losing experienced staff significantly impacts their operations. This turnover adds to the stress and workload of team leaders and managers, who must invest extra time and energy in managing these challenges.

### **3.4. Training and qualifications**

Having a solid and motivated volunteer base is crucial for the organization, particularly for filling specialized positions. Most local sections (8) report high motivation among their crew to pursue training and qualifications. “The desire to understand more, to learn and to train is incredibly high among the volunteers”, says interviewee 2. For two respondents, external courses at federal training facilities serve as motivation and recognition for their efforts. Interviewee 6 explains, “It’s a nice recognition for your work and you’re away from time to time at the training centers. It’s a reward for good effort and commitment”. Two respondents note that today’s training needs are greater than before, due to reduced trade backgrounds among new volunteers and the demands of new regulations and technologies. Only one interviewee from a small city section highlights a lack of willingness to educate and train, exacerbating existing recruitment and staffing issues.

Regardless of the motivation, local sections face significant challenges in training and qualifying volunteers for required positions. Despite high engagement, eight respondents note

that limited slots in training programs hinder their ability to train all volunteers. Especially some specific qualifications do not offer enough capacity for all local sections to train their volunteers promptly. “We're trying to do it through the quota system for training programs and we have a huge problem. We don't get all the courses we need”, says interviewee 7. This results in delays in training and filling the vacant positions. Even if a volunteer is motivated and willing to take over a position needed by the local section, the training and qualification process is slowing down the progress and leaving key positions unfilled. Interviewee 4 adds that the lack of available slots can demotivate volunteers, affecting their commitment due to long waiting times. While local training is functional, this issue impacts training at federal, state, and regional levels, according to interviewee 10.

Aside from limited training slots, the training system itself faces criticism. Interviewee 6 states, “The THW's training structure is too cumbersome and no longer up to date”, noting that the process to qualify for leadership positions is too lengthy. Other respondents agree, saying the training is rigid and outdated, with a need for modernization through digital solutions. They hope this will reduce the qualification time, as many local sections seek qualified volunteers to staff vacant positions. Some positions may be unrealistic to fill without prior qualifications from their occupation due to the slow formal training system, even if slots are available. This time-consuming process conflicts with the demand for more flexibility, complicating future staffing and retention.

Some improvements are already underway. Interviewee 5 appreciates that teachers sometimes visit local sections, reducing the need for volunteers to commute to training centers. Respondent 16 highlights updates in their local training programs, including new materials and online courses, which increase flexibility. While the federal agency sets the basic structure, local sections can adapt it to their needs, says interviewee 6. However, shifting solutions for training issues to the local level adds more stress to the management level of voluntary entities.

### **3.5. *Staffing management and leadership***

Having a sufficient overall number of volunteers is important, but also staffing crucial positions in operational leadership and management is even more important. Operational leadership refers to leading positions in the operational structure of the local sections, the teams who deploy in the case of emergency. Management refers to the staffing of the administrative part of the section, for example, the head of the section or training officers (THWiki, 2024).

Six interviewees report that their leadership and management are adequately staffed, with representation from various municipality sizes and regions. “All the positions are actually filled and working properly, so I have no problems with that”, explains respondent 18. Two have even doubled staff positions to handle turnover and reduce individual stress. Section 8 is temporarily missing a management position due to recent turnover but expects to fill it soon. Interviewee 17 finds it easy to replace staff when needed. Additionally, some positions are

filled but not yet formally qualified, with candidates expected to complete requirements soon. Interviewee 5 notes that the younger generation is highly motivated and stepping into roles.

This is not the case for all local sections. Interviewee 4 claims that only the older generation holds leadership/management roles, due to the need for experience and motivation. Seven sections face challenges in staffing, with many having vacant leadership and management positions, from the head of the section to lower-level leaders. Interviewee 12 replies, “We have a problem staffing leadership positions. This is common in many local sections, from specialists to managers”. Many sections find it increasingly difficult to find suitable candidates in their teams for these roles. While small city sections are particularly affected, medium, large, and urban sections also report similar issues.

Two respondents attribute staffing issues to a lack of willingness and motivation to take on leadership roles nowadays. This aligns with section 12’s observation that volunteers increasingly desire flexibility and temporary involvement. Interviewee 10 says, “People are joining the THW, but they want to swing the chainsaw, drive the car, and stand outside knee-deep in mud. What they don't want is leadership responsibility”. Volunteers often only want to do the minimum required, as noted by interviewee 13. The administrative burden of leadership/management roles is unappealing to many, further deterring volunteers. Local section 4 highlights that it takes significant motivation to fill such positions, while respondent 8 notes that enduring and willing volunteers are rare. These roles are both technically and socially demanding, requiring high interpersonal effort. Thus, interviewee 16 stresses that leadership positions need not only to be formally staffed but also functionally covered by capable individuals. Five interviewees believe that the immense workload and varied duties may deter new candidates. They observe the stress in the current management and leadership and are unwilling to put them in the same position. Even if candidates are found, they often already hold other positions, leaving gaps elsewhere, as mentioned by three respondents. Interviewee 10 reports that some volunteers are holding multiple positions to cover vacancies, adding to the management's stress.

### **3.6. *Workload and stress***

Most local sections (14) report a significant increase in workload and stress for management and leadership roles. They struggle to meet their responsibilities on time under the current conditions. Several respondents state their workload is excessive for a voluntary position. Interviewee 12 says, “I work more for THW than for my company and the expectations are high”. Interviewee 13 adds, “As a local representative, I work around 1200-1300 hours a year voluntarily in addition to my main job”. The variety of duties is also demanding, with respondent 15 noting, “As a leader, you have a greater responsibility than a normal helper, including managing your group, vehicle, materials, preparing training, and attending special services”. Four interviewees observe that while management positions face a heightened workload, ordinary volunteers also experience increased stress. Overall, 11 local sections report a high and rising workload in recent years, often managed only by individuals dedicating

much of their free time to the organization. Complaints about workload are consistent across all sizes and locations.

A major factor contributing to increased workload and stress is the rising number of operations and missions, according to several (7) interviewees. Respondent 15 notes a recent rise in missions, adding strain on volunteers. Interviewee 14 states, “I very strongly expect the number of deployments to increase, especially with climate change, flood deployments, and storm events. I strongly expect we’ll be requested much more frequently”. This trend is noted by various sections across different city sizes and locations, which worry about worsening conditions due to climate change. Interviewee 10 highlights that the workload, particularly for leadership, during missions is immense. Thus, the growing number of operations will further challenge local sections, compounding existing issues.

Alongside the increase in disasters, two interviewees express frustration about their sections being deployed for tasks outside their core responsibilities. They feel they are being used as a low-cost resource for tasks that could be handled by companies or other organizations. This sentiment is echoed by two other local sections, which question the expectations placed on THW volunteers. Interviewee 13 says, “I think we all have really good training, but it’s still voluntary work; I’m not THW by profession, it’s a hobby”. Overall, they feel that local sections are expected to take on too many tasks.

