



Introduction

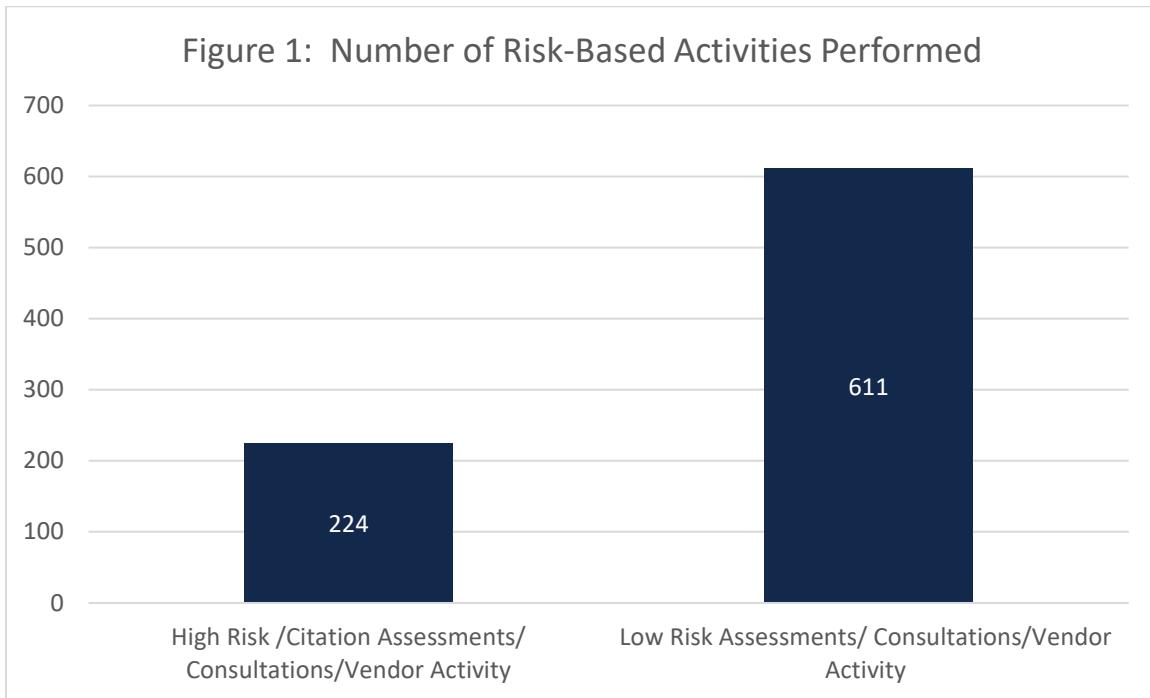
The Occupational Safety and Health Department (OSH) has published this report to provide key operational information to stakeholders. General departmental metrics and metrics for high-interest programs are presented to provide a general sense of service to campus and resource utilization for fiscal years 2019 and 2020 (FY19 and FY20). Information on F&S Health and Safety Response Team activities during FY20 to safely return faculty, staff, and students back to campus are 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 a 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 Other than Serious regulatory citation or have minimal worker's compensation costs. Figure 1 shows the number of activities performed by OSH for high and low risk programs and services.

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 staff time in delivering live training.
- 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 more readily identify and correct the concern themselves 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 and provide 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.
- Adopting an online respirator medical questionnaire by campus units that is outside of the medical surveillance service contract and therefore, relieves OSH of the invoice processing. **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 to complete and can be setup in real-time versus requiring an appointment at least 2 weeks in advance and results are immediately available.
- Collaborating with the Division of Research Safety in shared program areas including Personal Protective Equipment and Chemical Exposure Assessment to allow resources, equipment, and expertise in support of research and other campus operations.
- Collaborating with embedded safety professionals in 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

