TEXAS TECH UNIVERSITY

2021 Annual Report

for the

Department of Environmental Health and Safety

From the Assistant Vice President for Environmental Health & Safety

I am happy to present the Annual Report for the Department of Environmental Health and Safety (EHS) for the 2021 academic year. This report highlights some of the accomplishments of the department as the University has recovered and re-established operations from the Covid-19 pandemic. Even during this difficult time the department has continued to progress in multiple areas and programs.

For the 2021 academic year, we continued to support the university in returning operations both academic and research to Phase II following the shutdown. This included reviewing research laboratory operations for safe practices and helping the university to implement testing and vaccine clinics. Additionally, we supported the first successful and safe semester of the new School of Veterinary Medicine. We were excited to announce the second department to win the Presidential Departmental Excellence in Safety Award. Additionally, through the support of the Office of the Vice President of Research and Innovation, we were able to establish a training laboratory in the newly completed Experimental Science Building II which is being used to host hands-on research laboratory safety training for a variety of topics. As we continue to work to mitigate the ongoing pandemic, we look forward to an even more successful 2022 academic year.

Matt Roe, Assistant Vice President for Environmental Health & Safety

Academic Safety

The Academic Safety section encompasses multiple programs including Biological Safety, Radiation and Laser Safety, Chemical Hygiene and Physical Hazards with the focus on reducing injury from academic activities. The Academic Safety program is implemented through a collaborative approach with EHS serving as a knowledgeable partner and leader in developing these programs.

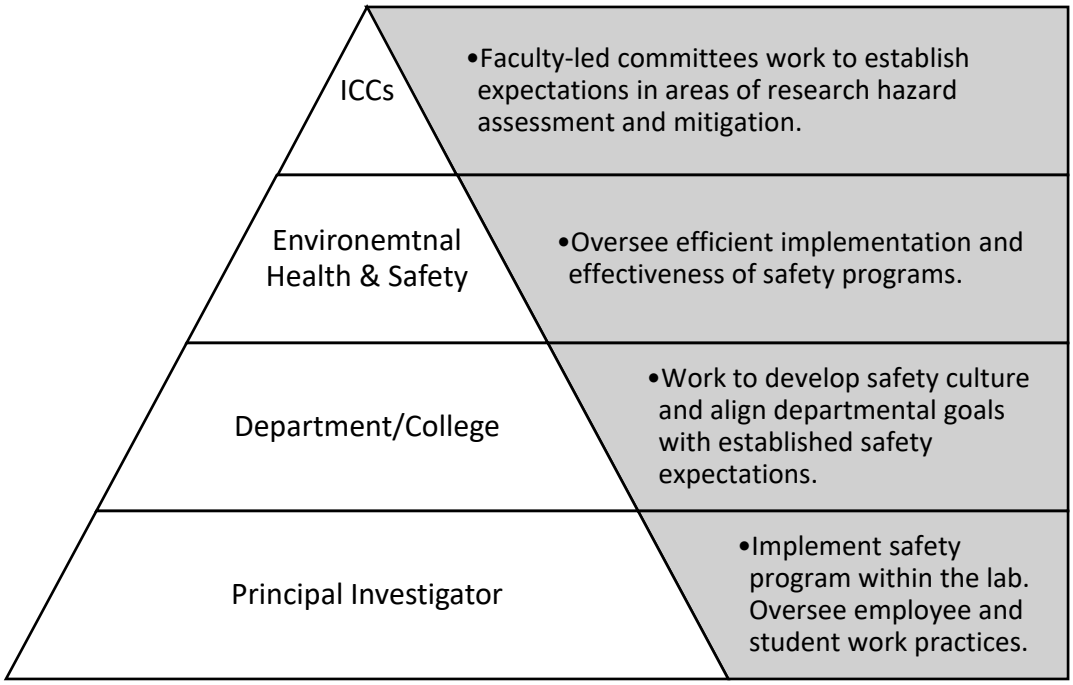

Figure 1: Academic safety program framework.

Highlights:

Raider Risk Assessment Management Program (RRAMP)

Beginning in December 2019, EHS introduced the campus community to an online safety management system (RRAMP) that allows users to review their chemical inventories, view and respond to annual safety assessments, view personnel training status, and perform an online risk assessment resulting in an automated work area safety plan. In 2021 EHS continued to roll out additional features including integrating access for department safety officers and laboratory safety captains to provide a platform for reviewing safety by departments and laboratory groups.

