Introduction

The Occupational Safety and Health Department (OSH) has published this report to provide key operational information to stakeholders. OSH departmental metrics and metrics for high-interest programs are presented to provide a general sense of service to campus and resource utilization for fiscal year 2021 (FY21). Information on F&S Health and Safety Response Team activities during FY21 regarding returning faculty, staff, and students safely back to campus is also presented.

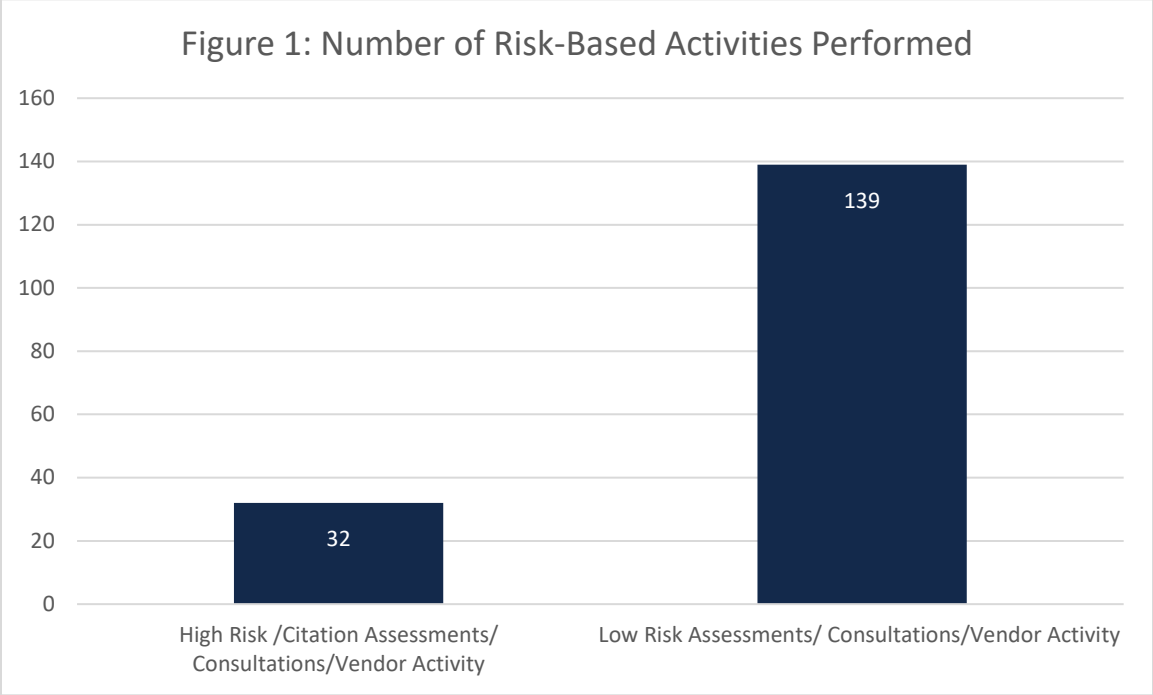
Risk-Based Activity Summary

The Occupational Safety and Health Department (OSH) categorizes programs and services by risk. High risk programs and services are those that if not followed may lead to serious injury or death. Non-compliance with high risk programs and services is likely to result in an Illinois OSHA Serious, Willful, or Repeat regulatory citation or may lead to significant worker's compensation costs. Low risk programs and services are those that are unlikely to result in death or serious injury or OSH plays only an administrative role (i.e., processing food service sanitation invoices). Non-compliance with low risk programs and services may result in an Illinois OSHA Other than Serious regulatory citation or have minimal workers' compensation costs. Figure 1 shows the number of activities performed by OSH for high and low risk programs and services. The ratio of low risk-to-high risk activities during the last reporting period was 2.7. That ratio has grown to 4.3 during FY21.

In a risk-focused management system, most of the effort should be directed towards high risk programs and services. OSH takes steps to provide a better balance in addressing high and low risk areas and expanding our influence through strategic partnerships. Examples of steps that have or will be taken include:

- Expanding online training to reach more affected personnel and reduce OSH staff time in delivering live training. This also allows personnel to take the training when it is convenient for their work schedule.
- Modifying indoor air quality (IAQ) requests to be in-line with USEPA IAQ guidance by incorporating occupant diaries and a concern request form. These tools will allow occupants to self-identify and correct the concern or provide OSH staff with additional information to more quickly identify potential causes of concern.
- Adopting an environmental health and safety information management system (EHS-IMS) to more efficiently document and report hazards, track and trend injuries/illnesses, and manage annual chemical fume hood testing. The EHS-IMS also provides a resiliency that does not currently exist.
- Utilizing an office ergonomics self-help application within the EHS-IMS as a first step in the office ergonomics evaluation process to potentially lessen or eliminate the need for in-person evaluations by OSH staff.
- Offering an online respirator medical questionnaire via iBuy that is utilized by campus units that is outside of the medical surveillance service contract and therefore, relieves OSH of the invoice processing of the traditional medical surveillance exams. **Note:** The online questionnaire costs over 60 percent less than the medical surveillance contract rate for a respirator medical through a local provider. The questionnaire takes 15 minutes for personnel to complete, results are available within 24 hours, and can be setup in real-time versus requiring personnel to schedule an appointment at least 2 weeks in advance.
- Collaborating with the Division of Research Safety (DRS) in joint program areas including Personal Protective Equipment and Chemical Exposure Assessment to allow resources, equipment, and expertise to be shared in support of research and other campus operations.

