



EVANS SCHOOL  
OF PUBLIC POLICY & GOVERNANCE

UNIVERSITY of WASHINGTON



# CLOSING THE GAP

## ADDRESSING DISPARITIES IN WILDLAND FIREFIGHTER COMPENSATION

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A mixed methods analysis of current compensation structures and their impact on Federal wildland firefighters. A University of Washington partnership with the U.S. Forest Service Rocky Mountain Research Station.

# EXECUTIVE SUMMARY

Federal wildland firefighters are leaving the workforce at alarming rates, exacerbating a high vacancy rate and skills gap. Meanwhile, American landscapes and communities continue to bear the brunt of wildfire impacts. Over the past two decades, an escalation in fire activity has increased the risk of catastrophic damage to people, property, and ecosystems.

The US Forest Service Rocky Mountain Research Station wanted to understand how wildland firefighter compensation presents across agencies, and how it impacts quality of life and employee well-being. This report evaluates the structure of compensation packages and their impacts, and suggests where improvements can be made to retain key talent. Any recommendations made in this report are based on the research team's findings and do not represent the views of the U.S. Forest Service.

## Research Question

**How do compensation structures for federal wildland firefighters compare with those of state wildland firefighting agencies in terms of pay, benefits, and work-life balance?**

## Research Methods

This research uses a mixed methods approach to best answer how federal compensation packages compare to other agencies. With publicly available data, we constructed pay tables to draw approximate 1:1 comparisons between comparable positions at Federal and State agencies. We then aggregated personnel dispatch data from the Resource Ordering Status System (ROSS) and the Interagency Resource Ordering Capability (IROC) to run statistical tests to better understand variation in federal firefighter assignments and highlight pay disparities across agencies. The team also conducted 23 interviews with firefighters of varying experience to better understand key factors related to how compensation impacts quality of life.

# RESEARCH HIGHLIGHTS

1

Federal Compensation lags that of state agencies by an average of 32.51%

2

Federal wildland Firefighters spend an average of 12 more days per season on Type 1 and Type 2 fires compared to their state counterparts

3

Federal wildland firefighters feel strongly that current compensation structures do not reflect the risks and responsibilities of the job

4

Despite the challenges they face, federal firefighters cited a deep commitment to public service, a strong sense of camaraderie, and a passion for the day-to-day work as their primary motivators

5

The FY2024 proposed compensation package still represents a lag of up to \$8,183.63 (56.79%) in average salary between federal wildland firefighters and the leading state agency

# QUANTITATIVE FINDINGS

## Key Insights

1. Low regular wages for federal wildland firefighters cap their earning potential, making it difficult to match the income of their state counterparts.

2. Due to limited guaranteed compensable hours paired with low wages, federal wildland firefighters are driven to work increased overtime and pursue more opportunities for hazard pay, which adversely affects their work-life balance and leads to heightened exposure to risk.

3. Despite the earnings gap, federal wildland firefighters spend a significantly higher percentage of time on type 1 and 2 fire assignments compared to most state agencies, highlighting the discrepancy in workload and compensation.

4. The benefits package for federal wildland firefighters, including healthcare and retirement contributions, is significantly lower than that of state agencies, making it less competitive in attracting and retaining talent.

5. The compensation gap extends to retirement plans as well. The shorter career span of federal wildland firefighters, combined with earlier mandatory retirement, results in a significantly reduced contribution window for retirement planning. Furthermore, overtime and hazard pay earnings, which can make up a substantial portion of their income, are not factored into defined benefits calculations and defined benefits are capped at a much lower rate than state retirement plans.



# QUALITATIVE FINDINGS

## Key Insights

Conceptual Category	Interview Insights
Physical and Material Well-being	<ul style="list-style-type: none"><li>• Pay is not considered adequate for the risks and responsibilities involved.</li><li>• Many struggle with physical and mental impacts that come directly from the demands of the job.</li><li>• Housing challenges are common due to the cost, availability, and variable duration of seasonal work.</li></ul>
Relations with other People	<ul style="list-style-type: none"><li>• Strong family and social connections help cope with demanding work conditions.</li><li>• The camaraderie at work is a major draw for staying in the profession.</li><li>• However, firefighters mentioned the challenging balance of maintaining professional commitment and personal relationships</li></ul>
Social, Community, and Civic Activities	<ul style="list-style-type: none"><li>• Balancing a life outside of fire is challenging for the majority of interviewees.</li><li>• A dedication to public service plays a role in retention and overall career satisfaction.</li></ul>
Personal Development and Fulfillment	<ul style="list-style-type: none"><li>• Federal firefighters frequently face disincentives for career progression.</li><li>• Organizational challenges and distrust can affect job satisfaction.</li></ul>
Recreation	<ul style="list-style-type: none"><li>• Connection to the outdoors and recreation is an important aspect of the profession.</li></ul>

# RECOMMENDATIONS

Domain	Action	Explanation
Organizational	Take Decisive Action	Recognize and capitalize on the opportunity to enhance the workforce as a valuable, long-term investment for taxpayers and the mission of federal agencies.
	Conduct Extensive Formal Research	Conduct comprehensive research on firefighter quality of life, comparing compensation to other agencies, analyzing job responsibilities, and assessing recruitment and retention practices. Investigate the physical and mental health impacts on federal wildland firefighters
	Develop and refine the wildland firefighter classification to reflect new wage structure	Ensure individuals working as wildland firefighters are appropriately classified by the Office of Personnel Management (OPM), with a new pay table that reflects the roles and responsibilities of their work.
Compensation	Elevate Regular Wages and Integrate Hazard Pay Premium	Restructure base pay and overtime rates to match those of leading state agencies, incorporating a hazard pay premium to discourage excessive risk-taking.
	Apply "Portal-To-Portal" Premium Pay	Implement "portal-to-portal" premium pay for all hours when firefighters are mobilized away from their home units, matching rates of leading state agencies.
	Offer Supplementary Allowances	Provide additional allowances such as monthly housing, cost-of-living, and subsistence pay. Offer Special Duties Assignment Pay (SDAP) to wildland firefighters undertaking particularly difficult, dangerous, or demanding duties.
Benefits and Quality of Life	Provide Comprehensive Healthcare Coverage	Extend comprehensive healthcare coverage to federal wildland firefighters and their families, ensuring rates are comparable with leading state agencies.
	Ensure Compensation for Service-Connected Disabilities	Include coverage and compensation for both physical and psychological disabilities, as well as chronic conditions in healthcare provisions.
	Establish Specialized Retirement Plan	Ensure government contributions to deferred compensation and defined pension benefits are on par with leading state agencies.

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We would also like to thank the 23 interviewees who generously offered their time, and shared their wisdom and experiences. Their contributions have undoubtedly enriched our understanding and the quality of our work.

And finally, we owe a considerable debt of gratitude to the members of the wildland fire community who inspired this project. Your experiences, expertise, and unyielding commitment to public service provided us with a unique perspective and greatly inspired us in completing this project.





# KEY TERMS

- Civil Service Retirement System (CSRS): A federal retirement plan for employees that were hired before 1984.
- Colorado Public Employees Retirement Association (PERA): a public pension fund that provides retirement and other benefits to employees of the state of Colorado
- Cost of Living Adjustments (COLA): Adjustments made to wages or benefits to account for changes in the prices of goods and services – typically associated with a specific locality
- Deferred Compensation Plans: An agreement between an employer and employee to receive a portion of their income at a later date, typically received at retirement
- Disability Benefits: Benefits paid to employees who are unable to work based on injury or illness
- Federal Employees Group Life Insurance (FGLI): A life insurance program for federal employees
- Federal Employees Health Benefits (FEHB): A program that provides health insurance to federal employees and their families
- Federal Employee Retirement System (FERS): A retirement plan for federal employees that includes a pension, a thrift savings plan, and Social Security benefits
- General Schedule (GS): Pay system for civilian employees in the federal government
- Hazard Pay: Pay given to employees who actively conduct work on a predefined list of hazardous conditions
- Health Benefits: Benefits paid to employees to help cover the cost of medical expenses
- Leave Benefits: Benefits provided to employees for time off work, such as sick leave, annual leave, and family leave
- National Wildfire Coordinating Group (NWCG): An interagency committee that sets standards and develops training for firefighting operations
- Overtime pay (OT): Pay that employees earn after working beyond their regular hours
- Public Employees Retirement System (PERS): Retirement plans provided to state employees
- Regular Wages (Base Pay): The amount of money an employee earns before any additional pay
- Retirement Benefits: Pay provided upon retirement, such as pensions, annuities, and social security
- Retirement Plans: Investment plans provided to employees to help them save for retirement such as 401(k) plans and IRAs
- Thrift Savings Plan (TSP): A retirement savings plan available to federal employees that is similar to a 401(k)



# CHAPTER 1: BACKGROUND

- **BACKGROUND**
- **AGENCIES/STATES OF FOCUS**
- **PROBLEM STATEMENT**
- **FIREFIGHTER COMPENSATION AND IMPACTS**

A California wildfire burns near a residential area at night. Photo provided by Adobe Stock Images.



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## The wildfire crisis is happening – and will grow more severe

In 2022, there were more wildfires in the U.S. than in any other year over the last decade. Since 2000, the number of U.S. wildfires has more than doubled compared to the 1980s and 1990s, while the median annual area burned has quadrupled in the western US, and grown sixfold across the midwest (NIFC, 2022). Research indicates that wildfires today are larger, faster, more destructive, and more common than those of the past – a ‘new normal’ that is likely to worsen with climate change. Furthermore, rates of development have increased in already fire-prone areas known as the Wildland Urban Interface (WUI), creating greater potential for harm to people and property. In response, fire agencies have significantly increased efforts to combat wildfires, with U.S. fire suppression appropriations tripling between 2010 and 2020.

Wildfires are a natural occurrence in many ecosystems, known as fire-adapted landscapes, and can offer a range of ecological and societal benefits. Fires help to clear forests of dead vegetation, stimulate new growth, and improve wildlife habitat. Indigenous communities used fire as a land management tool for thousands of years, employing controlled burning for a variety of purposes, such as clearing areas for crops, reducing forest density to promote mature growth, maintaining habitats for wildlife, and stimulating the growth of useful plants (NPS, 2022). However, wildfires can also lead to significant loss of life, infrastructure, and crucial ecosystem services.

Over recent decades, a growing wildfire crisis has posed a significant threat to natural resources and communities while straining the capacity of the wildland firefighting workforce.

1. Longer fire seasons due to hotter, drier conditions exacerbated by human-caused Climate Change
2. Significant increase in the suppression of ecologically beneficial fires in the early to mid-1900s
3. Large-scale logging and replanting of forests oriented toward timber productivity over ecological sustainability
4. Extensive fragmentation and development in forests and natural landscapes
5. Lack of funding for forest management and fire prevention measures
6. Exclusion of Indigenous communities and practices from forests and grasslands

*Figure 1: Primary Contributors to the wildland fire crisis (Abatzoglou et al., 2021) (Wara et al. 2020)*

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## Agencies of Focus

The majority of the wildland firefighting workforce in the United States is provided by the federal government. The Department of Agriculture's Forest Service and the four agencies within the Department of the Interior (DOI) – the Bureau of Land Management (BLM), the National Park Service (NPS), and the U.S. Fish and Wildlife Service (USFWS), and the Bureau of Indian Affairs (BIA) – rely on approximately 18,000 firefighters to meet their fire management objectives (NIFC, 2022). But, recruiting and retaining these individuals is a challenge, due to (1) low pay, (2) career advancement challenges, (3) poor work-life balance, (4) mental health challenges, (5) remote or expensive duty stations, (6) limited workforce diversity, and (7) hiring process challenges (GAO, 2022).



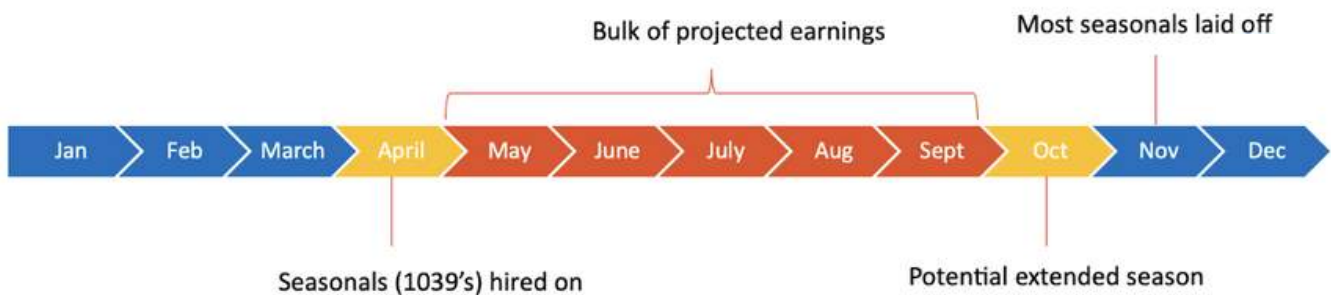
*Figure 2: State agencies covered in the report - Washington, Oregon, California, Colorado*

This report covers firefighters who work across the entire Western United States due to the region's drier climate and the prevalence of fire-prone vegetation which contribute to more frequent and severe fire occurrences. However, Washington, Oregon, California, and Colorado are mentioned more than other states for several reasons. First, these four states have sustained the largest destruction from wildfires and have faced the highest degree of wildfire risk in recent years. This leads to the states actively expanding their wildland firefighting workforces. In addition, long histories of wildfire in these states have contributed to more plentiful wildfire-related data and reporting than other geographies. This is in no way designed to de-emphasize or draw attention away from the wildfire experiences of other states. Rather, the hope is that the lessons learned through this report may prove useful for other regions across the U.S.

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## Problem Statement

Previous research has identified a discrepancy between the compensation provided to federal wildland firefighters and higher compensation provided to comparable positions at the state level has been identified in earlier research efforts (CalHR, 2021). Federal wildland firefighters adhere to the General Schedule (GS) wage system to set their base pay and accrue much of their overall compensation through variable earnings such as overtime and hazard pay when they are on assignment. However, the failure to update position descriptions and align them with the changing nature of firefighting roles and responsibilities has resulted in the GS wage structure not keeping pace with industry standards and the increasing risk associated with the job.



*Figure 3: Breakdown of WFF seasonal earnings calendar*

The existing system creates unpredictable earnings for federal firefighters and incentivizes more time on fire assignment—which contributes to higher rates of employee dissatisfaction, burnout, injury, morbidity, and mortality.

In order to address the issue of employee dissatisfaction and high attrition rates among federal wildland firefighters, it is crucial to understand the factors contributing to this problem. Among others, the main drivers identified in previous research are low pay, impacts to mental health, and poor work-life balance (GAO, 2022). However, there is a lack of quantitative information on pay disparities, and the complexity of the firefighter wage structure adds to the challenge of assessing compensation accurately. There is also limited information available regarding the variations in time spent on Type 1 and 2 Incidents, which significantly impacts fatigue, burnout, and mental health.

This study aims to fill these knowledge gaps by conducting qualitative and quantitative assessments of pay and time allocation on Type 1 and 2 Incidents across different agencies. Quantitative analysis will focus on comprehensive data collection and examination of compensation levels across agencies, positions, and wage structures, as well as the distribution of time allocated to Type 1 and 2 Incidents. On the other hand, qualitative analysis will involve interviews to gain insights into firefighters' experiences and perspectives on compensation, the work itself, and associated quality of life impacts. By doing so, the findings provided by this report may inform the development of targeted interventions and policy recommendations to improve retention rates, address burnout, and enhance overall firefighter well-being.

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## **Report Goal and Approach**

This report is prepared for our client, the USFS Rocky Mountain Research Station, and is structured to explore the compensation gap and suggest approaches to addressing it, by examining pay and position structures across wildland firefighting agencies and their effects on the workforce. Through a thorough review of existing literature, analysis of available data, and interviews with professional wildland firefighters from a range of agencies, positions, and levels of experience, this report will provide an in-depth exploration of the current state of compensation structures for federal wildland firefighters and how they compare with those of state wildland firefighting agencies.

## **Organization of Report**

This report is not intended to be a comprehensive review of all governments, agencies, and organizations involved in the wildland firefighting effort. However, it fills an important need in complementing existing reports, guiding future policy directions, and giving a voice to the lived experience of the wildland firefighting workforce across the United States.

### **The remainder of the report is organized as follows:**

Chapter 2 presents an overview of existing literature regarding wildland firefighter compensation and workforce impacts.

Chapter 3 discusses the methodology associated with this reporting method.

Chapter 4 provides an analysis of compensation structures and presents key findings.

Chapter 5 provides recommendations for policy interventions and the conclusion of the report.



## CHAPTER 2: LITERATURE REVIEW

- **OVERVIEW**
- **JOB DESCRIPTION AND CHARACTERISTICS**
- **COMPENSATION**
- **WORKPLACE HAZARDS**
- **IMPACT ON QUALITY OF LIFE**
- **GAP ASSESSMENT**



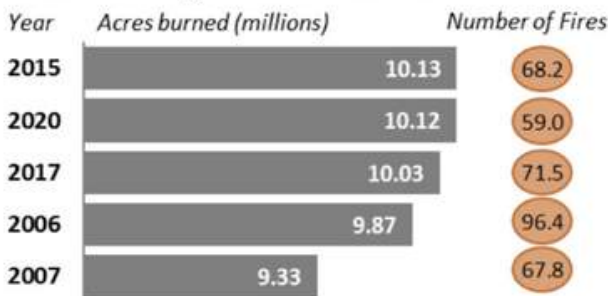
# OVERVIEW

To address our primary research question, we developed several sub-questions to better understand the topic and guide our research. Our search strategy focused on the following general search strings: US wildfire trends and impacts, wildland firefighter job characteristics, wildland firefighter compensation structures, and workforce impacts. To begin our research process, we searched research libraries and related databases. We also utilized search engines to locate additional sources, such as compensation tables, benefits information, gray literature, and academic articles. After compiling a master source list, team members assessed each source based on relevance to our research question and sub-questions. We then selected the most relevant sources (based on relevance to research question, scope, recency, and author expertise and authority) and added them to our reference list.

## Wildfire Trends and Impacts

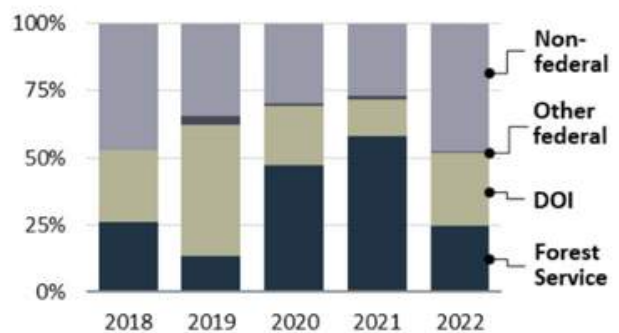
In the United States between 2013 and 2022, there was an average of 61,410 wildfires annually, affecting an average of 7.2 million acres each year, on federal, state, and private land. In 2022, a total of 68,988 wildfires burned approximately 7.6 million acres of land (CRS, 2023).

**Figure 4: Top Five Years with Largest Wildfire Acreage Burned Since 1960**



Source: NICC Wildland Fire Summary and Statistics annual reports.  
 Note: Number of fires in thousands.

**Figure 5: Percentage Acreage Burned by Ownership**



Source: NICC Wildland Fire Summary and Statistics annual reports. Note: DOI = Department of the Interior.

**Figure 6: Loss Statistics**

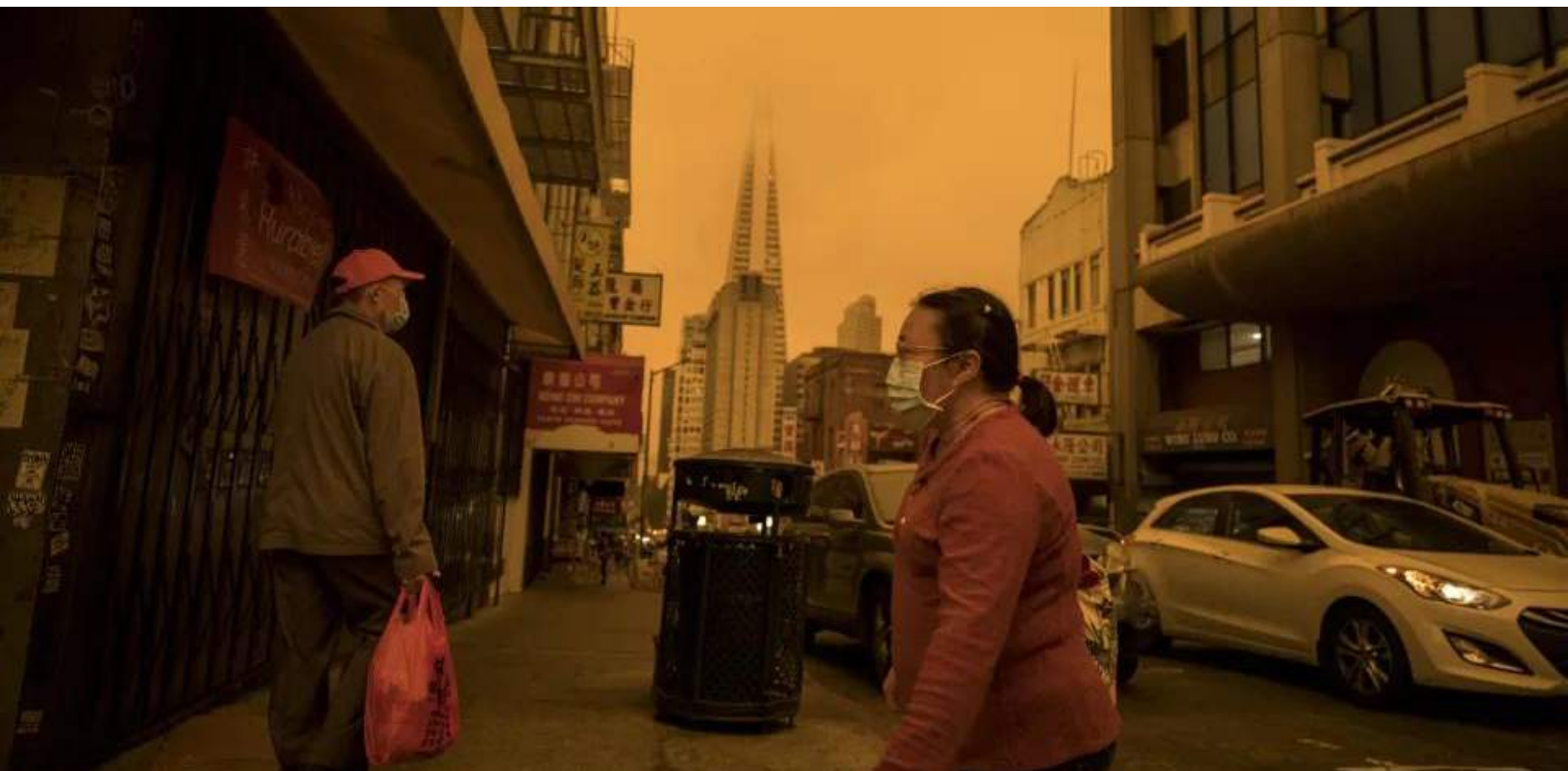
Year	2019	2020	2021	2022
Structures Burned	963	17,904	5,972	2,717
Percent Residences	46%	54%	60%	46%

Source: NICC Wildland Fire Summary and Statistics annual reports.