A separate major challenge is the rise in bureaucracy and administration, which half (9) of the local sections highlight. The increasing complexity of administrative processes is consuming time that could be spent on actual tasks. Respondent 7 says, “There are now so many regulations, implementations, and provisions that are not really manageable for voluntary work”. Interviewee 16 notes that simple tasks, like material procurement or documentation, have become overly complicated. Several interviewees report that this bureaucracy hampers their main tasks or leads to lagging documentation. Management, in particular, is burdened by an increase in bureaucratic obligations. The increased complexity also discourages potential new volunteers, as the entry barrier to understanding the system is higher. Additionally, since most volunteers didn’t join the THW to handle administrative duties, these roles are unpopular and hard to fill, making it a significant challenge for many local sections.

Some interviewees see the older generation as a potential solution to the issue. Five mention that retired volunteers are a valuable asset for managing administration, as they have more time due to no professional distractions. Current positive experiences with retired volunteers include handling back-office tasks. Interviewee 12 notes, “A pensioner has time. If we didn’t have him managing the property, we wouldn’t be able to handle some of these tasks at all”.

Furthermore, a pilot project has been implemented in the local sections of Hamburg, testing a full-time employee in each section to cover various tasks. Feedback from two interviewees is generally positive, many tasks could be covered by the colleague reducing the workload on volunteers. Yet, they do not believe a nationwide rollout is feasible due to significant cost implications.



Not everyone in the THW is a volunteer; staff at regional, state, and federal levels are fully employed professionals. While three interviewees note an increase in regional office employment, cooperation with local sections varies. Two interviewees report a positive relationship with full-time staff, but many see areas for improvement. Two respondents feel that the increase in professional staff has not alleviated local sections' workloads. Interviewee 15 says, "Even though we have more full-time staff, in theory, there should be a noticeable reduction in workload. However, we do have the impression that the workload has remained the same, or even increased slightly". Some believe that the rise in professional staff has led to more tasks and requests for local sections, with growing demands from higher levels. Three interviewees express a desire for relief from full-time colleagues to address their stress and workload, while interviewee 1 mentions difficulties in communication with state and federal levels, feeling unappreciated and not taken seriously.

The overall workload for the THW organization has been steadily increasing. As illustrated in Table 3, the total number of hours contributed by volunteers has grown over the years. Although some years show exceptionally high figures due to significant single events, a general upward trend is apparent. The last instance when the total volunteer hours fell below 1 million was in 2017. This trend may indicate a sustained increase in workload for volunteers within the organization in recent years.

<b>Year</b>	<b>Operational hours</b>	<b>Exercise hours</b>	<b>Overall hours</b>
<b>2023</b>	828.913	338.021	1.166.934
<b>2022</b>	1.088.470	240.853	1.329.323
<b>2021</b>	3.747.161	67.370	3.814.531
<b>2020</b>	1.124.398	43.568	1.167.966
<b>2019</b>	667.542	395.859	1.063.401
<b>2018</b>	698.138	318.826	1.016.964
<b>2017</b>	478.085	337.167	815.252
<b>2016</b>	448.763	364.781	813.544
<b>2015</b>	1.121.323	299.514	1.420.837
<b>2014</b>	456.000	329.000	785.000
<b>2013</b>	1.862.000	341.000	2.203.000
<b>2012</b>	349.000	372.000	721.000
<b>2011</b>	570.000	356.000	926.000
<b>2010</b>	856.000	345.000	1.201.000
<b>2009</b>	494.000	368.000	862.000
<b>2008</b>	392.000	381.000	773.000

Table III: Operating hours of the THW per respective year (based on THW annual reports 2012 to 2023).

**3.7. Financial situation**

Overall, most feedback on the previous organization's financial situation is positive. Interviewee 2 notes that after the major flooding events in 2003 and 2013, the political focus shifted back to the organization, leading to investments in modernization and updates for local sections. Interviewee 5 confirms increased investment in recent years, while two respondents

state particularly in equipment and materials. Interviewee 9 adds, “We recently had a meeting with aid organizations and fire brigades, and we all agree that we are much better equipped to handle disasters than we were 20-30 years ago”.

Nevertheless, some negative feedback emerged during the interviews. Two interviewees from small towns cited insufficient funding for daily operations, echoed by a medium-sized city in western Germany, which struggles with its local budget rather than vehicle or equipment modernization. Additionally, two other entities find their budget too restrictive for effective local operations, with complications in purchasing smaller items. Interviewee 7 highlighted the difficulty of balancing the budget between all their local needs, e.g. maintenance, events, or recruitment. He says, “We receive so-called self-management funds, which I now must use to pay for my petrol tank or repairs. But I also must use the money for public relations or volunteer events”. Consequently, while larger investments in the system have been adequate, local sections may struggle with financing their daily operations.

To address the challenge, some local sections use alternative funding sources, such as private donations from individuals or local companies. Interviewee 4 from a large city notes they are consulting a lawyer to manage the large donations they receive. However, a rural section in eastern Germany points out that rural areas often lack a strong economy and many residents, resulting in fewer donations and making this funding method less viable for them. This creates unequal opportunities based on the location of the sections. Additionally, few interviewees mention this form of funding, suggesting it is utilized by only a few local sections.

Despite recent positive experiences, over half of those interviewed are concerned about their local sections' future financial situation. Interviewee 5 explains, “The news constantly reports that savings have to be made in many areas. I don't see a big impact today, but I expect that we will have major budget cuts in the next 3 to 5 years”. Two sections from small cities express worries about their dependence on the federal budget, which is vulnerable to political trends and budget cuts. They highlight their lack of influence over the budget, which is determined by higher-level decisions. Respondent 7 hopes for a stable long-term situation within the federal budget to avoid fluctuations and ensure effective management at the local level. Without consistent funding, maintaining and planning reforms or activities is challenging. Interviewee 2 notes that despite recent investments, local sections still need ongoing updates and modernization to stay functional, making reliable funding crucial. Most interviewees are worried about not being able to maintain their status and losing quality in several dimensions. Two interviewees are concerned about future funding and the impact of increased operations on their budgets. A small-sized section is already experiencing a reduction in funding. Two respondents emphasize that, even if the budget remains stable, rising operational demands will increase spending, hence an increase should be aimed for. Concerns about functionality and quality are widespread, especially among smaller cities. Two interviewees from small cities even fear mergers or closures of local sections due to budget cuts.

Budget limitations are impacting the volunteer workforce, according to three interviewees. Limited funds make recruitment difficult, as money is first used for maintaining equipment and operational expenses, leaving little for advertising or recruitment events. Interviewee 1 notes

that with a tight budget, there is insufficient money for events that keep volunteers engaged and happy. Companionship and good interpersonal relationships are crucial to keep volunteers in the organization. Interviewee 6 highlights that youth work, crucial for future recruits, suffers disproportionately due to a lack of activities. These shortcomings lead to perceived underappreciation and more work for existing volunteers. These issues are exclusively noted by local sections in small cities and rural areas.