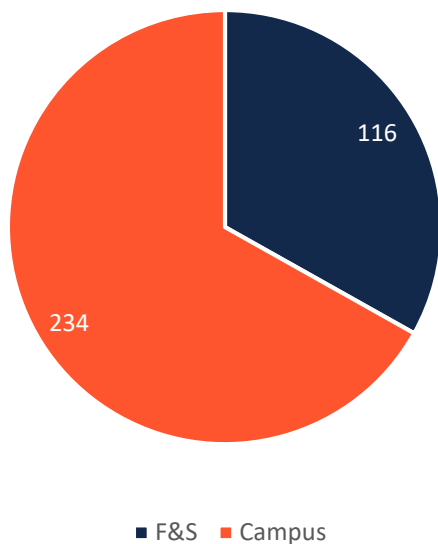
The Respiratory Protection Programs is one of the most labor-intensive programs coordinated by OSH utilizing about 0.5 FTE. Prior to enrolling an employee or student in the Respiratory Protection Program, OSH conducts an evaluation that may include exposure monitoring in cooperation with the Division 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 and changes in health. Training and fit testing are required annually.

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 for all of FY19 and most of FY20 occurred one to two times per month. On-demand online respirator training for negative pressure air purifying respirators was launched in April 2020 covering compliance and programmatic information while hands-on information is covered during fit testing.

From calendar years (CY) 2005-2008, the average number of fit tests performed was 38. Improved communications has 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 for FY20 were unusually low due to the stay-at-home order lasting from late March of 2020 through the end of FY20. Figure 2 shows the total number of fit tests performed by OSH in FY19-FY20 and the split between fit tests performed for Facilities & Services versus the rest of campus.

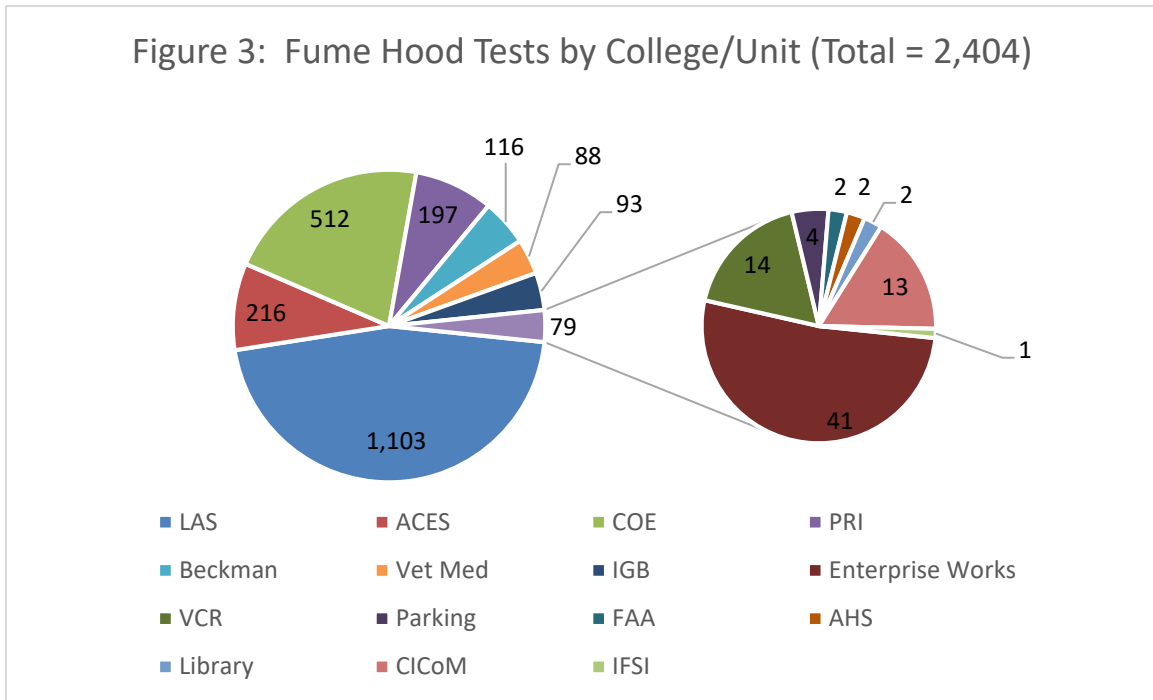
Figure 2: Respirator Fit Tests Performed





Chemical Fume Hood Testing

There are approximately 1,690 active and de-energized chemical fume hoods. OSH performs annual testing on about 1,200 fume hoods with the rest either not being tested because they are de-energized or being tested by F&S Building Maintenance performs on a preventative maintenance work order at the request of the owning campus unit. Historically annual testing has been performed by a student employee. Management of the fume hood data is being transitioned to a new Safety and Compliance Information Management System. Annual fume hood testing totals by college/unit performed by OSH are presented in Figure 3.

