

Student Survey Summary

MEMS Education Workshop

Total of 57 Participants

Demographics

- 3 BS, 5 MS and 49 Ph.D
- 40% EE, 42% ME, rest MatSc, Bioeng, ..
- 20% (11) had some industry partnership

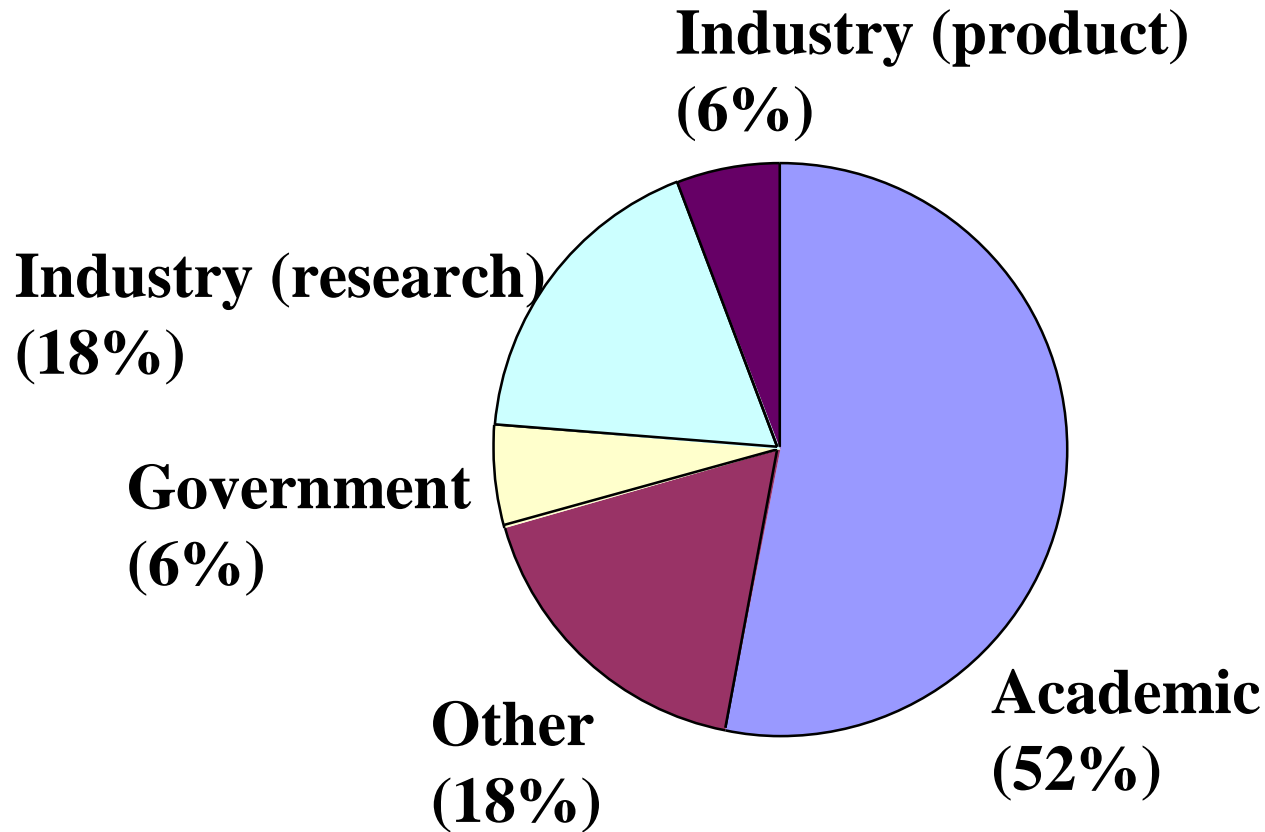
Percent students involved in MEMS related

