Workplace Bullying in the United States Fire Service

John R. Brophy, MSHS, FACPE | December 1, 2021

Workplace Bullying

In this study, the definition of workplace bullying is "a situation where one or several individuals persistently over a period of time perceive themselves to be on the receiving end of negative actions from one or several persons, in a situation where the target of bullying has difficulty in defending him or herself against these actions" (Notelaers et al., 2018). This definition is consistent with those used by other researchers (Ortega et al., 2011; Karabulut, 2016; Namie, 2021). In short, workplace bullying is an ongoing pattern of behaviors, not an isolated instance of interpersonal conflict or disagreement.

Adverse Effects of Workplace Bullying

Research shows that people who have experienced workplace bullying have suffered harmful physical and psychological health effects and have a higher incidence of absenteeism than those who have not been the targets of workplace bullying (Dehue et al., 2012). Other researchers have found that those frequently or occasionally bullied in the workplace reported various mental health symptoms (Hansen et al., 2011). According to Fahy et al. (2020), there were 48 firefighter line of duty deaths in 2019 and 119 firefighter suicides. This data punctuates the reality that mental health within the fire service is an issue with potentially life-threatening ramifications. Workplace bullying can also humiliate, intimidate, frighten or punish the target (Einarsen et al., 2009). Additionally, workplace bullying is associated with negatively impacting sleep (Rosario-Hernández, 2018). Individuals who witnessed but were not targets of the bullying behaviors experienced similar adverse reactions (Bentley et al., 2021). These findings, both individually and collectively, illustrate that workplace bullying negatively impacts the health and safety of the people exposed to it, either as targets or as witnesses. In addition, Vveinhardt et al. (2017) found that the

types of destructive relationships resulting from workplace bullying impact overall job satisfaction and contribute to employee turnover. Khalique et al. (2018) found that workplace bullying increases employee stress levels and intention to leave an organization. As it relates specifically to employee turnover, a significant association between exposure to bullying and change of employer exists (Glambek et al., 2015). Workplace bullying contributes to poor morale, fear, anxiety, increased litigation costs, increased medical claims, and increased workers' compensation (Yamada, 2008, as cited in Richardson et al., 2016). Indeed, workplace bullying has been shown, time and again, to be a phenomenon with a wide range of negative impacts upon targets, witnesses, and organizations.

Methodology

The Short Negative Acts Questionnaire (SNAQ) is empirically and theoretically validated as a tool to measure exposure level, type, and frequency of negative social behaviors at work, including bullying (Notelaers et al., 2019). It includes nine questions divided equally between the behavioral domains of person-oriented, work-related, and social exclusion. Respondents answered the questions along a Likert scale as never (1), occasionally (2), monthly (3), weekly (4), or daily (5). Based on the Likert scale, the possible scores for the SNAQ range between 9 and 45. The lower scores represent less frequent exposure to negative behaviors, while the higher scores represent more frequent exposure to negative behaviors. Respondents answered the questions based upon whether or not the negative behavior referenced happened to them and whether or not they witnessed the negative behavior referenced happen to others.

After approval from the Institutional Review Board (IRB) of Concordia University Chicago, the workplace behavior survey tool was made available to United States Fire Service members by Firehouse Magazine via their website www.firehouse.com. The survey utilized the SNAQ and collected various demographic data, including age, gender, rank, number of years of fire department service, fire department type, state, and personal ideology. The survey was active for respondents between March 26, 2021, and May 16, 2021. The total number of responses received was 1021. Responses from individuals who didn't meet the criteria for inclusion in the study as indicated by their answer of "No" to the question "are you currently an active member of a fire service organization within the United States of America?" were removed (n= 88). Additionally, respondents were permitted to opt out of the survey at any time with the understanding that their partial answers would not be retained or used. As a result, all incomplete responses were also removed (n=274). The final sample size included 659 responses. According to the most recent National Fire Protection Association (NFPA) U.S. Fire Department Profile Report, there are 1,115,000 firefighters in the United States (Evarts & Stein, 2020).