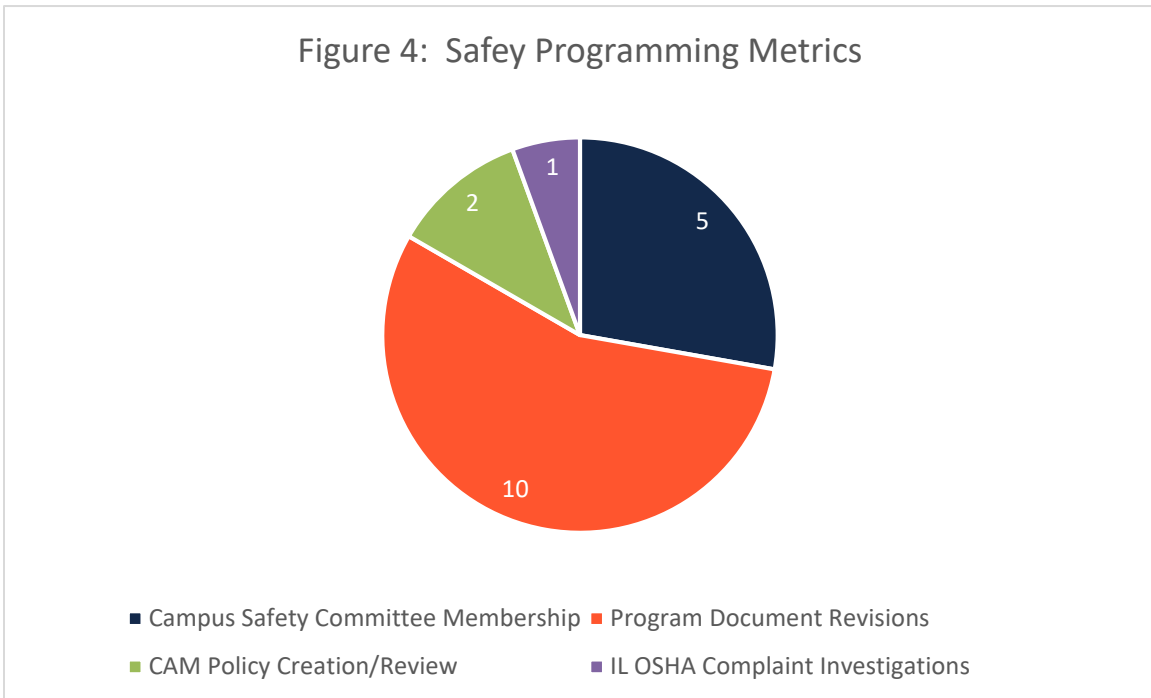




Safety Programming

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 on pages 11 and 12. Toolbox talks were ceased beginning at the end of March 2020 to re-direct resources to support COVID-19 return-to-work safety activities.