### **3.8. Premises and property**

One challenge for local entities is the premises and buildings where the organizations are located. The first issue is insufficient space for current needs. Seven interviewees mention their properties are too small for modern needs, built decades ago, and often not for their current purpose. Interviewee 9 says, “To put it bluntly, we simply didn’t have enough lockers, and people are expected to change in the corridor or toilets”. The available space is insufficient to accommodate all volunteers adequately. Expensive vehicles lack sheltered parking, leading to faster wear and tear. Interviewee 14 is worried about storing all equipment safely and in an adequate manner for operations and maintenance. Space limitations are especially affecting women. The lack of gender-separated facilities, due to the buildings’ age, limits female volunteer recruitment and affects overall volunteer housing. Some properties are in poor condition; one part of a building is even prone to collapse. These space issues impact both volunteers and equipment across many local sections in Germany, independently of location and size.

Lastly, this also affects volunteer work safety. Interviewee 17 notes that protective, potentially contaminated clothing cannot be safely removed due to a lack of designated space, as work safety regulations were established after the building's construction. Interviewee 14 confirms similar issues in their section, mentioning problems with garage suction systems, which could expose volunteers to harmful gases during operations.

The location of local sections is a significant challenge for organizations. For units in rural areas, their placement within the service area impacts volunteer appeal. Interviewee 6 mentions, “When you consider the distances that our helpers have to travel to get to services, it's a disadvantage in the countryside”. Longer commutes also affect potential candidates. Interviewee 7, both from rural eastern sections, notes that this requires volunteers to be more motivated, as the distance can impede activity and recruitment. Two other interviewees agree, stating that most active volunteers come from areas closer to the premises rather than from further within the service area. But also, within the municipality, the location is crucial for several reasons. Connectivity by car, public transport, and bike is essential for volunteers. Good public transport links are important, as not all volunteers and interested people have cars, but these are lacking in some areas, especially rural ones, according to interviewees. Poor biking infrastructure and long distances from residential areas also hinder local sections. Interviewee 12 reports it’s harder to retain volunteers if the commute is time-consuming. Interviewee 4 mentions that if premises are too remote and only reachable by one street, it negatively impacts operations. Additionally, proximity to other disaster management organizations is

desired twice for better coordination, joint training, and interpersonal relationships. The location also affects recruitment; two respondents emphasize the need to be centrally located for visibility and community presence, as being too remote reduces exposure and hinders volunteerism.

The location of premises within the municipality is a concern not only for rural sections but also in larger cities across Germany. This issue is highlighted in interviews where local sections have recently moved or are about to move. While a new property often aims to address space and quality issues, some interviewees express concerns about relocating to suburbs or commercial/industrial areas. These new locations pose challenges for volunteer retention, particularly affecting youth work due to poor public transport and bike infrastructure say two interviewees. “The accessibility by public transport and bike is simply poor. That's why I'm worried about the move”, interviewee 11 explains. Since youth work is crucial for recruitment, this is particularly concerning. However, Interviewee 17 is pleased with their new, more central location, showing that not all moves have negative impacts.

Regardless of location issues, a new property is crucial for the future functionality of local sections, addressing both space issues and volunteer motivation. Two interviewees claim that their old properties discourage potential and active volunteers due to poor conditions, highlighting the urgent need for improvements. However, the process of securing a new property is challenging. Seven local sections, regardless of location, complain about the lengthy planning and construction process. Interviewee 16 explains, “It's a very, very slow process at the federal level, I mean, the planning started in 2010, but now it's 2024 and there's no end in sight”. Section 14 had their project canceled due to financial issues, while Interviewee 17 found a site but lacks funds to begin construction. The reliance on federal budgets and the competitive real estate market are significant challenges says respondent 3. Two interviewees stress that building a new base sends an important signal of appreciation to volunteers. In section 7, the slow process is even affecting team morale.

Interviewee 14 attributes the slow process partly to the complexity of finding a suitable site, often involving city cooperation and the federal structure of the organization. The involvement of multiple levels and offices slows things down. Additionally, some local sections feel they have limited influence, as local authorities most affected by these projects are often excluded from site selection. Some sections were simply assigned a new site, despite it being problematic, leading them to feel unheard by higher levels.

Overall, property challenges for local sections are mostly independent of location or municipality size. About one-third of interviewees report issues, while the majority face no significant property challenges. Table 2 summarizes these challenges and their frequency.

Challenges		total of mentions	percentage of interviewees mention this challenge
<b>Personnel structure</b>			
	Current number of volunteers	8	44%
	Age structure & aging	6	33%
	Operationality local section	4	22%
	Activity of volunteers	6	33%
	Engagement of volunteers	4	22%
<b>Recruitment</b>		8	44%
	Age gap	7	39%
	Motivation/williness	10	56%
	Flexibility	4	22%
	Oversupply	5	28%
	Limited visibility THW	3	17%
	Disasters	15	83%
	Campaigns	8	44%
<b>Volunteer retention</b>		7	39%
	Increase efforts	7	39%
	Appreciation	3	17%
	Staff turnover	8	44%
<b>Training</b>			
	Slot limitations	8	44%
	Outdated training	5	28%
<b>Staffing</b>		7	39%
	Motivation	3	17%
	Workload	6	33%
<b>Workload &amp; stress</b>		14	78%
	Operations	7	39%
	Additional requests	4	22%
	Intersection volunteers & full-time	8	44%
	Bureaucracy/administration	9	50%
<b>Finance</b>			
	Local budget	5	28%
	Future funding	11	61%
<b>Property</b>			
	Space	7	39%
	Location	8	44%

Table IV: Challenges and changes based on the interviewee results.

## 4. Discussion

### 4.1. *Workforce and volunteer recruitment*

Satisfaction with the workforce varies significantly among the respondents. While about half of the group is mostly satisfied with their personnel structure, the other half faces challenges in this area. Most well-staffed local sections are located in large or urban cities, whereas those struggling are typically in smaller municipalities. This indicates a clear pattern: the availability of sufficient volunteers appears to correlate with the size of the municipality. Larger cities generally encounter fewer problems maintaining a strong volunteer base, whereas smaller municipalities often face greater challenges. This trend is consistent with interviewees' insights on the recruiting process. Most respondents from urban and large cities report no issues in finding and recruiting new volunteers. Some even experience an overwhelming interest of individuals, leading to waiting lists. Conversely, smaller and medium-sized sections struggle with recruitment, noting that finding new volunteers has become increasingly challenging over time. Thus, a divide exists based on the population size of the host municipality, which affects both the overall volunteer base and recruitment success. Geographical patterns are not noticeable in the data.

The divergence between rural and urban volunteer participation has been a topic of study for many years. In the 1990s, literature generally supported the notion that rural communities exhibited higher levels of volunteerism compared to larger urban areas, with individuals in rural settings being more likely to volunteer (Curtis et al., 1992; Sundeen & Raskoff, 1994). However, this trend began to shift over time, and by the 2010s, volunteer participation rates between rural and urban areas had largely equalized (Hooghe & Botterman, 2012). In Germany, a recent study challenges this trend, suggesting that the percentage of active volunteers is higher in rural areas (Kleiner & Burkhardt, 2021). The general German volunteer survey supports this finding, showing a slightly higher involvement in rural areas (about 3% more), although overall volunteer involvement has decreased by 1% over the past five years (Simonson et al., 2022). Despite these findings, the differences in volunteer rates between rural and urban areas remain relatively small. Therefore, the challenges faced by rural local sections are likely not due to a lack of volunteer engagement but rather the limited absolute population size in those areas. Interestingly, in only one of these rural local sections' districts, an actual population decline occurred in recent years. Most areas have seen an increase in population, yet many still report a decline in volunteer interest (Demografieportal, 2024a).