Utilizing accepted statistical analysis practices

(Dawson & Trapp, 2004; Salkind & Frey, 2020) and tools and based on a confidence interval of 95%, the margin of error for 659 responses among a United States fire service population of 1,115,000 is +/-4percentage points. Meaning that, with all other things being equal, the identical survey repeated will have results within the margin of error 95 times out of 100.

FIGURE 1 | Short Negative Acts Questionnaire Stratification

Short Negative Acts Questionnaire Exposure Levels Based on Score Stratification

Target of Workplace Bullying	$>_{22}$
At-Risk of Being Bullied	15-22
Not Exposed to Workplace Bullying	<15

Source: Leon-Perez, et al. (2019)

To use the findings to assess the existence and severity of bullying within a population, Leon-Perez et al. (2019) established and empirically validated SNAQ cutoff scores that stratify respondents as"not exposed to workplace bullying" (scores below 15), "at risk of being bullied" (scores between 15 and 22), and "targets of workplace bullying" (scores above 22). The present study analyzed the data collected through the lens of these validated stratifications.

Descriptive Statistics

The present study included 659 valid responses to the survey tool used to gather the data. Among the respondents, 82.4% were male, and 17.6% were female. The respondents represented five different generations (Reeves & Oh, 2008). The ages of respondents ranged between 20 and 84, with a mean age of 48.81. Although there were multiple races represented, 85.3% of respondents identified themselves as white. Concerning ideology, 49.6% of respondents identified themselves as conservative,

> with 35.1% indicating they were moderate and 15.3% indicating they were liberal. Over 90% of the respondents indicated some level of a college education. The years of fire service experience ranged between 1 and 60, with a mean of 24.15 years of service. The respondents included personnel at all levels. There were respondents from 47 states and

the District of Columbia. Career departments were represented by 58% of respondents, with combination career/paid-on-call represented by 23.1% and volunteer/paid-on-call represented by 18.1%. The descriptive statistics tables for the present study are provided in Appendix A.

FIGURE 2 | Generations

Generation	Year of Birth
MATURE GENERATION	BORN 1925 THROUGH 1945
BOOM GENERATION	BORN 1946 THROUGH 1964
GENERATION X	BORN 1965 THROUGH 1980
MILLENNIAL GENERATION	BORN 1981 THROUGH 2000
GENERATION Z	BORN 2001 THROUGH PRESENT

Reeves & Oh, 2008

Findings and Discussion

Respondents provided feedback on workplace bullying within their fire service organization as both target and witness. The mean SNAQ score related to respondents having experienced the specific negative acts within the year preceding their participation in this study was 18.81 (n=659). The mean SNAQ score related to respondents having witnessed the negative

 TABLE I
 SNAQ Scores of Active U.S. Firefighters

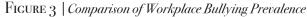
		EXPERIENCED	WITNESSED
Active US Firefighter	MEAN	18.81	22.39
	Ν	659	65
	STD. DEVIATION	8.088	8.749
Total	MEAN	18.81	22.39
	Ν	659	659
	STD. DEVIATION	8.088	8.749

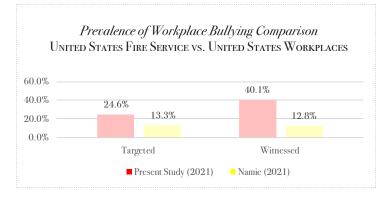
acts directed at others within the year preceding their participation in this study was 22.39 (n=659). Accordingly, the survey results indicate that the fire service faces risk of and exposure to workplace bullying.

Citing 12 international studies conducted between 2001 and 2012, the worldwide prevalence rate of workplace bullying comes in at 11.4% (Sansome & Sansome, 2015). Based on SNAQ scores greater than 22, indicating exposure to workplace bullying, this study found the prevalence of being a target of the abusive behaviors that constitute workplace bullying is 24.6%. Thus, making the prevalence of workplace bullying in the United States Fire Service more than twice that of other workplaces worldwide. This prevalence is also almost twice as high as the United States national average across various industries and professions of 13.3% (Namie, 2021). When examining the prevalence of witnessed abusive behaviors this study found

that 40.1% of respondents had witnessed the abusive behaviors perpetrated upon others. The Namie (2021) survey found the national average across various industries and professions to be 12.8%. Therefore, through the lens of witnessed negative behaviors, these findings indicate that workplace bullying exists within the United States fire service at just over a three-times greater level than the United States workforce as a whole.