The annual level of wildfire activity can be gauged by the number of fires and the acreage burned. In 2022, federal lands accounted for 52% (4.0 million acres) of the nationwide acreage affected by wildfires, which was lower than the 10-year average (CRS, 2023). The remaining 48% of the burned acreage in 2022 was on state, local, or privately owned lands, even though fires on these lands constituted 83% of the total fires.

## Wildfire Impacts on Communities

Over recent decades, the number of homes at direct risk from wildfires is on the rise. Nearly 50 million homes in the U.S. now sit in the wildland-urban interface (WUI) – the area where the built environment meets or intermingles with the natural environment – with an additional 1 million homes expected to be constructed every 3 years (Burke et al., 2021). In 1990, there were just 30 million homes in the WUI, indicating upwards of 60% growth (Hawbacker et al., 2023).



San Francisco during 2020 fire season. Getty Images.



Aerial view of homes burned down by the 202 Alameda Fire in Southern Oregon. Getty Images Stock Photo



Climate change and changes in land use are expected to result in a higher frequency and intensity of wildfires, with a projected global increase of extreme fires of up to 14 percent by 2030, 30 percent by the end of 2050, and 50 percent by the end of the century (UNEP, 2022)



California has been particularly hard hit by wildfires, with the 2020 wildfires alone causing \$16.5 billion in damages, 4.2 million acres of land burned, and 10,500 structures destroyed, among other losses (CDP, 2021).



The indirect economic costs of wildfires have also been significant, with experts estimating that the recent wildfire seasons have resulted in around \$150 billion in damages annually (Masters, 2021).



Wildfires caused over \$11.2 billion in direct damages in 2021-2022 alone, affecting 4.5 million high-risk homes (Verisk, 2021).



Wildfire smoke is expected to impact up to 100 million Americans each year, resulting in significant public health impacts across the Western U.S. (EPA, 2021).

Figure 7: Wildfire Impact Statistics (WFLC, 2022)

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## Impacts on Wildland Firefighters

Few epidemiologic studies have examined the cumulative effect of wildfire smoke exposure on the health of wildland firefighters (Adetona et al. 2016). Initial evidence indicates that continuous (i.e., over multiple days) occupational wildland fire smoke exposure may have a cumulative effect on lung function, with some studies reporting a progressive decline during burn seasons. In addition to respiratory health risks, wildland firefighters are also at increased risk of burnout, injury, and mental health challenges due to the demanding and stressful nature of their job (Collins, 2018). These risks are further exacerbated by extended work hours, prolonged periods of physical exertion, and exposure to hazardous conditions, including smoke and ash inhalation.



USDA Forest Service Photo

### So What?

When official record-keeping began in 1983, there were just 18,229 wildfires and 1.3 million acres lost across the United States (NIFC, 2022). Now, an average fire season is more than five times as severe. This increase in fire frequency and intensity places a significant burden on the federal wildland firefighting workforce – whose compensation rates and structures have not been adjusted to reflect such change. Today’s wildland firefighters now face longer and more costly fire seasons, deal with greater responsibilities and challenges in their work, and face increased health and safety risks. Simply put, they are being asked to do significantly more with no substantial increases in wages, which has a significant impact on their quality of life.



Silver City Hotshots burn carefully around the Tree's homestead and water system. Taylor Creek and Klondike Fires, Oregon. USDA Forest Service Photo

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In conducting the literature review, it is also important to note previous legislation attempting to change wildland firefighter compensation. The most recent notable example is H.R.5631, known as the Tim Hart Wildland Firefighter Classification and Pay Parity Act, or, Tim’s Act for short (Grassroots, 2021). The bill was introduced in 2021, primarily sponsored by Colorado Congressman Joe Neguse, and sought to achieve the following changes:

- Determine Who is a Wildland Firefighter
- Develop One or Multiple Wildland Firefighter Classifications
- Establish a New Pay Scale
- Expand Hazardous Duty Pay
- Establish Portal To Portal Pay
- Provide Unpaid Leave for Family Members
- Allow Buybacks for Retirement Deductions from Temporary Employment
- Include Overtime as Basic Pay (counting towards retirement)
- Include: Mental Health Leave, Presumptive Coverage for Diseases, a Mental Health Program, Recruitment and Retention Bonuses, Health Provisions, a Disability Annuity, and a Career Transition Fund.

There is broad support for Tim’s Act amongst wildland firefighters and advocates, as it proposes raising base starting wages from \$13.45<sup>2</sup> to \$20.09 per hour and would significantly bolster benefits for permanent and temporary employees. An extensive description of the bill components can be found in Appendix I.

## Job Description and Characteristics

A wildland firefighter is a highly trained first responder who specializes in suppressing and managing fires that occur in forests, grasslands, and other outdoor settings. Wildland firefighters also participate in ‘all-hazards response,’ trained to respond to a wide range of emergencies and disasters (USFS, 2023). Outside of their emergency responsibilities, wildland firefighters manage natural resources in their local jurisdictions, reduce risks in WUI areas, and educate the public on fire safety and prevention.

There are numerous types of wildland firefighting resources employed across federal, State, local, private, and non-profit agencies. According to the National Interagency Fire Center (NIFC), there were approximately 28,000 wildland firefighters in the United States in 2022. The most common agencies that employ wildland firefighters include the following:

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2. Introduced prior to Bipartisan Infrastructure Law (BIL), and therefore does not account for temporary base pay increases to \$15/hr.

Agency Type	Examples
Federal Agencies	The United States Department of Agriculture (USDA) – United States Forest Service (USFS), and the Department of the Interior (DOI) – Bureau of Land Management (BLM), National Park Service (NPS), Bureau of Indian Affairs (BIA), Fish and Wildlife Service (FWS)
State and Local Governments	This report covers the Washington Department of Natural Resources (WA DNR), Oregon Department of Forestry (ODF), California Department of Forestry and Fire Protection (CAL FIRE), and Colorado State Fire Prevention and Control (CODFPC).
Non-profit Organizations and Private Companies	Examples include the Nature Conservancy (non-profit), or Pacific Gas & Electric (private), who are responsible for resource management and fire suppression within their jurisdiction. In addition, contract resources support wildland fire response across jurisdictional boundaries.
Local or Municipal Fire Departments	While local or municipal fire departments primarily focus on their jurisdiction, they may also collaborate and provide mutual aid during large-scale wildfire events.

Figure 8: Wildland Fire Agencies in the United States (NIFC, 2023).



## Compensation

The compensation structures of wildland firefighters can vary significantly across agencies depending on a variety of factors.

Factors Influencing Compensation	Description
Geographic Location	Pay may vary based on the geographical location of firefighter duty station and local cost of living
Education/Experience	At certain agencies (CA, CO) higher educational qualifications and years warrant additional pay premiums
Certifications/Qualifications	At certain agencies (CA, CO), professional certifications result in additional pay premiums (i.e. paramedic, engineer, bilingual premium)
Work Schedule	Pay can defer based on different number of guaranteed compensable hours (i.e. 24 hour staffing, days worked per week, standby pay)
Additional Benefits	Additional benefits such as healthcare stipends, transportation allowances, uniform allowances may apply at certain agencies (CA, CO)
Years of Experience/Time in Grade	Pay may increase based on the length of time spent at a particular grade or level within the agency
Other	Other financial incentives may be used such as performance awards, retention incentives, and other benefits at certain agencies.

Figure 9: Factors Influencing Compensation





As a result, the descriptions of compensation presented in this report are intended to provide a generalized understanding of compensation across federal and state wildland fire agencies. The table on the following page lists the agencies covered in this report, along with the differences in classification, pay, and additional benefits used to assess and compare compensation across the wildland firefighting workforce.

Thomas Fire, Ventura, CA, Los Padres NF, 2017.  
USDA Forest Service Photos.



Agency	Classification	Pay Scale	Overtime and Hazard Pay	Additional Compensation and Benefits
Federal (USDA, DOI)	Forestry Technician (0462 Series) Wildland Firefighter* (0456)	General Schedule (GS) GS-03 – GS-09	150% base pay rate for over 8 hours per day + 25% base wage additional hazard pay	Step (seniority) increases, employer contributions to retirement, and healthcare benefits
Washington State Department of Natural Resources (WA DNR)	Wildland Fire Operations Technician (WFOT)*	Class Series Concept WFOT1 (402A) – WFOT4 (402E)	150% of base hourly wage for over 40 hours per week + 7% of base rate for standby, no hazard pay	Step (seniority) increases, employer contributions to retirement, and healthcare benefits
Oregon Department of Forestry (ODF)	Wildland Fire Suppression Specialist (WFSS)	Salary Range 13 – 17	150% of base hourly wage for overtime over 40 hours per week	Step (seniority) increases, employer contributions to retirement, and comprehensive healthcare benefits
California Department of Forestry and Fire Protection (CAL FIRE)	Firefighter	Tiered classification system based on job title and years of service (Firefighter II – Battalion Chief)	150% of base hourly wage for overtime + Extended Duty Week Compensation (EDWC) over 56 hours per week (19 hours of EDWC) and 7.5% hazard pay, portal-to-portal premium pay on wildfire incidents	Seniority increases, employer contributions to retirement, and comprehensive healthcare benefits, educational, fitness, and skills/qualification incentives
Colorado Division of Fire Prevention and Control (DFPC)	Firefighter	Class Series System based on job title and years of service (Firefighter I to Firefighter VII)	150% of base hourly wage for overtime hours worked over 40 hours, portal-to-portal premium pay on wildfire incidents	Seniority increases, employer contributions to retirement, and comprehensive healthcare benefits, educational, fitness, and skills/qualification incentives

Figure 10: Comparison of Fire Agency Job Classifications and Compensation Packages. Note: The Bipartisan Infrastructure Law provided a new occupational series (0456) that covers positions for which the primary duties involve the prevention, control, suppression, or management of wildland fires (DOI, 2022). However, at the time of publication of this report, the 0456 series has not been implemented at the ground level.

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## Federal Wildland Firefighters

Federal wildland firefighters have historically been classified as forestry technicians and compensated using a payscale based on their job title, seniority, duty station locality pay adjustments, hours of overtime worked and hours worked that qualify for hazard pay.<sup>3</sup>

Federal wildland fire positions are based upon a 40-hour work week, and their base hourly rate is dependent on their GS level (OPM, 2022). For primary fire suppression roles, position descriptions are linked to GS levels ranging from GS-3 to GS-9. GS-3 is considered entry-level, GS-6 is considered mid-career, and GS-9 is considered supervisory.<sup>4</sup> In 2021, the government implemented legislation mandating a minimum wage of \$15 per hour for all forestry technicians, as well as a temporary cash award that varies by GS level and pay period, beginning in July 2022, set to expire in 2023. In addition to their base rate of pay, when forestry technicians work over 8 hours a day, they receive 150% of their base pay rate as overtime pay. Furthermore, if a firefighter is working on a wildfire assignment, they will receive an additional hazard pay rate of 25% of their base pay (OPM, 2022).<sup>5</sup>

Federal wildland firefighters make the majority of their full annual salary during peak fire season which averages approximately 680 hours of overtime per season (WFS, 2022). However, the actual number of hours can vary significantly depending on the resource type, with some firefighters working as many as 1300+ hours in a season. Interagency Hotshot Crews (IHCs), in particular, often exceed 1000 overtime hours in a season (USHA, 2022). The total income earned during a 6-month fire season can vary significantly, depending on the type of crew and the amount of overtime and time spent on the assignment.

In addition to base salary, overtime, and hazard pay, forestry technician total compensation includes step (seniority) increases, employer contributions to retirement, and healthcare benefits. Federal employees are also entitled to an Employee Assistance Program which includes six short-term counseling sessions, and referrals to legal and financial services.

3. The classification of wildland firefighters as forestry technicians can be a controversial topic. While wildland firefighters are often part of the forestry technician job series within the United States Forest Service, some argue that their job duties and qualifications are significantly different from those of other forestry technicians (MTPR, 2019). Many argue that the job duties and qualifications of wildland firefighters are distinct enough from those of other forestry technicians that they should be classified under a separate job series which prompted the development of the new federal wildland firefighter classification.

4. The base pay rates are provided in Appendix A and vary depending on the GS level, duty station location, and locality adjustments

5. General Schedule (GS) employees are entitled to receive hazard pay when exposed to unusual physical hardship or hazardous duty for which a differential has been established in 5 CFR Part 550, Subpart I, Appendix A-Schedule of Pay Differentials Authorized for Hazardous Duty. Although most hazardous differential rates are compensated at 25%, the rate wildland firefighters receive is based upon the rate as indicated in the hazard table.

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In 2022, the Bipartisan Infrastructure Law directed the creation of a new occupational series for federal wildland firefighters. The GS-0456 Wildland Fire Management Series is intended to define the unique duties of wildland firefighters and provides clear details on career advancement. The U.S. Department of Agriculture (USDA) Forest Service and the U.S. Department of the Interior (DOI) supported the Office of Personnel Management (OPM) in the creation of the series. Federal agencies are currently working on implementing the series, which is expected to meet the June 2023 deadline according to the DOI's 2023 report (DOI 2023). It is important to note that as of present, the new wildland firefighter series is not associated with any change in pay.

## **State Wildland Firefighters**

Washington Department of Natural Resources (WA DNR)

State wildland firefighters who work for the Washington Department of Natural Resources are paid on a class series concept pay scale based on their job duties, seniority, and performance. As of 2019, WA DNR firefighters are classified as Wildland Fire Operations Technicians (WFOT). Depending on the work schedule, Washington Wildland Fire Operations Technicians make a base monthly salary and are paid overtime for hours worked over 40 hours in a workweek. Overtime is paid at an additional 150% of the base hourly wage (WAOFM, 2023). Wildland Fire Operations Technicians are also paid a standby rate of 7% of their base salary.

In addition to annual salary, Wildland Fire Operations Technicians are eligible for additional compensation, such as retirement, healthcare contributions from the employer, and annual step increases. The retirement plan is outlined in the Washington PERS 2 plan, and the employer healthcare contributions amount to \$976 per month (WADNR 2021). Step increases vary depending on permanent versus seasonal employment status. Seasonal employees receive one step increase in pay per year for the first three years, whereas permanent, year-round employees receive two pay increases annually until they reach the top of the pay range.

## **Oregon Department of Forestry (ODF)**

Wildland firefighters who are employed by the Oregon Department of Forestry (ODF) are classified as Wildland Fire Suppression Specialists (WFSS). The compensation structure for Wildland Fire Suppression Specialists (WFSS) is based on a combination of factors, including job classification, experience level, and geographic location (Oregon, 2023).

WFSS positions within the ODF are classified under the state's civil service system, with different classifications corresponding to different levels of responsibility and experience. Within each classification, employees are typically assigned to a pay range that is based on their years of experience in the position (Oregon, 2023). The WFSS classification ranges from Salary Range 13 to Salary Range 17, with Salary Range 17 representing the highest level of experience and responsibility of firefighting personnel.

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WFSS employees are eligible for additional compensation and benefits, including overtime pay, health insurance, and retirement contributions. Overtime is paid at an additional 150% of the base hourly wage, healthcare is covered by the employer at 97%-99% of cost, and retirement is based on the state PERS plan (Oregon, 2023).

## **California Department of Forestry (CAL FIRE)**

The California Department of Forestry (CAL FIRE) has a tiered classification system for its employees, ranging from Firefighter I to Battalion Chief. The pay scale for each classification is based on years of service and adjusted annually to reflect cost-of-living increases and other factors. Base salaries range from Firefighter I to Battalion Chief. Firefighter I is considered entry-level, Engineer is considered mid-career, and Captain and Battalion Chief are considered supervisory roles. In addition to base pay, CAL FIRE employees may receive additional compensation for factors such as hazard pay, overtime, healthcare benefits, deferred compensation, retirement, and educational and qualification incentives (CalHR, 2022).

The overtime rate for CAL FIRE wildland firefighters is 150% of the base hourly wage. Many CAL FIRE employees work rotating 24-hour shifts (with are comprised of 10 working hours and 14 standby hours) and are scheduled to work a 72-hour work week. Employees on a 72-hour duty week will receive overtime pay for all hours worked in excess of 212 hours during the 28-consecutive day work period (Local 2881, 2022).

CAL FIRE total compensation also includes:

- Extended Duty Week Compensation (EDWC or otherwise known as planned overtime)
- Education Pay
- EMT/Paramedic Pay
- Hazmat Pay
- Longevity Pay
- Uniform Allowance
- Bilingual Pay
- Employer contributions to pension and/or deferred compensation plans
- Employer contributions to health, dental, and vision plans
- Value of accrued leave

*Figure 11: CAL FIRE Calculation of Total Compensation (CalHR, 2023)*

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In recent years, CAL FIRE has increased its compensation for wildland firefighters in response to a growing demand for firefighting resources and a need to retain experienced personnel. This has included increased pay ranges, higher levels of hazard pay, and additional benefits such as retirement and educational assistance programs (CalHR, 2022).

### **Colorado Division of Fire Prevention and Control (DFPC)**

The Colorado Division of Fire Prevention and Control (DFPC) classifies its wildland firefighters as ‘firefighters’ on a class series system. The class series uses seven levels in the Enforcement and Protective Services Occupational Group and describes fire protection work with the Wildland Fire Management Section of the DFPC (Colorado, 2023). The firefighter series includes a range of classifications and job levels for firefighters and ranges from Firefighter I to Firefighter VII.

In addition to base pay, Colorado Division of Fire Prevention and Control firefighters receive additional compensation for factors such as hazard pay, retirement and deferred compensation, comprehensive medical and dental coverage, disability coverage, vacation, and sick leave, an Employee Assistance Program, subsidized transportation, reduced state college tuition and educational benefits, and comprehensive life insurance (Colorado, 2023).



USDA Forest Service Photo

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## Workplace Hazards

All fire and hazardous material incidents have the potential to cause physical harm to persons and/or property (OPM 2022). The following list includes workplace hazards identified by the Office of Personnel Management of what wildland firefighters may encounter on fire assignment:

- Entrapment - while on the job Wildland firefighters may find themselves overcome by flames. May have no choice but to deploy their fire shelter as a last resort.
- Burns, dehydration, lacerations, and other effects of heat, smoke inhalation, heavy protective clothing, falling materials, or explosions.
- Respiratory, exposure to toxic materials and chemical, biological, radiological, nuclear, and explosive agents.
- Heat-Related Illnesses - common heat-related illnesses that firefighters fall victim to include heat stroke, heat rash, heat cramps, and heat exhaustion.
- Hypothermia due to work in cold/rain/snow and/or work at high elevations. Risk of frostbite, immersion cold injury.
- Physical injury and sensory damage from firefighting activities, equipment operation, terrain, and noise levels.
- Mental injury such as post-traumatic stress disorder (PTSD), due to frequent exposures to dangerous and/or stressful situations.
- Dealing with persons in varying stages of fright, panic, and injury.
- Traversing, operating, or riding in vehicles under adverse conditions and/or flying in aircraft to reach sites or fires in outlying areas.
- Jumping by parachute or rappelling into remote areas to control fires
- Working alone with a crew in remote areas where it is possible to lose contact due to fire or communication system outages and requires ability to use survival skills until help arrives or communication is reestablished.
- Hazards in dealing with unpredictable wild animal behavior.

*Figure 12: Wildland Firefighter Occupational Hazards (OPM 2023)*

From 1990 to 2022, there have been 600 wildland firefighters killed during activities involving brush, grass, or wildland firefighting — an average of 17.3 deaths per year (CDC 2022). In addition, reports estimate an additional 25-30 known suicides among wildland firefighters each year (IAWF, 2022).



A moment of silence at morning briefing for fallen firefighter at the incident command post during the Ferguson fire, Sierra NF, CA. USDA Forest Service Photo.

**NOT ONLY DOES THE SUICIDE RATE EXCEED THAT OF LINE-OF-DUTY DEATHS, BUT A SIMILAR RATE OF SUICIDE IN THE GREATER SOCIETY WOULD MEAN THAT NEARLY 500,000 AMERICANS WOULD TAKE THEIR OWN LIVES EACH YEAR - MORE THAN THIRTY TIMES THE ACTUAL RATE (IAWF, 2022).**



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Injuries are also common in the wildland firefighting profession, with 67.6% of wildland firefighters experiencing illness or injury at work. Of those who reported their injury, 48.1% were not satisfied with how it was handled (WFS, 2022). Negative impacts on lung function, cardiovascular health, hearing, fatigue, and sleep, as well as inflammation and oxidative stress, are well-documented. Additionally, women may experience a significantly elevated risk of miscarriage and preterm delivery while working as wildland firefighters.

Compared to structure firefighters, there is limited research on acute health impacts such as sudden cardiac events, respiratory health decline, and rhabdomyolysis (muscle damage and breakdown as a result of overexertion, heat exhaustion, or dehydration) among wildland firefighters. While wildland firefighters and structural firefighters share some physiological and workplace factors, there are significant differences in environmental conditions, smoke exposure, respiratory protection, workload intensity and duration, medical care, workforce demographics, and work schedule. In many cases, wildland firefighters typically work up to 16 hours per day for 14-21 days with 3 days off between each fire assignment (federal wildland firefighter shift schedule), whereas structural firefighters typically have a work schedule of 24 hours on and 48–72 hours off or 48 hours on with 72–96 hours off. Structural firefighters are often on-duty to provide protection in case a fire is reported and can experience long periods of relative inactivity punctuated by strenuous firefighting work, whereas wildland firefighters are often engaged in arduous work for much of their shift. Another major difference is that structural firefighters wear a self-contained breathing apparatus to protect their airways when they are in smoke-filled environments, whereas wildland firefighters have no respiratory protection. Due to these important differences, it is difficult to generalize research regarding structural firefighters' health conditions in relation to wildland firefighters.