Figure 4: Safety Programming Metrics





Project Work Support

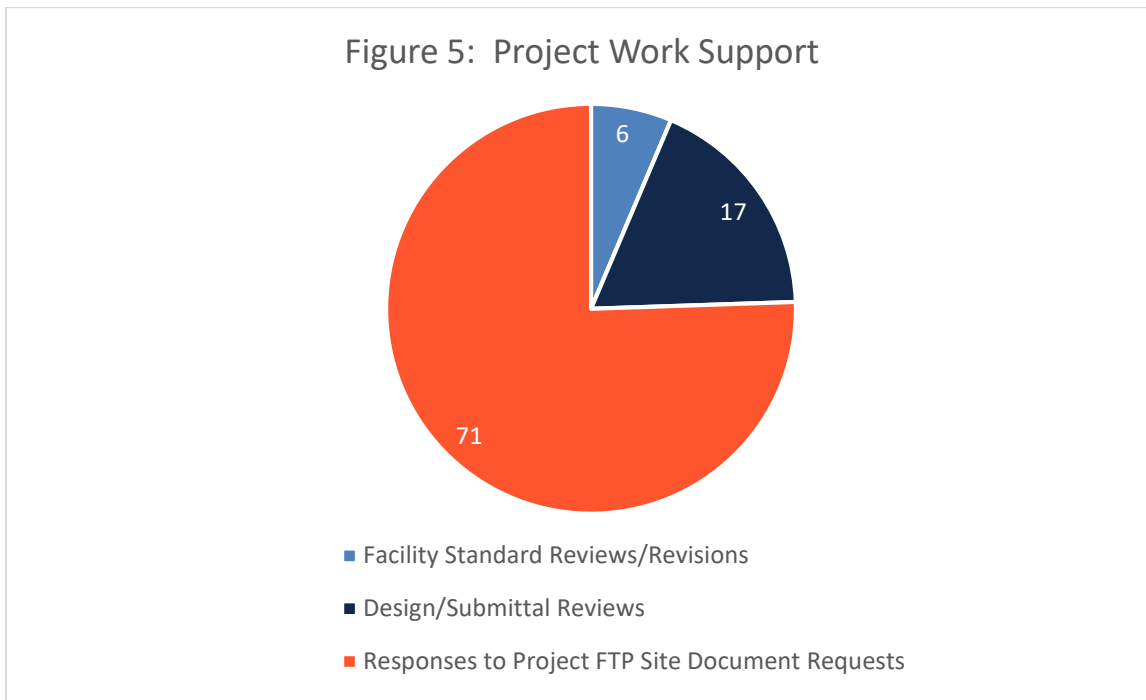
OSH provides support to capital and small construction projects to ensure the university is meeting its obligations under the Occupational Safety and Health Administration (OSHA) to contractors and to ensure designs promote safe work environments for faculty, staff, and students. Facility standards are 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.

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





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 FROII 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 five (5) Reportables were experienced during the reporting period with four (4) occurring in FY19 and one in FY20.