When examined through the lenses of gender, generation (Reeves & Oh, 2008), ideology, and rank as well as the stratifications of Leon-Perez et al.





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(2019), concerning respondents experiences with the negative acts, while the scores varied and some scores rose to the stratification of exposed, none fell below the stratification of at-risk. Concerning the SNAQ scores relative to the behaviors respondents witnessed, all were within either the at risk or exposed stratifications. Concerning Race/Ethnicity, 95.6% of respondents scored at or above the at-risk stratification. Appendix B provides tables with the scores broken out by the specific categories discussed.

Respondents were asked if they had considered leaving their fire departments within the last year due to the interpersonal behaviors of others in general and their officers specifically. Of the respondents who answered yes to these questions (n=213 and

 TABLE 2
 Bullying Policy Existence & SNAQ Scores

1 2 0	~	C C	
POLICY		EXPERIENCED	WITNESSED
No	MEAN	21.13	24.97
	Ν	159	159
	STD. DEVIATION	9.155	9.181
Unsure	MEAN	16.08	19.58
	Ν	7I	71
	STD. DEVIATION	6.830	7.955
Yes	MEAN	18.40	21.91
	N	429	429
	STD. DEVIATION	7.655	8.497
Total	MEAN	18.81	22.39
	Ν	659	659
	STD. DEVIATION	8.088	8.749

n=214, respectively), the SNAQ scores were 25.39 and 24.86, respectively. These scores land squarely within the exposed stratification (Leon-Perez et al., 2019). Respondents were also asked if someone left their department within the last year due to having been bullied. Of the respondents who answered yes (n=153), the witnessed mean SNAQ score was 28.84. Indeed, these findings suggest that workplace bullying is negatively impacting fire service retention. These findings support the need for further research into how much of an impact on the overall loss of fire service personnel can be directly attributed to workplace bullying. Appendix C provides the data specific to the topic of someone leaving a respondent's organization and the respondents' mindsets concerning whether they considered leaving

their organization due to the interpersonal behaviors of others.

This study has established the existence of workplace bullying within the United States fire service. Additionally, workplace bullying is associated with a wide range of adverse health effects. As such, recognizing that workplace bullying poses a threat to the health of fire service personnel is an essential first step in our ability to address the phenomenon. Workplace bullying is also associated with negatively impacting an individual's concentration and focus (Namie, 2017). Therefore, given the nature

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TRAINING		EXPERIENCED	WITNESSED
No	MEAN	19.71	23.33
	Ν	344	344
	STD. DEVIATION	8.517	8.874
Unsure	MEAN	17.08	19.38
	Ν	48	48
	STD. DEVIATION	7.677	8.123
Yes	MEAN	17.95	21.74
	Ν	267	267
	STD. DEVIATION	7·451	8.541
Total	MEAN	18.81	22.39
	N	659	659
	STD. DEVIATION	8.088	8.749

 TABLE 3 | Bullying Training Existence & SNAQ Scores

of the work of the United States fire service and its inherent dangers, workplace bullying also poses a risk to the safety of United States fire service personnel.

The present study also explored the existence and impact of policies focused explicitly on workplace bullying. Among the respondents, 65.1% indicated that their department has a policy that expressly addresses workplace bullying. However, among the responses indicating the existence of a workplace bullying policy, respondents reported a mean 18.4 experienced SNAQ score and a witnessed mean SNAQ score of 21.9. While these scores are somewhat better than respondents reporting the lack of a bullying policy, they are still concerning as they both fall within the at-risk stratification. This finding suggests that policy existence, in and of itself, does not significantly reduce the level of risk posed to fire service personnel by this phenomenon.