## **The Quality of Life Scale**

Measuring quality of life is a complex and multifaceted process that involves a wide range of subjective and objective factors. The original Quality of Life Scale (QOLS) was created by American psychologist John Flanagan in the 1970s (Burckhard and Anderson, 2003). It originally contained 15 items, conceptually categorized into 5 domains: material and physical well-being, relationships with other people, social, community, and civic activities, personal development and fulfillment, and recreation.

## MEASURING QUALITY OF LIFE

Conceptual Category	Scale Item
Physical and Material Well-being	<ul style="list-style-type: none"> <li>• Material well-being and financial security</li> <li>• Health and personal safety</li> </ul>
Relations with other People	<ul style="list-style-type: none"> <li>• Relations with parents, siblings, other relatives</li> <li>• Having and raising children-Relations with spouse or significant other</li> <li>• Relations with Friends</li> </ul>
Social, Community, and Civic Activities	<ul style="list-style-type: none"> <li>• Activities related to helping or encouraging others</li> <li>• Activities related to local and national government</li> </ul>
Personal Development and Fulfillment	<ul style="list-style-type: none"> <li>• Intellectual development-Personal understanding</li> <li>• Occupational role</li> <li>• Creativity and personal expression</li> </ul>
Recreation	<ul style="list-style-type: none"> <li>• Socializing</li> <li>• Passive and observational recreational activities</li> <li>• Active and participatory recreational activities</li> </ul>

Figure 13: Conceptual Categories and Scale Items to Measure Quality of Life (Burckhard and Anderson, 2003).



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## Impact on Quality of Life

Wildland firefighting is a demanding profession that poses significant health risks to those who pursue it. Moreover, approximately 16.5% of the workforce experiences suicidal thoughts and ideation, according to conservative estimates (O'Brien 2021). PTSD rates among wildland firefighters, at 22.3%, are comparable to those seen in prior research. The stresses of the job can also lead to depression (43.6%), anxiety (48.9%), and substance abuse (22.7%) among wildland firefighters.

The financial strain of a career in wildland firefighting can be substantial. The majority of federal wildland firefighters report that their base salaries are insufficient to meet their financial needs.

**ACCORDING TO A RECENT WORKFORCE SURVEY OF 708 FEDERAL WILDLAND FIREFIGHTERS, 91.9% OF RESPONDENTS STATED THAT THEY NEEDED TO WORK OVER 300 HOURS OF OVERTIME ANNUALLY TO PAY THEIR BILLS, WHILE 26.7% REQUIRED OVER 900 HOURS OF OVERTIME WORK ANNUALLY (WFS, 2022).**

According to a 2022 survey of federal wildland firefighters, 67.4% of respondents reported breaking the recommended 16:8 hour work-to-rest ratio more than three times in the past year. This ratio was broken 10 or more times by 24.6% of respondents, and 8.4% of respondents had broken it 20 or more times (WFS, 2022).

The impact of a wildland firefighting career extends to personal life as well. Divorce rates are 2.5 times higher among wildland firefighters compared to the national average. Female wildland firefighters are also significantly less likely to have children and more likely to be single compared to male wildland firefighters (WFS, 2022). Rates of childlessness in female wildland firefighters are significantly above the national average for adult women of all ages. Many wildland firefighters report a lack of access to affordable childcare, which is an important factor in retaining them in the profession.

## Gap Assessment

The above literature and other publications to date so far do an adept job at highlighting the modern context of wildfire response, associated risks of wildland firefighting, issues with retaining talent, and structures that contribute to compensation at local, state, and federal levels. The landscape of research does not yet have a concise tool for comparing the compensation of federal wildland firefighters against their peers at varying jurisdictional levels. Our assessment will compare federal compensation and state compensation structures in an accessible format, and also measure the difference in time spent on assignment across agencies.



## CHAPTER 3: METHODS

- **METHODOLOGY & THEORY**
- **DATA COLLECTION AND SAMPLING**
- **ANALYSIS**
- **LIMITATIONS OF THE STUDY**

# METHODOLOGY & THEORY

The background of the slide is a photograph showing the silhouettes of two firefighters in the foreground, facing a massive, intense fire that fills the rest of the frame. The fire is bright orange and yellow, with a thick plume of smoke rising from it. The firefighters are wearing helmets and gear, and one is holding a hose that extends towards the fire.

## **OVERALL GOALS:**

- 1. AGGREGATE DATA ACROSS MULTIPLE LEVELS OF AGENCIES THAT EMPLOY WILDLAND FIREFIGHTERS TO EVALUATE COMPENSATION STRUCTURES.**
- 2. GAIN A CONTEXTUAL UNDERSTANDING OF HOW CURRENT COMPENSATION IMPACTS THE PERSONAL AND PROFESSIONAL LIVES OF WILDLAND FIREFIGHTERS.**

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# METHODOLOGY & THEORY

Our research goals and actions to answer our research questions are two-fold:

1. Aggregate data across multiple levels of agencies that employ wildland firefighters to evaluate compensation structures.

To achieve this, we conducted a thorough review of pay tables and datasets that includes information on compensation structures for wildland firefighters employed by federal and state agencies. We extracted relevant data points from these datasets and aggregated them into a comprehensive database for analysis. This allowed us to quantitatively evaluate compensation structures across different agencies and levels.

2. Gain a contextual understanding of how current compensation impacts the personal and professional lives of wildland firefighters.

To reach this goal, we conducted key informant interviews of individuals who are currently working or have formerly worked in wildland firefighting across federal and state wildland firefighting agencies. We used a purposive sampling technique to identify and select participants who have relevant experiences and knowledge as current or former wildland firefighters and reflect the diversity of resource types and demographics across each agency. We used a semi-structured interview protocol to facilitate the interviews and recorded, coded and transcribed the interviews for analysis (Appendix A).

Our reporting consists of a mixed-methods approach, pairing quantitative analysis of compensation structures with key informant interviews. Our research design has elements of both positivist and interpretive theory, as we use both quantitative and qualitative methods to gain understanding in the context of wildland fire compensation structures. By adopting this approach, we aim to provide a comprehensive picture of compensation across agencies and the associated impacts on the workforce.

## **Data Collection and Sampling**

The U.S. Forest Service, Rocky Mountain Research Station provided our team with aggregated dispatch data from the Federal Government's Resource Ordering and Status System (ROSS) and Interagency Resource Ordering Capability (IROC) between 2012 and 2023. In addition, we drew baseline compensation data from the Office of Personnel Management (OPM), state Offices of Financial Management, and existing compensation reports.

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The ROSS and IROC datasets track personnel and equipment assignments to wildfires across the United States, with ROSS covering data before March 2020, and IROC covering data post-March 2020 after transitioning to an updated system. These data include almost all assignments to large wildland fires as well as some assignments to initial response activities. We drew from data across both systems beginning in 2012, as assessing ten-year averages is sufficient for the sake of this report. Additionally, dispatch data prior to 2012 creates additional challenges in the analysis due to differences in archival processes. The data was provided with all personally identifiable information (PII) omitted per Department of Labor (DOL) regulation.

Beyond the Federal dispatch data, the team collected compensation and dispatch data from state agencies, Washington Department of Natural Resources (WA DNR), the Oregon Department of Forestry (ODF), the California Department of Forestry and Fire Protection (CAL FIRE), and the Colorado Division of Fire Prevention and Control (DFPC) to aggregate and format into a structure that can be compared to the federal data. With these data, the team wanted to observe the following variables:

- **Agency**
- **Resource/Module Type**
- **Geographic Area**
- **Total time on fire assignment**
- **Base pay (based on number of hours worked )**
- **Overtime pay (based on number of hours of overtime worked)**
- **Hazard pay (based on number of hours of hazard pay worked)**
- **Pay Scale**

For the key informant interviews, we leveraged our client’s connections at federal and state agencies to recruit individuals for anonymous semi structured interviews. With the initial contacts, we employed snowball sampling techniques to utilize networks of the early participants and researchers to recruit additional qualified participants.

We also used purposive sampling, not only to target current and former wildland firefighters, but also to focus on ground resources (handcrews, engines, Interagency Hotshot Crews, Helitack, and Smokejumpers). We choose these positions because they represent the largest proportion of the wildland firefighting workforce, and are consistently exposed to the risks and hazards that come with working on wildfires.

While we did not conduct surveys, we incorporated data from surveys conducted by GAO, OPM, and CAL FIRE, along with publicly available datasets describing compensation and cost of living across U.S. geographies. By cross-referencing available survey and interview data, we ensured the scope of our qualitative research was both mutually exclusive and collectively exhaustive.

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# COMPENSATION TYPOLOGY

This report presents a typology framework for the compensation and benefits structures associated with wildland firefighting. The typology is based on a review of the literature and input from various stakeholders in the fire management community. It serves as a system for organizing categories of compensation and benefits, enabling full-cost accounting and tracking of the impacts of compensation on wildland firefighters. It also helps track how compensation and costs to employers are distributed across different agencies and geographies. The typology is divided into the following main categories:

1. Direct compensation - Wages, salaries, and benefits paid.
2. Indirect compensation - Unforeseen expenses (Omitted from the report)
  - costs to the government associated with injuries, illnesses, and fatalities, training and equipment costs, or unique employee expenses or reimbursements.

Information is also included in this report about the feasibility, uncertainty, or challenges of calculating compensation across the wildland firefighting workforce. It is important to establish conceptual boundaries in this report since compensation can vary significantly for factors beyond the particular agency wage structure, including individual factors, year, and across geographies. To keep the typology manageable, the focus remains on compensation and benefits that are consistent and measurable across wildland firefighting agencies. Finally, the information and analysis contained in this report are designed to help decision-makers better weigh the strengths and weaknesses of compensation structures by highlighting disparities and associated impacts on the workforce.

## MEASURING COMPENSATION

We began by benchmarking classifications, which involved sorting a group of comparable position descriptions across federal and state agencies and comparing the total compensation for each position.<sup>11</sup>

To calculate total compensation, the salary of each benchmark classification was combined with the various benefits offered. The value of accrued leave was also included in the calculation, however, it should be noted that federal firefighters are not always able to take advantage of the leave due to high demand for resources in peak fire season. We also mention when unplanned overtime is included in total compensation, as it can be a highly variable portion of monthly compensation. By comparing total compensation across different

11. Benchmarking comparable positions involved referencing position descriptions across agencies, job titles, and classifications.



benchmark classifications, we are able to identify specific areas where their compensation packages may be less competitive across agencies.

Wildland firefighters often work seasonally, meaning that they may only be employed during fire season and have periods of unemployment during the rest of the year.<sup>12</sup> By assessing monthly compensation, we can measure pay for the work wildland firefighters are doing each month, regardless of their employment status or work schedule. This approach allows for more flexibility and accuracy in determining pay rates across federal and state agencies.

The total monthly compensation is calculated as follows:

<b>Category</b>	<b>Monthly Amount</b>
Salary Range	\$ Range (Year 1 - Salary Maximum)
Monthly Hours of Planned Overtime	Calculated based on agency and bargaining agreement
Monthly Cash Benefits	Salary x (% increase for extra benefits)
Combined Retirement and Health Benefits	Drawn from employee benefits
Monthly Vacation Hours	Calculated based on agency and bargaining Agreement
Monthly Sick Hours	Calculated based on agency and bargaining Agreement
Monthly Holiday Hours	Calculated based on agency and bargaining Agreement
Value of Vacation/Sick Holiday Hours	Hours x base wage
Monthly Value of Planned Overtime	Overtime Hours x 1.5
Monthly Hazard Pay	Hours Eligible for Hazard pay
Monthly Value of Hazard Pay	Hours Eligible for Hazard pay x agency hazard rate

*Figure 13: Calculating total compensation*

12. While the length of the fire season is variable, many wildland firefighters in the Western United States are employed from April to November.

# BENCHMARK CLASSIFICATIONS

Federal Position	Washington Department of Natural Resources (WA DNR) Position	Oregon Department of Forestry (ODF) Position	California Department of Forestry and Fire Protection (CAL FIRE) Positions	Colorado Division of Fire Prevention and Control (DFPC)
GS 3/4	Wildland Fire Management Technician*	Wildland Fire Suppression Specialist (WFSS) - Entry	Firefighter I	Firefighter I/ Firefighter II
GS 5/6	Wildland Fire Operations Technician 1 (WFOT 1)	Wildland Fire Suppression Specialist (WFSS)	Firefighter II	Firefighter III/ Firefighter IV
GS-7	Wildland Fire Operations Technician 2 (WFOT 2)	Forest Supervisor**	Fire Apparatus Engineer	Firefighter V
GS-8	Wildland Fire Operations Technician 3 (WFOT 3)	Wildland Fire Supervisor**	Captain	Firefighter VI
GS-9	Wildland Fire Operations Technician 4 (WFOT 4)	Wildland Fire Supervisor**	Battalion Chief	Firefighter VII

Figure 14: Comparing benchmark classifications

\* As of time of report, no entry level wildland fire management technicians are employed by Washington DNR as the class series was adopted on 11/10/2021 (Washington OFM, 2023). Entry level DNR employees are currently classified as WFOT 1.

\*\* ODF employs a militia wildland firefighting workforce, meaning employees have supplemental duties in addition to wildfire response. Forest supervisor, and Wildland Fire Supervisor are the closest estimates to comparable positions at other wildland firefighting agencies.

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# MEASURING QUALITY OF LIFE

The original Quality of Life Scale (QOLS) was created by American psychologist John Flanagan in the 1970's (Burckhard and Anderson, 2003). It originally contained 15 items, conceptually categorized into 5 domains: material and physical well-being, relationships with other people, social, community, and civic activities, personal development and fulfillment, and recreation.

We recognize that quality of life is a personal and subjective topic, and can be difficult to quantify. Different people may have different factors that contribute to their overall sense of well-being and happiness. However, for the sake of this report, we use the QOLS to serve as our baseline of analysis.

In this report, we used the following conceptual categories and scale items to structure our interview questions and code for quality of life information during our analysis of interview data.

<b>Conceptual Category</b>	<b>Scale Item</b>
Physical and Material Well-being	<ul style="list-style-type: none"><li>• Material well-being and financial security</li><li>• Health and personal safety</li></ul>
Relations with other People	<ul style="list-style-type: none"><li>• Relations with parents, siblings, and other relatives</li><li>• Having and raising children-Relations with a spouse or significant other</li><li>• Relations with Friends</li></ul>
Social, Community, and Civic Activities	<ul style="list-style-type: none"><li>• Activities related to helping or encouraging others</li><li>• Activities related to local and national government</li></ul>
Personal Development and Fulfillment	<ul style="list-style-type: none"><li>• Intellectual development</li><li>• Personal understanding</li><li>• Occupational role</li><li>• Creativity and personal expression</li></ul>
Recreation	<ul style="list-style-type: none"><li>• Socializing</li><li>• Passive and observational recreational activities</li><li>• Active and participatory recreational activities</li></ul>

Figure 15: Conceptual Categories and Scale Items to Measure Quality of Life

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# ANALYSIS STRATEGY

## **Quantitative**

The analysis strategy rests on the assumption that a base understanding of firefighter pay can be gained from observable variables such as job title and hours worked and largely depends on the type of data that is available to the research team. We utilized a mixed algorithm and regression approach to calculate regular wages, benefits, and additional compensation along with calculating disparities across agencies. The algorithm was used to calculate sample averages of regular pay, benefits, overtime wages, and additional costs to government. The regression analysis was conducted using statistical software to calculate the mean compensation (dependent variable) across several independent variables; predetermined positions, geographic region worked, time spent on fires, and the number of assignments.

The aim of using a regression model is to reveal insights about the current pay structure by quantifying the impact of each factor (such as agency, position type, and geographic location) to analyze the pay disparities, and gaps among firefighters in the current pay structure based upon the statistical significance level of the independent variable. To account for the firefighter disparity in general a comparative assessment is conducted between the mean compensation that a firefighter earns and an equivalent position in other agencies. The research team also used data visualization tools (e.g., Tableau and ArcMap) to better highlight the concentration of earnings over time, location, and regional cost of living.

Establishing benchmark classifications was based on previous research conducted by CAL FIRE Total Compensation Survey and the US Forest Service, along with referencing position descriptions for more efficient comparison.

## Qualitative

While the analysis of available pay and dispatch data can describe how individual positions are compensated, it does not fill in the gaps of how that structure impacts the lives of firefighters. To bridge this contextual gap, the research team opted to develop a structured interview protocol (Appendix A) and interview participants who currently or formerly worked in wildland firefighting. Interviews were conducted using virtually to allow for flexibility and to reach a greater pool of participants. These interviews were recorded for reference, and interviewers took notes as participants responded to questions. The responses were then coded and categorized into themes such as material and physical well-being, relationships with other people, social, community, and civic activities, personal development and fulfillment, and recreation (Burckhard and Anderson, 2003).

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# LIMITATIONS

The following chart presents an assessment of the limitations associated with this report. When interpreting the findings, it is important to consider these impacts, as they may impact the scope and generalizability of the conclusions drawn in this report.

Aspect	Description
Data Availability	The data in this study is based on a variety of sources, including dispatch data, surveys, gray literature, and publicly available government data. Due to limitations in the available data sets, we had to make assumptions regarding total compensation for wildland firefighters.
Sample Size (qualitative)	Qualitative interviews were conducted with 21 individuals. While the insights gained from this sample size may be valuable, they are not generalizable to the entire wildland firefighting population.
Sampling Bias	This study may be subject to bias due to the selection of interviewees. The participants who chose to participate may inherently have critical views of the current compensation structure. Additionally, some participants were recruited through an advocacy group (Grassroots Wildland Firefighters); these participants may have a point of view closely aligned with the organization and thus may overrepresent that perspective. Entry-Level and less experienced firefighters may not be as representative in the sample, as snowball sampling relies on network connections. In this sense, newer seasonal hires may not be referred despite a personal interest in participation.
Scope	This project focuses specifically on federal and state wildland firefighters. However, other organizations and agencies involved in the wildland firefighting workforce could not be included in this study due to significant variability in job structure, hours worked, and mission sets.

Figure 17: Limitations Table



## CHAPTER 4: ANALYSIS & KEY FINDINGS

- OVERVIEW OF COMPENSATION AND WORKING CONDITIONS FOR WILDLAND FIREFIGHTERS
- ANALYSIS OF COMPENSATION DATA
- ANALYSIS OF DISPATCH DATA (ROSS/IROC)
- ANALYSIS OF QUALITY OF LIFE
- IMPACTS OF BIPARTISAN INFRASTRUCTURE LAW
- SUMMARY OF KEY FINDINGS

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# ANALYSIS AND KEY FINDINGS

Our analysis of federal and state wildland firefighter compensation revealed that state fire agencies generally provide more generous compensation packages than federal benchmark classifications. Factoring in unplanned earnings such as overtime and special pay further widened the gap. We also found that state agencies contribute more to retirement and health benefits, and offer more favorable retirement benefits at the end of a firefighter's career.

In addition to these quantitative findings, our semi-structured interviews add narrative context and illustrate real life examples of the impact that pay and benefits have on the lives of firefighters. In almost all interviews, participants strongly expressed that current compensation structures were not commensurate with the levels of risks and responsibilities in their day to day jobs. Firefighters cited low pay, poor work-life balance, high risks, lack of affordable housing, and poor organizational management as having the greatest negative impacts on their quality of life. When asked about reasons for staying in their line of work, firefighters highlighted deep commitments to public service, a strong sense of camaraderie, and a love for the day to day work as primary motivators.



USDA Forest Service Photo

# QUANTITATIVE FINDINGS

## Key Insights

1. Low regular wages for federal wildland firefighters cap their earning potential, making it difficult to match the income of their state counterparts.

2. Due to limited guaranteed compensable hours paired with low wages, federal wildland firefighters are driven to work increased overtime and pursue more opportunities for hazard pay, which adversely affects their work-life balance and leads to heightened exposure to risk.

3. Despite the earnings gap, federal wildland firefighters spend a significantly higher percentage of time on type 1 and 2 fire assignments compared to most state agencies, highlighting the discrepancy in workload and compensation.

4. The benefits package for federal wildland firefighters, including healthcare and retirement contributions, is significantly lower than that of state agencies, making it less competitive in attracting and retaining talent.

5. The compensation gap extends to retirement plans as well. The shorter career span of federal wildland firefighters, combined with earlier mandatory retirement, results in a significantly reduced contribution window for retirement planning. Furthermore, overtime and hazard pay earnings, which can make up a substantial portion of their income, are not factored into defined benefits calculations and defined benefits are capped at a much lower rate than state retirement plans.





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## 1) Summary of Total Compensation: Federal Wildland Firefighters versus State Wildland Firefighters

When comparing total compensation, the salaries of the federal benchmark classifications lagged an average of 32.51% percent behind equivalent state positions.