- Establishing a campus EHS development team in partnership with DRS to obtain feedback on joint programs and services, and improve communication DRS and OSH to unit leadership and safety contacts.
- Collaborating with college and departmental embedded safety professionals for local implementation of OSH programs.



Notes:

1. High risk programs include elevated work, electrical safety, confined spaces, control of hazardous energy (lockout/tagout), excavations, respiratory protection, industrial hygiene monitoring for toxic materials, asbestos in K-12 schools (AHERA), cranes and hoists, and ergonomics in non-office settings.
2. OSH programs impacted by active IL OSHA citations include personal protective equipment, noise monitoring and hearing conservation, machine guarding, control of hazardous energy, and elevated work.
3. Low risk programs include powered industrial trucks, chemical fume hood testing, local ventilation exhaust testing, asbestos in non-K-12 facilities, lead, indoor air quality and mold assessments, industrial hygiene monitoring for non-toxic chemicals, medical surveillance, heat stress, near miss and incident investigations, food service sanitation inspections, and office ergonomics.
4. Annual chemical fume hood testing is not included in the Risk-Based Effort Summary. See Figure 3 for data on chemical fume hood testing.

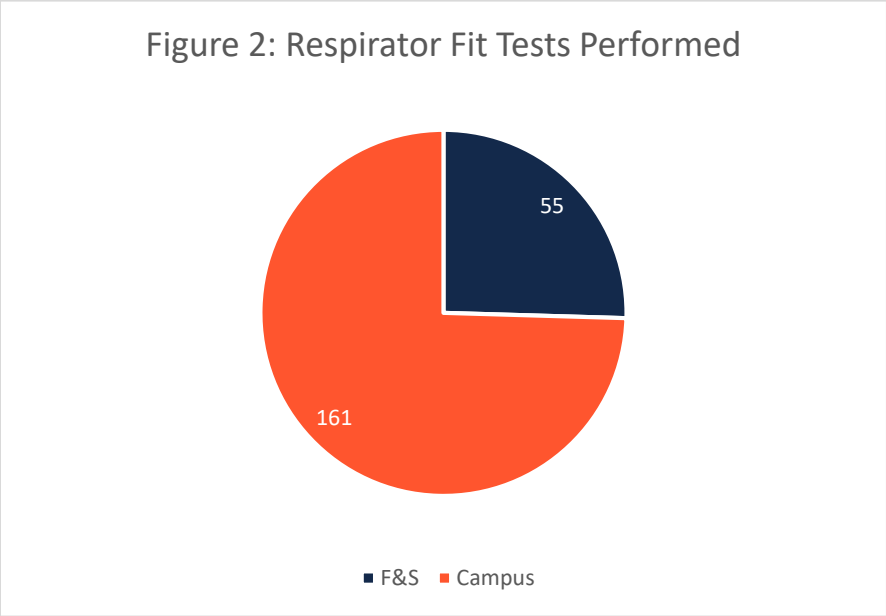
Respiratory Protection Program

The Respiratory Protection Programs is one of the most labor-intensive programs coordinated by OSH utilizing over 0.5 FTE. Prior to enrolling an employee or student in the Respiratory Protection Program, OSH conducts an evaluation that may include exposure monitoring in cooperation with the Division of Research Safety, to determine if respirators are required. If respirators are found to be required, respirator users must obtain medical clearance to wear a respirator prior to first use and periodically thereafter based on age, changes in health, and other factors as determined by the healthcare professional. Training is required annually for all respirators while annual fit testing are required for all personnel wearing tight-fitting respirators.

OSH has a standing purchase order with a local healthcare provider for in-person medical evaluations and processes associated invoices. OSH provides support to those campus units that choose to use an online provider for their medical clearance instead of in-person.