The present study also examined whether or not workplace bullying training was being conducted. According to the respondents, 40.1% indicated that their organization held training specific to workplace bullying within the past year. While the existence training did show a reduction in the mean SNAQ scores for both the experienced and witnessed categories, both were still within the at-risk category. This finding suggests that specific workplace bullying training can contribute to the reduction of workplace bullying in the

United States fire service and that it should be included, along with policies and other elements, as a component of a comprehensive workplace behavior initiative.

Of those who witnessed others being bullied, just 73.5% took some action in response to what they saw. This finding represents both a challenge and an opportunity. The challenge is to determine why those who witnessed the negative behaviors associated with workplace bullying opted not to get involved. With over 25% of respondents who witnessed workplace bullying in their roles in the United States fire service who elected not to get involved, there is an excellent opportunity to reduce the harmful effects of workplace bullying and improve working conditions within the United States fire service. Finding answers to the underlying causes of both workplace bullying and the reluctance of individuals to get involved when they witness it will provide the foundation for a comprehensive, evidence-based workplace bullying mitigation and prevention plan.

		NEVER WITNESSED	TOOK ACTION	TOOK NO ACTION	TOTAL
Rank	CHIEF OF DEPARTMENT	4	7^{2}	II	87
	COMPANY OFFICER	6	108	34	148
	ENGINEER/CHAUFFER/DRIVER	4	23	II	38
	FIRE INSPECTOR/FIRE OFFICIAL FIRE MARSHAL	8	31	20	59
	FIREFIGHTER	13	70	47	130
	OTHER	5	II	8	24
	OTHER CHIEF OFFICER	Ι	105	16	122
	PARAMEDIC/EMT	2	II	8	21
	TRAINING OFFICER/INSTRUCTOR	О	22	8	30
Total		43	453	163	65

Limitations and Recommendations for Further Study

Utilizing accepted statistical analysis practices (Dawson & Trapp, 2004; Salkind & Frey, 2020) and tools, the present study established the existence of workplace bullying at a prevalence level two (experienced) to three (witnessed) times greater than that of other workplaces in the United States. It did not identify, nor was it intended to explore root or proximate causes. The 16 Firefighter Life Safety Initiatives outlined by the National Fallen Firefighters Foundation (NFFF, n.d.) have established critical priorities for improving firefighter health and safety. Given the existence of workplace bullying in the United States Fire Service, as shown by the present study, and the known adverse health and safety effects of workplace bullying, the need for further action exists. As such, additional studies to explore causation must be conducted. Once causation has been

scientifically validated, developing a comprehensive strategic plan to address the causation and reduce the prevalence of workplace bullying in the United States fire service must be a priority.

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Compliance with Ethical Standards

This research study was approved by the Concordia University Chicago Institutional Review Board and informed consent was obtained from all participants included in the study.

Conflicts of Interest

The author declares that they have no conflicts of interest.

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Author Contact Information

The author can be contacted via email - jbrophy@gwu.edu.

References

Bentley, T. A., Teo, S. T. T., Nguyen, D. T. N., Blackwood, K., Catley, B., Gardner, D., Forsyth, D., Bone, K., Tappin, D., D'Souza, N., & Port, Z. (2021). Psychosocial influences on psychological distress and turnover intentions in the workplace. *Safety Science*, 137, N.PAG. https://doi.org/10.1016/j.ssci.2021.105200

Dawson, B. & Trapp, R. G. (2004). Basic & clinical biostatistics. (4th Ed.). McGraw-Hill.