Safety Surveys

EHS was able to resume research space safety surveys and conducted inspections of all research spaces and certify all fume hoods and safety showers. Additionally, research safety inspections experienced a 95% closure rate identified issues which is a record.

COVID-19 Response

EHS worked closely with research groups as they safely resumed research and other academic activities after returning from Phase IV restrictions. This support included reviewing research activities that might be affected by social distancing and reviewing procedures to incorporate additional personal protective equipment (masks) into activities.

Biological Safety

The Biological Safety section was organized to address specific subject matter concerns for work with microorganisms, recombinant/synthetic nucleic acids, human and animal materials, insect and animal vectors, and other agents of environmental concern requires special practices and procedures (and in some cases special equipment) to protect personnel, the environment, and the materials contained.

Radiation Safety

During FY 2021, the Radiation Safety section completed the renewal of the University's five-year radioactive materials use permit through the Texas Department of State Health Services. Included in this renewal was a full program review with no critical findings identified and all deficiencies corrected in a timely manner.

Occupational Safety

The Occupational Safety section works to create and manage programs designed "...to assure so far as possible every working man and woman... safe and healthful working conditions..." (Occupational Safety and Health Act 1970). These programs are focused on the proactive control of hazards within the work environment through elimination or communication and management.

Highlights:

Respiratory Fit Testing

The Occupational Safety section oversaw a record number of 94 respirator fit tests in support of increased N-95 respirator use as the University returned from pandemic closure. This represents a 52% increase from pre-pandemic fit tests performed.

Environmental Protection

The Environmental Protection section focuses primarily on compliance with federal and state environmental regulations. In addition to ensuring TTU adheres to compliance requirements, Environmental Protection provides several services to the campus, including:

- Chemical management,
- Hazardous chemical and infectious waste disposal,
- Surplus chemical redistribution,

- Universal Waste and electronic equipment recycling,
- Pollution prevention and waste minimization, and
- Training and education related to waste.

Responsibilities involving air compliance include the permitting, emissions testing, and reporting of air pollution sources associated with the Texas Tech University Federal Operating Permit and annually reporting the quantity of greenhouse gas emissions from the campus. Water compliance activities include the inspection, permitting, and reporting associated with stormwater runoff, fuel storage tanks, and sanitary sewer discharges. These services protect not only individuals on campus but the Lubbock community at large.

Highlights:

Recycling

Assisted in sustainably recycling 131183 pounds of university waste materials which is a 322% increase from the previous fiscal year. This work was coordinated through multiple departments across the university.

Outreach and Training

The Outreach and Training section directs programs at community engagement in safety and the development and distribution of effective safety training and other informational materials in support of safety programs of the department. This section seeks to educate the university community about our safety programs and engage faculty, staff, and students in learning opportunities and initiatives to help develop a continuously improving safety culture.

Highlights:

President's Departmental Excellence in Safety Award

The second award of the President's Departmental Excellence in Safety Award was awarded in FY 2021 to the Department of Chemistry and Biochemistry. This represents the departmental achievements in safety programs through a competitive review and award process. There were many qualified applicant departments showing remarkable strides in department-led safety initiatives.

Department Metrics

Risk Management:

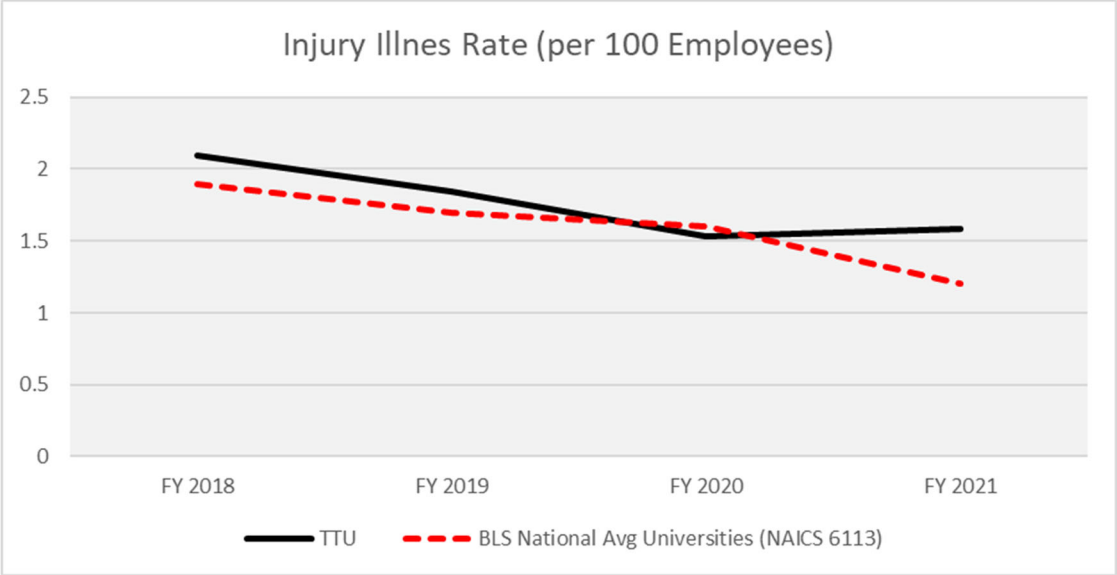

Figure 2: Injury/Illness rate per 100 employees compared to National Average of Universities from the Bureau of Labor Statistics.

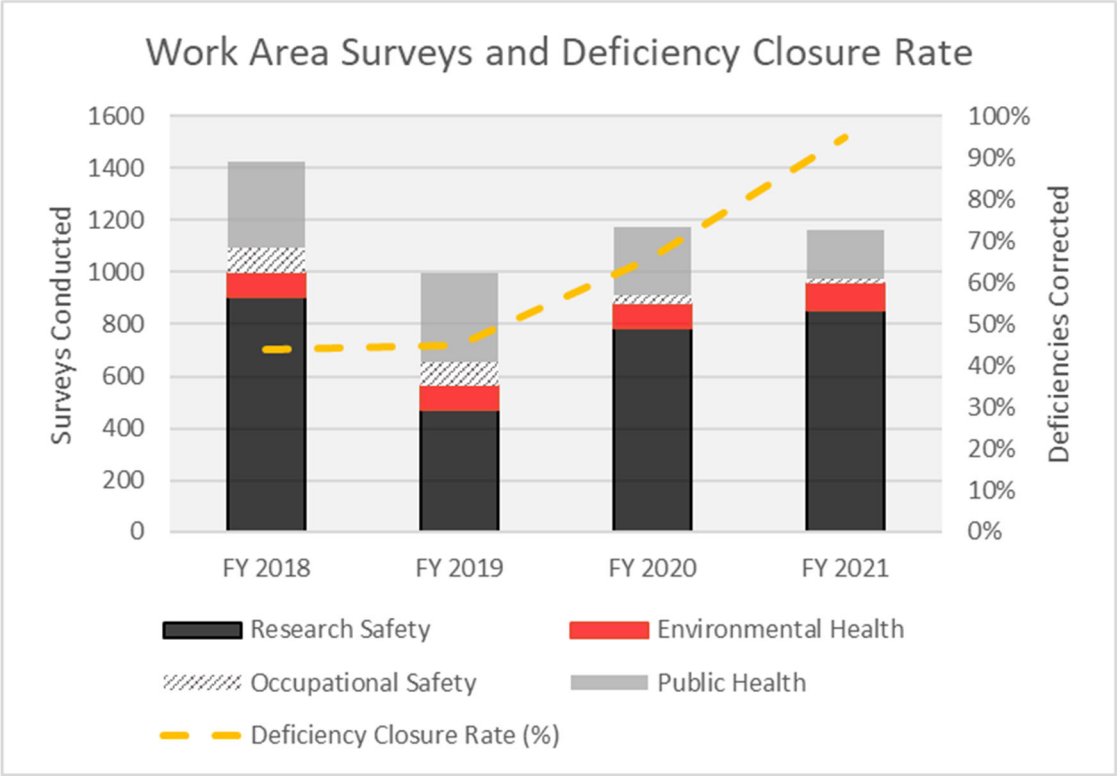

Figure 3: Work area surveys conducted and deficiency closure rate.