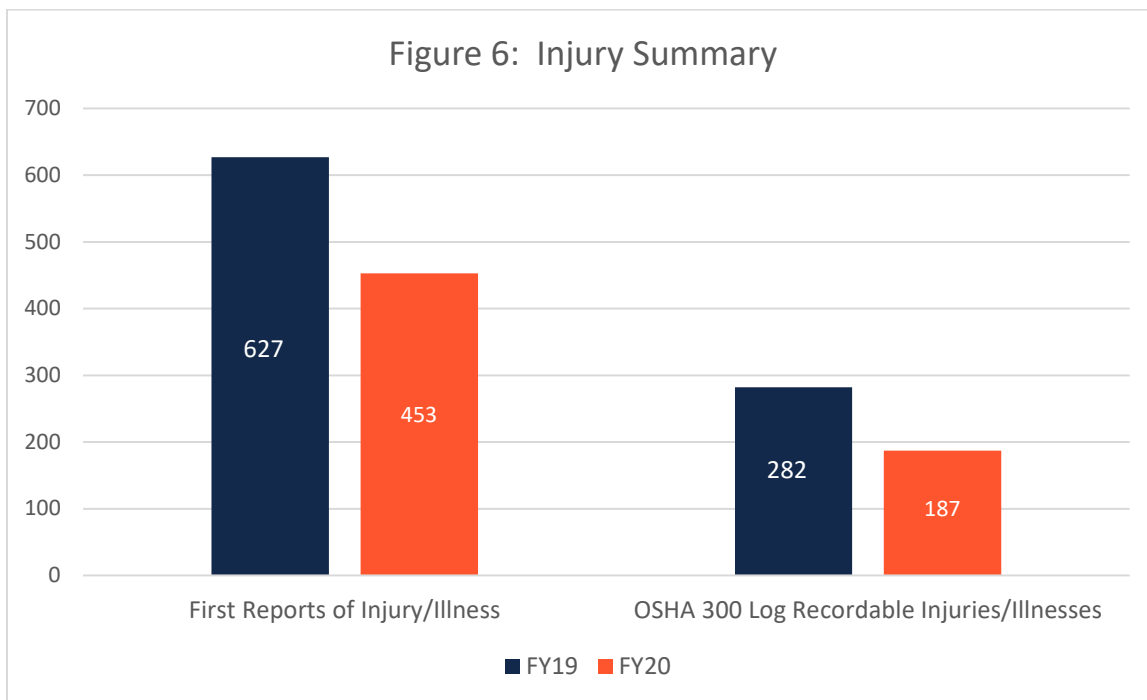
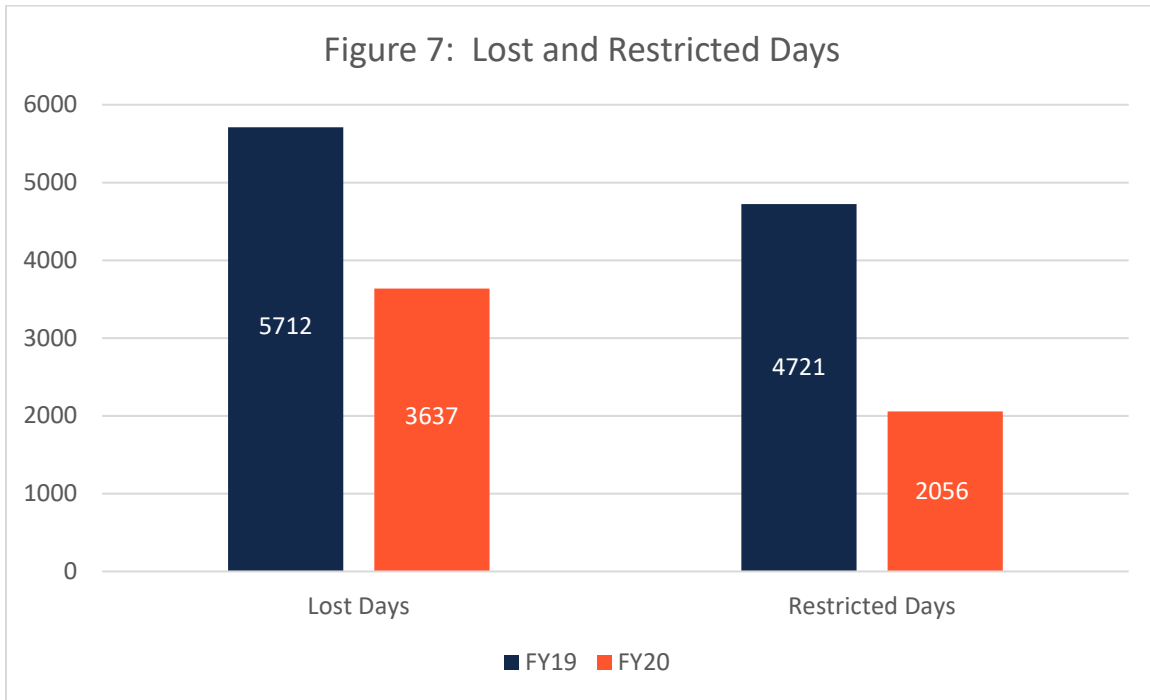


Figure 7 presents the totals for lost and restricted days, respectively. Loss days generally the result of a severe injury/illness or an inability by the employing unit to accommodate restrictions. Accommodating restrictions results in lower worker’s compensation payouts and, therefore, lower total injury costs. Campus units are



encouraged to identify light duty jobs in each job classification with a strong 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.



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 costs¹ 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:

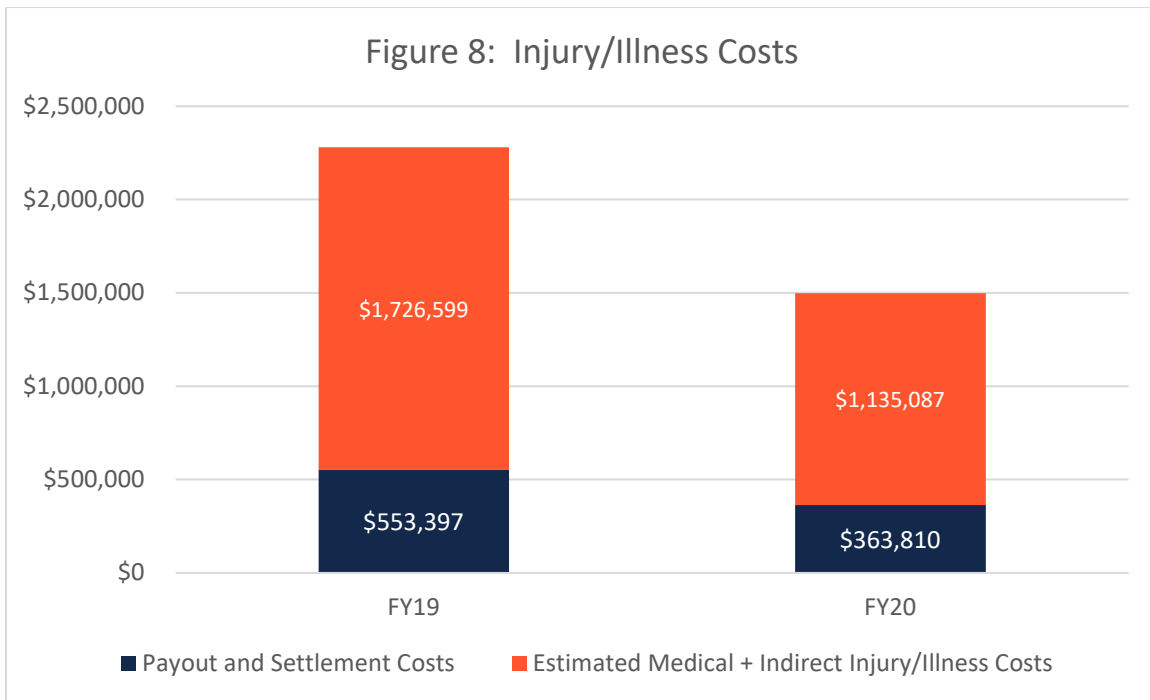
- Increased productivity and efficiency;
- Improved service quality;

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



- Improved employee morale;
- 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