- Dehue, F., Bolman, C., Völlink, T., & Pouwelse, M. (2012). Coping with bullying at work and health related problems. *International Journal of Stress Management*, 19(3), 175–197. https://doi.org/10.1037/a0028969
- Einarsen, S., Hoel, H., & Notelaers, G. (2009). Measuring exposure to bullying and harassment at work: Validity, factor structure and psychometric properties of the Negative Acts Questionnaire-Revised. *Work & Stress*, 23(1), 24–44.
- Evarts, B. & Stein, G. P. (2020). *U.S. fire department profile 2018*. National Fire Protection Association. https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Emergency-responders/osfdprofile.pdf
- Fahy, R. F., Petrillo, J. T., & Molis, J. L. (2020). Firefighter fatalities in the U.S. 2019. National Fire Protection Association. https://www.nfpa.org//-/media/Files/ News-and-Research/Fire-statistics-and-reports/Emergency-responders/osFFF. pdf
- Glambek, M., Skogstad, A., & Einarsen, S. (2015). Take it or leave: a five-year prospective study of workplace bullying and indicators of expulsion in working life. *Industrial Health*, 53(2), 160–170. https://doi.org/10.2486/indhealth.2014-0195
- Hansen, Å. M., Hogh, A., & Persson, R. (2011). Frequency of bullying at work, physiological response, and mental health. *Journal of Psychosomatic Research*, 70(1), 19–27. https://doi.org/10.1016/j.jpsychores.2010.05.010
- Karabulut, A. T. (2016). Bullying: Harmful and Hidden Behavior in Organizations. Procedia, Social and Behavioral Sciences, 229, 4–11. https://doi.org/10.1016/j. sbspr0.2016.07.108
- Khalique, M., Arif, I., Siddiqui, M., & Kazmi, S. W. (2018). Impact of Workplace Bullying on Job Performance, Intention to Leave, OCB and Stress. *Pakistan Journal of Psychological Research*, 33(1), 55–74.

- León-Pérez, J.M., Sánchez-Iglesias, I., Rodríguez-Muñoz, A., & Notelaers, G. (2019). Cutoff scores for workplace bullying: The Spanish Short-Negative Acts Questionnaire (S-NAQ). *Psychothema*, 31(4), 482–490. https://doi.org/10.7334/ psicothema2019.137
- Ortega, A., Christiansen, K. B., Hogh, A., Rugulies, R., & Borg, V. (2011). One-year prospective study on the effect of workplace bullying on long-term sickness absence. *Journal of Nursing Management*, 19(6), 752–759. https://doi.org/10.1111/j.1365-2834.2010.01179.x
- Namie, G. (2017). Workplace Bullying Institute: U.S. workplace bullying survey. Retrieved from https://www.workplacebullying.org/wbiresearch/wbi-2017-survey/
- Namie, G. (2021). 2021 WBI U.S. workplace bullying survey. Workplace Bullying Institute. https://workplacebullying.org/wp-content/uploads/2021/04/2021-Full-Report.pdf
- NFFF (n.d.). 16 Firefighter Life Safety Initiatives. https://www.everyonegoeshome. com/16-initiatives/
- Notelaers, G., Van der Heijden, B., Hoel, H., & Einarsen, S. (2018). SNAQ Short Negative Acts Questionnaire. Bergen Bullying Research Group. University of Bergen. https://www.uib.no/en/rg/bbrg
- Notelaers, G., Van der Heijden, B., Hoel, H., & Einarsen, S. (2019). Measuring bullying at work with the short-negative acts questionnaire: identification of targets and criterion validity. *Work & Stress*, 33(1), 58–75. https://doi.org/10.1080/02678373.2 018.1457736
- Reeves, T. C., & Oh, E. J. (2008). Generation differences and educational technology research. In J. M. Spector, M. D. Merrill, J. J. G. van Merrienboer, & M. P. Driscoll (Eds.), *Handbook of research on educational communications and technology* (3rd ed., pp. 897–924). Lawrence Erlbaum Associates, Publishers.
- Richardson, R. E., Hall, R., & Joiner, S. (2016). Workplace bullying in the United States: An analysis of state court cases. *Cogent Business & Management*, 3(1), 1256594–. https://doi.org/10.1080/23311975.2016.1256594