Several interviewees attribute the weaker performance of rural local sections to their location, suggesting that it plays a significant role in volunteer recruitment, retention, and activity. Armstrong et al. (2023) identify proximity as a crucial factor, noting that being close to charitable organizations increases the likelihood of volunteering, particularly among individuals with full-time jobs. Moreover, location impacts not only volunteer recruitment and retention but also operational effectiveness, with organizations benefiting from being situated in high-density regions (Mayer, 2024). This is further supported by Terhorst and Evans (2023), who found that longer commute distances tend to decrease volunteering rates, especially among full-time and part-time workers commuting to locations outside city centers. While

Zakour and Gillespie (1998) acknowledge the impact of location on volunteer participation, they argue that other factors may be more influential. Nonetheless, the evidence suggests that location significantly affects volunteer retention.

The specific location of a property within a city is as critical as its broader geographical position, as noted by several interviewees who highlight its impact on recruitment and volunteer retention. Accessibility and convenience are essential for maintaining volunteers' long-term commitment. When volunteer sites are easily accessible, individuals are more likely to remain engaged with the organization (Hustinx & Handy, 2009). Proximity also affects volunteers' engagement levels, with Wilson (2000) noting that volunteers living closer to the organization often feel more connected to its mission, leading to more consistent involvement. Additionally, the surrounding environment plays a significant role in volunteer recruitment and retention. Volunteers are more inclined to engage with organizations located in areas that are perceived positively and are easily accessible (Musick & Wilson, 2008). As a result, relocating local sections to the outskirts or industrial areas, as described by some interviewees, could negatively impact their performance. Such relocations, especially to less advantageous areas, could exacerbate challenges related to recruitment, retention, and overall operations, particularly for units in rural regions where public transport options are limited.

In the recruitment process, more than a third of respondents highlight significant challenges in attracting younger individuals, particularly those aged 20 to their mid-30s. This difficulty is not only apparent in recruitment efforts but also reflected in the age structure of several local sections, where younger volunteers are underrepresented. Conversely, the older generation appears to be more active. Interviewees attribute this gap to age-related life transitions, such as leaving home for work or studies, starting careers, forming families, or building homes. These commitments often reduce the availability of younger adults for volunteering. As individuals settle into their lives at older ages, these distractions diminish, leading to increased volunteer participation. This pattern aligns with existing literature, which recognizes that this stage of early adulthood is typically less active for volunteerism (Gray et al., 2012). High work demands and the responsibilities of young children further limit involvement in volunteering during this period (Oesterle et al., 2004).

However, volunteer involvement is not significantly higher in older age and actually declines progressively with age (Lee, 2019). Older people are proportionally less likely to volunteer compared to younger individuals (Vogel et al., 2017). This trend is supported by the current German volunteer survey, which indicates lower participation rates among those aged 60 and older but also within the early 20s to mid-30s age group (Simonson et al., 2021). Although many interviewees note a lack of interest among the 20-34 age group, this observation contrasts with their experiences of higher involvement and interest among older generations. Indeed, other studies in Germany have identified an increasing trend in volunteerism among older generations. Current older generations are more likely to volunteer than previous cohorts at the same age (Şaka, 2018; Vogel & Gordo, 2019). This trend may be attributed to factors such as improved health in old age and evolving perceptions of aging (Simonson & Vogel, 2020). Additionally, generational influences, such as the experiences of the '68

generation shaped by civil society protests, may also play a role (Burkhardt & Schupp, 2019). Moreover, the average number of hours dedicated to voluntary work in Germany tends to increase with age (Simonson et al., 2022).

Many interviewees attribute the difficulties in recruitment to a declining willingness to volunteer, with over half citing this as the primary issue, particularly in smaller local sections. They believe that a lack of social cohesion has led to a reduced inclination to dedicate free time to societal causes, especially among younger generations. The latest German volunteer survey reports a slight decline of 0.3 percent in overall volunteerism compared to 2014, though it remains higher than in the 1990s and 2000s. Participation in accident and rescue services or voluntary fire brigades also decreased, from 2.9 percent to 2.7 percent (Simonson et al., 2021). However, the THW (Stube et al., 2023) has experienced a 10% increase in its volunteer force over the past five years, marking the highest growth in the last two decades. This suggests that, contrary to broader trends, the willingness and interest in joining the THW are on the rise. Nonetheless, regional variations in volunteerism, which were noted in previous studies, are reinforced by the interviews (Schuchardt, 2019).

Additionally, the increasing demand for flexibility poses significant challenges to recruitment and retention for four local sections. They observe that younger individuals, in particular, are less willing to commit long-term, which is essential for the extensive training required and gathering of experience. This trend has been noted in recent studies, where younger generations exhibit a reluctance to engage in permanent commitments (Compion et al., 2022). In rural areas, the need for flexibility has become increasingly important for voluntary firefighters in Germany (Walter & Schlehmeier). Similarly, Wenzel et al. (2012) found a growing demand for flexibility among volunteers in the THW and volunteer firefighter sectors. Consequently, the desire for greater flexibility and reduced long-term commitment is well-documented in recent literature. To maintain its operational capacity, the THW must adapt to these trends by developing new strategies, especially in training and qualifications. Research suggests that younger volunteers are driven by challenging and engaging tasks, while older volunteers prioritize meaningful activities and social interactions (Hopkins & Dowell, 2022). Therefore, it is crucial to develop targeted strategies that address these varying motivations, such as offering professional qualifications for younger volunteers and providing opportunities for social interaction for older volunteers (Hopkins & Dowell, 2022).

A further challenge is the THW's limited visibility within society, particularly when compared to other aid organizations. Despite this, more people express a willingness to volunteer for the THW than for the voluntary fire brigade, with only the Red Cross being more popular within Germany's relief sector (Wendekamm & Matzke, 2015).

#### **4.2. Volunteer retention**

In addition to recruiting new volunteers, retaining them within the organization is vital for maintaining a functional local section. Volunteer retention is identified as a significant challenge by several interviewees. Seven respondents note difficulties with retention and



report that these challenges have evolved over time. They observe that efforts to retain volunteers have increased for those in management and leadership roles. Volunteers today tend to be more demanding, requiring greater engagement and regular conversations to ensure their satisfaction. The reasons for the heightened focus on retention efforts are diverse (Kappelides et al., 2020). In particular, younger volunteers often need more attention and effort to remain committed to the organization, necessitating increased time investment from leadership and management (Mühlenhof & Lipski, 2020). This observation aligns with the experiences shared in the interviews.

Warburton et al. (2018) highlight the growing complexity of volunteer retention in non-profit organizations. They emphasize the need to restructure management practices to adapt to evolving regulations and changes in societal behavior. Creating a positive overall atmosphere is essential, and both management and leadership must be equipped to enhance volunteer retention (Lemke et al., 2020). It is important to ensure that the responsibility for these changes does not fall solely on the leadership of local sections; they should be supported by the broader organizational system. Imposing additional workload on local leaders would only exacerbate the existing stress and burden they face. These leaders and managers are already dealing with increased demands and sensitivities related to volunteer retention, leading to higher levels of stress, as will be discussed in a later chapter.