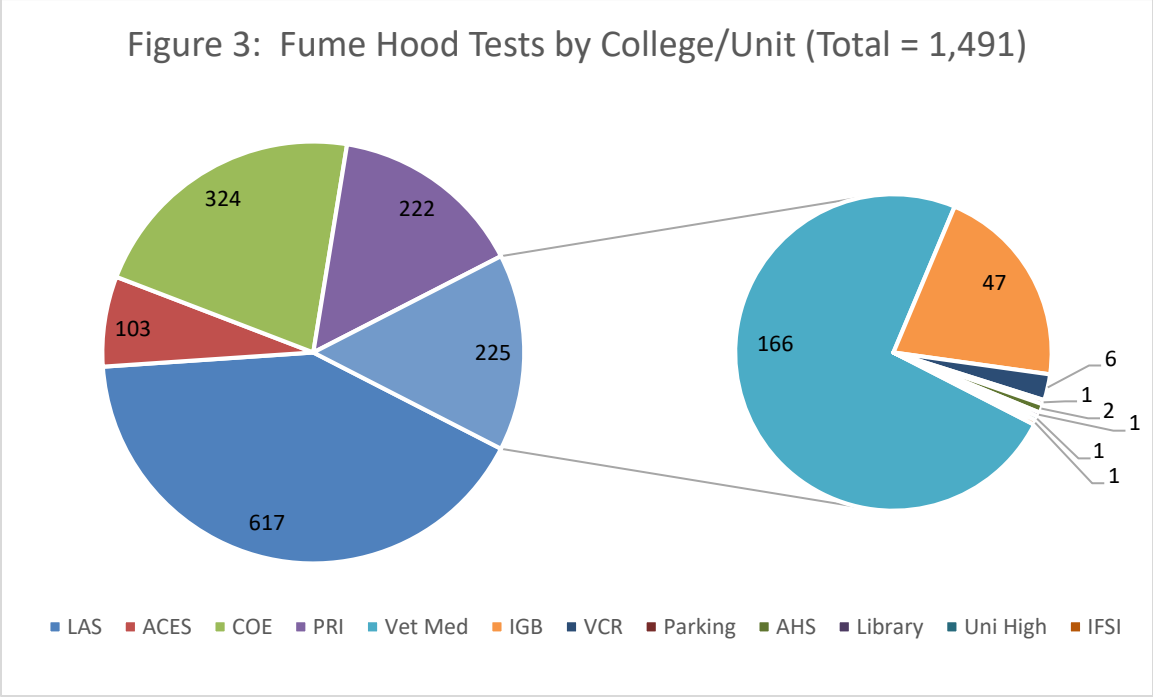
Live training sessions were limited to powered air-purifying respirator users. All other enrollees completed the on-demand online respirator training with hands-on information covered during fit testing.

From calendar years (CY) 2005-2008, the average number of fit tests performed was 38. Improved communications and relationship building have resulted in a significant increase in the number of respirator users being enrolled in the program. Over the past few years, OSH has performed between 250-300 fit tests annually with about an additional 50 fit tests being performed by embedded safety professionals for filter facepiece respirator (i.e., N95s) users in their college/unit. Fit test numbers remained relatively low during FY21 as users re-enroll in the program following a decrease due to many staff working from home during COVID-19. An estimated 150 new enrollees are expected bringing the total number of fit tests anticipated annually to 400-450. Figure 2 shows the total number of fit tests performed by OSH in FY21 and the split between fit tests performed for Facilities & Services versus the rest of campus.



Chemical Fume Hood Testing

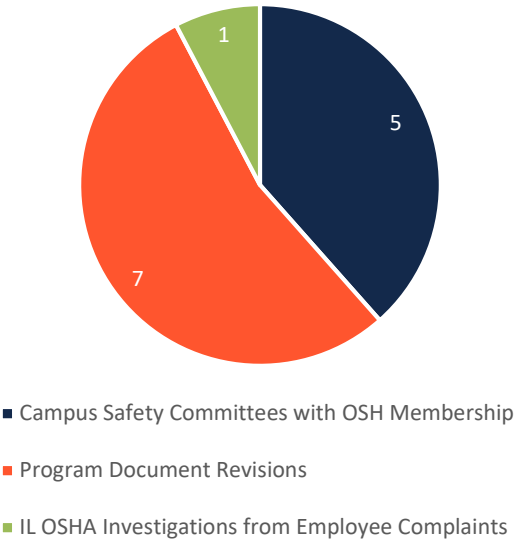
There are approximately 1,700 active and de-energized chemical fume hoods. OSH performs annual testing on about 1,500 fume hoods with the rest either not being tested because they are de-energized or they tested by F&S Building Maintenance on a preventative maintenance work order at the request of the owning campus unit. Historically, annual testing has been performed by a student or extra-help employee. Increasing complexity in how fume hoods operate and in the management of annual testing information make the use of a student or extra-help employee extremely inefficient due to training associated with high turnover and degrades confidence in the quality of the data. Resources must be identified to support annual testing by a full-time employee in order for the fume hood program to remain viable. OSH would also like to align annual fume hood testing with DRS annual emergency shower and eyewash testing to limit disruptions in the laboratories which can only be accomplished with a full-time employee. Annual fume hood testing totals by college/unit performed by OSH are presented in Figure 3.