- Rosario-Hernández, E., Rovira Millán, L. V., Comas Nazario, Á. R., Medina Hernández, A., Colón Jiménez, R., Feliciano Rivera, Y., Rodríguez Caballero, B., Hernández Fernández, M., Martínez Julio, F., Díaz Montijo, C., Cabán Valentín, L., Ruiz Pacheco, S., Feliciano Toro, B. P., Marrero Díaz, C., & Berrios Quiñones, G. (2018). Workplace Bullying and Its Effect on Sleep Well-Being: The Mediating Role of Rumination. *Puerto Rican Journal of Psychology*, 29 (1),164–186.
- Salkind, N. J. & Frey, B. B. (2020). Statistics for people who think they hate statistics. (7th ed.). SAGE Publications, Inc.
- Sansone, R. A., & Sansone, L. A. (2015). Workplace bullying: a tale of adverse consequences. *Innovations in Clinical Neuroscience*, 12(1-2), 32–37.
- USFA. (2021). National fire department registry quick facts. https://apps.usfa.fema.gov/ registry/summary
- Vveinhardt, J. & Kuklyte, J. (2017). Forms of destructive relationships among the employees: How many are there and what is the extent of the spread? *Independent Journal of Management & Production*, 8(1), 205–. https://doi.org/10.14807/ijmp. v8i1.532

Appendix A

Descriptive Statistics

Age and Years of Service

	Ν	MINIMUM	MAXIMUM	MEAN	STD. DEVIATION
AGE	659	20	84	48.81	п.324
YEARS OF SERVICE	659	Ι	60	24.15	12.624
VALID N (LISTWISE)	659				

RACE/ETHNICITY

	FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
AMERICAN INDIAN OR ALASKAN NATIVE	4	.6	.6	.6
ASIAN	3	·5	.5	I.I
BLACK OR AFRICAN AMERICAN	38	5.8	5.8	6.8
HISPANIC	22	3.3	3.3	IO.2
NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER	3	·5	.5	10.6
OTHER	15	2.3	2.3	12.9
TWO OR MORE RACES	12	1.8	1.8	I4.7
WHITE	562	85.3	85.3	100.0
TOTAL	659	100.0	100.0	

Gender

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID	FEMALE	116	17.6	17.6	17.6
	MALE	543	82.4	82.4	100.0
	TOTAL	659	100.0	100.0	

Ideology

	FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID CONSERVATIVE	196	29.7	29.7	29.7
LEAN CONSERVATIVE	131	19.9	19.9	49.6
LEAN LIBERAL	60	9.1	9.1	58.7
LIBERAL	41	6.2	6.2	64.9
MODERATE	231	35.1	35.1	100.0
TOTAL	659	100.0	100.0	

Education

	FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID ASSOCIATE DEGREE	142	21.5	21.5	21.5
BACHELOR'S DEGREE	197	29.9	29.9	51.4
DOCTORAL DEGREE	14	2.1	2.1	53.6
HIGH SCHOOL DIPLOMA/GED	50	7.6	7.6	61.2
MASTER'S DECREE	98	14.9	14.9	76.0
SOME COLLEGE	158	24.0	24.0	100.0
TOTAL	659	100.0	100.0	

DEPARTMENT TYPE

	FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
VALID CAREER	382	58.0	58.0	58.0
COMBINATION CAREER AND VOLUNTEER/PAID-ON-CALL	152	23.1	23.1	81.0
INDUSTRIAL/INSTITUTIONAL	2	.3	•3	81.3
MILITARY/FEDERAL	4	.6	.6	81.9
VOLUNTEER/PAID-ON-CALL	119	18.1	18.1	100.0
TOTAL	659	100.0	100.0	

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
Valid	CHIEF OF DEPARTMENT	87	13.2	13.2	13.2
	COMPANY OFFICER	148	22.5	22.5	35.7
	ENGINEER/CHAUFFER/DRIVER	38	5.8	5.8	4I.4
	FIRE INSPECTOR/FIRE OFFICIAL /FIRE MARSHAL	59	9.0	9.0	50.4
	FIREFIGHTER	130	19.7	19.7	70.1
	OTHER	24	3.6	3.6	73.7
	OTHER CHIEF OFFICER	122	18.5	18.5	92.3
	PARAMEDIC/EMT	21	3.2	3.2	95.4
	TRAINING OFFICER/INSTRUCTOR	30	4.6	4.6	100.0
	TOTAL	659	100.0	100.0	