A crucial factor in volunteer retention is the behavior of those in leadership roles. Leadership styles such as transformational and empowering leadership have been shown to positively influence volunteer satisfaction and their commitment to the organization. Transformational leadership, characterized by behaviors like inspiring vision and individualized consideration, enhances volunteer engagement and makes them feel valued, thereby increasing their likelihood of staying with the organization (Benevene et al., 2020). In the context of the THW, however, the substantial workload faced by management and leadership may hinder their ability to adopt such leadership practices effectively. Conversely, leadership that focuses solely on empowering volunteers without offering sufficient learning and training opportunities does not significantly improve volunteer satisfaction or commitment, and thus fails to enhance volunteer retention (Prytz et al., 2023). The lack of specialized training opportunities, as mentioned in the interviews, may contribute to challenges in retaining volunteers and may even lead to discouragement among them.

A key factor in volunteer retention identified through the interviews is the appreciation of their contributions by society, politics, and colleagues. Hübler (2022) highlights that a lack of appreciation is the second most common reason volunteers leave an organization. Similarly, Hopkins and Dowell (2022) underscore that community recognition and support from family and friends are crucial for retaining volunteers. A strong sense of community and purpose is also identified as a leading positive predictor of sustained engagement (Prytz et al., 2023). Interestingly, the interviews reveal a contrasting experience: some respondents report an increase in societal and political appreciation, while others perceive a decline. No clear pattern emerges regarding location or size in these differing perspectives. When retention efforts fail,

increased staff turnover exacerbates challenges in recruiting, staffing, and training even further.

### **4.3. Volunteer staffing**

Finding suitable candidates for vacant positions, particularly at the management and leadership levels, is a challenge for some local THW sections. Seven local sections currently face difficulties in staffing their management or leadership roles, while six others report no major issues in recruiting volunteers for these positions. This trend aligns with findings in broader recruitment patterns, where smaller local sections often struggle more with staffing than their larger counterparts. These challenges may reflect an overall shortage of personnel in smaller sections. Similar issues have been identified in other organizations, such as voluntary fire brigades in Germany, where difficulties in filling management and leadership positions have also been observed (Walter & Schlehmeier, 2024). Thus, these staffing challenges are not unique to the THW but are prevalent across various sectors of volunteer-based relief organizations in Germany.

One reason identified for these staffing challenges is a lack of motivation among potential candidates to take on responsibility while maintaining the flexibility they desire. The increasing need for flexibility has been previously discussed. Although volunteerism has undergone changes in recent years, such as reduced integration and long-term commitment, overall motivation to volunteer remains stable (Rochester, 2021).

Another reason cited by several respondents is the substantial workload associated with management and leadership positions. This issue will be explored in greater detail later, but it is important to note that the high workload may discourage new volunteers from stepping into these roles. Five local sections report that the stress and extensive hours required for these positions pose significant challenges in attracting individuals willing to assume such responsibilities. Additionally, some potential candidates may be dissuaded by observing current and past volunteers who have demonstrated the personal sacrifices needed to fulfill these roles, as noted by some interviewees. To improve management and leadership staffing, addressing these stress and workload barriers is essential.

### **4.4. Workload and stress**

This workload and stress not only impact the staffing process but also affect volunteer retention and the health of the volunteers. Even though involvement in THW local sections is voluntary and typically a "side job" alongside volunteers' primary occupations, many individuals report facing overwhelming work hours, as reported in the interviews. In the broader volunteer sector, this phenomenon is known as volunteer fatigue or volunteer burnout. This issue affects numerous volunteer organizations worldwide (Chen et al., 2021; Chirico et al., 2021). Volunteer burnout refers to the physical, emotional, and mental exhaustion that volunteers experience due to extended periods of intense or demanding volunteer work. This condition often arises when volunteers consistently work long hours or

face high stress without sufficient support or rest. Volunteer fatigue can lead to decreased motivation, reduced effectiveness, and ultimately, lower volunteer retention rates. Burnout is influenced by multiple factors, such as the amount of time dedicated to volunteering, the type of motivation driving the volunteer, and the perceived workload (Moreno-Jiménez & Villodres, 2010). In this study, the primary concerns raised by individuals in management/leadership positions are the significant time commitment required and the high perceived workload. These conditions could lead to an increase in volunteer burnout. Volunteer burnout poses a serious challenge for nonprofit organizations, impacting not only the well-being and health of individual volunteers but also overall organizational effectiveness. It can lead to higher turnover rates among volunteers, resulting in the loss of key individuals in critical roles within local sections and subsequently creating new and challenging staff vacancies (Allen & Mueller, 2013).

This fatigue could be particularly dangerous, not just in office work, but especially during emergencies, as noted by some interviewees. Dawson et al. (2015) identify the risk of fatigue among volunteer firefighters, which can potentially lead to delayed response times, reduced situational awareness, attentional tunneling, memory impairment, and altered affect and motivation. The increasing trend of longer working hours within the THW, coupled with a rise in disaster events, could exacerbate and further endanger the well-being of volunteers in the organization (IPCC, 2022; Stube et al., 2023). Many interviewees already express concerns about the growing number of operations, the frequency of disasters, and additional tasks that must be managed. To prevent further stress and mitigate the risks associated with fatigue in both office and emergency response situations, new mechanisms should be implemented to alleviate the future burden on volunteers (Ghodsi et al., 2022).

A significant factor contributing to the high workload of management is the administrative work and bureaucracy. Many respondents describe this increase as a major burden for local sections. The shift towards administrative duties, rather than focusing on core tasks, can be discouraging for volunteers. This concern is also supported by other studies. For example, Ausserhofer et al. (2023) identified increased administrative workload as a barrier to employee retention in different contexts. The issue of excessive bureaucracy within the voluntary sector in Germany has been recognized by other researchers, yet effective solutions remain scarce (Jähnert, 2022). The THW initiated a pilot project in Hamburg to employ full-time staff in local sections. While limited information is available publicly regarding its success or potential nationwide deployment, interview feedback suggests a positive reception. This pilot program indicates awareness of the issue and could signal a promising direction toward addressing these challenges. The complexities arising from interactions between volunteers and full-time staff have been studied in other sectors within Germany. Due to the inherently different structures and roles of volunteers versus full-time employees, various challenges emerge at this intersection (Schumacher, 2015). Such difficulties are common in many organizations that rely heavily on volunteerism.

#### **4.5. Training and qualifications**

When a suitable candidate is available for a vacant position, training, and education are often necessary to qualify the individual. Training is a critical component of THW operations, as having well-qualified volunteers is essential to the organization's effectiveness. However, the training capacity is often a limiting factor, as noted by many interviewees. While many qualifications are managed locally without significant issues, there is room for improvement in specialized and leadership training (Blanckmeister, 2020). It is currently challenging for many local sections to secure enough training slots to meet their needs. Although capacity limitations have not been the primary concern in existing literature, some authors have highlighted the need to modernize and enhance the overall training and education system in disaster management (Karutz & Mitschke, 2018). These authors suggest various adjustments and structural changes to address the current challenges. In particular, increasing E-learning opportunities has been recommended, aligning with the expressed needs of the interviewees. Despite these suggestions, local sections still perceive significant areas for improvement. As a result, many positions remain inadequately filled or entirely vacant due to training restrictions.