Community outreach 14%

Industrial outreach 21%

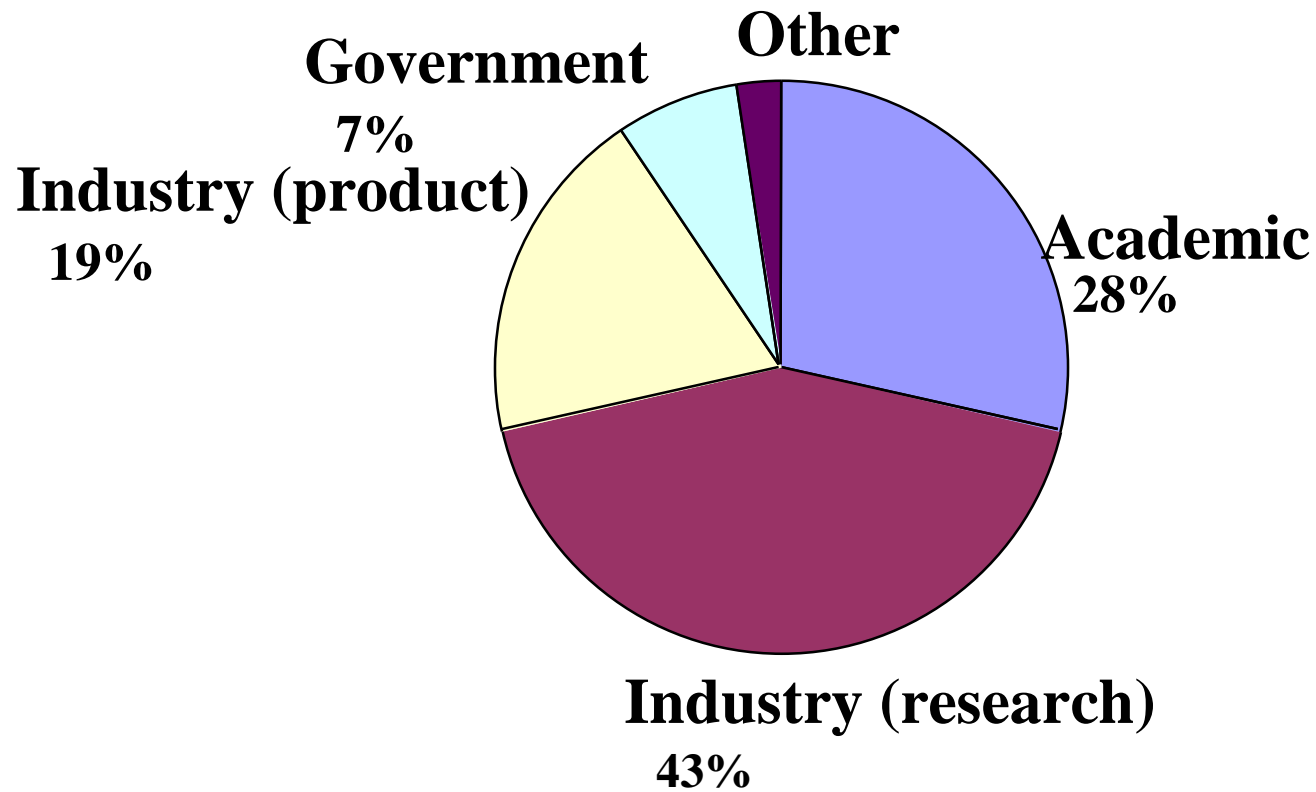
Continuing education 14%

Have graduated and have jobs (17 responses)