Rank

UMIL		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
Valid	AK	4	.6	.6	.6
	AL	4	.6	.6	1.2
	AR	Ι	.2	.2	I.4
	AZ	Ι	.2	.2	1.5
	CA	19	2.9	2.9	4.4
	СО	7	I.I	I.I	5.5
	CT	П	1.7	1.7	7.1
	DC	2	.3	.3	7.4
	DE	3	.5	.5	7.9
	FL	15	2.3	2.3	IO.2
	GA	21	3.2	3.2	13.4
	HI	Ι	.2	.2	13.5
	IA	7	I.I	I.I	14.6
	ID	6	.9	.9	15.5
	IL	17	2.6	2.6	18.1
	IN	13	2.0	2.0	20.0
	KS	2	.3	.3	20.3
	KY	6	.9	.9	21.2
	LA	3	·5	.5	21.7
	MA	24	3.6	3.6	25.3
	MD	13	2.0	2.0	27.3
	ME	2	.3	.3	27.6
	MI	17	2.6	2.6	30.2
	MN	21	3.2	3.2	33.4
	MO	18	2.7	2.7	36.1
	MS	Ι	.2	.2	36.3
	MT	Ι	.2	.2	36.4
	NC	21	3.2	3.2	39.6
	ND	5	.8	.8	40.4
	NE	3	.5	.5	40.8
	NH	6	.9	.9	41.7
	NJ	26	3.9	3.9	45.7
	NV	2	.3	.3	46.0
	NY	57	8.6	8.6	54.6
	OH	40	6.1	6.1	60.7
	OR	8	1.2	I.2	61.9
	PA	21	3.2	3.2	65.1
	RI	5	.8	.8	65.9
	SC	II	1.7	1.7	67.5
	SD	3	.5	.5	68.o
	TN	22	3.3	3.3	71.3
	TX	94	14.3	14.3	85.6
	UT	I	.2	.2	85.7
	VA	47	7.1	7.1	92.9
	VT	4	.6	.6	93.5
	WA	29	4.4	4.4	97.9
	WI	13	2.0	2.0	99.8
	WV	I	.2	.2	100.0
	TOTAL	659	100.0	I00.0	

Appendix **B**

Experienced & Witnessed - Gender

		EXPERIENCED	WITNESSED
Female	MEAN	19.62	23.69
	Ν	116	116
STD. I	DEVIATION	7.953	8.713
Male	MEAN	18.63	22.I2
	Ν	543	543
STD. I	DEVIATION	8.113	8.740
Total	MEAN	18.81	22.39
	Ν	659	659
STD. I	DEVIATION	8.088	8.749

Experienced & Witnessed- Generation

	EXPERIENCED	WITNESSED
Boom MEAN	18.89	22.45
N	153	153
STD. DEVIATION	8.543	9.333
Mature MEAN	19.88	26.00
N	8	8
STD. DEVIATION	9.047	10.043
Millennial MEAN	18.77	22.45
N	155	155
STD. DEVIATION	8.309	8.728
X MEAN	18.75	22.25
N	342	342
STD. DEVIATION	7.795	8.486
Z MEAN	22.00	27.00
N	I	Ι
STD. DEVIATION		•
Total MEAN	18.81	22.39
N	659	659
STD. DEVIATION	8.088	8.749

		EXPERIENCED	WITNESSED
Conservative	MEAN	17.97	21.31
	N	196	196
	STD. DEVIATION	7.812	8.680
Lean Conservative	MEAN	18.63	22.24
	Ν	131	131
	STD. DEVIATION	8.272	8.383
Lean Liberal	MEAN	20.60	24.73
	Ν	60	60
	STD. DEVIATION	8.179	9.061
Liberal	MEAN	19.51	22.37
	Ν	4I	41
	STD. DEVIATION	9.887	9.249
Moderate	MEAN	19.02	22.80
	Ν	231	231
	STD. DEVIATION	7.809	8.766
Total	MEAN	18.81	22.39
	N	659	659
	STD. DEVIATION	8.088	8.749