Furthermore, when there is no capacity within the existing team, new volunteers must be recruited. As previously discussed, some local sections face difficulties in finding suitable candidates. The challenge of recruiting qualified individuals adds another layer of complexity to ensuring the organization operates effectively.

#### **4.6. Financial challenges**

An additional challenge facing many local sections is the financial situation. Interestingly, while many sections report good investments in their units in recent years, there is widespread concern about potential reductions in future funding. This concern may be linked to recent media coverage of government cost-saving and budget-reduction plans (Kinkartz, 2024). Despite increased attention to disaster risk management following the 2021 floods, this sector's budget remains vulnerable to cuts, as frequently highlighted in the media (Südwestrundfunk, 2022; Westdeutscher Rundfunk, 2023). For example, the budget for the ministry responsible for the THW decreased by nearly 200 million euros (1.5%) for 2024 compared to the previous year (Tagesschau, 2024). Additionally, the THW's budget itself declined from 428.6 million euros in 2023 to 401.6 million euros in 2024 (THW Bundesvereinigung, 2023). Coupled with ongoing inflation, these financial constraints contribute to the challenges faced by local sections (Destatis, 2024). Thus, concerns about future funding reductions are grounded in Germany's current economic situation and ongoing debates about further budget cuts. However, higher investments for the THW have been promised for the 2025 budget (Bundesregierung, 2024).

Some interviewees mention alternative funding schemes that are currently providing additional financial support. While these schemes may be beneficial for specific projects or event hosting, they do not offer a reliable or consistent source of income. Voluntary donations, for example, often fluctuate due to various factors, such as economic downturns, and are

highly dependent on local conditions (Carroll & Stater, 2009; Goff & Bam, 2020). The effectiveness of these donations can be influenced by the location of the local section. Similar trends have been observed in voluntary sports clubs in Germany, where funding difficulties are more pronounced in economically disadvantaged communities due to lower income levels or a lack of substantial corporate donations (Wicker & Breuer, 2015). Thus, while donations may provide supplementary funding for some local sections, they do not offer a stable alternative to shortcomings in official funding streams. This is especially true for local sections in economically challenged areas, which face structural disadvantages and already struggle to recruit and retain volunteers.

#### **4.7. Premises and property**

Facility space limitations present a significant challenge for local THW sections. Inadequate storage space for equipment and vehicles can negatively impact the operational efficiency of these sections, as equipment may deteriorate more quickly or be less accessible in emergencies. Additionally, a lack of sufficient space for volunteers could lead to decreased motivation and lower morale within the team. This issue is not isolated, as many other local sections face similar challenges (Hermanns, 2024; Schreiter, 2018). Despite the prevalence of this problem, there is a notable lack of academic literature to support these observations. Nonetheless, the THW acknowledges the problems posed by outdated and undersized facilities at many local sections and has initiated a program to address these challenges (Technisches Hilfswerk, 2024b). However, as expressed in the interviews, this approach is often perceived as too slow and untimely by many local sections.

The challenges related to selecting suitable locations and the slow planning and construction processes may be attributed to the current financial and market conditions. These delays are likely not intentional on the part of higher levels, as finding affordable sites for the public sector has become increasingly difficult. In recent years, the overall cost of construction has risen significantly, impacting not only the public sector but all stakeholders (Dullien & Martin, 2023). The German real estate market has experienced substantial growth over the past decade, resulting in fewer affordable properties for new locations (Kloppenburger, 2021). Simultaneously, the public sector is under pressure to implement cost-saving measures. Despite a temporary increase in the federal budget during the COVID-19 pandemic, the budget has been shrinking for three consecutive years (Federal Ministry of Finance, 2024). This combination of rising costs and budget constraints has affected most construction projects in Germany. For instance, the social housing sector has struggled to meet its targets too (Deutschlandfunk, 2023). Consequently, the entire industry faces significant challenges, leading to deficiencies in the facilities required by local sections. In response to these issues, the THW has launched a construction program and is working to implement standardized methods to enhance construction processes and reduce costs (Stube et al., 2023; Technisches Hilfswerk, 2024b).

#### **4.8. Demographic changes**

Demographic change has long been recognized as a potential challenge to the social and economic stability of countries and regions. One of the major concerns in Europe is the increased strain on the retirement insurance system due to an aging population (Ainsaar & Rootalu, 2016). At the local level, demographic shifts raise concerns about their impact on the delivery of essential public services. In areas experiencing a shrinking and aging population, the demand for social infrastructure is changing, and the per capita cost of maintaining these services is rising (Nadler, 2017). This demographic trend also affects disaster management systems, as a larger elderly population may increase the overall vulnerability of the community by escalating the need for support during emergencies (Abeliansky et al., 2021). From an economic perspective, demographic changes are frequently linked to labor shortages, which can hinder economic growth and development (Ainsaar & Rootalu, 2016). For disaster management, these labor shortages pose a significant threat to the current system in Germany, which relies heavily on a steady supply of suitable volunteers to maintain operational effectiveness and ensure public safety.

This potential issue is not new, as various studies and research projects have focused on it in recent years. From 2012 to 2015, the Federal Ministry of Education and Research led the "INKA" research project with other partners to improve volunteer integration within disaster management organizations (Federal Ministry of Education and Research, 2015). The project aimed to develop sustainable methods for incorporating volunteers from all population groups into disaster management at organizational, institutional, and socio-cultural levels (Lange & Endreß, 2012). The INKA project frequently referenced a study by the Federal Agency for Civil Protection and Disaster Aid (Klein & Quednau, 2015; Lange & Endreß, 2012). This study was part of an initiative by the Standing Conference of Interior Ministers and Senators of the Federal States (IMK) to ensure sustainable volunteer-based assistance structures in population protection amidst demographic changes (BBK, 2014). However, Cronenberg's study (2012) mainly reviewed existing literature and did not include new primary data. The findings were primarily localized approaches from 15 to 20 years ago. Although it did not directly assess the impact of demographic change on the volunteer workforce, it highlighted the potential effects of volunteering in disaster management, noting varying influences across regions and shifts in volunteer engagement patterns. These shifts included decreased willingness for long-term commitment, increased demands for flexibility, a spatial divergence between work and home, and the emergence of new leisure activities (Cronenberg, 2012).

In this research, demographic changes are mentioned by only a few local sections as a potential challenge. Four local sections do not perceive demographic changes as a challenge for recruitment, while only two report any impact on their recruitment process. A slight increase in age among volunteers is observed in a few units. However, aging may result from various factors, such as recruitment strategies or organizational management practices that discourage younger people from joining and participating in local sections. Additionally, most struggling units are in rural areas, which are often more susceptible to demographic shifts due to their societal structures. Despite this, the municipalities involved in this study do not exhibit

significant trends of population decline or rapid aging (Demografieportal, 2024a, 2024b). Overall, demographic change was not identified as a major challenge in this research.