**In addition, there is a substantial total compensation disparity between federal wildland firefighters and CAL FIRE, with federal firefighters lagging behind by an average of 56.25%. This significant difference can be primarily attributed to state agencies' strong benefits packages along with a greater number of guaranteed overtime hours. The more comprehensive benefits offered by state agencies contribute significantly to the observed compensation gap.**

As used in this report, total compensation is defined as the average monthly employer cost for salaries and benefits. For federal employees, the maximum salary for each benchmark classification is combined with the following benefits to calculate total compensation:

Base wages and longevity pay (GS step increase)
Employer contributions to healthcare plans
Employer contributions to deferred compensation plans
Value of holidays and accrued leave

For State Wildland Fire Employees, the average salary of each benchmark classification is combined with the following benefits to calculate total compensation:

Base wages and longevity pay
Extended Duty Week Compensation (EDWC or otherwise known as planned overtime) (For CAL FIRE)
Cash Benefits (such as education bonus, EMT/paramedic Pay, hazardous material pay, longevity pay, uniform allowance (converted into an average monthly number), and bilingual pay
Employer contributions to deferred compensation plans
Employer contributions to health, dental, and vision plans
Value of holidays and accrued leave

Note: For the case of this report, total compensation is the average monthly value of salary and benefits when considering no wildland fire assignments. The following table shows a dollar value and a corresponding percentage lag for the five benchmark classifications:

Class Title	Agency	Average Compensation	Federal Lag (dollars)	Federal Lag (percentage)
GS - 3/4	Federal	\$4,042.34		
	CAL FIRE	\$11,888.94	-\$7,846.60	-66.00%
	WA DNR	\$6,964.25	-\$2,921.91	-41.96%
	ODF	\$5,687.04	-\$1,644.70	-28.92%
	CDFPC	\$7,367.80	-\$3,325.46	-45.14%
		<b>Simple Average</b>	<b>-\$3,934.67</b>	<b>-45.63%</b>
GS - 5/6	Federal	\$5,591.33		
	CAL FIRE	\$12,486.50	-\$1,189.10	-55.22%
	WA DNR	\$7,260.88	-\$498.60	-22.99%
	ODF	\$6,529.27	-\$839.10	-14.37%
	CDFPC	\$8,730.39	-\$4,688.05	-35.96%
		<b>Simple Average</b>	<b>-\$1,803.71</b>	<b>-30.86%</b>
GS- 7	Federal	\$6,423.50		
	CAL FIRE	\$13,696.50	-\$1,221.90	-53.10%
	WA DNR	\$7,897.24	-\$316.90	-18.66%
	ODF	\$8,411.09	-\$1,562.40	-23.63%
	CDFPC	\$10,397.21	-\$3,973.70	-38.22%
		<b>Simple Average</b>	<b>-\$1,768.73</b>	<b>-31.80%</b>
GS - 8	Federal	\$7,037.35		
	CAL FIRE	\$15,751.50	-\$1,866.50	-55.32%
	WA DNR	\$8,791.92	-\$442.00	-19.96%
	ODF	\$8,411.09	-\$1,682.00	-16.33%
	CDFPC	\$12,050.22	-\$5,012.87	-41.60%
		<b>Simple Average</b>	<b>-\$2,250.84</b>	<b>-30.54%</b>
GS- 9	Federal	\$7,701.94		
	CAL FIRE	\$16,561.50	-\$1,754.03	-53.49%
	WA DNR	\$9,600.14	-\$483.03	-19.77%
	ODF	\$9,161.44	-\$1,236.53	-15.93%
	CDFPC	\$14,356.63	-\$6,654.69	-46.35%
		<b>Simple Average</b>	<b>-\$2,532.07</b>	<b>-29.73%</b>
Simple Average	Federal	\$6,159.29		
	CAL FIRE	\$14,076.99	-\$1,496.02	-56.25%
	WA DNR	\$8,102.89	-\$1,445.12	-23.99%
	ODF	\$7,447.21	-\$1,012.87	-17.29%
	CDFPC	\$11,785.13	-\$5,625.84	-47.74%
		<b>Simple Average</b>	<b>-\$2,394.96</b>	<b>-32.51%</b>

Figure 18: Comparing Total Compensation (Regular Pay + Benefits).<sup>13</sup>

13. The values shown in the table above are based on current salary data for each agency, and may vary depending on factors such as location, experience, and job responsibilities. The "Federal Salary Lag" column represents the percentage difference in pay between Federal wildland firefighters and comparable state positions for each class title.

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## 2) Summary of Regular Wages Only

The chart below provides a visual comparison of the monthly regular wages for federal and state wildland firefighting agencies. These regular wages are determined based on compensable hours during the standard workweek as specified in each agency's respective labor agreement. When **considering base pay alone for a standard workweek, the disparity in federal salaries diminishes, with a simple average lag of 28.27%.**

**The analysis also shows the largest wage disparity between federal wildland firefighters and CDFPC, with federal firefighters lagging behind by an average of 35.45% compared to equivalent benchmark classifications. This significant difference can be primarily attributed to the higher base hourly wages provided by CDFPC.**



USDA Forest Service Photo

The following table is based on current salary data for each agency, and may vary depending on factors such as location, experience, and job responsibilities. The "Federal Salary Lag" column represents the percentage difference in pay between Federal wildland firefighters and state agencies for each class title.

Class Title	Agency	Average Salary	Federal Salary Lag (dollars)	Federal Salary Lead/Lag (percentage)
GS - 3/4	Federal	\$2,626.43		
	CAL FIRE	\$4,075.00	-\$1,448.57	-35.55%
	WA DNR	\$3,606.50	-\$980.07	-27.18%
	ODF	\$3,556.50	-\$930.07	-26.15%
	CDFPC	\$4,249.00	-\$1,622.57	-38.19%
		<b>Simple Average</b>	<b>-\$1,245.32</b>	<b>-31.77%</b>
GS - 5/6	Federal	\$3,286.40		
	CAL FIRE	\$4,475.50	-\$1,189.10	-26.57%
	WA DNR	\$3,785.00	-\$498.60	-13.17%
	ODF	\$4,125.50	-\$839.10	-20.34%
	CDFPC	\$4,566.50	-\$1,280.10	-28.03%
		<b>Simple Average</b>	<b>-\$951.73</b>	<b>-22.03%</b>
GS- 7	Federal	\$3,850.60		
	CAL FIRE	\$5,072.50	-\$1,221.90	-24.09%
	WA DNR	\$4,167.50	-\$316.90	-7.60%
	ODF	\$5,413.00	-\$1,562.40	-28.86%
	CDFPC	\$5,277.00	-\$1,426.40	-27.03%
		<b>Simple Average</b>	<b>-\$1,131.90</b>	<b>-21.90%</b>
GS - 8	Federal	\$4,264.00		
	CAL FIRE	\$6,130.50	-\$1,866.50	-30.45%
	WA DNR	\$4,706.00	-\$442.00	-9.39%
	ODF	\$5,946.00	-\$1,682.00	-28.29%
	CDFPC	\$6,556.00	-\$2,292.00	-34.96%
		<b>Simple Average</b>	<b>-\$1,570.63</b>	<b>-25.77%</b>
GS- 9	Federal	\$4,709.47		
	CAL FIRE	\$6,463.50	-\$1,754.03	-27.14%
	WA DNR	\$5,192.50	-\$483.03	-9.30%
	ODF	\$5,946.00	-\$1,236.53	-20.80%
	CDFPC	\$8,376.50	-\$3,667.03	-43.78%
		<b>Simple Average</b>	<b>-\$1,785.16</b>	<b>-25.25%</b>
Simple Average	Federal	\$3,747.38		
	CAL FIRE	\$5,243.40	-\$1,496.02	-28.53%
	WA DNR	\$5,192.50	-\$1,445.12	-27.83%
	ODF	\$4,760.25	-\$1,012.87	-21.28%
	CDFPC	\$5,805.00	-\$2,057.62	-35.45%
		<b>Simple Average</b>	<b>-\$1,502.91</b>	<b>-28.27%</b>

Figure 19: Comparing Regular Wages Only.<sup>14</sup>

14. The values shown in the table above are based on current salary data for each agency, and may vary depending on factors such as location, experience, and job responsibilities. The "Federal Salary Lag" column represents the percentage difference in pay between Federal wildland firefighters and comparable state positions for each class title.

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### 3) Employer Contributions to Retirement and Health

We compared employer contributions to retirement plans for both Federal and state employees. The analysis focused on various components included in the retirement benefits of firefighters, such as the employer's coverage of the employee's retirement contribution, the employer's direct contribution towards retirement, and the maximum employer contribution to a deferred compensation retirement savings plan. Additionally, we assessed the value of employer contributions to health benefits by counting average contributions to health, dental, vision, and additional premiums.

The following table provides a comparison of employer contributions to retirement plans and health benefits for federal and state agencies. Note that while employer retirement contribution rates might not directly impact the employee's take-home pay or ultimate retirement benefit, they typically represent a significant portion of the cost to the employer.

As noted in the table below, federal benchmark classifications lagged an average of 25.29% percent behind equivalent state positions. The largest disparity was between Federal wildland firefighters and CAL FIRE, with a maximum contribution lag of -49.32% for entry level positions.

Class Title	Agency	Average Salary	Federal Salary Lag (dollars)	Federal Salary Lag (percentage)
GS - 3/4	Federal	\$2,974.38		
	CAL FIRE	\$5,869.00	-\$2,894.62	-49.32%
	WA DNR	\$3,357.75	-\$383.37	-11.42%
	ODF	\$2,130.54	\$843.84	39.61%
	CDFPC	\$3,118.80	-\$144.42	-4.63%
			<b>-\$644.64</b>	<b>-6.44%</b>
GS - 5/6	Federal	\$3,073.54		
	CAL FIRE	\$5,869.00	-\$2,795.46	-47.63%
	WA DNR	\$3,475.88	-\$402.35	-11.58%
	ODF	\$2,403.77	\$669.77	27.86%
	CDFPC	\$4,163.89	-\$1,090.35	-26.19%
			<b>-\$904.60</b>	<b>-14.38%</b>
GS- 7	Federal	\$3,286.73		
	CAL FIRE	\$6,264.00	-\$2,977.27	-47.53%
	WA DNR	\$3,729.74	-\$443.01	-11.88%
	ODF	\$2,998.09	\$288.65	9.63%
	CDFPC	\$5,120.21	-\$1,833.47	-35.81%
			<b>-\$1,241.27</b>	<b>-21.40%</b>
GS - 8	Federal	\$3,585.68		
	CAL FIRE	\$6,847.00	-\$3,261.32	-47.63%
	WA DNR	\$4,085.92	-\$500.25	-12.24%
	ODF	\$3,215.44	\$370.23	11.51%
	CDFPC	\$5,494.22	-\$1,908.55	-34.74%
			<b>-\$1,324.97</b>	<b>-20.77%</b>
GS- 9	Federal	\$3,855.68		
	CAL FIRE	\$7,019.00	-\$3,163.32	-45.07%
	WA DNR	\$4,407.64	-\$551.96	-12.52%
	ODF	\$3,215.44	\$640.24	19.91%
	CDFPC	\$5,980.13	-\$2,124.45	-35.53%
			<b>-\$1,299.87</b>	<b>-18.30%</b>
Simple Average	Federal	\$3,355.20		
	CAL FIRE	\$6,373.60	-\$3,018.40	-47.36%
	WA DNR	\$4,731.09	-\$1,375.89	-29.08%
	ODF	\$3,215.44	\$139.76	4.35%
	CDFPC	\$4,731.09	-\$1,375.89	-29.08%
			<b>-\$1,407.61</b>	<b>-25.29%</b>

Figure 20: Comparing Employee Contributions to Retirement and Healthcare. Assumes a maximum employer contribution match in the TSP fund or equivalent deferred compensation plan. Employer contributions are calculated as a simple average across benchmark classifications, therefore values may vary.

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#### 4) Comparing Total Compensation - Including Average Monthly Unplanned Overtime/Special Pay

To understand how unplanned earnings through overtime and hazard pay differed across federal and state agencies, we used time spent on Type 1 and Type 2 fires as a proxy to calculate discrepancies.<sup>15</sup> This was motivated by two primary factors:

1. ROSS and IROC dispatch data accurately tracked federal and state resources on fires classified as Type 1 + Type 2 Incidents. On the other hand, many local fire assignments or smaller fires may not be tracked in a centralized system, underestimating the amount of overtime worked and time spent on demanding assignments.
2. Time spent on Type 1 and 2 Incidents can be a large contributor to impacts on work-life balance (WFS, 2022), and increased physical and mental health impacts on the workforce. By analyzing this data, we are more accurately able to understand disparities in work responsibilities across agencies and the associated impacts on the wildland firefighting workforce.

We categorized the ROSS and IROC data based on agency, geographic location, and resource type, and applied a regression model to calculate ratios and predict days spent on assignment and number of assignments across the categories. We opted to use the U.S. Forest Service Engines (California) as the reference case for the purpose of this report, as they are the most utilized resource type on Type 1 and 2 Incidents. With the regression results, we introduced an algorithm to calculate compensation and constructed new pay tables, which offer an estimate of unplanned earnings across various agencies.

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15. The Incident Command System (ICS) ranks wildfire incident complexity on a scale of Type 5 to Type 1. Type 5 is the least complex, while Type 1 is the most complex (NPS, 2022)

The findings in Figure 21 (below) suggest that Federal Wildland Fire resources spend significantly more days on assignment than their counterparts at the state level (Appendix 2).

Agency	Predicted Days on Assignment (Engine)	Predicted Days on Assignment (Type 1 Handcrew)	Predicted Days on Assignment (Type 2 Handcrew)	Predicted Days on Assignment (Helicopter)
<b>USFS California Areas</b>	<b>21</b>	<b>47</b>	<b>28</b>	<b>70</b>
CAL FIRE	14	30	18	45
<b>USFS Northwest</b>	<b>18</b>	<b>40</b>	<b>24</b>	<b>60</b>
WA DNR	12	27	16	39
ODF	9	21	12	31
<b>USFS Rocky Mountain Areas</b>	<b>16</b>	<b>36</b>	<b>21</b>	<b>53</b>
CDFPC	15	34	20	50

Figure 21: Comparing Predicted Days on Assignment

At every comparable level, USFS spends more average days on assignments than state agencies. This ranges from a low of 6% lag for engines in the Rocky Mountain Region, to 100% more for engines and hand crews in the Northwest (compared to ODF).

This has significant impacts on compensation as well. Despite working significantly more days, compensation for this unplanned overtime is only comparable to that of Washington DNR and ODF. This is because CAL FIRE and CDFPC portal-to-portal pay structure results in a greater number of guaranteed compensable hours, therefore significantly greater compensation.

Figure 22 below illustrates the unplanned OT pay gap. California region USFS is compared with CAL FIRE to illustrate the discrepancy. Despite fewer days of unplanned OT, CAL FIRE’s compensation is greater, even after USFS hazard pay is factored in.



Class Title	Agency	Engine Unplanned OT/P2P	Engine Hazard (Fed)	Total	Federal Salary Lag (dollars)	Federal Salary Lag (percentage)
GS - 3/4 vs. FF1	Federal	\$3,845.50	\$641	\$4,486.50		
	CAL FIRE	\$7,494	-	\$7,494	-\$3,007.50	<b>-40.13%</b>
GS - 5/6 vs. FF2	Federal	\$4,813.00	\$803	\$5,615.50		
	CAL FIRE	\$8,231	-	\$8,231	-\$2,615.50	<b>-31.78%</b>
GS- 7 vs. Engineer	Federal	\$5,637	\$940	\$6,577		
	CAL FIRE	\$9,328	-	\$9,328	-\$2,751.00	<b>-29.49%</b>
GS - 8 vs. Captain	Federal	\$6,897	\$1,041	\$7,938		
	CAL FIRE	\$11,274	-	\$11,274	-\$3,336.00	<b>-29.59%</b>
GS- 9 vs. Battalion Chief	Federal	\$6,897.00	\$1,150	\$8,047.00		
	CAL FIRE	\$11,887	-	\$11,887	-\$3,840.00	<b>-32.30%</b>
Simple Average	Federal	\$5,617.90	\$915	\$6,532.80		
	CAL FIRE	\$9,643	-	\$9,643	-\$3,110.00	<b>-47.36%</b>

Figure 22: Comparing Unplanned OT between Fed and CAL FIRE

Note that the compensation table factors in the number of assignments to reflect weekends worked and “resetting of the clock” for agencies with the portal-to portal structure. For example, if a state agency were to work two assignments, their 53 hours of “regular wages” would be applied to the algorithm twice. We divided the total predicted days on assignment by predicted assignments to determine days per assignment. From there, we calculated total hours per assignment, and subtracted the 53 hours of regular wages. In the case that a federal agency works 14 days, we assumed they would work through two weekends (overtime hours). In addition, we assumed that agencies are working their maximum amount of compensable hours while on assignment.

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## 5) Comparing Retirement Benefits at End of Career

Retirement benefits are important for employees in any field or sector, but especially for firefighters, who face physically and mentally demanding work that correlates with earlier retirement and mortality.

The basic FERS benefits of Federal wildland firefighters include a basic benefits plan, a thrift savings plan (TSP), and Social Security payments. This benefit plan includes a defined benefit amount based on the employee's years of service and the average of the highest three years of salary, excluding overtime and hazard pay. Given the high percentage of federal firefighter salaries that are comprised of overtime and hazard pay, this exclusion makes a substantial difference in the final retirement benefit. Under FERS, federal wildland firefighters are eligible for full retirement benefits at age 50 with 20 years of service, and at any age with 25 years of service. Under this special retirement plan, federal wildland firefighters face mandatory retirement at 57 years old (DOI 2023). Also, in the case that federal wildland firefighters take a break in service greater than 9 months (i.e. for the care of a family member), they must reset their total years of service (WT, 2022). TSP matches dollar for dollar on the first 3% of contributions on basic pay, followed by 50 cents on the dollar for the next 2%. As of 2012, 88.5% of all federal employees (across all agencies) participated in TSP (OPM, 2012).

### **Formula for Calculating Defined Benefits for Federal Wildland Firefighters:**

$(1.7 \text{ percent}) \times (\text{High-3 Average Salary}) \times (20 \text{ Years of Service}) + (1 \text{ percent}) \times (\text{High-3 Average Salary}) \times (\text{Additional years of creditable service exceeding 20 years})$  (TSP, 2023).  
The maximum benefit available under the federal retirement system is 39%.

On the other hand, CAL FIRE firefighters are eligible to participate in the CalPERS special firefighter retirement plan, which provides benefits based on a formula that takes into account years of service, age at retirement, and final compensation (including overtime pay). For Safety Officer pension plans (police and firefighters) CalPers uses the “2.7% at 57” formula, which means that wildland firefighters receive 2% of their average final compensation for each year of service at 50 years of age, and up to 2.7% at the age of 57. In addition, their maximum defined benefit value, expressed as a percentage of final compensation, maxes out at 108% of average annual pay at or after 40 years of service (CalPERS, 2023). However, CAL FIRE firefighters are not eligible for social security benefits, therefore receive larger defined benefits through the state pension plans.

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<b>Age</b>	<b>Exact Year (increase of 0.025% per ¼ year)</b>
50	2%
52	2.2%
52	2.2%
53	2.3%
54	2.4%
55	2.5%
56	2.6%
57 or older	2.7%

*Figure 23: CalPERS Pension Steps*

For CAL FIRE employees hired prior to 2013, retirement is the number of seasons worked, multiplied by 3% of the average of the highest 3-year salaries earned. This percentage is double what federal wildland firefighters receive.

The table below compares retirement plans for Federal and CAL FIRE firefighters hired prior to and after 2013. This is due to transition to the 2.7% at 57 retirement plan. In addition, the defined benefits plan includes social security payments to federal wildland firefighters. The social security benefits were estimated based on the Average Indexed Monthly Earnings (AIME) and the Primary Insurance Amount (PIA) (SSA.gov, 2023)

Criteria	Federal	CAL FIRE	Difference
<b>Job Title</b>	GS-08 (Handcrew Captain)	Handcrew Captain	N/A
<b>Average High-3 Salary at Retirement</b>	\$53,216	\$127,932	\$74,716
<b>Years of Service</b>	25 years	25 years	N/A
<b>Retirement Calculation</b>	1.7% of each year for 20 years, followed by 1% for 5 additional years, 1.56% over 25 years + Social Security Benefits	3% * 25 years	1.46% per year
<b>Retirement Benefits Per Year (Including Federal Social Security Benefits)</b>	\$43,917 (\$19,956 + \$23,961)	\$95,949	\$75,993
<b>Total Retirement Benefits (30 Years Retired)</b>	\$1,317,517 (\$43,917 x 30)	\$2,878,470	\$1,560,193

Figure 24: Comparing defined benefits for captains pre-2013

Criteria	Federal	CAL FIRE	Difference
Job Title	GS-08 (Handcrew Captain)	Handcrew Captain	N/A
Average High-3 Salary at Retirement	\$53,216	\$127,932	\$74,716
Years of Service	30	30	N/A
Retirement Calculation	1.7% of each year for 20 years, followed by 1% for 5 additional years, so 1.56% over 25 years (maximum allowed for retirement calculation).+Social Security Benefits	2.7% of each year for 30 years	1.14%
Retirement Benefits Per Year (Including Social Security)	\$44,715 (\$20,754 + \$23,961)	\$103,625	\$58,909
Total Retirement Benefits (20 Years Retired)	\$894,304 (\$44,715.24 x 20)	\$2,072,500	\$1,178,195

Figure 25: Comparing defined benefits for captains post-2013.<sup>16</sup>

16. In this figure, we assume a 30 year career, retiring at 57, a common age for federal workers as that is the mandatory retirement age (GWLFF, 2021). In addition, total retirement benefits assume an average lifespan of 77 years. While the literature regarding average firefighter lifespan varies, there was not conclusive enough evidence to assume average lifespan of wildland firefighter retirees.

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## 6) Assessment of Federal versus State Compensation Structures

Not only does the compensation disparity contribute to higher rates of employee dissatisfaction, increased burnout, and a heightened risk of injury, but it can also lead to strong feelings of inequity and frustration among federal firefighters. The perception of being undervalued for their work, coupled with the financial strain caused by lower compensation comes at a significant cost to the federal workforce.

Furthermore, the cap on earning potential may be a major contributor to increased burnout and attrition rates among federal employees. As fire seasons become longer and more severe, the demand for firefighting resources increases. Firefighters face a higher volume of simultaneous or consecutive fires, longer fire seasons, and larger areas to cover. A growing workload, physically and mentally demanding work, and low pay all contribute to challenges in sustaining a satisfied workforce.

On the other hand, many state wildland fire employees have secured a series of salary increases as a direct result of these increasing workplace demands. For example, at CAL FIRE, such salary increases have been as high as 6% per year over the past twenty years, along with improved overtime compensation over the past decade. In addition, the “portal-to-portal” premium at certain state agencies significantly increases an employees earning potential while meeting the demands of the job.

*“I don’t begrudge them a dime of it. You’ve got guys doing grueling work. If you’ve got a firefighter out there for 13 days ... risking life and limb, I think they deserve it.” - CAL FIRE employee*

In addition, the compensation packages for state agencies have become so attractive that many Federal Wildland Firefighters have left their respective agencies to work for their local state, or even relocate across state lines for better pay. Although the average hourly pay disparity is less significant, staffing formulas guarantee certain state firefighters (CAL FIRE and CDFPC) more compensable hours and more comprehensive additional compensation and benefits, resulting in significantly higher monthly total pay.