Safety Programming

Safety programming deals primarily with the administration of the overall safety system including creating and updating campus policies, revising individual program documents, participation on campus safety committees, responding to IL OSHA investigations, and providing training and other educational information. This information is presented below in Figure 4 and training metrics are included in Figures 12 and 13. Toolbox talks ceased at the end of March 2020 due to COVID-19 and resumed in January 2021.

Figure 4: Safey Programming Metrics



Project Work Support

OSH provides support to capital and small construction projects to ensure the university is meeting its obligations under the Occupational Safety and Health Administration (OSHA) to contractors and to ensure designs promote safe work environments for faculty, staff, and students. Facility standards are reviewed and updated every three years. OSH serves as the lead author for four facility standards and contributes to a number of others.

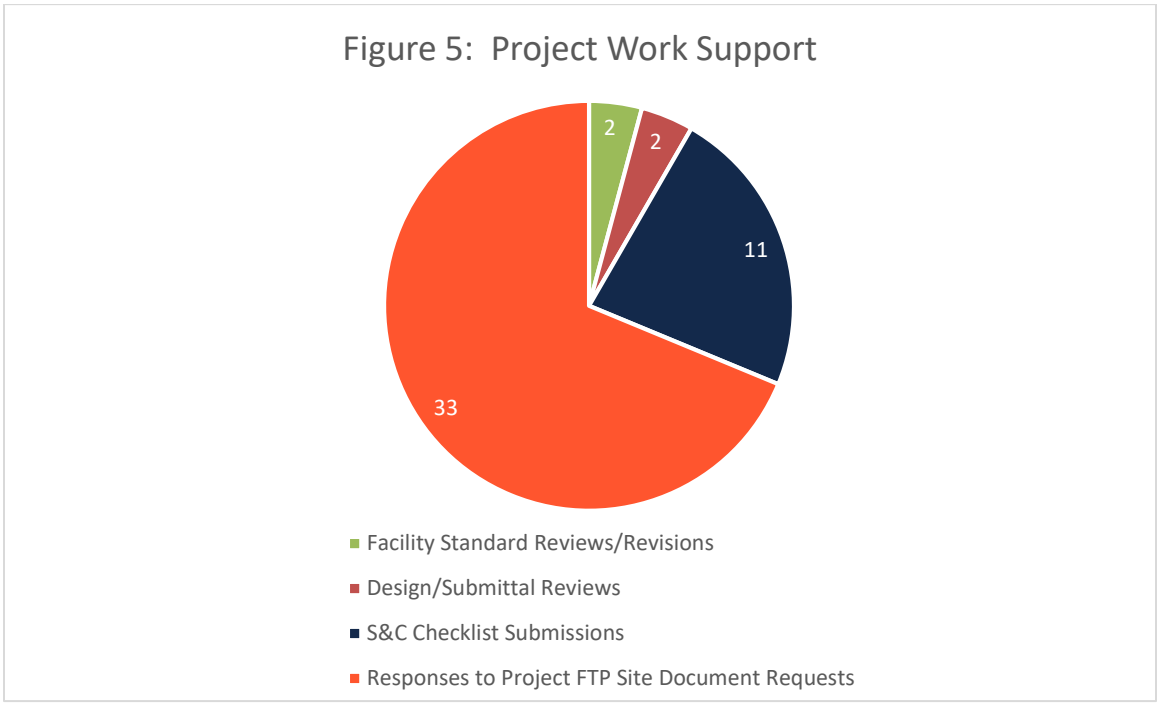
At the beginning of capital projects and some small construction projects, a request for documents on known asbestos and lead hazards is provided by OSH for a project FTP site that is accessible to the project design team and contractors. Upon request, OSH also provides information on chemical fume hoods and consultation on various safety topics throughout projects upon request.

OSH is occasionally requested to provide reviews of designs and project submittals for compliance with facility standards and applicable state and federal regulations. Most design and submittal reviews in FY19 and FY20 dealt with installation of fall protection devices to protect university personnel during commissioning of the structure.

OSH, in cooperation with the Environmental Compliance Department (EC), authored the Safety and Compliance (S&C) Checklist to be used by project personnel to ensure on-time and compliant projects. OSH and EC provide annual S&C Checklist training to F&S Capital Programs and Construction Services staff.

Select metrics for project work support are presented in Figure 5.

Figure 5: Project Work Support



Injury/Illness Management

Injury/illness incidents are reported by submitting a First Report of Injury/Illness form (FROII) to Worker's Compensation and Claims Management (Workcomp) and OSH for review, classification, and additional follow-up as needed. FROII totals provide no insight into severity or associated costs. FROII totals can change based on reporting expectations, initiatives to increase reporting, and perceived consequences for reporting. Submission of FROII, regardless of injury/illness severity, should be encouraged to identify safety program gaps and prevent future incidents. The total number of campus FROII forms submitted for the reporting year are shown in Figure 6.