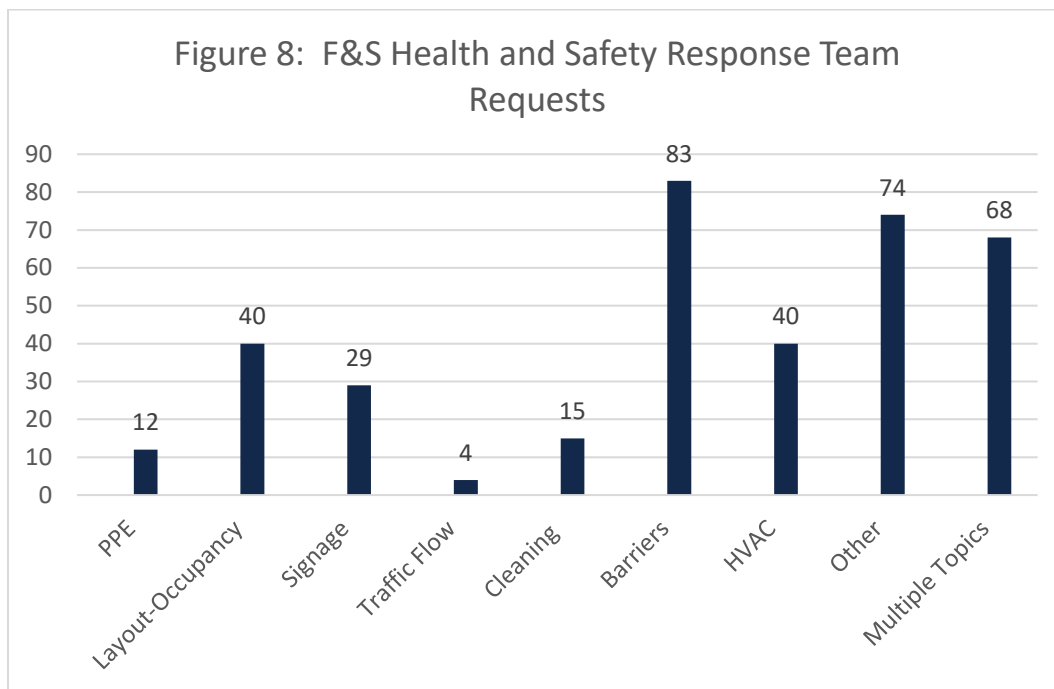


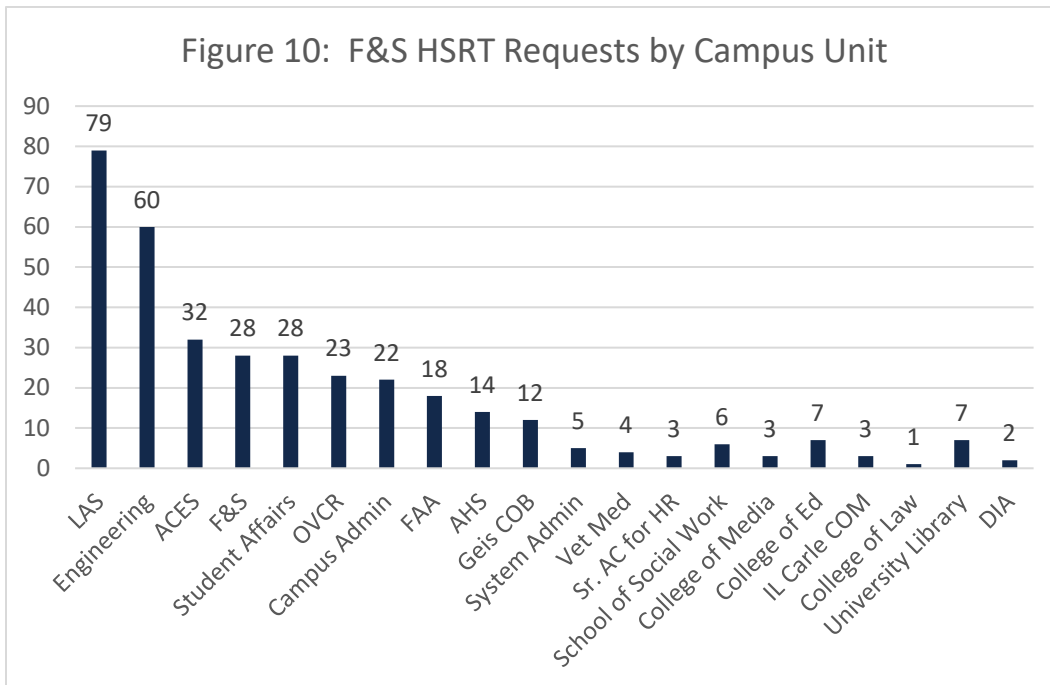
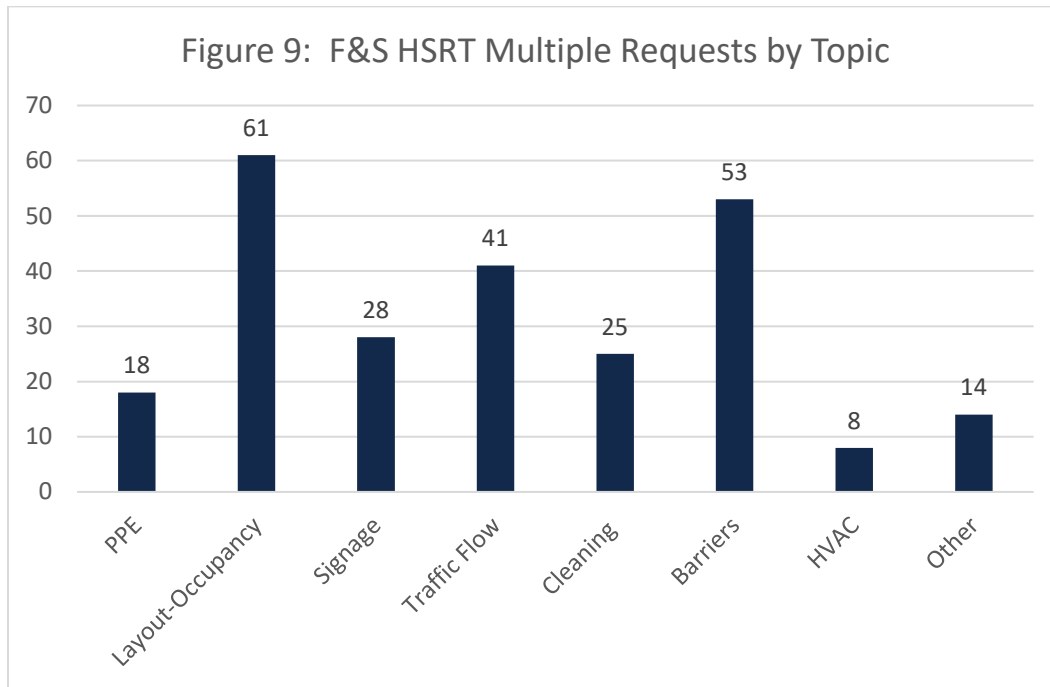
² Liberty Mutual Chief Financial Officer Survey (2005). Liberty Mutual Insurance Group, Boston, MA.