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In California, the compensation difference undermines the ability of federal agencies to staff their wildland firefighting workforce. According to interviews, email exchanges, and gray literature, staffing levels and application rates have declined by as much as 50% in some cases.

The chart below depicts the State of California Firefighter Production Capability (FFPC) for the U.S. Forest Service between the years of 2010 – 2022. The FFPC index is a measure of the workforce building capability of wildland firefighting crews, which are referred to as modules. The FFPC index takes into account various factors that impact module capability, including fire season duration, fuel model production rates, total available days, and response areas (USFS, 2019). Changes in module staffing capacity, whether increased or decreased, can have significant effects on the number of acres burned, suppression costs, and damage to resources.

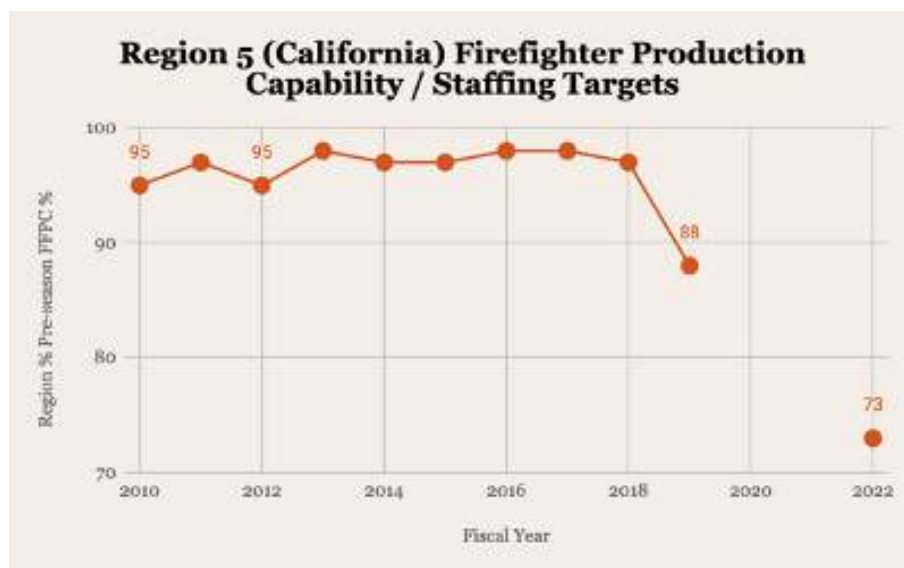


Figure 26: Region 5 Firefighter Production Capability (FFPC) for the U.S. Forest Service between the years of 2010 – 2022. Note: No data was available for FY2020 and FY2021 (USFS, 2019) (NPR, 2022).

The 2019 and 2022 fire seasons began with the lowest starting formally recorded FFPC in California’s history. While there were numerous contributing factors, a primary cause was due to lower numbers of applicants and/or applicants taking jobs for fire agencies and fire departments with better pay (USFS, 2019).

**Yearly Program Direction States:** “The Region is expected to meet its share of national commitment to the National Readiness target by providing the preparedness resources as identified in this direction. Each Forest is expected to provide its portion of that commitment and has been assigned a Firefighting Production Capability (FFPC) MAR 16.0 target required to be met at no less than 95% (USFS, 2019).



### So What?

The reduction of the R5 Fire and Aviation Management (FAM) workforce from 2015-2019: 839 people resigned from R5 FAM during the period 2015-2019. **In more than half of these resignations (437), the individuals left the agency for positions in private, State, local and other federal departments, most of these in fire (298).** It is important to note that this number could be much higher; In 199 cases, the reason for resignation was not captured or was labeled ‘Unknown’ in the vacancy tracking database) (USFS 2019).



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## Quantitative Summary

The differences in compensation between state and federal wildland firefighters can be attributed to various factors, including the structure and components of the compensation package, as well as the unpredictable nature of firefighting work. Below is a list of the primary factors driving the disparity:

1. **Base pay:** While base pay is generally higher for state firefighters compared to federal ones, the difference is less substantial than additional aspects of the compensation plans. When combined with other compensation factors, the disparity becomes more pronounced.
2. **Overtime and hazard pay:** Federal firefighters heavily rely on overtime and hazard pay as part of their income, which is not guaranteed and can fluctuate based on assignments and external factors. State agencies may offer more consistent and predictable income streams through a higher number of guaranteed compensable hours both on and off assignment, thus reducing financial uncertainty.
3. **Retirement benefits:** Most state agencies often provide more comprehensive retirement benefits than federal agencies. These benefits may include more generous pension plans (defined benefits) and retirement savings options (defined contributions), allowing state firefighters to plan for long-term financial security.
4. **Healthcare benefits:** State firefighters have broader year-round access to healthcare benefits at a lower cost, which is particularly important for wildland firefighters who tend to have increased healthcare needs.
5. **Additional benefits and allowances:** Many state agencies offer a more extensive list of benefits and allowances compared to federal agencies. These could include education and training assistance, skills bonuses, housing allowances, and other financial incentives that substantially contribute to overall earnings.
6. **Union representation:** In some cases, state firefighters may have stronger union representation, which can lead to better negotiation outcomes for compensation packages and working conditions.<sup>17</sup>

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17. It is important to note that the strength of union representation can vary greatly across different states and localities, and not all state fire agencies have stronger union representation compared to their federal counterparts. However, in cases where state firefighter unions are more influential, they can help secure better compensation packages and working conditions for their members.

# QUALITATIVE FINDINGS

## Key Insights

Conceptual Category	Interview Insights
Physical and Material Well-being	<ul style="list-style-type: none"><li>• Pay is not considered adequate for the risks and responsibilities involved.</li><li>• Many struggle with physical and mental impacts that come directly from the demands of the job.</li><li>• Housing challenges are common due to the cost, availability, and variable duration of seasonal work.</li></ul>
Relations with other People	<ul style="list-style-type: none"><li>• Strong family and social connections help cope with demanding work conditions.</li><li>• The camaraderie at work is a major draw for staying in the profession.</li><li>• However, firefighters mentioned the challenging balance of maintaining professional commitment and personal relationships</li></ul>
Social, Community, and Civic Activities	<ul style="list-style-type: none"><li>• Balancing a life outside of fire is challenging for the majority of interviewees.</li><li>• A dedication to public service plays a role in retention and overall career satisfaction.</li></ul>
Personal Development and Fulfillment	<ul style="list-style-type: none"><li>• Federal firefighters frequently face disincentives for career progression.</li><li>• Organizational challenges and distrust can affect job satisfaction.</li></ul>
Recreation	<ul style="list-style-type: none"><li>• Connection to the outdoors and recreation is an important aspect of the profession.</li></ul>

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## QUALITATIVE FINDINGS

Our team completed 23 interviews with current and former wildland firefighters across a range of experience and positions. 15 participants worked for the USFS, 4 for WADNR, and 2 for ODF. 18 participants self identified as male, and 5 self identified as female, which is similar to the gender breakdown of wildland firefighters nationwide (Granberg et al. 2022). This interview survey could have been improved with participation from CAL FIRE and Colorado DFPC participants, but we were unsuccessful in recruiting participants from these agencies within the allotted time frame.

In conjunction with our findings around total compensation and federal pay lag, the key informant interviews highlight the effects of Federal (and State) pay structures on the lives of firefighters and their families. Throughout the interview and coding process, we noted several key themes that became recurring trends:



Conceptual Category	Conceptual Category	Interview Insights
<b>Physical and Material Well-being</b>	<ul style="list-style-type: none"> <li>• Material well-being and financial security</li> <li>• Health and personal safety</li> </ul>	<ul style="list-style-type: none"> <li>• Pay is not considered adequate for the risks and responsibilities involved.</li> <li>• Many struggle with physical and mental impacts that come directly from the demands of the job.</li> <li>• Housing challenges are common due to the cost, availability, and variable duration of seasonal work.</li> </ul>
<b>Relations with other People</b>	<ul style="list-style-type: none"> <li>• Relations with parents, siblings, other relatives</li> <li>• Having and raising children.</li> <li>• Relations with spouse or significant other</li> <li>• Relations with Friends</li> </ul>	<ul style="list-style-type: none"> <li>• Strong family and social connections help cope with demanding work conditions.</li> <li>• The camaraderie at work is a major draw for staying in the profession.</li> <li>• However, firefighters mentioned the challenging balance maintaining professional commitment and personal relationships</li> </ul>
<b>Social, Community, and Civic Activities</b>	<ul style="list-style-type: none"> <li>• Activities related to helping or encouraging others</li> <li>• Activities related to local and national government</li> </ul>	<ul style="list-style-type: none"> <li>• Balancing a life outside of fire is challenging for the majority of interviewees.</li> <li>• A dedication to public service plays a role in retention and overall career satisfaction.</li> </ul>
<b>Personal Development and Fulfillment</b>	<ul style="list-style-type: none"> <li>• Intellectual development</li> <li>• Personal understanding</li> <li>• Occupational role</li> <li>• Creativity and personal expression</li> </ul>	<ul style="list-style-type: none"> <li>• Federal firefighters frequently face disincentives for career progression.</li> <li>• Organizational challenges and distrust can affect job satisfaction.</li> </ul>
<b>Recreation</b>	<ul style="list-style-type: none"> <li>• Socializing</li> <li>• Passive and observational recreational activities</li> <li>• Active and participatory recreational activities</li> </ul>	<ul style="list-style-type: none"> <li>• Connection to the outdoors and recreation is an important aspect of the profession.</li> </ul>

Figure 27: Interview Themes Mapped onto QOLS conceptual categories

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## 1) Physical and Material Well Being

### ***Pay, and its Incommensurate Nature to Risks and Responsibilities***

*“We only have a dinner size plate of responsibility, and yet it just seems like it overflows as far as that we've become the catch-all fire organization... We've become a catch- all organization, and I think to the detriment of our abilities, training, and our performance.”*

*- GS-9 AFMO, 19 Years of Experience*

When asked if their compensation appropriately reflected the responsibilities and risks associated with their job, the majority of interviewees emphatically responded, "NO." Some even laughed before stating that they did not believe the pay structure was fair. Federal employees who didn't have an outright negative response had more nuanced opinions, stating that they felt their managerial positions were reasonably compensated, but not those they supervised, or that the pay was fair only because they were aware of the conditions before joining.

*“I had to leave...I had to make the decision to leave the federal service in order to put a roof over my head, have kids, take care of my dogs. Be everything except for a part time husband, father, family man—and be a full time firefighter. So I had to leave, and pay was a very large motivator of that.” – Former GS-6 IHC Crewmember, 11 years experience*

Though many position descriptions have relatively few required qualifications, firefighters are expected to learn additional skills to be considered for promotion. These skills, such as Emergency Medicine Technician (EMT) certification, Unmanned Aircraft Systems (UAS) training, and additional NWCG qualifications, enhance a wildland firefighter's effectiveness but often surpass the qualifications of their GS-level or position description. In addition, acquiring these skills does not result in additional compensation and is often pursued at the individual's expense and on their own time. Moreover, some mid-career individuals (GS-5 through GS-8) mentioned being assigned supervisory duties that exceed the typical span of control, at times overseeing complex incidents involving hundreds of personnel.<sup>18</sup>

*“What we end up not being compensated for is, so much of our work is collateral duties. Nobody is a professional faller, professional EMT, or a professional drone pilot. But you know, all these things are things that we're expected to take on and develop programs without really adequate training or compensation.” - IHC Squad Leader, 10 years experience*

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18. While there are policies in place to limit exceeding operational responsibilities (span of control), numerous interviewees mentioned instances where they were forced to act beyond the scope of their training and qualifications because of limited support and operational necessity.



Veteran wildland firefighter rappeller managing helicopter and crew assignments during the U.S. Department of Agriculture (USDA), U.S. Forest Service (USFS) National Helicopter Rappel Program's Rappel Academy at Salmon Air Base, in Salmon, Idaho, from May 13-15, 2014. This will enable graduates to operate in various roles of helibase operations and as aerially delivered firefighters. USDA Forest Service Photo



U.S. Department of Agriculture (USDA) Secretary Sonny Perdue, in flight suit, on left, observes a smokejumper getting a routine double-check as she readies to perform her recurring proficiency training jump at the National Interagency Fire Center (NIFC) Great Basin Smokejumpers facility, in the Boise, Idaho, on June 2, 2017. Smokejumpers wear a padded flame-retardant jump suit to protect them from injury when parachuting through a tree canopy. The large lower leg pocket contains a repel rope used to lower themselves when they land in a tree.

USDA Forest Service Photo

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We also learned that many federal firefighters develop various skills, such as pursuing additional medical qualification, becoming members of incident management teams, or pursuing single resource qualifications that pay at higher rates as an Administratively Determined (AD) hire.<sup>19</sup> Some interviewees even resigned from federal agencies to pursue AD opportunities. In this sense, casual hires with a focus on a single skill or qualification in the same fire scenario may receive higher compensation for their specialized expertise than permanently employed federal wildland firefighters working in the same roles on the same assignments. This creates a discrepancy where possessing a diverse skill set can paradoxically result in lower pay than working with a singular skill or qualification.

### **Physical and Mental Health Impacts – and Coverage**

*“Sometimes I don't think that people are very aware of what a 1,000 hour (overtime) season looks like. Folks are out on the fire line seasons where they eat crap food, are sleeping in the dirt, breathing smoke, not with their family. And then and then we just lay people off and ask them to turn in their stuff. And you wonder why there's compounding factors where, when it is the end of the season, there are a lot of people mentally struggling. People at the highest level understand what we're putting our folks through, and then how we don't take care of them on the other side. Suicide seems like a natural thing, knowing what we just put those people through.” - GS-9 AFMO, 19 years of experience*

Our interviews shed light on the intense working conditions and long hours faced by federal wildland firefighters during peak fire season. As many earn a significant portion of their income through overtime hours, we learned of the associated physical and mental impacts that come directly from excessive time spent on fire assignments.

Nearly all federal interviewees touched upon the issue of mental health, which they mentioned was exacerbated by the demanding nature of the job, the impact on personal relationships, and the lack of adequate support systems. Respondents described prevalence of mental health issues among federal wildland firefighters, including increased rates of depression, anxiety, and suicide.

Respondents also mentioned challenges in accessing affordable healthcare, and challenges in dealing with workplace injuries particularly when not in pay status (during the offseason). In addition, some interviewees mentioned delays seeking medical care or even avoiding it altogether due to financial constraints. Although all federal wildland firefighters have some level of healthcare coverage when in pay status, some mentioned high out-of-pocket expenses, such as deductibles, co-pays, and uncovered services. Interviewees also mentioned that seasonal employees face a greater financial burden

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19. The Administratively Determined (AD or ‘Casual Hire’) Pay Plan applies wherever uncertain or purely temporary duration exists, and must be terminated when other employment methods can be initiated. Casuals may be hired by a GACC (Geographic Area Coordination Center), ECC, or a Forest hiring official (USFS, 2014).

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associated with healthcare costs during the offseason when firefighters are not earning a steady income nor receiving insurance coverage.

Finally, interviewees mentioned that navigating the workers' compensation process can be complex and frustrating. As a result, some have even opted to avoid this process due to the difficulties in securing benefits and the lack of flexibility during the fire season.

*“For folks that aren’t around (employed) all year. There needs to be more room and affordability for care. For mental health, to be able to see a doctor. There have been times where I’ve been injured at work, and don’t go through the workmans compensation process because it’s so hard and frustrating to use.” - Smokejumper, 21 Years experience*

### **Housing Challenges**

Similar to the struggles with compensation, our participants noted the challenges with finding stable and affordable housing near their duty stations. Fire bases are often set in rural areas with already low housing stocks, or areas that are seen as desirable due to proximity to recreation and vacation areas, significantly driving up costs of rent and homeownership. Under the general schedule, standard increases in pay through promotions are not enough to keep pace with trends in the cost of housing in many of these locations and many locality adjustments do not accommodate the exorbitant costs of certain rural duty station locations. Most career firefighters spend several years as a temporary employee before gaining permanent employment status, and even then as a seasonal it can be extremely difficult to find short term housing during summers. Some bases have simple barracks for their employees, but they are not nearly enough to meet the needs of the workforce and cannot support employees with partners or children. Even if there is available housing, one participant noted that during a busy season, they might only be at their home base for one sixth of the season, and the thought of spending hundreds of dollars a month for accommodations that are rarely used can be highly discouraging.

*“Homeless hotshot veterans that have served in Iraq and Afghanistan [warfronts] that are living out of their trucks because they don't make enough money to afford a place to live nor does the federal government have any barracks that are adequate or in good service for these men and women out on the front lines...it's ridiculous to say that they're not professionals that deserve a professional wage that don't have a place to live...it's ridiculous.” – Former GS-6 Hotshot, 11 years experience*



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*"As I started saving for a house four years ago, I remember I had a goal. By the time I reached my goal in two or three years, the real estate market had increased so much that what I had saved for my target was barely half of what I needed with the increase in cost of living." – GS-6 Smokejumper, 13 years of experience*

## **2) Relations with Other People**

### ***A Sense of Camaraderie***

When asked about the most enjoyable part of their work, participants most often spoke of the teamwork and strong sense of camaraderie that comes with the job. Wildland firefighters must navigate complex, risky environments on a daily basis, often working sixteen hours a day for weeks straight. The deep trust that many have with their peers not only helps them perform at a high level but also can be a powerful reason for staying with the job even when faced with incommensurate compensation. Participants state that their colleagues often fill the role of a secondary family when they are out on incidents. When individuals are injured and have to miss work (and as a result, cannot earn money), networks of firefighters have pulled together to raise thousands of dollars in support of their colleagues. Several individuals in management positions noted that they felt a sense of responsibility to ensure the overall well-being and safety of their subordinates that was equivalent to a family connection. Interestingly, the high level of confidence and trust in peers does not extend to the broader organizational scope,

*"I love being on a crew! I love the people, the camaraderie. I love seeing people push themselves as hard as they can every day and surprise themselves! I like being a teacher and a mentor...Honestly the biggest thing is the people—like that's what keeps me in it year after year." – GS-7 IHC Squad Leader, 8 years experience*

*"I've made some of the best friends of my life, had some of the best life and work experiences I could've imagined, the best mentors you could ask for. I wouldn't trade that for anything. If it wasn't for the people I work with, I wouldn't be here." – GS-8 Smokejumper, 21 years of experience*

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## ***“All in the Family”***

Many current and former firefighters noted that they got into the line of work because of a family member or close friend who did it. Firefighters found themselves as part of a legacy, inheriting a sense of responsibility and stewardship passed down from prior generations. Beyond the blood relations, many referred to their colleagues as their “fire family”, commenting that these strong relationships and support systems are what helped people manage the trials of a difficult season. While familial ties don't have a direct relationship to compensation, individuals noted that their family legacies in firefighting contributed to their reasons for both starting in wildland fire and staying with the career in the long term.

## ***Challenging Balance Between Professional Commitments and Personal Relationships***

However, while the strong bonds and camaraderie within the firefighting community provide significant support and motivation, interviewees mentioned excessive time spent on fire often comes at a considerable cost to their personal lives. Individuals mentioned maintaining relationships with family members and loved ones becomes increasingly challenging due to the demanding nature of the job. In this light, the long hours, extensive travel, and extended periods away from home create a strong sense of camaraderie with coworkers, but come at the cost of family life and personal relationships, leading to high divorce rates and difficulties in balancing work and personal life.

*“I had 4 hotshot superintendents. 3 of those hotshot superintendents were divorced previously. probably directly related to the job. The fourth one had an ultimatum and chose to get off the crew. That's always in the back of my mind. So you talk about work, life, balance, like it is difficult, very difficult to maintain a personal life and relationship outside of fire. Especially when you're doing 1,000 to 1300 hour overtime seasons back to back.” - GS-9 Assistant Fire Management Officer, 19 years of experience’*

Ultimately, interviewees mentioned the consistent challenges of balancing their professional responsibility and personal lives, often making difficult choices when attempting to balance demanding professions and travel requirements while sustaining relationships with family and loved ones.

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## ***The Inability to Have a Life Outside of Fire***

*“There are some fire seasons where I’m at the base (home unit), for 30 days out of 180. You’re only home for training season, then you’re gone on fuels projects, fire assignments, all summer long. During a fire season, you might be with your family just 30% of your time.” – GS-6 Smokejumper, 16 years experience*

We were particularly interested in understanding how well firefighters could balance their work with other life aspects, such as spending time with family, friends, and engaging in hobbies. All respondents indicated that during summer months, they had virtually no time for anything other than work and rest between assignments. Firefighters with spouses and children expressed difficulties in finding sufficient time for family commitments and highlighted the strain fire season imposed on dependents and loved ones.

Individuals without children or partners were more likely to enjoy the ability to work for six months and pursue other interests during the off-season. However, participants felt compelled to work extensive overtime to remain financially stable, forcing them to choose between meaningful time with loved ones and working more to support themselves and their dependents. Several participants noted that the time off was essential for physical and mental recovery from a demanding fire season, and they believed that implementing a year-round (26/0) schedule would not create a sustainable workforce. On an organizational level, all female-identified respondents expressed concerns about having to choose between starting a family or continuing their career in firefighting.

*“A GS-05 Permanent Position is the lowest pay out there. With all the deductions from your paycheck, your take home pay is meager. It puts the bind on overtime. It then puts the bind on work-life balance.” – GS-9 AFMO, 19 years of experience*

*“I’ve been able to cut out time for my family, but I think the issues there are, you lose a lot of money. If I go camping with my family there’s a really high opportunity cost, because we have unlimited overtime and a low base wage. So when I go camping with my family, it’s like gosh each night I’m here it’s costing me like six hundred dollars.” – GS-6, Smoke Jumper, 16 years of experience*

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### 3) Social, Community, and Civic Activities

#### *Issues with Retention*

Though the scope of this research was not meant to focus on retention, the topic arose unprompted in nearly every interview. It is challenging to decouple the relationship between equitable compensation and retaining a talented workforce, and individuals who had worked in fire for many years were witnessing an exodus of skilled workers away from wildland fire. It was most often reported from the perspective of federal employees leaving for better-paying state agency counterparts or municipal (structural) departments, however, even state agency managers noted understaffing from a combination of experienced firefighters leaving, and significant drops in applications for new recruits.