OSHA 300 log recordable injuries/illnesses (Recordables) are a subset of the total injuries reported that meet a specific level of severity. Recordables include injuries/illnesses that:

- Require treatment beyond first aid regardless of who provides it.
- Result in a fatality, in-patient hospitalization, amputation, or physical loss of an eye (Reportable).
- Result in lost time, restrictions, or job transfer.
- Result in loss of consciousness.
- Result in another significant injury or illness diagnosed by a physician or other licensed health care professional.

Recordables are presented in Figure 6. A total of two (2) Reportables were experienced during the reporting period resulting in three (3) citations from IL OSHA. One (1) IL OSHA investigation was launched due to an employee complaint.

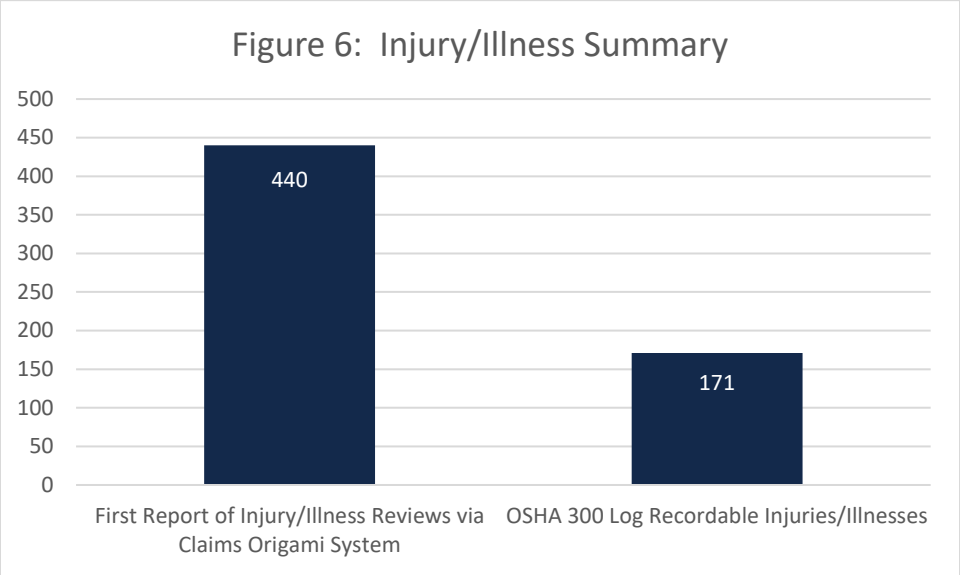
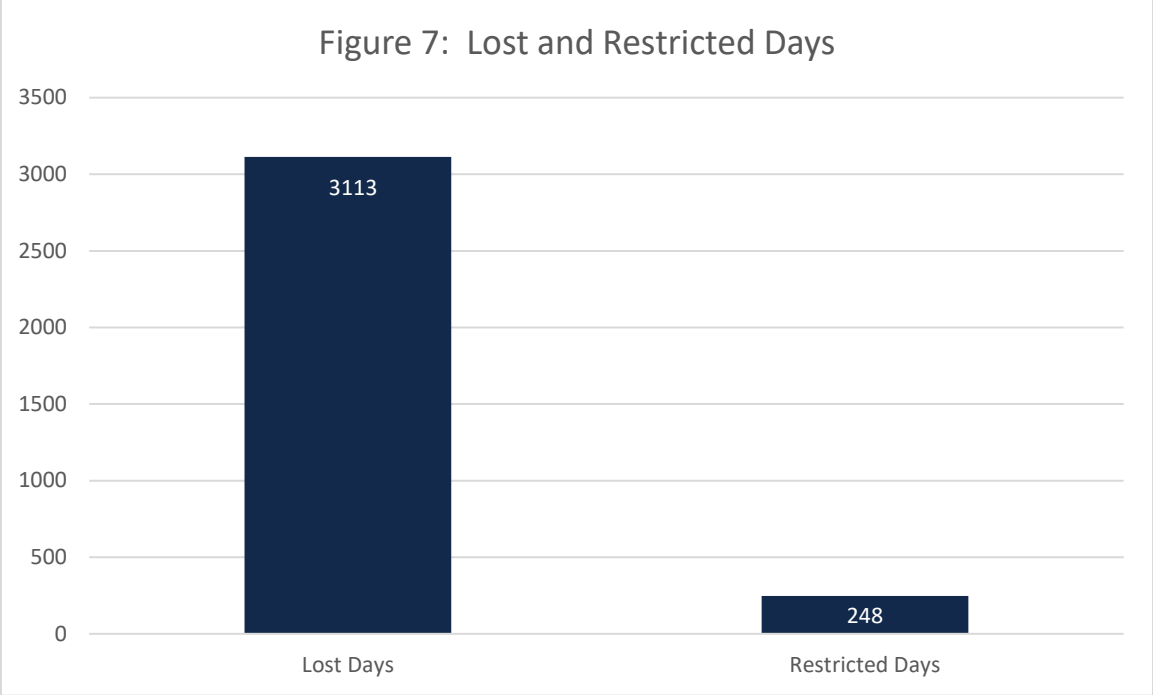


Figure 7 presents the campus totals for lost and restricted days, respectively. Lost days are generally the result of a severe injury/illness or an inability by the employing unit to accommodate restrictions. Accommodating restrictions results in lower worker's compensation payouts and, therefore, lower total injury costs. Campus units are encouraged to identify temporary, modified work within each job classification having a high likelihood

of injury/illness so that as many restrictions as possible can be accommodated, employees can remain on the job, and associated injury/illness costs can be minimized.