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 the 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](#).

The HSRT received its first request for a COVID-19 consultation on April 27, 2020. Between April 27 and June 30, 2020 the HSRT received a total of 341 topic requests from 195 unit/college requests. Twenty individual units/colleges made requests for consultations. One thousand one hundred sixty-six employees completed the HSRT’s online COVID-19 Return to Work Training. Information on consultation requests is presented below in Figures 8-10.





Training Topic	OSHA 10-Hour General & Construction Industries	Safety Orientation	Confined Space Competent Person	Intro to OSH Department	2-Hour Asbestos Awareness Initial	Personal Protective Equipment Awareness	Noise Awareness	HazCom (F&S only)
# Participants	61	70	8	50	49	99	55	46
Colleges/Units Attending	F&S, FAA, Vet Med, PRI, Housing, COE	ACES	F&S, PRI, Tech Services	F&S, ACES, Campus Rec.	F&S, ACES	F&S, ACES, Campus Rec., FAA	F&S, ACES, Campus Rec.	F&S

Training Topic	Electrical Safety Awareness	Intro to Elevated Work	Ladder Safety	Scaffold User Awareness	Personal Fall Protection Systems	Aerial Lift Classroom	Research Equipment Maintenance SOP	Lockout/Tagout Authorized Employee
# Participants	43	168	116	19	91	208	67	83
Colleges/Units Attending	F&S, ACES, Campus Rec.	F&S, ACES, FAA, IGB, Campus Rec, Tech Serv., LAS, PRI	F&S, ACES, Campus Rec, Tech Serv, LAS, PRI	F&S	F&S, ACES, FAA, IGB, Campus Rec, Tech Serv, LAS, PRI	F&S, ACES, FAA, PRI	F&S, ACES	F&S, ACES, Campus Rec, COE

Training Topic	Ergonomics	Bloodborne Pathogens (F&S only)	Powered Industrial Trucks	Respiratory Protection	Supervisor Safety Module 1	Supervisor Safety Module 2	Construction Facility Rep. S&C	PPSB BEAP Floor Coordinator
# Participants	101	255	25	277	134	123	38	37
Colleges/Units Attending	F&S, ACES, Career Center, Council of Councils	F&S	ACES, IGB, Vet Med, Housing	F&S, ACES, McKinley, COE, PRI, DRS, FAA, Housing, Vet Med, Library, VCR	F&S	F&S	F&S	F&S

# Participants	2,223
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Topic	Heat Stress	Near Misses	Asbestos Awareness	Bloodborne Pathogens	Winter Weather
Month/Year	July 2018	Aug. 2018	Oct. 2018	Nov. 2018	Dec. 2018/Jan. 2019
Participants	334	332	314	566	570

Topic	Noise	Eye/Face Protection	Severe Weather	BEAP	Heat Stress
Month/Year	Feb. 2019	Mar. 2019	Apr. 2019	May 2019	June 2019
Participants	529	534	574	475	499

Topic	Walking-Working Surfaces Vol. 1	Asbestos	Walking-Working Surfaces Vol. 1	Signs, Tags & Labels	Hazcom
Month/Year	July 2019	Aug. 2019	Sept. 2019	Oct. 2019	Nov. 2019
Participants	499	517	565	496	562

Topic	Winter Safety	Ergonomics	Personal Protective Equipment	Noise Exposure	
Month/Year	Dec. 2019	Jan. 2020	Feb. 2020	Mar. 2020	Total Participants
Participants	599	521	428	122	9,027