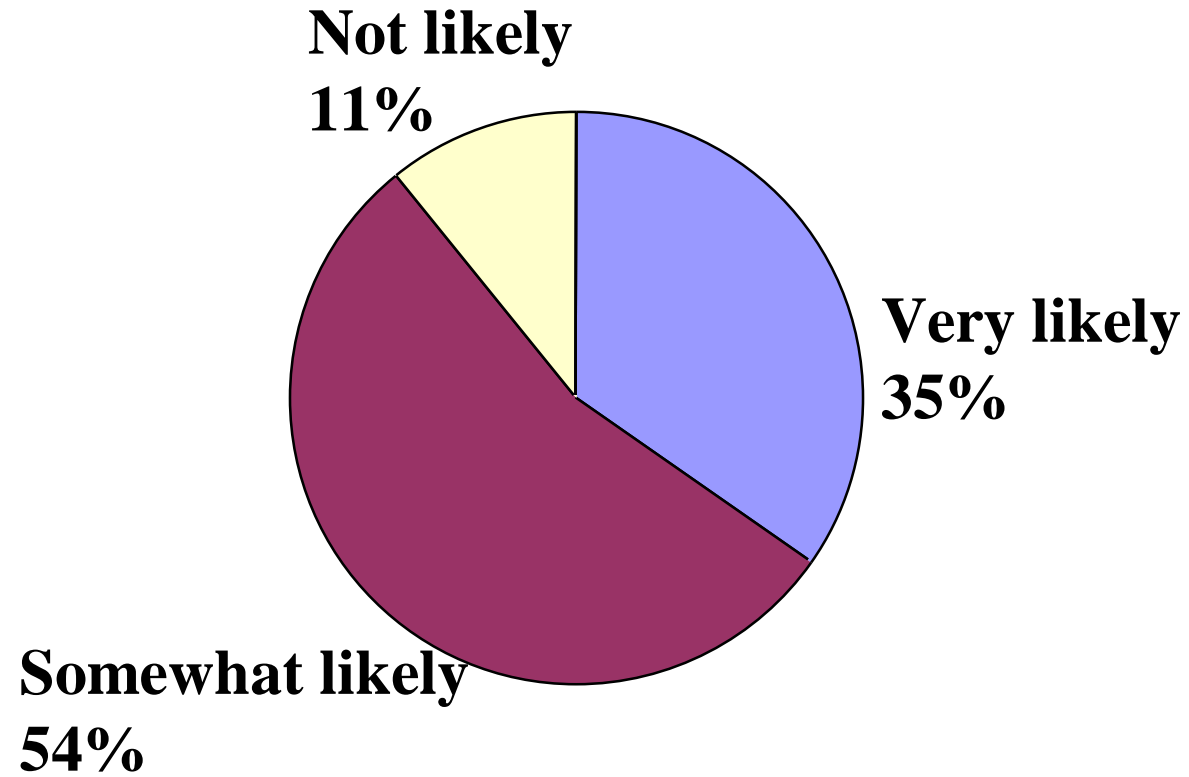


65% (11/17) have MEMS related jobs

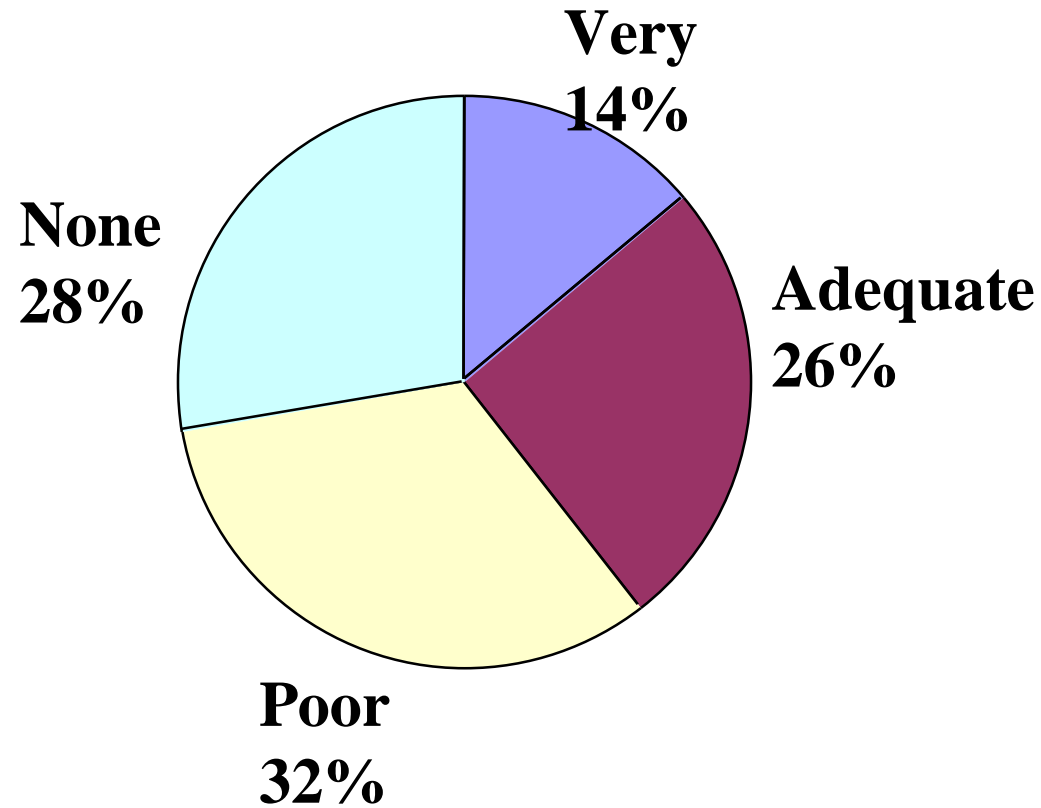
**After graduation, what category of job do you want?
(42 responses)**