Approximated annual campus injury/illness costs are presented in Figure 8. Direct injury/illness costs include worker's compensation payouts (WC settlements), settlements for temporary total disability and permanent partial disability to injured employees (settlements), and medical costs. Responsible campus units cover 49 percent of payouts and settlements while the university covers the remaining 51 percent plus all costs associated with medical treatment and legal expenses. Medical costs are estimated to be equal to the sum of payouts and settlements based on limited annual medical cost data from other calendar years. Indirect costs are estimated to be 2.12 times direct costs[1] and include legal fees, decreased productivity, lower morale, retraining, turnover, overtime to make up for lost productivity, and time associated with injury/illness response, investigation, and management.

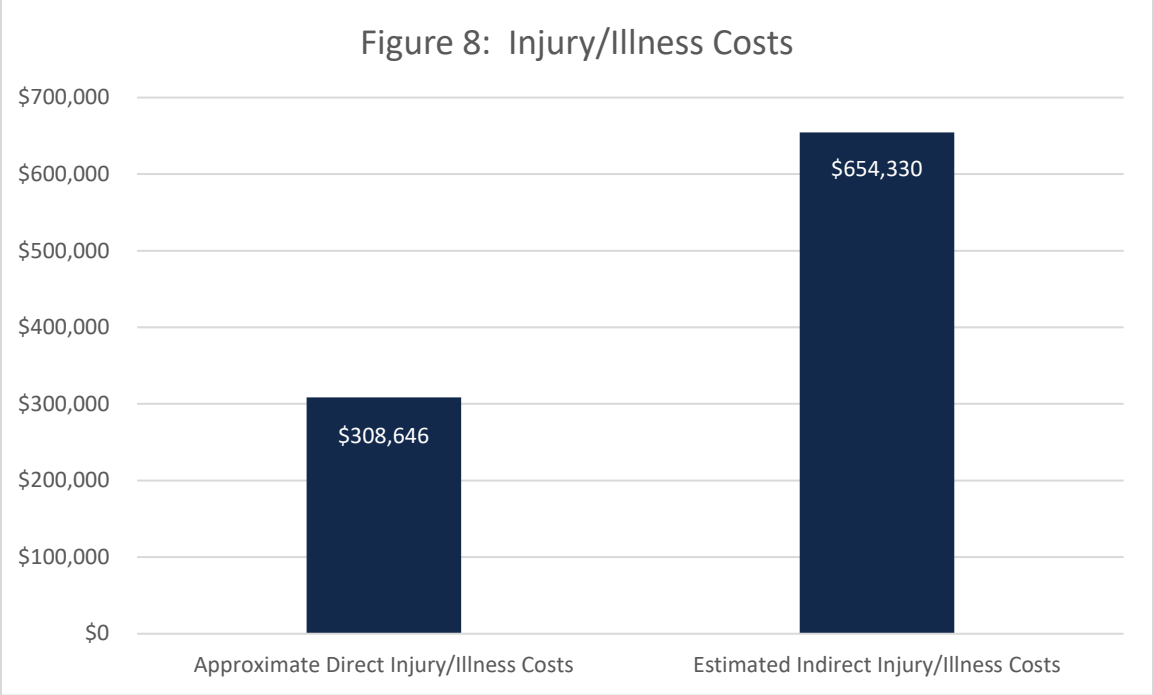
Investments in safety provide a return on investment. Investing in safety certainly leads to fewer injuries/illnesses and lower worker's compensation costs, investing in an effective safety system can also contribute to:

- Increased productivity and efficiency;
- Improved service quality;
- Improved employee morale;

1 Morrison, Kyle W. "The ROI of Safety." Safety+Health, 23 May, 2014, https://www.safetyandhealthmagazine.com/articles/print/10414-the-roi-of-safety

- Lower absenteeism;
- Improved recruiting and retention; and
- Improved reputation.