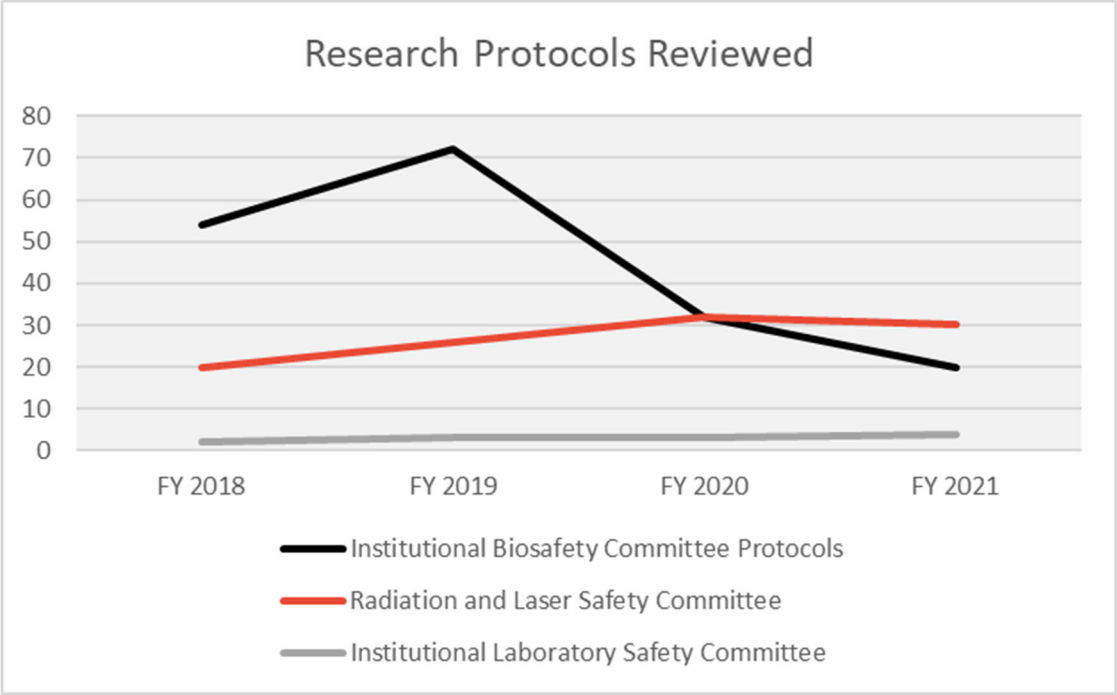

Figure 4: Institutional Biosafety Committee and Radiation Laser Safety Committee research protocols reviewed.

Services:

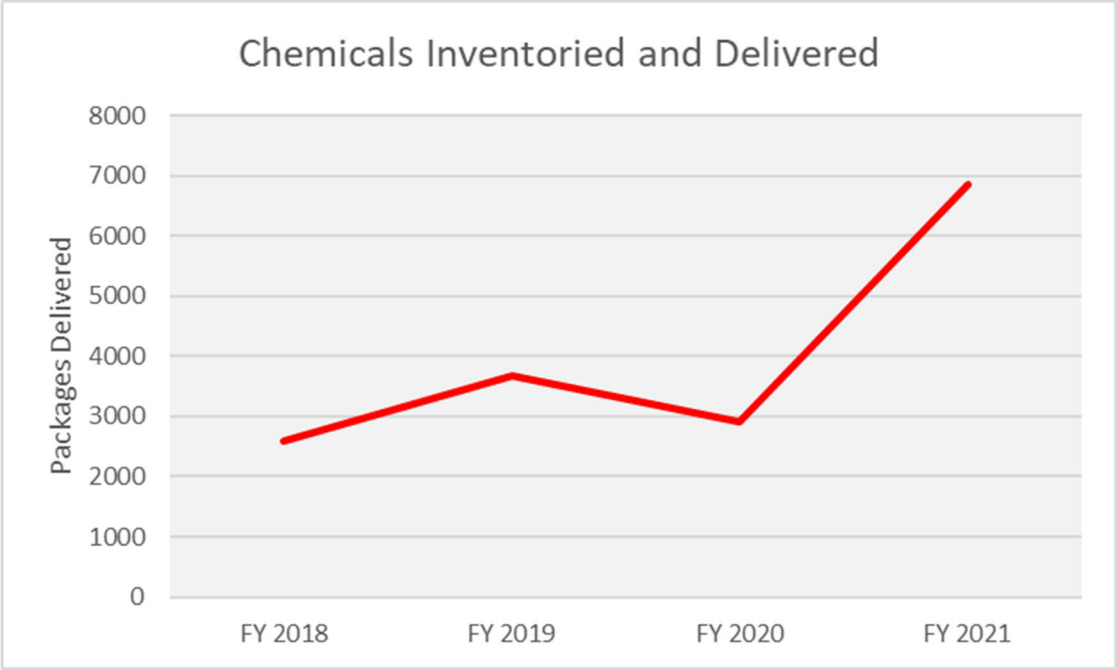

Figure 5: Chemicals inventoried into the online chemical inventory and delivered to academic work areas by EHS personnel. Academic Safety maintains online chemical inventories for all academic work areas on campus.

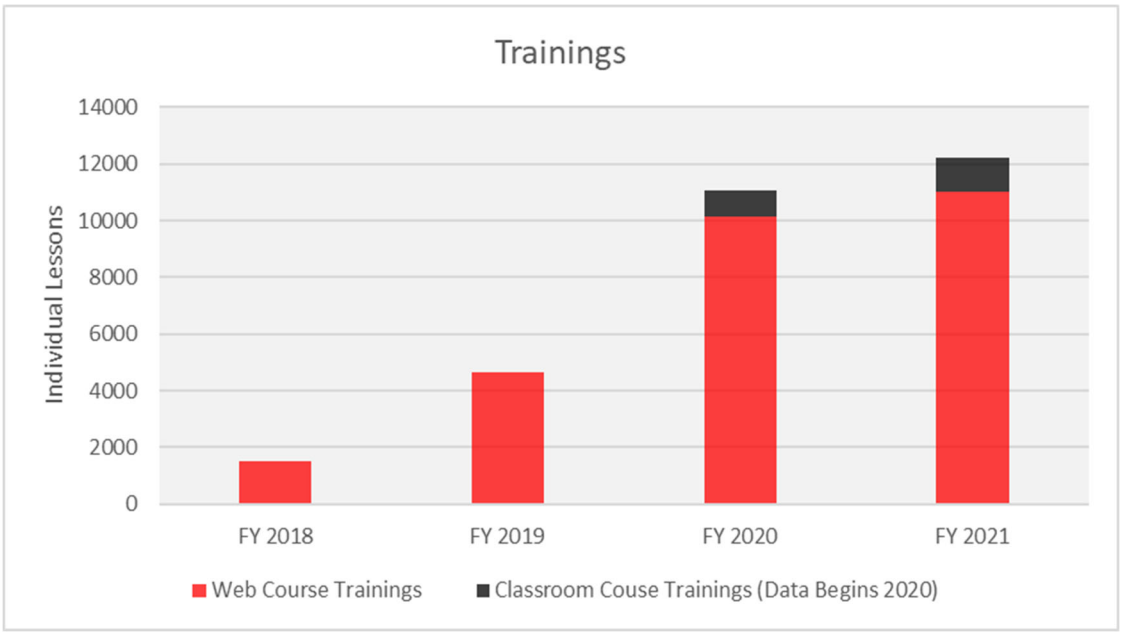

Figure 6: Individual training session enrollments over FY 2018-2020. FY 2020 began tracking in-person class attendance.