Experienced & Witnessed - Ideology

Experienced & Witnessed - Rank

		EXPERIENCED	WITNESSED
Chief of Department	MEAN	17.29	20.92
	N	87	87
	STD. DEVIATION	6.111	7.628
Company Officer	MEAN	19.21	23.4I
	Ν	148	148
	STD. DEVIATION	7.879	8.456
Engineer/Chauffer /Driver	MEAN	17.24	22.42
	Ν	38	38
	STD. DEVIATION	5.897	8.846
Fire Inspector/Fire /Fire Marshal	Official MEAN	17.31	19.46
	Ν	59	59
	STD. DEVIATION	7.573	7.907
Firefighter	MEAN	20.15	22.95
	Ν	130	130
	STD. DEVIATION	9.729	10.107
Other	MEAN	16.63	21.29
	N	24	24
	STD. DEVIATION	8.144	9.751
Other Chief Officer	MEAN	18.07	22.02
	Ν	122	122
	STD. DEVIATION	6.607	7.532
Paramedic/EMT	MEAN	23.86	25.57
	Ν	21	21
	STD. DEVIATION	13.256	12.636
Training Officer /Instructor	MEAN	21.57	25.20
	N	30	30
	STD. DEVIATION	8.152	7.246
Total	MEAN	18.81	22.39
	N	659	659
	STD. DEVIATION	8.088	8.749

		EXPERIENCED	WITNESSED
American Indian or Alaskan Native	MEAN	14.00	18.50
	Ν	4	4
	STD. DEVIATION	5.598	4.796
Asian	MEAN	13.67	17.33
	N	3	3
	STD. DEVIATION	4.509	8.505
Black or African American	MEAN	17.08	21.92
	Ν	38	38
	STD. DEVIATION	7.621	8.700
Hispanic	MEAN	14.45	17.36
	N	22	22
	STD. DEVIATION	4.606	5.884
Native Hawaiian or other Pacific Islander	MEAN	29.00	36.00
	Ν	3	3
	STD. DEVIATION	7.550	12.166
Other	MEAN	21.33	25.40
	Ν	15	15
	STD. DEVIATION	8.715	10.162
Two or more races	MEAN	22.67	25.17
	Ν	12	12
	STD. DEVIATION	5.033	5.219
White	MEAN	18.95	22. 47
	Ν	562	562
	STD. DEVIATION	8.182	8.765
Total	MEAN	18.81	22.39
	N	659	659
	STD. DEVIATION	8.088	8.749

Experienced & Witnessed - Race/Ethnicity

Appendix C

Experienced & Witnessed – Considered Leaving Due to Others

		EXPERIENCED	WITNESSED
No	MEAN	15.44	19.28
	Ν	429	4 2 9
	STD. DEVIATION	5.309	7.073
Unsure	MEAN	21.29	23.76
	Ν	17	17
	STD. DEVIATION	10.499	10.952
Yes	MEAN	25.39	28.55
	N	213	213
	STD. DEVIATION	8.414	8.346
Total	MEAN	18.81	22.39
	Ν	659	659
	STD. DEVIATION	8.088	8.749

$Experienced \And Witnessed - Considered Leaving Due to Officers$

		EXPERIENCED	WITNESSED
No	MEAN	15.75	19.51
	Ν	433	433
	STD. DEVIATION	5.831	7.251
Unsure	MEAN	21.08	23.00
	Ν	12	12
	STD. DEVIATION	9.219	9.085
Yes	MEAN	24.86	28.20
	Ν	214	214
	STD. DEVIATION	8.517	8.650
Total	MEAN	18.81	22.39
	N	659	659
	STD. DEVIATION	8.088	8.7