A common theme among interviewees was that you could, “make a higher base wage at a McDonald’s and not be in physical danger”. One noted driving around their base of operations and seeing “help wanted” signs at retail and service jobs that started at a similar wage to what they had spent the better part of a decade working up to. The potential for higher earnings for less demanding work at the entry-level positions (GS 3 to 4) posed real challenges for filling positions on engines and hand crews that are essential resources for suppression efforts. Moving up, the wage compression at the middle to upper ranks (GS 6 - 9) saw managers being saddled with enormous liability, often overseeing large fires in the WUI where they might be overseeing structural firefighters who are “making as much in a two week period as [they] make in the entire season.”

*“The issue is not just that they’re getting paid more (state and municipal firefighters), it’s that we (federal agencies) are losing the skill sets and abilities to fight fire well...I don’t think this is a good use of taxpayer dollars, to cut short on the federal side, and overpay on the municipal fire side. I’m seeing a lot of the people who have good skills on their way out (to other fire agencies).”*

*– GS-6 Smoke Jumper, 16 years of experience*

*“At a certain point [as a woman] you have a realization that ‘I think that I have to choose between having a long term committed partner in this place that I want to live, or fire.’ And then there’s also the choice of, ‘I think that I have to choose between having children, or fire.’”*

*– Former FFT1,  
7 years of experience*

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## ***A Dedication to Public Service, and Love for the Work***

Despite misgivings with adequate compensation, participants across the board said that they loved the work. Many cited a sense of duty and public service that kept them in their positions, as well as the inability to see themselves in a different line of work. That the work was often unpredictable and varied was viewed both as a source of stress and enjoyment. People who found long-term success in wildland firefighting relished complex problem-solving, and experienced profound satisfaction in helping communities in need, whether it be their own, or others in the midst of crisis. Several interviewees mentioned that they were motivated to, “provide the greatest value to the taxpayer possible”, and that their training and opportunity to perform at a high level allowed them to deliver what they believed to be an invaluable service.

*“...the upside of that coin is I don't know what I'm gonna do every day. It can be an adventure in a way. There's always that joke about how you get paid in sunrises and sunsets, and every now and then you get a sunrise. I've got to see some really cool things and meet some really cool people and help influence some folks' lives for the better. So that's kind of the big quality of life thing that I'm like, yeah, I love my job”. – ODF Crew Superintendent, 12 years of experience*

## **4) Personal Development and Fulfillment**

### ***Disincentives for Career Advancement***

In addition to the views that pay was not commensurate with responsibilities at many levels, interviewees noted that there can be unintentional systematic disincentives for upward career progression as a firefighter. The accrual of additional skills and qualifications does not always correspond with increases in pay. Experienced firefighters found themselves with greater supervisory responsibility, sometimes acting as incident commanders of complex incidents at the GS-6 level of pay, or at times finding themselves managing personnel at state or municipal agencies at a higher rank and pay who don't have the same fire experience. On emerging incidents, individuals mentioned a strong perception of liability in the case of injuries to personnel, or excessive damages from a fire, and feel as though the increased level of risk and responsibility is not worth a modest increase in pay. Furthermore, many individuals who do climb the ladder find themselves with fewer operational responsibilities and greater administrative duties, placing them further from the core of the work they most enjoy. Additionally, pursuing management positions removed from operations could sometimes mean a pay cut due to reduced overtime hours, despite a higher base GS level.

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*“Responsibility is gonna change as you move up—specific to us here, because of retention issues we don’t have a superintendent or captain. Me and two other squad leaders are running the show without any increase in pay or bonus despite a huge increase in job responsibilities.”— GS-7, IHC Squad Leader, 8 years of experience*

### **Organizational Challenges and Distrust**

Several participants noted that the bureaucratic nature of the Forest Service (and the Federal Government) caused difficulties in their work and personal lives. Issues stemmed from a perceived disconnect between administrative leadership and the “boots on the ground” staff involved in day-to-day fire operations. Operations staff felt that Line Officers (Forest Supervisors, District Rangers, Park Superintendents, Chief Rangers, etc.) did not have enough working knowledge of fire operations and incident management, and frequently made decisions that had negative impacts on the boots on the ground. Furthermore, many interviewees felt as if the excessively bureaucratic nature of federal agencies contributed to a culture where the “best interests of the employees” were not accurately represented. For example, the concentration of human resources offices outside of regional Forest districts often meant that when firefighters faced issues with workman's comp or overtime discrepancies, they did not have support from an HR professional who understood the context of their work and local challenges. One interviewee described it as, “losing humanity through the chain of command”, and another noted that in the face of a severe injury on the job, they were only able to be compensated with heavy support from their union.

*“I think seeing the (FY 2024) budget proposal really increased the pressure on me to leave. Because, what I see is, with a menial increase in base pay – taking me from 20,000 - to 25,000 a year if I get injured – that doesn’t even cover my rent. What would’ve kept me would have been temp buyback. I had 10 years as a temporary employee. What I’m doing is comparing retirement plans. With the Feds, I’m 15 years in with 15 more to go. At a municipal department, the retirement benefits will eclipse mine in about 3-5 years on the job there. That’s literally what kind of disparity we're talking about here. The way it is now, I don’t really have much for benefits. There are no golden handcuffs on me.” – GS-6 Smoke Jumper, 16 years of experience*

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## 5) Recreation

### ***Connection to the Outdoors***

Interviewees expressed a connection to the outdoors as a catalyst for entering fire, as well as a reason for staying in the line of work. Several noted that they could not see themselves working in an office job or indoor environment, and placed a high value on the privilege of living and working in what they consider to be beautiful areas. These themes hinted at participants' initial willingness to be paid a bit less to have an outdoor work environment that suited them better. However, over the duration of a career, with more expenses and higher costs of living, that “premium” of working outdoors seems to have a diminishing value. Despite generally positive associations, some participants held somewhat cynical views about the perk of working outside as “being dangled as an incentive” to get people into fire and gloss over the poor pay.

### ***Opportunities outside of fire season***

Initially, starting out in fire, the opportunity to have an “offseason” was said to be a draw for participants. People discussed that having a significant portion of the year off of work was a large incentive that allowed them to spend time with families and loved ones and enjoy their personal hobbies. The flexibility was an appealing model to younger firefighters with fewer familial and financial obligations. However, over continued years as a seasonal employee, for many interviewees, the time away from fire season became necessary to physically and mentally recover from the demands of the work. One respondent mentioned that they “needed a month to recover just to be ready to apply for other jobs” due to the extreme toll. Other participants discussed long periods of rest and recuperation as being necessary to sustaining their physical and mental health and devoting missed time to familial and social relationships. Other respondents mentioned increasing agency pressure to extend tours of duty from 8 months a year to 12 and mentioned that this took a significant toll on their overall quality of life and physical and mental health. Many mentioned that the suggestion of a year-round (26/0) firefighting workforce is not a sustainable policy option with the existing workload and that many would consider resigning from their positions if this were to become the status quo.

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# IMPACTS OF BIPARTISAN INFRASTRUCTURE LAW (BIL)

Section 40803 of the Bipartisan Infrastructure Law (BIL), enacted in 2021, introduced a supplemental salary increase for federal wildland firefighters (White House, 2022). This increase, either \$20,000 or 50% of the “base salary per annum” (whichever is less), was intended for firefighters in areas where recruitment or retention was identified as challenging.

Funding of \$480 million and \$120 million was allocated to the Forest Service and Interior respectively, to be utilized between October 1, 2021, and September 30, 2026, or until exhausted (USDA, 2022). The supplemental salary was meant to benefit all firefighters with primary or secondary firefighter retirement coverage status, including temporary primary firefighters. The increase was designed to apply universally, reflecting the widespread recruitment and retention challenges across all geographic areas.

However, the rollout of these payments encountered several problems. First, many firefighters received only a fraction of these payments due to discrepancies in their listed salaries (annual salaries per OPM), and their salaries received (regular wages earned from months in pay status, as many working six or eight-month schedules). A backlog of 11,998 retention incentives resulted in payment errors for 435 employees due to simultaneous system updates. Furthermore, 9,087 outstanding Fair Labor Standards Act (FLSA) payments were left pending due to the complexity of calculating exempt and non-exempt employee work (USDA, 2023).

By May 2023, the Forest Service dispersed retroactive payments, covering from October 1, 2021, to May 21, 2022, with a second payment for May 22, 2022, to July 2, 2022. Nonexempt employees also received additional Fair Labor Standards Act (FLSA) overtime payments, resulting in an additional \$1-3/hour raise during overtime hours worked.<sup>20</sup>

From July 3, 2022, USDA-eligible employees began receiving the increase every pay period. For the Interior Department, a retroactive payment was made on July 12, 2022, covering October 1, 2021, to July 2, 2022, inclusive of FLSA overtime payments for nonexempt employees. The regular increase also commenced on July 3, 2022 (USDA, 2023). Despite the flawed rollout, efforts are ongoing to resolve the issues and ensure improved compensation for all eligible wildland firefighters until funds will be depleted — expected during the summer of 2023.

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20. Despite the communication by the agency, firefighters mentioned that they were surprised that the overtime payments were not aligned with the expected rate of 150% of regular wage. The overtime payments were based on an FLSA calculation that was unseen in firefighter compensation prior to the BIL.



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# FY 2024 PROPOSED PAY INCREASE

In April 2023, the USDA and DOI proposed a modernized compensation structure for federal wildland firefighters in their FY2024 budgets. If passed, the key components of the proposed legislation are listed as follows (USDA, 2023):

1. Revised Salary Table: A new salary table would be implemented specifically for wildland firefighters, ensuring that the base pay receives the most significant increase at the lowest GS levels.
2. Increased Base Pay for Wage Grade Employees: Wage grade employees who qualify as wildland firefighters would observe an augmentation in their base pay.
3. Introduction of "Incident Standby Premium Pay": A new pay category, known as "incident standby premium pay," would be introduced. This provision offers 50% of the employee's hourly rate of basic pay for nine hours within each 24-hour duty period. This pay applies to both prescribed fires and wildfires, particularly those exceeding a duration of 36 hours.
4. Expanded Pay Cap and Authority Waiver: The pay cap limit would be raised, allowing for greater remuneration. Additionally, the Secretaries of Agriculture and the Interior would be granted the authority to waive this pay cap during exceptionally challenging fire years.

It is important to acknowledge that the implementation of the permanent pay reforms requires authorizing legislation — therefore is subject to change or denial. In the case that the proposed pay increase legislation does not pass, the temporary BIL funding will be exhausted and federal wildland firefighters will face significant pay cuts during the September 2023.



C-130J drops fire retardant chemicals onto a ridge line above Santa Barbara, on Dec. 13, 2017, as part of the effort to contain the Thomas Fire. USAF Photo.

Grade	Average Monthly	Percentage Increase (Multiplier)	Average Monthly (Regular Wages)	Average Monthly Overtime	Hazard Pay	Hazard Pay	Eligible Incident Standby Premium Pay	Total Monthly Pay
GS-3	\$2,474.33	136%	<b>\$3,104.61</b>	\$1,527.32	\$186.58	\$373.15	\$186.58	<b>\$5,378.23</b>
GS-4	\$2,778.53	133%	<b>\$3,407.28</b>	\$1,675.80	\$204.77	\$409.53	\$204.77	<b>\$5,902.14</b>
GS-5	\$3,107.87	130%	<b>\$3,727.01</b>	\$1,833.05	\$223.98	\$447.96	\$223.98	<b>\$6,455.98</b>
GS-6	\$3,464.93	127%	<b>\$4,059.25</b>	\$1,996.46	\$243.95	\$487.89	\$243.95	<b>\$7,031.49</b>
GS-7	\$3,850.60	124%	<b>\$4,403.98</b>	\$2,166.35	\$264.67	\$529.33	\$264.67	<b>\$7,628.99</b>
GS-8	\$4,264.00	121%	<b>\$4,758.84</b>	\$2,340.88	\$285.99	\$571.98	\$285.99	<b>\$8,243.68</b>
GS-9	\$4,709.47	118%	<b>\$5,125.60</b>	\$2,354.74	\$308.03	\$616.06	\$308.03	<b>\$8,712.45</b>

Figure 28: Impacts of 2024 proposed pay increase (average monthly earnings).<sup>21</sup>

21. Note: This table assumes 700 hours of annual overtime and 500 hours of hazard pay - estimated reference values from a survey of federal wildland firefighters (WFS, 2022)



## CHAPTER 5: RECOMMENDATIONS

- **RECOMMENDATIONS**
- **ORGANIZATIONAL**
- **COMPENSATION**
- **BENEFITS AND QUALITY OF LIFE**
- **CONCLUSION**

*Note: The following list of recommendations are the opinions of the research team and do not represent the thoughts or opinions of the U.S. Forest Service. However, the recommendations are guided by a thorough and comprehensive policy analysis.*

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# RECOMMENDATIONS

Chapter 4 highlighted disparities in compensation across wildland firefighting agencies and the associated impacts on wildland firefighters. This chapter offers strategies to improve the current payment structure and meet the needs of the workforce.

The following list of recommendations is a product of comprehensive policy analysis, insights from key informants, and lessons learned from similar agencies. Our findings suggest the need for a balanced yet aggressive approach to address the compensation gap in federal wildland fire agencies and ensure a sustainable workforce. These proposals are directly informed by the experiences of firefighters who have suffered from these disparities.

## Criteria

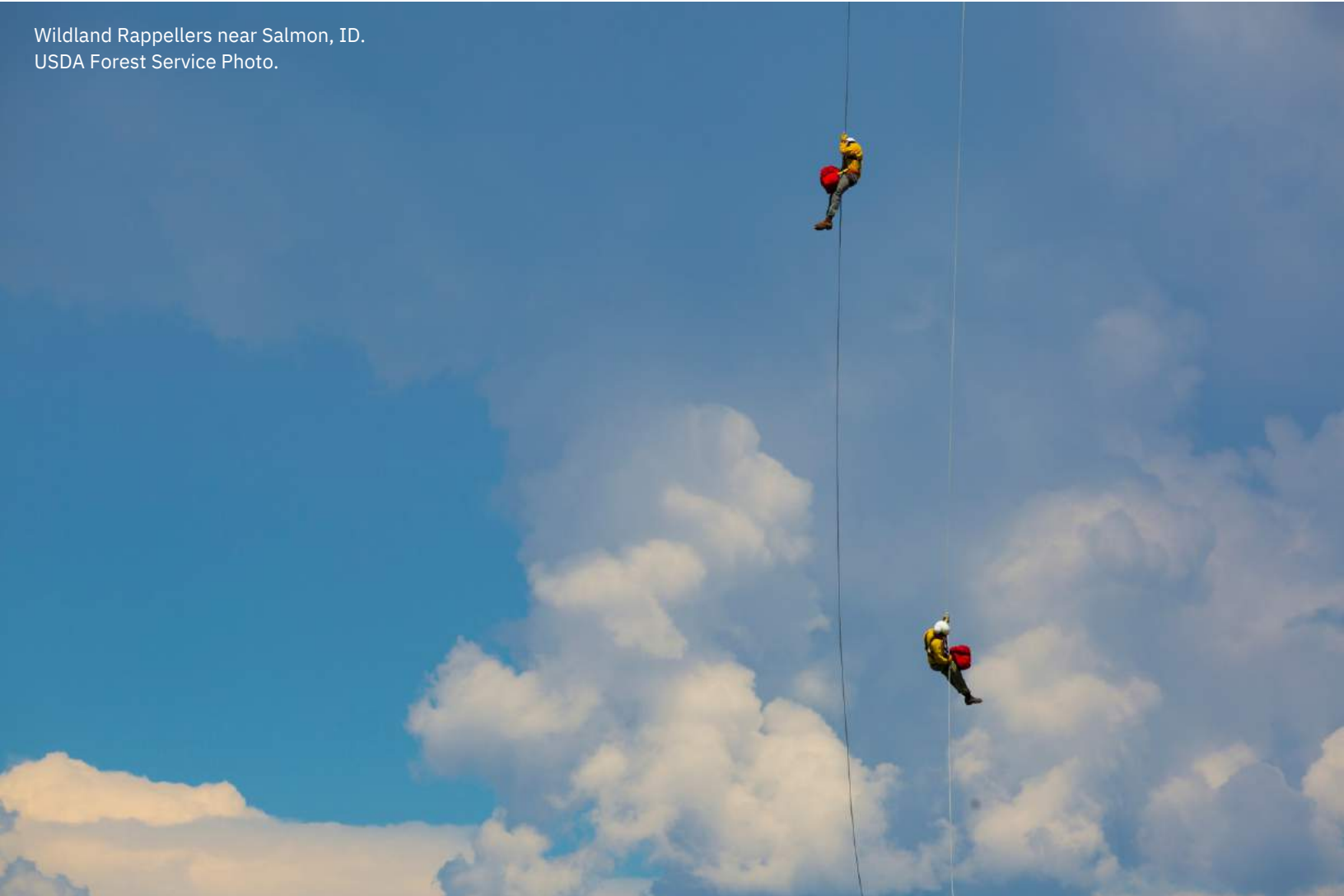
To adequately rank and select options for recommendation, the team developed a set of criteria for evaluation. They are as follows:

Factors to Consider	Detailed Parameters
Feasibility	<ul style="list-style-type: none"><li>• Political practicality</li><li>• Long-term sustainabilityRegulatory compliance</li></ul>
Efficiency	<ul style="list-style-type: none"><li>• Government/taxpayer expense</li><li>• Cost per employee (factoring in administrative and total costs of employment)</li><li>• Employee outreach (number reached)</li><li>• Time efficiency in implementation</li></ul>
Effectiveness	<ul style="list-style-type: none"><li>• Enhancements in firefighter quality of life</li><li>• Modifications to firefighter compensation (Structure, Amount)</li><li>• Impact on retention rates</li><li>• Impact on performance morale</li></ul>
Equity	<ul style="list-style-type: none"><li>• Fostering or expanding opportunities for underrepresented groups in the federal workforce</li><li>• Minimizing discrepancies between compensation and job responsibilities</li><li>• Minimizing inequities across agencies</li><li>• Promoting equal access to training and development opportunities</li></ul>

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In order to address these criteria while improving the well-being and effectiveness of the federal workforce, we recommend that federal wildland firefighting agencies take decisive action and commit fully to the wellbeing of their employees. This list of recommendations outlines specific actions that federal agencies can take to enhance the compensation, benefits, and quality of life of federal wildland firefighters. Such recommendations are informed by formal research and are designed to support evidence-based policies and practices that will ultimately benefit taxpayers and ability for federal agencies to safely and effectively meet their respective missions. The full list of policy options is included in appendix B below.

Wildland Rappellers near Salmon, ID.  
USDA Forest Service Photo.



# RECOMMENDATIONS

Domain	Action	Explanation
Organizational	Take Decisive Action	Recognize and capitalize on the opportunity to enhance the workforce as a valuable, long-term investment for taxpayers and the mission of federal agencies.
	Conduct Extensive Formal Research	Conduct comprehensive research on firefighter quality of life, comparing compensation to other agencies, analyzing job responsibilities, and assessing recruitment and retention practices. Investigate the physical and mental health impacts on federal wildland firefighters
	Develop and refine the wildland firefighter classification to reflect new wage structure	Ensure individuals working as wildland firefighters are appropriately classified by the Office of Personnel Management (OPM), with a new pay table that reflects the roles and responsibilities of their work.
Compensation	Elevate Regular Wages and Integrate Hazard Pay Premium	Restructure base pay and overtime rates to match those of leading state agencies, incorporating a hazard pay premium to discourage excessive risk-taking.
	Apply "Portal-To-Portal" Premium Pay	Implement "portal-to-portal" premium pay for all hours when firefighters are mobilized away from their home units, matching rates of leading state agencies.
	Offer Supplementary Allowances	Provide additional allowances such as monthly housing, cost-of-living, and subsistence pay. Offer Special Duties Assignment Pay (SDAP) to wildland firefighters undertaking particularly difficult, dangerous, or demanding duties.
Benefits and Quality of Life	Provide Comprehensive Healthcare Coverage	Extend comprehensive healthcare coverage to federal wildland firefighters and their families, ensuring rates are comparable with leading state agencies.
	Ensure Compensation for Service-Connected Disabilities	Include coverage and compensation for both physical and psychological disabilities, as well as chronic conditions in healthcare provisions.
	Establish Specialized Retirement Plan	Ensure government contributions to deferred compensation and defined pension benefits are on par with leading state agencies.

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## **Organizational**

### ***Take Decisive Action***

- **Description:** Recognize and capitalize on the opportunity to enhance the workforce as a valuable, long-term investment for taxpayers and the mission of federal agencies. Regardless of what action is taken, these findings emphasize that non-action would be hugely detrimental to the federal firefighting workforce moving forward.
- **Risks:** In itself does not equate to immediate changes in compensation, and will require time to build coalitions for action. Some members of the workforce may feel it is “too little, too late” and be skeptical of any meaningful bureaucratic change.
- **Benefits:** Could serve to improve morale of existing workforce and show commitment from organizational leaders. There is broad bipartisan support for improving the capacity of wildland firefighters and an open political window for change. Non-action would send the message to employees that their calls for change are not being heard.

### ***Conduct Extensive Formal Research***

This study is limited in its scope due to constraints of time and funding, and should serve as an foray into continued program evaluation of compensation packages. Dedicated, full time researchers would have the resources and network to study links between compensation and quality of life for wildland firefighters. Any ongoing research plan should be tied to communication with organizational leadership, with the goal of producing accountable action items that target specific deficiencies.

- **Description:** Conduct comprehensive research on firefighter quality of life, comparing compensation to other agencies, analyzing job responsibilities, and assessing recruitment and retention practices. Investigate the physical and mental health impacts on federal wildland firefighters.
- **Risks:** More research may signal bureaucratic lag and subvert meaningful immediate action on an issue that is well known in the firefighter community and well documented in prior gray literature, satisfaction surveys, and activist writing. Firefighters may be willing to engage with more sophisticated quality of life studies, but may be distrustful of federal research if it is not going to lead to significant changes.
- **Benefits:** Any targeted research signals that there is the potential for change and that there are issues that need diagnosing. Any solutions to the pay gap will be complex and require careful planning and implementation. Longer term research that uses a larger sample in evaluating quality of life may elicit more nuance that can be used to make target compensation improvements.