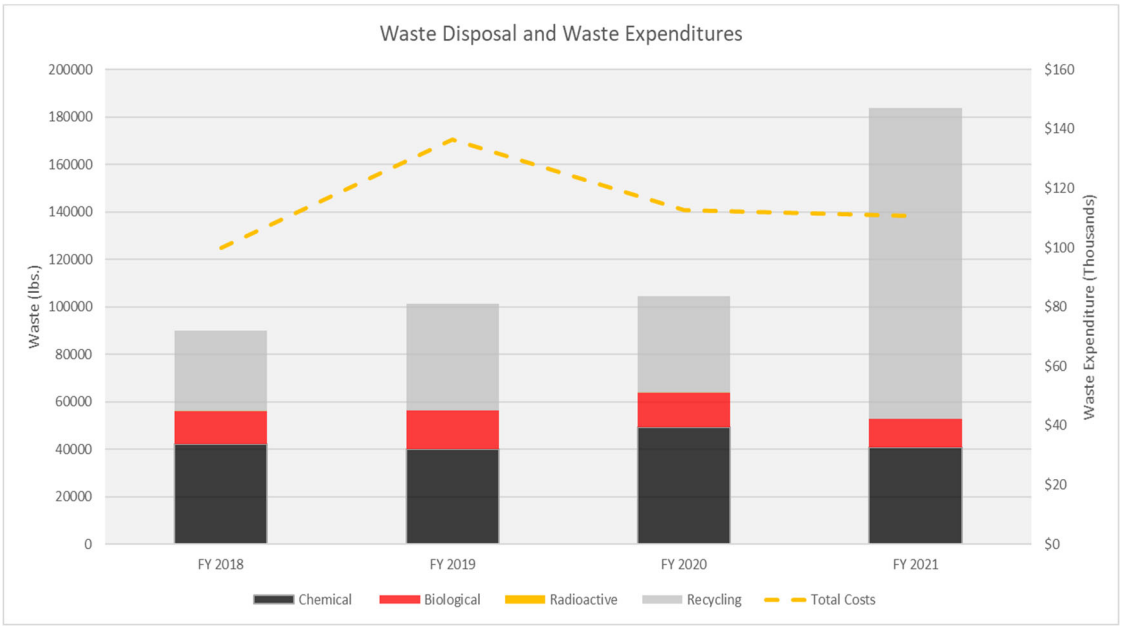

Figure 7: Waste disposal and waste expenditures.

Finances:

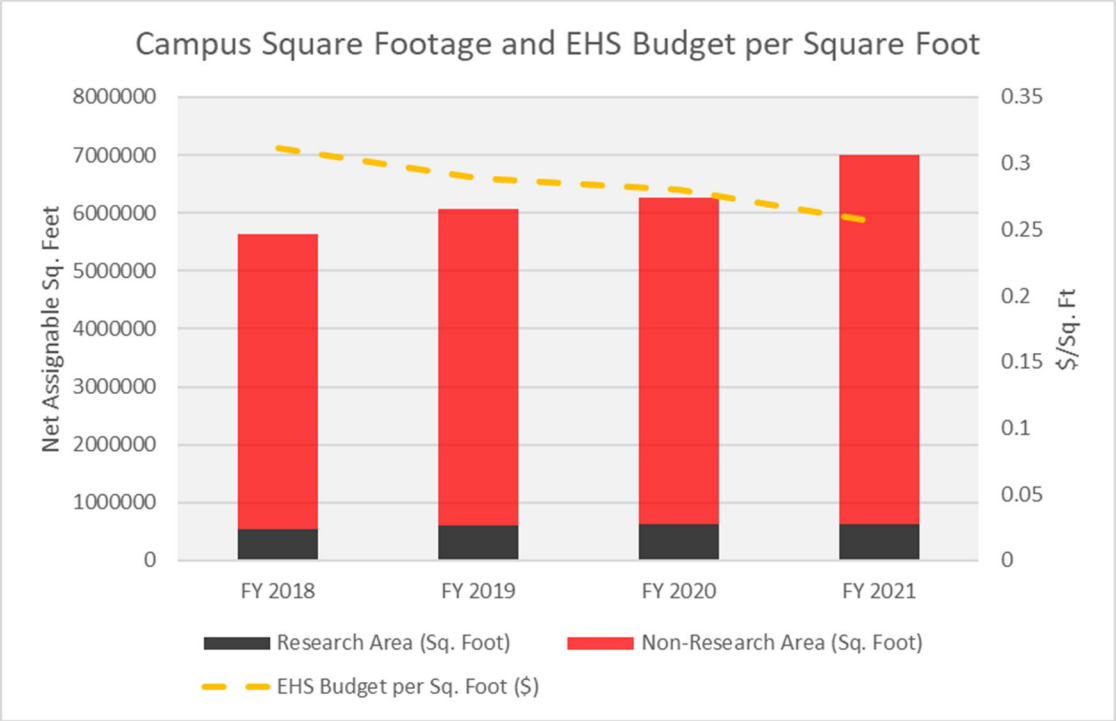

Figure 8: Campus square footage and EHS budget per square foot. This represents a decrease in budgeted dollars per square foot while realizing an increase in square foot responsibilities.