In a survey conducted by Liberty Mutual, over 60 percent of chief financial officers (CFOs) report a return of $2 for every $1 invested in safety. Over 40 percent of the CFOs indicated increased productivity was the greatest benefit of an effective safety system.[2]

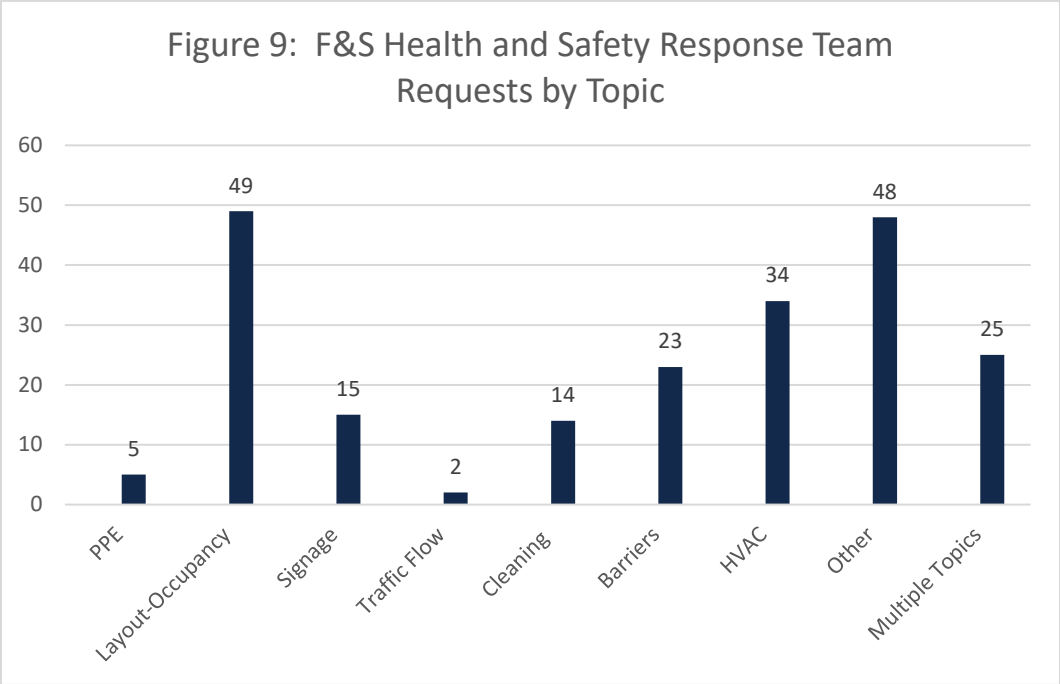


2 *Liberty Mutual Chief Financial Officer Survey (2005). Liberty Mutual Insurance Group, Boston, MA.*

F&S Health and Safety Response Team Activities

The F&S Health and Safety Response Team (HSRT) was established to deliver solutions to units through in-person and virtual consultations that address immediate and ongoing social distancing and space concerns. The team is made up of experts in operations and maintenance, safety, engineering, and building code compliance. Members monitored suggested guidance on mitigating the COVID-19 virus and were available to assist campus leadership in the development of safety protocols to prepare a return to our mission – critical work through teaching, research, public engagement, and economic development. As part of its work, the HSRT published Social Distancing Considerations for COVID-19 for use by campus staff to create safe physical environments for their occupants and an online COVID-19 Return to Work Training.

During FY21 the HSRT received a total of 265 topic requests from 215 unit/college requests. Twenty-three individual units/colleges made requests for consultations. Information on consultation requests is presented below in Figures 9-11.