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### ***Reclassification of "Forestry Technician" Job Title***

- Description: The current job title for firefighters is classified as “forestry technician” role which has not been updated since the early 1970’s and does not adequately reflect the job description of wildland firefighters. Reclassifying the job to have its own title would allow for a better reflection of responsibilities and hazards associated with the job.
- Risks: based on the resource management needs of federal agencies, this reclassification may complicate the completion of non fire suppression duties, including but not limited to; habitat restoration, public education and outreach, prescribed fire, and other project work. In addition, the current ‘forestry technician’ classification system covers more than 10,000 federal employees, therefore requires significant administrative burden to transition to the wildland firefighter classification.
- Benefits: By more appropriately classifying wildland firefighting employees, federal agencies will be better able to reflect the roles and responsibilities of the job, and adjust the compensation structure to reflect the significant difference between wildland firefighting and other forms of federal positions.

### **Compensation**

#### ***Elevate Regular Wages and Integrate Hazard Pay Premium***

- Description: Restructure base pay and overtime rates to match those of leading state agencies, incorporating a hazard pay premium to discourage excessive risk-taking.
- Risks: This option also relies on Congressional action, which is subject to the political priorities and will of legislators.
- Benefits: This policy would ensure wildland firefighters basic needs are met, improving recruitment, retention, and quality of life. A predetermined base salary would provide peace of mind to workers, and parity across agencies.



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### **Apply “Portal-To-Portal” Premium Pay**

- Description: Implement "portal-to-portal" premium pay for all hours when firefighters are mobilized away from their home units, matching rates of leading state agencies.
- Risks: Like raising regular wages, the feasibility of this policy option relies on obtaining Congressional approval, which is subject to the prevailing political priorities and decisions of lawmakers. Another challenge is determining what constitutes productive versus nonproductive time. In the case that an employee is not actively working during the duration of the 16 hour shift and resting for the majority of the 24-hour period, the portal-to-portal pay would have to factor the employees time away from home, the unforeseeable nature of the assignment (location and duration) and the assumed 24-hour availability during the assignment.
- Benefits: This policy would ensure that firefighters receive fair compensation for all hours spent on mobilization away from their home units, recognizing the challenges and sacrifices involved in these assignments (such as unknown location and duration, lack of adequate sleeping quarters, 24-hour availability, exposure to contaminants and hazardous conditions, and the need for appropriate rest, among others). Aligning the premium pay rates with those offered by leading state agencies would enhance the attractiveness of federal firefighting positions and potentially reduce the impacts of attrition.

### **Offer Supplementary Allowances**

- Description: Provide additional allowances such as monthly housing, cost-of-living, and subsistence pay. Offer Special Duties Assignment Pay (SDAP) to wildland firefighters undertaking particularly difficult, dangerous, or demanding duties.
- Risks: May face pushback from individuals who do not qualify for supplementary allowances. Will take time to allocate funding from other sources or seek new streams of revenue.
- Benefits: Supplementary Allowances would begin to realign incentives towards upward career growth. Firefighters with value-adding qualifications could receive SDAP, and teams with highly demanding duties (such as working as a “Type-1” resource) that see increased hazard exposure could receive higher pay commensurate with their specific job demands. Housing allowances ease the burden of limited, high cost rentals near duty stations that improve living standards for individuals who are otherwise not able to relocate for work.

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## **Benefits and Quality of Life**

### ***Provide Comprehensive Healthcare Coverage***

- Description: Extend comprehensive healthcare coverage to federal wildland firefighters and their families, ensuring rates are comparable with leading state agencies.
- Risks: With comprehensive insurance for seasonal employees, federal agencies run the risk of covering employees who do not plan to return to work after the fire season (for the duration of the calendar year). This also increases the cost burden including an unknown amount, as usage of healthcare plans can vary significantly based on numerous factors.
- Benefits: Comprehensive healthcare reflects many of the unique aspects of the wildland firefighting workforce and the employment structure. To begin, comprehensive healthcare provides peace of mind for employees, knowing they will not face financial difficulty in an unforeseen circumstance or tragic event. Furthermore, it monetarily captures more of the risk involved with the job. Externalities, in this case, dangerous conditions and hazardous work, would be quantified and compensated as a real dollar amount in healthcare benefits.

### ***Ensure Compensation for Service-Connected Disabilities***

- Description: Include coverage and compensation for both physical and psychological disabilities, as well as chronic conditions in healthcare provisions.
- Risks: This may increase cost, not just for the recovery services provided, but potentially increase administrative costs also. Very specific criteria may need to be developed to determine the scope of coverage for such compensation, and additional case administrators may need to be hired to process such cases.
- Benefits: given the excess health risk, injuries, and disabilities associated with firefighting, this type of compensation would help offset these situations monetarily.

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### ***Establish Specialized Retirement Plan***

- Description: Ensure government contributions to deferred compensation and defined pension benefits are on par with leading state agencies.
- Risks: Underfunded pension liabilities have become an increasing issue for governments to manage. Defined benefit plans have increasingly been converted to defined contribution plans for new hires across many governmental agencies.
- Benefits: Retirement benefits can be large motivator for staying in highly demanding careers, and give piece of mind to employee, knowing that they do not carry the risk of funding their retirement. In addition, federal wildland firefighters have shorter windows for retirement planning than other federal employees, and have a large proportion of their income (compensation as a temporary employee and unplanned earnings excluded from their defined benefits calculations).

# CONCLUSION

As a research team dedicated to the sustainable future of our national forests and grasslands, we present our findings emphasizing an urgent need to reevaluate and improve the compensation for federal wildland firefighters.

Gifford Pinchot once said, "The vast possibilities of our great future will become realities only if we make ourselves responsible for those realities." This sentiment rings true in our current situation. Our great future – one where our forests are healthy, and wildfire management is effective – hinges upon a responsibility toward the workforce.

This is not just about equity; it's about strategic effectiveness in managing natural resources, ensuring public safety, and securing a sustainable future for all. We strongly urge you to consider our findings as a catalyst for change, prioritizing the well-being and appropriate recognition of wildland firefighters.



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# APPENDICES

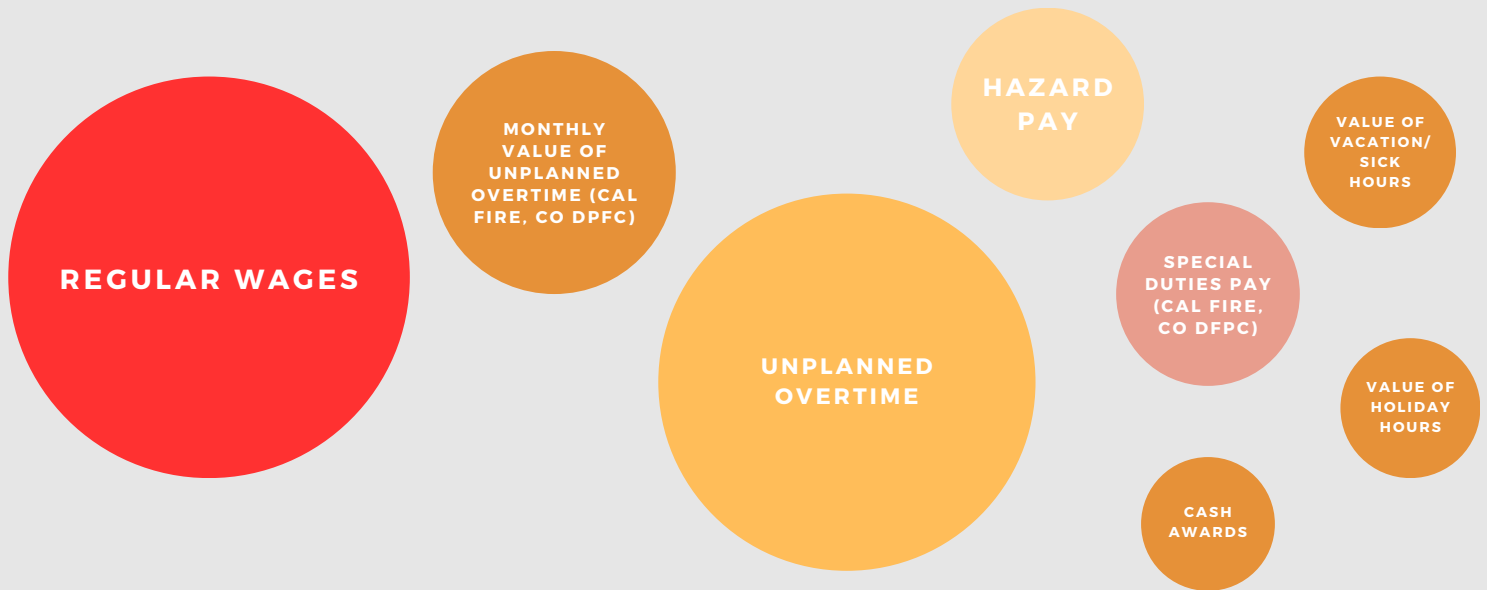
## APPENDIX A: COMPARISON OF POSITION DESCRIPTIONS ACROSS AGENCIES

Agency	Federal	WA DNR	ODF	CAL FIRE	CO DPFC
<b>Reference Classification</b>	GS-3/4	Wildland Fire Management Technician*	Wildland Fire Suppression Specialist (WFSS) - Entry	Firefighter 1	Firefighter I
	GS - 5/6	Wildland Fire Operations Technician 1(WFOT 1)	Wildland Fire Suppression Specialist (WFSS)	Firefighter 2	Firefighter II
	GS - 7	Wildland Fire Operations Technician 2 (WFOT 2)	Forest Supervisor**	Engineer	Firefighter III
	GS - 8	Wildland Fire Operations Technician 3 (WFOT 3)	Wildland Fire Supervisor**	Captain	Firefighter IV
	GS - 9	Wildland Fire Operations Technician 4(WFOT 4)	Wildland Fire Supervisor**	Battalion Chief	Firefighter V

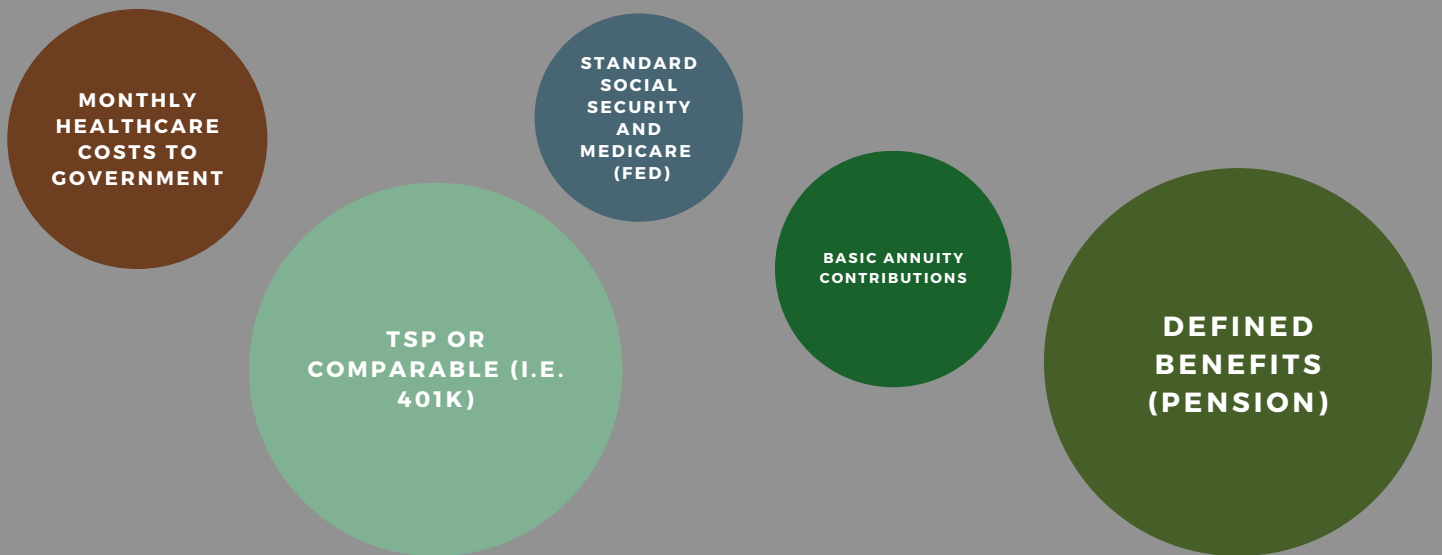
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## APPENDIX B: ELEMENTS OF WILDLAND FIREFIGHTER COMPENSATION

### PAY INFORMATION



### BENEFITS INFORMATION



Determining the total compensation included various factors that contribute to the pay and benefits of federal and state wildland firefighters. These two figures indicate the relative scale importance of compensation elements.

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## APPENDIX C: SEMI-STRUCTURED INTERVIEW PROTOCOL

### Key Informant Interview Protocol

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#### Population of Interest

Our team is looking to answer the question, “How do compensation structures for federal wildland firefighters compare with those of state, private, and local firefighting agencies in terms of pay, benefits, and work-life balance?” Our target population is individuals who are current or previous Wildland Firefighters for the United States Forest Service (USFS) over the last 30 years. We will recruit from client contacts at USFS, Grassroots Wildland Firefighters (GWF), and our own professional networks. We are interested in interviewing a range of experiences, tenures, and capacities (i.e. hotshot, hand crew, engine crew, supervisors). Since the number of interviews will be small (< 30), we are looking to use these key informant interviews to add narrative context to our quantitative analysis of administrative wage data.

#### Manner of Administration

We will use Zoom with video to administer our interviews. Conducting all interviews in a consistent manner will help streamline our analysis. In addition to conducting interviews remotely, Zoom has the ability to record and transcribe interview sessions. Conducting interviews remotely will give us the opportunity to connect with informants from a wider range of districts, and make scheduling interviews easier. One drawback of remote interviews is that we may lose the ability to read body language and other cues that may only be noticeable with an in-person interview. However, we believe that the benefits of Zoom outweigh this cost.

#### Sampling and Recruitment Strategy

We will use purposive sampling to recruit our interview participants. If necessary, we may use snowball sampling to recruit more participants beyond our original sample. This method will make sure that we have qualified and reliable participants for our analysis. To address any concerns of bias, we will not interview any participants with whom we have a close relationship.

#### Introduction to Research

*Please read the following introductory script and ask your participant for verbal consent.*

Hello. My name is [fill in your name] and I am a graduate student in the Evans School of Public Policy and Governance at the University of Washington. As a part of my capstone research project, my team has been hired by the USFS Rocky Mountain Research Station to conduct a study about the nature and impacts of wildland firefighter compensation.

The interview should take about 30 minutes. The de-identified results from this study may be used by our client and other [agencies] to inform policy decisions or further research relevant to wildland firefighter compensation. No names or identifying characteristics will be associated with any answers. However the work may be published and publicly available with aggregated information. While there are no foreseeable risks to participants, you are free to skip questions or stop at any time.

Do you agree to participate (check one)? Yes No

May I take written notes to record your responses (check one)? Yes No

May I record our zoom interview? If you agree, the recording would only be used internally by our student research team and will be deleted at the end of the academic year, by June 1, 2023 at the latest. Yes No

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## Interview Questions

1. What drew you to the forest service/wildfire?
  - i.e. connection to the mission, pay, career opportunities, connection to the outdoors/public lands, camaraderie
2. What do you enjoy most about it?
  - What brings you back year after year?
3. What do you dislike most about it?
  - What challenges have you faced?

Now we would like to talk about compensation (consider both pay and benefits).

4. How does the current compensation structure impact the quality of your life?
  5. Do you feel that the current compensation structure reflects the responsibilities and level of risk of your job? (Yes or No)
    - How so?
  6. Have the responsibilities of your job changed over the years? If yes, how?
    - How do you anticipate they will change over the course of the next five years?
  7. How satisfied are you with the work-life balance as a wildland firefighter?
    - (i.e. your ability to spend time with family, loved ones, or on hobbies or interests)?
  8. Have you ever considered leaving your job?
    - If you are actively considering leaving your job, what factors would motivate you to remain as a wildland firefighter?
    - If you no longer work for USFS, could you share the reasons for seeking different employment?
  9. What changes, if any, would you recommend making to improve the compensation of federal wildland firefighters to improve their quality of life?
  10. Anything else you'd like to add?
-

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## APPENDIX D: REGRESSION RESULTS

### Regression Results

In our study, we examined the factors influencing the number of days assigned to incidents managed by various agencies within different geographical regions. We used the U.S. Forest Service (USFS) California Areas as a reference point (base case). We found that firefighters employed by CAL FIRE generally spend 0.644 times the expected number of days assigned compared to the USFS California Areas, given that all other variables remain the same. The Bureau of Land Management (BLM) in the Northwest Area, however, tends to have spent more days assigned, about 1.074 times those of USFS California Areas.

We also explored the impact of different types of resources on the number of days assigned to an incident. For example, Type 1 crews spend approximately 2.21 times that of engines on Type 1 and Type 2 fires. Moreover, the year also plays a significant role. In 2021, the expected number of days assigned to an incident was about 2.05 times the number in 2019. The model used to analyze these factors was about 44.3% accurate in explaining the variations in data.

The number of assignments given to resources also varied. Resources like Type 1 Hand Crews, Type 2 IA crews, and Helicopter crews significantly affected the number of assignments with coefficients of 0.91, 0.30, and 1.44, respectively. Notably, helicopters received about 4.234 times more assignments than the reference resource, the Wildland Engine (USFS CA). We also found that the USFS areas generally had fewer and longer assignments than other agencies, whereas the BLM within the California Areas had more. For instance, assignments to the BLM in California Areas were about 1.11 times more than those to the USFS within the same area. The number of assignments also tended to decrease over time, with 2021 having about 1.57 times more assignments than in 2019. The accuracy of this model was about 52.7%.

## APPENDIX D: REGRESSION RESULTS

GLM(FORMULA = DAYS\_ASSIGNED ~ AGENCY\_GACC + RES\_TYPE + YEAR,  
FAMILY = POISSON, DATA = REG\_DATA)

DEVIANCE RESIDUALS:

Min	1Q	Median	3Q	Max
-13.450	-2.642	-0.566	1.707	46.532

COEFFICIENTS:

	Estimate	Std. Error	z value	Pr(> z )	
<b>(Intercept)</b>	2.548557	0.003611	705.696	< 2e-16	***
<b>agency_gaccUSFS Northwest Area</b>	-0.156426	0.002871	-54.481	< 2e-16	***
<b>agency_gaccUSFS Great Basin Area</b>	-0.228153	0.003267	-69.828	< 2e-16	***
<b>agency_gaccUSFS Rocky Mountain Area</b>	-0.270707	0.004543	-59.592	< 2e-16	***
<b>agency_gaccBLM Great Basin Area</b>	-0.186383	0.004681	-39.816	< 2e-16	***
<b>agency_gaccBLM Northwest Area</b>	0.07137	0.004633	15.405	< 2e-16	***
<b>agency_gaccUSFS Southwest Area</b>	-0.105696	0.003288	-32.143	< 2e-16	***
<b>agency_gaccBLM Southwest Area</b>	-0.153946	0.010219	-15.064	< 2e-16	***
<b>agency_gaccState of Colorado</b>	-0.332653	0.00543	-61.267	< 2e-16	***
<b>agency_gaccState of Washington</b>	-0.570027	0.008349	-68.272	< 2e-16	***
<b>agency_gaccState of California</b>	-0.439666	0.002882	-152.542	< 2e-16	***

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**APPENDIX D: REGRESSION RESULTS (CONTINUED)**

<b>agency_gaccBLM California Areas</b>	0.037846	0.00696	5.438	5.39E-08	***
<b>agency_gaccBLM Rocky Mountain Area</b>	-0.105793	0.008243	-12.835	< 2e-16	***
<b>agency_gaccState of Oregon</b>	-0.817623	0.015433	-52.978	< 2e-16	***
<b>res_typeHand Crew T1</b>	0.796144	0.002437	326.664	< 2e-16	***
<b>res_typeHand Crew T2IA</b>	0.257594	0.002631	97.891	< 2e-16	***
<b>res_typeHelicopter</b>	1.187225	0.002697	440.175	< 2e-16	***
<b>year2017</b>	0.76732	0.003357	228.581	< 2e-16	***
<b>year2018</b>	0.872228	0.003336	261.433	< 2e-16	***
<b>year2021</b>	0.718567	0.003485	206.207	< 2e-16	***
<b>year2020</b>	0.1918	0.005515	34.78	< 2e-16	

Significance . codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

(Dispersion parameter for poisson family taken to be 1)

Null deviance: 933779 on 41594 degrees of freedom

Residual deviance: 520647 on 41574 degrees of freedom

AIC: 726303

Number of Fisher Scoring iterations: 5

McFadden's R2: 0.3625897

## APPENDIX D: REGRESSION RESULTS (CONTINUED)

```
glm(formula = number_assignments ~ agency_gacc + res_type +
    year,
    family = poisson, data = reg_data)
```

Deviance Residuals:

Min	1Q	Median	3Q	Max
-4.5995.	-0.8842	-0.1457	0.5171	12.9821

### COEFFICIENTS:

	Estimate	Std. Error	z value	Pr(> z )	
<b>(Intercept)</b>	0.3164033	0.0107622	29.399	< 2e-16	***
<b>agency_gaccUSFS Northwest Area</b>	-0.2976156	0.0091523	-32.518	< 2e-16	***
<b>agency_gaccUSFS Great Basin Area</b>	-0.2330723	0.0097948	-23.796	< 2e-16	***
<b>agency_gaccUSFS Rocky Mountain Area</b>	-0.3106231	0.0138165	-22.482	< 2e-16	***
<b>agency_gaccBLM Great Basin Area</b>	-0.1828183	0.0140813	-12.983	< 2e-16	***
<b>agency_gaccBLM Northwest Area</b>	-0.0003688	0.0146092	-0.025	0.98	
<b>agency_gaccUSFS Southwest Area</b>	-0.186497	0.0102105	-18.265	< 2e-16	***
<b>agency_gaccBLM Southwest Area</b>	-0.2348627	0.032817	-7.157	8.26E-13	***
<b>agency_gaccState of Colorado</b>	-0.3185584	0.0167649	-19.002	< 2e-16	***
<b>agency_gaccState of Washington</b>	-0.4439689	0.0252784	-17.563	< 2e-16	***
<b>agency_gaccState of California</b>	-0.3346052	0.0084393	-39.649	< 2e-16	***



**APPENDIX D: REGRESSION RESULTS (CONTINUED)**

<b>agency_gaccBLM California Areas</b>	0.1007594	0.0204128	4.936	7.97E-07	***
<b>agency_gaccBLM Rocky Mountain Area</b>	-0.2399485	0.0260977	-9.194	< 2e-16	***
<b>agency_gaccState of Oregon</b>	-0.7075556	0.0464087	-15.246	< 2e-16	***
<b>res_typeHand Crew T1</b>	0.912328	0.0075222	121.284	< 2e-16	***
<b>res_typeHand Crew T2IA</b>	0.3025801	0.0083	36.455	< 2e-16	***
<b>res_typeHelicopter</b>	1.4402024	0.008015	179.688	< 2e-16	***
<b>year2017</b>	0.798205	0.0097464	81.897	< 2e-16	***
<b>year2018</b>	0.812666	0.009781	83.086	< 2e-16	***
<b>year2021</b>	0.4496477	0.0105854	42.478	< 2e-16	***
<b>year2020</b>	-0.1595164	0.0184051	-8.667	< 2e-16	***

Significance. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Null deviance: 109464 on 41594 degrees of freedom  
 Residual deviance: 51744 on 41574 degrees of freedom  
 AIC: 169151

Number of Fisher Scoring iterations: 5  
 McFadden's R2: 0.2544675

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## **APPENDIX E: ADJUSTING FEDERAL COMPENSATION FOR INFLATION**

OPM pay table data reveals that in some years federal wildland firefighters saw an increase in wages that surpassed the inflation rate, while in other years, the inflation rate exceeded the wage increase, resulting in a decline in real wages. The last row of the table displays the cumulative figures for the period, indicating that the inflation rate outpaced the federal wage increase by 12.8%, which suggests a decline in purchasing power for federal workers. This means that the wages of federal workers have not kept up with the rising cost of living over time, resulting in a decrease in the real value of their earnings.