In summary, many of the challenges identified within the THW volunteer system are not exclusive to this organization but rather are shared by other volunteer-based systems. Nevertheless, the THW holds a uniquely critical role in ensuring societal safety during times of disaster. A fully operational and efficient system is essential for safeguarding the German population and represents a key component of the state's responsibility. As such, increased investments and efforts are necessary to address these challenges and ensure the continued functionality of the THW. While some of the issues, such as property constraints and funding limitations, are linked to broader economic conditions, cost-cutting measures are inadvisable given the rising frequency of disaster events. The state must not abdicate its responsibilities but rather take proactive steps to address these concerns.

Moreover, the recruitment difficulties faced by certain local sections require immediate attention. If these shortcomings are not effectively addressed, the consequences will be severe, particularly as many older volunteers approach retirement. The development of more localized, demand-driven strategies and the provision of professional support are essential. Importantly, resolving these challenges must not further exacerbate the existing workload and stress experienced by volunteer leaders and managers. Reducing the burden on these individuals is crucial, as those who willingly sacrifice their free time for societal safety should not face the risk of burnout or unnecessary additional pressures. As some interviewees have already pointed out, it remains uncertain whether the current system will be able to meet future challenges and respond to disasters effectively if the rate of change and support continues at its present pace.

## 5. Conclusion

This study aimed to discover and explore the challenges and changes experienced by local sections of the THW from the perspective of the volunteers and management involved in these sections. By conducting semi-structured interviews with experts from various local entities across Germany, the research provides a comprehensive understanding of the issues and challenges affecting the THW's volunteer system, particularly in geographical disparities. The findings reveal that the THW is facing significant challenges in maintaining a stable volunteer base, particularly in rural areas and regions experiencing demographic decline. The research highlights the difficulties in recruiting and retaining volunteers, especially younger individuals, as the population ages and urbanization trends continue. These challenges are compounded by the increasing demands placed on the THW due to more frequent and severe disasters, which require a robust and responsive volunteer network.

Eight key themes have been identified as major challenges for the local sections. Notably, issues related to recruitment and personnel are sharply divided, with smaller municipalities experiencing significantly greater difficulties in recruiting and maintaining a stable volunteer base. Additionally, motivational challenges are prevalent across most local sections. While the increase in disasters threatens local operationality, disaster events often improve the organization's visibility and attract new volunteers. In terms of volunteer retention, many local sections have increased their efforts, yet they continue to face persistent staff turnover. Changing demands in volunteer integration and flexibility further complicate recruitment and retention efforts on a local level. The staffing situation is particularly challenging in leadership and management roles, where fewer volunteers are willing to take over demanding, time-intensive positions, exacerbating stress among current leadership and management. Even when candidates are available, the present training systems set significant challenges. Limited training slots and outdated systems hinder the timely qualification of volunteers, slowing down the process of staffing vacant and crucial positions. However, the most frequently cited challenge is the high workload and stress experienced by many volunteers, especially those in management and leadership roles. The increased frequency of operations due to disasters, combined with a rise in bureaucratic and administrative tasks, places an enormous burden on local sections. There is a pressing need to enhance the coordination between volunteers and full-time staff to alleviate these challenges. Moreover, the state of property and infrastructure remains an ongoing issue for many sections. Outdated buildings with space limitations impede the development of functional local sections with work safety drawbacks. Location challenges for existing sections and new projects further complicate operational effectiveness. Finally, financial concerns are widespread, with more than half of the sections citing local budgets and future funding as significant challenges. Despite recent positive investments, insufficient funding potentially hampers the daily operations of many local sections.

Interestingly, demographic change is rarely recognized as a significant challenge to the future operations of local sections. Even though the most affected sections are located in smaller cities, these sections did not perceive demographic changes as a primary concern for the organization. In fact, older generations are seen as beneficial in addressing some of the



identified challenges. However, many local sections also feel insufficiently informed to provide comprehensive statements on the impact of demographic change on their local sections. The challenges identified in this research have also been highlighted by other studies and authors. Volunteer management faces numerous obstacles, particularly concerning workload, which remains a major issue for the sector. The burden of administrative tasks deters people from dedicating their free time, increasing the risk of volunteer burnout.

The study contributes to the existing body of knowledge by offering a localized perspective on the volunteerism challenges within the THW, filling a gap in research that has predominantly focused on broader national or organizational levels. The insights gained from this research have several implications for disaster management in Germany. They underscore the need for targeted strategies to address the unique challenges faced by different regions, particularly in balancing the demands of urban and rural areas. To ensure the continued effectiveness of the THW, it is recommended that policymakers and organizational leaders consider strategies to enhance volunteer recruitment and retention, particularly in underrepresented areas. This might include outreach programs tailored to local conditions, leveraging digital platforms for education, and providing more flexible volunteer opportunities that align with contemporary lifestyles.

Future research could build on this study by exploring the effectiveness of specific interventions aimed at improving volunteer engagement in the THW. Additionally, comparative studies on a local level with other volunteer-based organizations in Germany but also different countries could provide valuable insights into best practices for maintaining a resilient volunteer workforce in the face of societal and environmental challenges and changes.

In conclusion, while the THW remains a crucial component of Germany's disaster management system, addressing the emerging challenges identified in this research is essential for ensuring its long-term sustainability and effectiveness. By understanding and responding to the localized needs of its volunteer base, the THW can enhance to play a vital role in safeguarding communities across Germany in a future of increasing disaster risk.

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# Appendix A: The German Federal Agency for Technical Relief

The Bundesanstalt Technisches Hilfswerk (THW) is a federal agency, headquartered in Bonn and under the supervision of the Federal Ministry of the Interior and Community. Through the THW system, the federal government has its own operational forces for civil protection, which can be deployed as disaster assistance if requested by the federal states/local authorities (Karutz et al., 2017). This supporting character is based on the federal system, in which the 16 states are responsible by law for disaster management, the national level only provides assistance after requests (ECHO, 2021). However, the THW structure, visible in map 1 is highly localized, split into 8 regional offices (“Landesverbände”), some states jointly established offices, which split on the lower level into 66 THW offices (“Regionalstellen”), and a division into 668 local sections (“Ortsverbände”) (Stube et al., 2023). Map 1 shows the distribution of those entities across Germany.



Map 2: THW locations in Germany (Stube et al., 2023).

The 66 THW offices represent the interface between the voluntary and full-time employees of the THW. The local sections are the core entities for any voluntary and operational work within the THW system (Scholz, 2018).

Many local sections serve several municipalities in its area. Nevertheless, the core base of function is local volunteers within the local sections (Lange & Gusy, 2015). The THW is composed of about 86000 volunteers in the whole country as of 2022 (Stube et al., 2023).