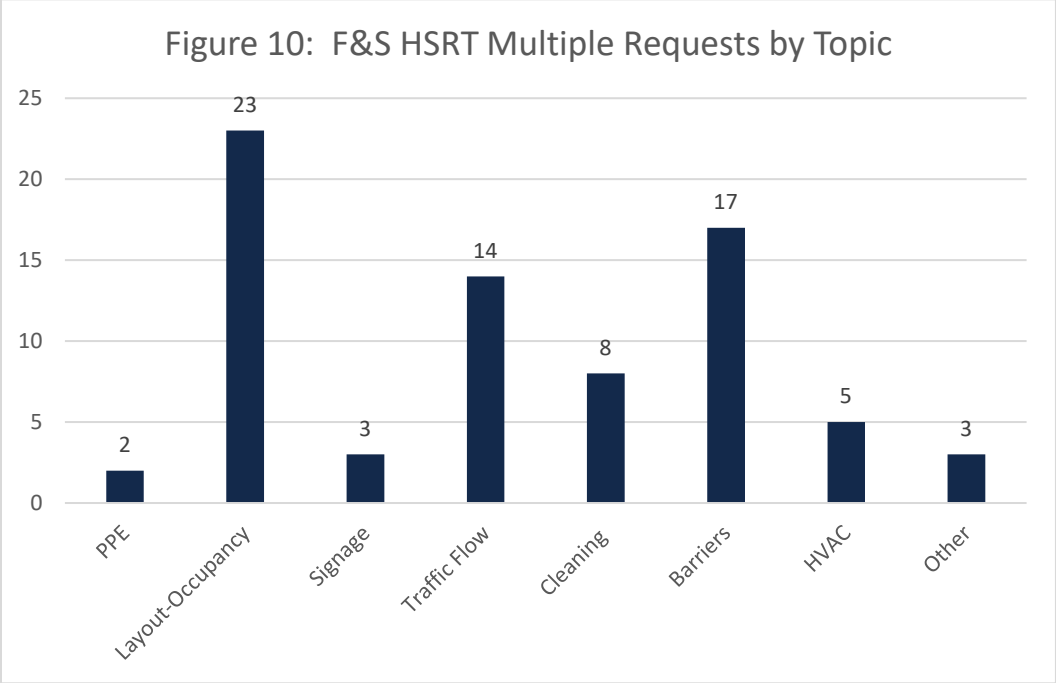


Figure 10: F&S HSRT Multiple Requests by Topic
25
20
15
10
5
0
2
23
3
14
8
17
5
3
PPE
Layout-Occupancy
Signage
Traffic Flow
Cleaning
Barriers
HVAC
Other

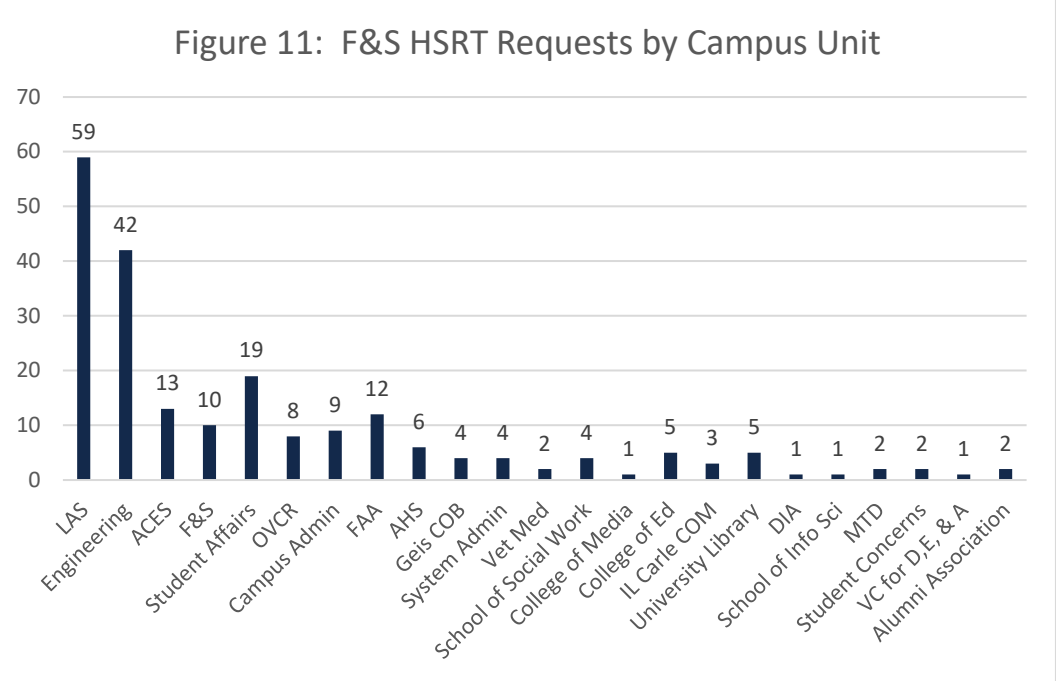


Figure 11: F&S HSRT Requests by Campus Unit
70
60
50
40
30
20
10
0
59
42
13
10
19
8
9
12
6
4
4
2
4
1
5
3
5
1
1
2
2
1
2
LAS
Engineering
ACES
F&S
Student Affairs
OVCR
Campus Admin
FAA
AHS
Geis COB
System Admin
Vet Med
School of Social Work
College of Media
College of Ed
IL Carle COM
University Library
DIA
School of Info Sci
MTD
Student Concerns
VC for D,E, & A
Alumni Association

Live Training

Topic	2-Hour Asbestos Awareness Initial	Lockout/ Tagout Supervisor	Lockout/ Tagout Authorized Employee	Office Ergonomics	Powered Industrial Trucks	PPSB BEAP Floor Coordinators & SPOCs	Construction Facility Rep. S&C
# Participants	20	20	88	105	42	62	40
Colleges/Units Attending	Tech Serv.	F&S	F&S	Across Campus and System	ACES	F&S	F&S

Total	377

Online Training

Training Topic	2-Hour Asbestos Awareness Initial	Ladder Safety	Aerial Lifts	PPE for Supervisors	Donning & Doffing PPE for COVID	Negative Pressure Respirators	Powered Air-Purifying Respirators	Lockout/ Tagout Authorized Employee
# Participants	163	73	208	3	57	300	51	12

Total	867

Figure 13: Toolbox Talks Summary

Topic	Winter Slips/Trips/Falls	Ladders	BEAP	Heat Stress/Inclement Weather	Walking-Working Surfaces
Month/Year	Jan. 2021	Feb./Mar. 2021	Apr. 2021	May 2021	June 2021
Participants	146	630	578	554	472

Total Participants
2,380