

**University of Michigan**  
**2016 Laboratory Safety Survey Results**  
**Executive Summary**

The University of Michigan Laboratory Safety Survey is a multi-year project to track perceptions of the culture of laboratory safety on the University of Michigan's (U-M) Ann Arbor Campus. For Year 1 of this project, a survey questionnaire was offered to 14,800 individuals (trainees, faculty, research staff) within the laboratory research community during the period of December 2015-February 2016. 1,462 (~10%) of these individuals completed the survey. Respondents were comprised of trainees (47%), research staff (50%), faculty (9%), and other (5%). NOTE: the numbers do not add up to 100% as multiple entries were allowed.

**Key findings:**

- 1) There is some confusion among respondents on who in the laboratory is ultimately responsible for ensuring compliance. A majority (51%) identified the Principal Investigator as being ultimately responsible for compliance, but many also indicated the Lab Manager or Senior Technician.
- 2) Barriers to being compliant with research safety included:
  - perceived lack of a strong safety culture
  - lack of reminders or refresher communication about hazards
  - peer pressure
  - infrastructure and physical limitations (i.e., lab design)
- 3) When asked to rate the risk level of work conducted in their lab on a scale from high to medium to low the majority (88%) responded either medium or low. About 76% of respondents strongly agreed that they understood the potential hazards of working in the laboratory and that they understood their responsibility in ensuring a safe working environment.
- 4) Less than 50% indicated that proactive efforts are underway to address potential future safety concerns. Conversely, about 75% of respondents indicated they are comfortable discussing safety concerns with their supervisor and colleagues; while only 53% reported that same comfort level discussing safety matters with EHS.
- 5) The majority of respondents indicated they receive safety training. A greater percentage (78%) reported always having access to sufficient supplies, tools, and equipment to safely carry out their research. The percentage goes down, however, when the question is about whether Personal Protective Equipment is always used.

**Conclusions:**

A 2014 University Audit cited that UM lacks of a robust integrated process to foster a safety conscious laboratory work environment. The audit identified lack of awareness and concern for safety requirements within the lab setting and lack of oversight to ensure faculty compliance as critical issues. The 2015-2016 Survey reinforces the outcomes of this audit with additional insight into specific concerns and challenges.

- There remains confusion on individual responsibilities within the research space and who is ultimately responsible for their safety. Key barriers to adherence to lab safety include a perceived lack of a strong safety culture and not receiving reminders or refresher communications about specific safety hazards or lab procedures.
- The majority of respondents said they understood potential hazards, and are comfortable discussing safety concerns with their supervisors and colleagues, but expressed less confidence in the knowledge, commitment, and concern of their peers to act in a safe manner. Written comments indicate that indifference and the lack of concern by peers is a hurdle.
- Fewer than half said their lab makes a proactive effort to address potential future safety concerns. Likewise, fewer than half agreed that there is awareness on how to properly report safety concerns. It also appears that there is less confidence in being able to discuss safety issues with EHS than with their supervisors; possibly indicating a general lack of comfort with EHS as an advocate rather than a regulator.
- Finally, a prevalent concern based on written comments received is that infrastructure and physical limitations (e.g., laboratory design) create barriers to adhering to safety rules. Laboratory design and infrastructure problems deserve closer examination either at the school/college level or higher.

This first administration of the laboratory safety survey sets a baseline for future surveys of the U-M research community on this topic. Although it is difficult to draw firm conclusions from the results of this survey, it appears there is room for improvement with regard to lab members' understanding of roles and responsibilities within their labs as these relate to safety. Another area to address would be the sense of burden and inconsistency with regard to safety rules and guidelines, and how they relate to the specific work in the lab. Finally, laboratory design presents a challenge to integrating safety practices seamlessly into daily lab work. Future surveys will explore these areas further.