It is important to note that this decline in purchasing power can have a significant impact on the financial well-being of federal wildland firefighters. If wages do not keep up with inflation, it can become increasingly difficult for workers to meet their basic needs, such as housing, healthcare, and education.

Year	Annual Inflation %	Average Federal wage increase %	Difference %
2008	2.3	2.5	
2009	1.7	2.9	0.6
2010	1	1.5	-0.2
2011	1.7	0	-1
2012	2.1	0	-1.7
2013	1.8	0	-2.1
2014	1.7	1	-0.8
2015	1.8	1	-0.7
2016	2.2	1	-0.8
2017	1.8	1	-1.2
2018	2.1	1.4	-0.4
2019	2.2	1.4	-0.7
2020	1.7	2.6	0.4
2021	3.6	1	-0.7
2022	6.5	2.2	-1.4
2023	6	4.1	-2.1
<b>TOTAL</b>	<b>40.2%</b>	<b>23.6%</b>	<b>-12.8%</b>

*Appendix E: Adjusting Federal Compensation for Inflation. Note: Inflation is calculated at the year end, while federal pay increases at year beginning. In typical cases, the past year's inflation should be countered by the current year's raise (BLS, 2023).*

2011	2023	If salary had kept up with inflation
27.28	32.84	37.06

**SUPERVISORY POSITION: GS-9 STEP 7 (HOURLY WAGES)**

## APPENDIX F: COST OF ATTRITION

### 1. CALCULATIONS FOR COST TO GOV (CTG) PER GS LEVEL:

GS Level	Ave CTG Day	YR CTG	CTG Mth
13	\$575	\$149,400	\$12,450
12	\$499	\$129,711	\$10,809
11	\$435	\$112,975	\$9,415
9	\$366	\$95,185	\$7,932
8	\$339	\$88,110	\$7,343
7	\$314	\$81,702	\$6,809
6	\$264	\$68,593	\$5,716
5	\$201	\$52,142	\$4,345
4	\$139	\$36,054	\$3,005

\*FIGURE CALCULATED FROM WORKPLAN EMPLOYEE ACTUALS FOR R5 FAM REPORT

### 2. Calculations at each grade

<i>B: Med Years to Promote at each level**</i>			C. Using Table A and Table B to Calculate # Years spent at each grade				
Promotion	Med # years to Promote at each level	Cumulative	Table A (culm of 8 increases; ie. GS3 to GS11)	difference	New Culmative for Table B	C. Final: New # of Years spent at each Grade	
GS 3 to GS 5	2.0	2.0	4.7	1.3	3.3	3.3	GS 3 to GS 5
GS 5 to GS 6	4.0	6.0	7.0	0.5	6.5	3.1	GS 5 to GS 6
GS 6 to GS 7	3.0	9.0	9.4	0.2	9.2	2.7	GS 6 to GS 7
GS 7 to GS 8	6.0	15.0	11.1	-2.0	13.0	3.8	GS 7 to GS 8
GS 8 to GS 9	7.0	22.0	12.1	-5.0	17.1	4.0	GS 8 to GS 9
GS 9 to GS 11	4.5	26.5	12.8	-6.9	19.7	2.6	GS 9 to GS 11
GS 11 to 12	8.5	35.0	14.0	-10.5	24.5	4.9	

Data from NFP database analysis of all FAM employees. See Personnel\_History.xls Summary Grade-Years sheet

\*\* Looking at these two tables together, it appears the more a person promotes (A), the less time they will spend at a grade in the future. (B). Therefore a person who starts out as an apprentice and moves up the ladder may do it much quicker than the 26.5 years shown by simply adding the Median number of years to promote (B). Both tables used to create a logical Table C

### 3. Cumulative CTG Total when an employee leaves:

Grade	Total Salary/Benefits(CTG) Investment lost (all years of career) When Employee leaves	Development Investment (Training)	Total Investment (CTG and Training only - Minimum)	Number of Resignations last 5 Years*	Number of Resignations multiplied by Total Investment in that employee (by GS)	Known Resignations last five years to other Departments/ Agencies	Total Investment Employees Resigned (2015-2019) to go to other departments
APP***	\$36,054	\$15,000	\$51,054	162	8,270,769	55	\$2,807,977.14
5	\$197,695	\$30,000	\$227,695	194	6,830,863,873	108	\$24,591,109.94
6	\$382,896	\$34,500	\$417,396	204	14,400,162,149	127	\$53,009,292.55
7	\$693,365	\$34,500	\$727,865	124	25,111,346,789	82	\$59,684,940.20
8	\$1,045,806	\$39,000	\$1,084,806	48	42,307,415,449	33	\$35,798,582.30
9	\$1,293,287	\$39,000	\$1,332,287	21	51,959,196,605	13	\$17,319,732.20
11	\$1,819,057	\$39,000	\$1,858,057	15	72,464,226,605	14	\$26,012,799.29
12	\$2,078,478	\$39,000	\$2,117,478	4	82,581,649,370	4	\$8,469,912.76
13	\$2,377,278	\$42,000	\$2,419,278	3	101,609,675,537	3	\$7,257,833.97
*** only Apps that stayed 1 year					<b>\$397,264,536,377</b>		<b>\$234,952,180</b>

### 4. Required training at GS levels:

GS	Example Position	Quals Required	Basic Training for Quals	Additional Training Required for Position	Total Weeks Training (Minimum)	Travel/PerDiem (Ave) = 1500/week	Basic Academy Costs (Assume all employees go to academy)/Advanced	Total Training Costs (Minimum)
3/4	Apprentice		Basic Academy	Basic Academy		0	15,000	15,000
5	Senior FF	FFT1	S-131, I33, ICS-100, I 700, L-180, S-130, S-190	S-290		0	30,000	30,000
6	AFEQ T2 HC Squad Leader	FFT1	S-131, I33, ICS-100, I 700, L-180, S-130, S-190	S-290	3	4500	30,000	34,500
7	T1 HC Squad	CRWB, ICT5	ICS 100, IS700, L180, RT130, S130, S190, S131, S133, ICS200, S230, S290		3	4500	30,000	34,500
7	FEQ	CRWB or ENGB, ICT5	ICS 100, IS700, L180, RT130, S130, S190, S131, S133, ICS200, S230, S290	S-21L Engine Academy	6	9000	30,000	39,000
8	SFEO	CRWB or ENGB, ICT4	ICS 100, IS700, L180, RT130, S130, S190, S131, S133, ICS200, S230, S290	S-21L Engine Academy	6	9000	30,000	39,000
8	HS Supt Assist	STCR OR TFLD, ICT4	(Qualified as STL or 2 SRB and ICT4) Total Training: ICS 100, IS700, L180, RT130, S130, S190, S131, S133, ICS200, S230, S290, ICS 300, IS800B, S-215, S330, S200		6	9000	30,000	39,000
9	HS Supt	TFLD, ICT4, FIRB	(Qualified as STL or 2 SRB and ICT4) Total Training: ICS 100, IS700, L180, RT130, S130, S190, S131, S133, ICS200, S230, S290, ICS 300, IS800B, S-215, S330, S200		6	9000	30,000	39,000
11 or	AFMDFMD (high)	DIVS, ICT3 OR RxB2	(Qualified as STL or 2 SRB and ICT4) Total Training: ICS 100, IS700, L180, RT130, S130, S190, S131, S133, ICS200, S230, S290, ICS 300, IS800B, S-215, S330, S200, S-420, S-339, S-390	M581 (FMD)	8	12000	30,000	42,000
12 or	DFMDFMD	DIVS, ICT3 OR RxB2	(Qualified as ICT4 + TFLD or STL + 2SRB) ICS 100, IS700, L180, RT130, S130, S190, S131, S133, ICS200, S230, S290, ICS 300, IS800B, S-215, S330, S200, S339, ICS 400, S390, S300	M581	8	12000	30,000	42,000
13	FFMD	DIVS ICT3 or RxB2	(Qualified as ICT4 + TFLD or STL + 2SRB) ICS 100, IS700, L180, RT130, S130, S190, S131, S133, ICS200, S230, S290, ICS 300, IS800B, S-215, S330, S200, ICS 400, S390, S300	M581	8	12000	30,000	42,000

## 5. TRAINING INVESTMENT AT GS-LEVELS

	CTG Mth (R5 AVE)	CTG Year	GS Level	# Years to get to this level	# Years at this GS (NFP R5 Average)	Total CTG this GS Level (Average)	Total CTG (Average, when leaving)
Apprentice (GS 3-4)	\$3,005	\$36,054	3, 4, 5	0	1	\$36,054	\$36,054
Firefighter II (GS-5)	\$4,345	\$52,142	5	3.3	3.1	\$161,641	\$197,695
Firefighter II (GS-6)	\$5,716	\$68,593	6	6.4	2.7	\$185,201	\$382,896
Fire Apparatus Engineer (GS-7)	\$6,809	\$81,702	7	9.1	3.8	\$310,469	\$693,365
Fire Captain (GS-8)	\$7,343	\$88,110	8	12.9	4	\$352,440	\$1,045,806
Battalion Chief (GS- 9)	\$7,932	\$95,185	9	16.9	2.6	\$247,482	\$1,293,287
Chief (GS- 11)	\$9,415	\$107,300	11	19.5	4.9	\$525,770	\$1,819,057
DDFMO (GS-12)	\$10,809	\$129,711	12	24.4	2	\$259,421	\$2,078,478
FFMO (GS- 13)	\$12,450	\$149,400	13	26.4	2	\$298,800	\$2,377,278

## 6. TOTAL INVESTMENT CALCULATION

Grade	Total Salary/Benefits(CTG) Investment lost (all years of career) When Employee leaves	Development Investment (Training)	Total Investment (CTG and Training only - Minimum)	Number of Resignations last 5 Years*	Number of Resignations multiplied by Total Investment in that employee (by GS)	Known Resignations last five years to other Departments/ Agencies	Total Investment Employees Resigned (2015-2019) to go to tother departments
APP***	\$36,054	\$15,000	\$51,054	162	8,270,769	55	\$2,807,977.14
5	\$197,695	\$30,000	\$227,695	194	6,830,863,873	108	\$24,591,109.94
6	\$382,896	\$34,500	\$417,396	204	14,400,162,149	127	\$53,009,292.55
7	\$693,365	\$34,500	\$727,865	124	25,111,346,789	82	\$59,684,940.20
8	\$1,045,806	\$39,000	\$1,084,806	48	42,307,415,449	33	\$35,798,582.30
9	\$1,293,287	\$39,000	\$1,332,287	21	51,959,196,605	13	\$17,319,732.20
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12	\$2,078,478	\$39,000	\$2,117,478	4	82,581,649,370	4	\$8,469,912.76
13	\$2,377,278	\$42,000	\$2,419,278	3	101,609,675,537	3	\$7,257,833.97
*** only Apps that stayed 1 year					<b>\$397,264,536,377</b>		<b>\$234,952,180</b>

B: Med Years to Promote at each level**			C. Using Table A and Table B to Calculate # Years spent at each grade				
Promotion	Med # years to Promote at each level	Cumulative	Table A (culm of 8 increases; ie. GS3 to GS11)	difference	New Culmative for Table B	C. Final: New # of Years spent at each Grade	
GS 3 to GS 5	2.0	2.0	4.7	1.3	3.3	3.3	GS 3 to GS 5
GS 5 to GS 6	4.0	6.0	7.0	0.5	6.5	3.1	GS 5 to GS 6
GS 6 to GS 7	3.0	9.0	9.4	0.2	9.2	2.7	GS 6 to GS 7
GS 7 to GS 8	6.0	15.0	11.1	-2.0	13.0	3.8	GS 7 to GS 8
GS 8 to GS 9	7.0	22.0	12.1	-5.0	17.1	4.0	GS 8 to GS 9
GS 9 to GS 11	4.5	26.5	12.8	-6.9	19.7	2.6	GS 9 to GS 11
GS 11 to 12	8.5	35.0	14.0	-10.5	24.5	4.9	
Data from NFP database analysis of all FAM employees. See Personnel_History.xls Summary Grade-Years sheet							

\*\* Looking at these two tables together, it appears the more a person promotes (A), the less time they will spend at a grade in the future. (B). Therefore a person who starts out as an apprentice and moves up the ladder may do it much quicker than the 26.5 years shown by simply adding the Median number of years to promote (B). Both tables used to create a logical Table C

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**Calculations above reflect only the investment of employees: Including salary, benefits, and training development, they do not consider return on investment or the agency benefit from the employee occupying the position when they did.**

**The table above reflects the total investment of employees that have resigned 2015-2019 (Gray cells = all resignations, orange cells = those resignations where the employee went to another department)**

**Calculations for CTG derived from Average values of all FAM employees in WorkPlan. These averages were compared to SAC locality and Step 5 for logic validation**

**Years in Grade for each GS level calculated from NFP database analysis of all employees and time in grade at each GS level. Calcs then used cumulative time in grade for each increase in GS level (create representative career tenure)**

**Total CTG investment when employee left calculated from these representative career tenures**

**Training Costs derived from IFPM minimum standards for sample positions at each pay level (example FEO was used for GS8)**

**Source: R5 FAM Report**



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## APPENDIX H: TIM'S ACT PROVISIONS

- Determine Who is a Wildland Firefighter
  - Any temporary, seasonal, or permanent position at the USDA or DOI that maintains group, emergency incident management, or fire qualifications and primarily engages in or supports wildland fire management activities, including forestry and rangeland technicians and positions concerning aviation, engineering heavy equipment operations, or fire and fuels management
- Develop One or Multiple Wildland Firefighter Classifications
  - Any individual employed in a position that is eligible for a firefighter retirement will be able to elect to be transferred to the new classification
- Establish a New Pay Scale
  - Federal Wildland Firefighters will have a new pay scale that will start at the GS6 Step 3 (\$20.09) level. This pay scale will be tied to CPI data reported for December of the year prior to the preceding year
- Hazardous Duty Pay Expansion
  - Hazardous Duty Pay will be expanded to include prescribed fire, parachuting, tree climbing over 20 feet, hazard tree removal, and other hazardous work
- Portal To Portal Pay
  - A Federal Wildland Firefighter shall be paid for the period beginning on the receipt of their resource order and ending when the employee returns from such deployment
- Unpaid Leave to Care for Family Member
  - A Federal Wildland Firefighter shall be allowed a period of 180 days in order to care for the spouse, or a son, daughter, or parent of the employee if there is a serious health condition
- Recruitment and Retention Bonus
  - Not less than \$1000 shall be paid annually as a "recruitment and retention" bonus. The minimum amount shall be increased with CPI
- Career Transition Fund
  - Wildland Firefighters will be eligible to receive no less than \$4,000 per year to assist in career transition including academic skills development, career and technical programs, and programs leading to the award of undergraduate and graduate degrees

- 
- Health Provisions
    - A searchable database will be established that tracks wildland firefighter cancer and cardiovascular diseases throughout the lifetime of current and former federal wildland firefighters
    - Mandates development and adherence to recommendations on mitigation strategies to minimize exposure to environmental hazards for federal wildland firefighters
  - Mental Health Program
    - Develop a mental health program
    - Requires mental health education and training for new hires
    - Expands Critical Incident Stress Management (CISM) program
    - Offer a new mental health program that is specific to wildland firefighters and their families
  - Mental Health Leave
    - Each Federal Wildland Firefighter shall be entitled to 7 consecutive days of leave during any calendar year. This resets each year
  - Presumptive Coverage for Diseases
    - Diseases shall be presumed to be caused by the employment of a Wildland Firefighter. Such diseases include: heart disease; lung disease; multiple cancers
  - Retirement When Injured
    - When injured on the job and no longer able to perform service as a Wildland Firefighter, they shall be appointed to a supervisory or administrative position related to the former firefighter position. Employee shall continue to receive firefighter retirement and also retain creditable service already earned
  - Buy Back Temp Time
    - Career Wildland Firefighters shall be able to contribute retirement deductions for all temporary employment service after Jan 1, 1989
  - Disability Annuity
    - Any Federal Wildland Firefighter who suffers from diseases described in this bill due to job-related exposure shall be considered to be disabled
  - Including Overtime as Basic Pay
    - Federal Wildland Firefighters will include overtime pay when calculating their retirement annuity

# APPENDIX I: GENERAL SCHEDULE MONTHLY PAY TABLE (2023)

**SALARY TABLE 2023-RUS**  
**INCORPORATING THE 4.1% GENERAL SCHEDULE INCREASE AND A LOCALITY PAYMENT OF 16.50%**  
**FOR THE LOCALITY PAY AREA OF REST OF U.S.**  
**TOTAL INCREASE: 4.37%**  
**EFFECTIVE JANUARY 2023**

*Hourly Basic (B) Rates by Grade and Step*  
*Hourly Title 5 Overtime (O) Rates for FLSA-Exempt Employees by Grade and Step*

Grade	B/O	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10
1	B	\$ 11.72	\$ 12.12	\$ 12.50	\$ 12.89	\$ 13.28	\$ 13.51	\$ 13.90	\$ 14.28	\$ 14.30	\$ 14.67
	O	17.58	18.18	18.75	19.34	19.92	20.27	20.85	21.42	21.45	22.01
2	B	13.18	13.49	13.93	14.30	14.46	14.89	15.31	15.74	16.16	16.59
	O	19.77	20.24	20.90	21.45	21.69	22.34	22.97	23.61	24.24	24.89
3	B	14.38	14.86	15.34	15.82	16.30	16.78	17.26	17.74	18.22	18.70
	O	21.57	22.29	23.01	23.73	24.45	25.17	25.89	26.61	27.33	28.05
4	B	16.14	16.68	17.22	17.76	18.30	18.83	19.37	19.91	20.45	20.99
	O	24.21	25.02	25.83	26.64	27.45	28.25	29.06	29.87	30.68	31.49
5	B	18.06	18.66	19.27	19.87	20.47	21.07	21.68	22.28	22.88	23.48
	O	27.09	27.99	28.91	29.81	30.71	31.61	32.52	33.42	34.32	35.22
6	B	20.14	20.81	21.48	22.15	22.82	23.49	24.16	24.83	25.50	26.17
	O	30.21	31.22	32.22	33.23	34.23	35.24	36.24	37.25	38.25	39.26
7	B	22.37	23.12	23.87	24.61	25.36	26.10	26.85	27.60	28.34	29.09
	O	33.56	34.68	35.81	36.92	38.04	39.15	40.28	41.40	42.51	43.64
8	B	24.78	25.60	26.43	27.26	28.08	28.91	29.74	30.56	31.39	32.21
	O	37.17	38.40	39.65	40.89	42.12	43.37	44.61	45.21	45.21	45.21
9	B	27.37	28.28	29.19	30.10	31.02	31.93	32.84	33.75	34.67	35.58
	O	41.06	42.42	43.79	45.15	45.21	45.21	45.21	45.21	45.21	45.21
10	B	30.14	31.14	32.15	33.15	34.16	35.16	36.17	37.17	38.18	39.18
	O	45.21	45.21	45.21	45.21	45.21	45.21	45.21	45.21	45.21	45.21
11	B	33.11	34.22	35.32	36.42	37.53	38.63	39.73	40.84	41.94	43.05
	O	45.21	45.21	45.21	45.21	45.21	45.21	45.21	45.21	45.21	45.21
12	B	39.69	41.01	42.33	43.66	44.98	46.30	47.63	48.95	50.27	51.60
	O	45.21	45.21	45.21	45.21	45.21	46.30	47.63	48.95	50.27	51.60
13	B	47.20	48.77	50.34	51.91	53.49	55.06	56.63	58.21	59.78	61.35
	O	47.20	48.77	50.34	51.91	53.49	55.06	56.63	58.21	59.78	61.35
14	B	55.77	57.63	59.49	61.35	63.21	65.06	66.92	68.78	70.64	72.50
	O	55.77	57.63	59.49	61.35	63.21	65.06	66.92	68.78	70.64	72.50
15	B	65.60	67.79	69.97	72.16	74.35	76.53	78.72	80.91	83.09	85.28
	O	65.60	67.79	69.97	72.16	74.35	76.53	78.72	80.91	83.09	85.28

Applicable locations are shown on the 2023 Locality Pay Area Definitions page: <http://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/2023/locality-pay-area-definitions/>

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	O	41.06	42.42	43.79	45.15	45.21	45.21	45.21	45.21	45.21	45.21
10	B	30.14	31.14	32.15	33.15	34.16	35.16	36.17	37.17	38.18	39.18
	O	45.21	45.21	45.21	45.21	45.21	45.21	45.21	45.21	45.21	45.21
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13	B	47.20	48.77	50.34	51.91	53.49	55.06	56.63	58.21	59.78	61.35
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	O	65.60	67.79	69.97	72.16	74.35	76.53	78.72	80.91	83.09	85.28

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