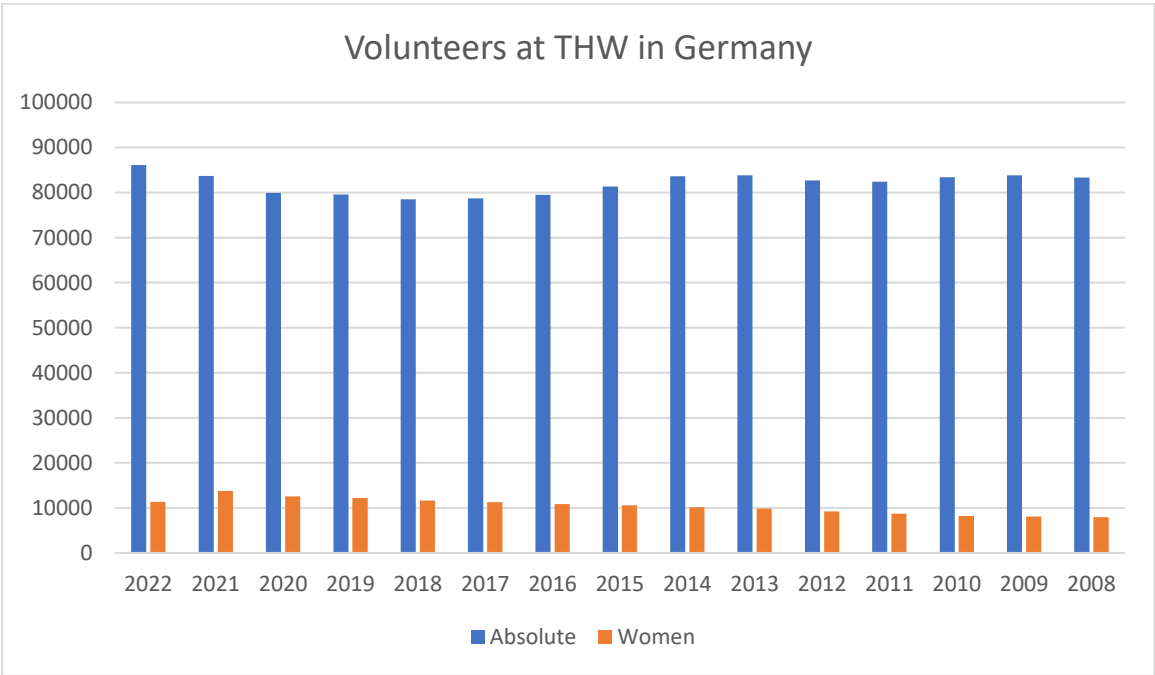


Figure 2: THW volunteer numbers in selected years. Data received from THW Annual Reports 2022 to 2012.

Figure 2 shows the number of volunteers per year at the THW. Overall, a minor wave movement is visible. Since 2013 the number has been decreasing but starting in 2019, member numbers are increasing, from around 79 000 to 86 000 volunteers.

THW only gathered and published age information of its volunteers for some years in their annual reports. Table 4 shows the results, published in the representative annual reports from 2013 to 2016. The amount of youth “volunteers” has increased in those years, yet they have their own section without an operational competence. The age group of 18 to 35 is falling by about 4%, while the age group of 36 to 55 seems quite stable. The volunteer group aged older than 55 years has slightly increased in these four years. When excluding the youth department, the THW statistics could be interpreted as a trend of aging.

Year	< 18	In %	18 - 35	In %	36 - 55	In %	> 55	In %
2016	15054	18.93%	33400	42.01%	24115	30.33%	6945	8.73%
2015	14649	18.01%	34856	42.86%	24927	30.65%	6900	8.48%
2014	13858	16.57%	37166	44.44%	25850	30.91%	6751	8.07%
2013	13964	16.66%	38571	46.01%	24889	29.69%	6406	7.64%

Table V: Age structure in the THW volunteer base. Data received from THW Annual Reports 2013 to 2016.

# Appendix B: Interview Guide

## General information:

1. What is your name and position within the organization?
2. How long have you held the position and how long have you been part of the organization?

## Recruitment of volunteers:

1. How do you work at the local level to have a reliable volunteer base?
  - Could you describe the process of recruiting new volunteers?
  - Is there a dedicated strategy for recruitment?
  - How is the strategy deviating from the actual process? What are the reasons for it?
  - Who has the responsibility to reach out to new members?
2. Is the recruitment strategy predominantly determined at the local level, or does it rely on directives from higher organizational levels?
  - To what extent does the local level actively engage in the recruitment process?
  - Is the approach primarily reactive, responding to interested individuals, or does it involve proactive measures?
3. How has the recruitment process changed over time?
  - Is it harder/easier?
  - Why is it harder/easier?
4. Is it currently difficult to find new members/volunteers?
  - What are the main obstacles in recruiting new members?
  - Are demographic factors relevant? (age, availability, etc.)

## Volunteer basis:

1. How would you assess the current state of the organization's volunteer base?
  - a. What are the prevalent issues/challenges impacting the volunteer base?
  - b. How would you evaluate the overall membership number in the local entity?
    - i. Are there concerns regarding member engagement/activity?
  - How do you assess the age composition of the volunteers?
    - i. Does this pose new challenges for organizational functionality?
  - What other factors contribute to potential workforce issues/challenges?
5. How has the active volunteer base changed over time?
  - How has the total number changed?
  - How has the average age of your members changed?
  - What do you think are the reasons for this? Current issues or past shortcomings?
6. Is the current workforce able to sufficiently cover all required tasks?
  - What tasks are endangered?
  - What are the hindering factors?
  - How do you maintain functional capacities?
7. Do you anticipate any issues or challenges arising regarding volunteers in the future in your local area?
8. Do you feel the aging population is already a higher burden for operations?

## Overcome issues:

1. How can the challenges in the workforce and the recruitment process be addressed?
  - What measures are already implemented or in the process?
  - From your perspective, what additional steps should be taken?

# Appendix C: Consent Form (English)



## Declaration of consent to the collection and processing of personal interview data

**Research project:** Master thesis Tjorben Zenker: Challenges and changes on the local level in the German disaster management system.

**Institution:** Lund University, Sweden

**Researcher:** Tjorben Niklas Zenker | Mail: tj8504ze-s@student.lu.se

**Supervisor:** Per Becker | Mail: per.becker@risk.lth.se

**Interviewer:** Tjorben Niklas Zenker

**Interview date:**

I agree to take part in an interview as part of the above-mentioned research project. I have been informed about the aim and the course of the research project.

I agree that the interview may be recorded with a recording device and put into writing. Personal contact data will be stored separately from interview data and will not be accessible to third parties. The audio files will be stored under a token and deleted at the end of the project on 30 October 2024. After the end of the research project, your contact details will also be automatically deleted. The anonymous transcription can be done with Microsoft Office or Otter.ai, both of which fulfill the industry standards for data encryption and the requirements of the EU-US Privacy Shield.

The transcripts of the interviews are anonymized, i.e. stored without names and personal details. The scientific analysis of the interview text is carried out by Tjorben Niklas Zenker, who has been sworn to data secrecy. The project works in accordance with the provisions of the General Data Protection Regulation (GDPR) and all other data protection regulations.

I agree that individual sentences from the transcripts, which cannot be associated with my person, may be used as material for scientific purposes and published as part of this thesis.

My participation in the survey and my consent to the use of the data as described above are voluntary. I have the option to withdraw my consent at any time. I will not suffer any disadvantages as a result of refusal or cancellation. I have the right to information, correction, blocking and deletion, restriction of processing, objection to further processing, and data portability of my personal data. Participation is free of charge.

Under these conditions, I agree to give the interview and consent to it being recorded, transcribed, anonymized, and analyzed.

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*Name*

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*location, date, signature*