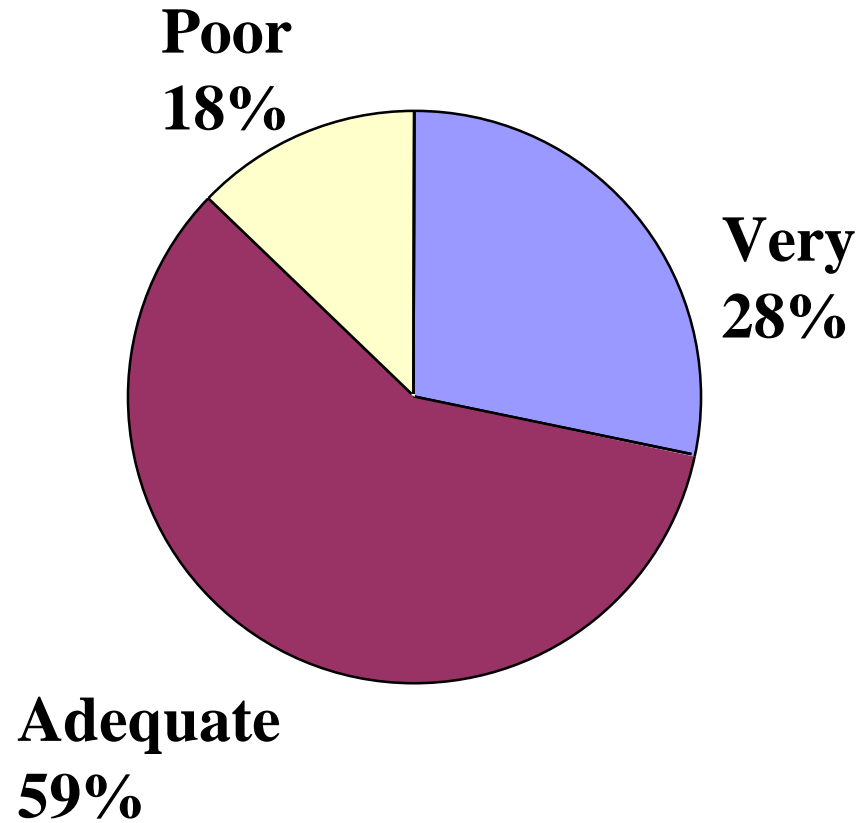
How likely you will get a MEMS related job? (46 responses)



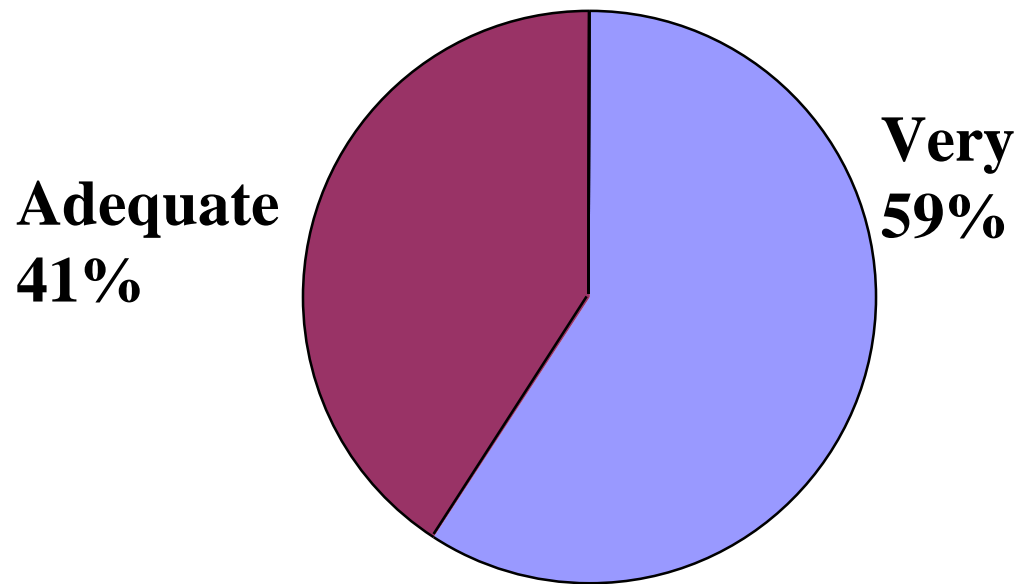
Percent students feel how well prepared they are to succeed in a MEMS career with a BS degree (43 responses)



Percent students feel how well prepared they are to succeed in a MEMS career with a MS degree (39 responses)



**Percent students feel how well prepared they are to
succeed in a MEMS career with a Ph.D. degree (44 responses)**



(1) Most successful learning activities in your MEMS curriculum?

Hands on fabrication training of MEMS devices

Examples:

“Theoretical basis for all the processing steps involved in making MEMS devices, and then showed me the processes firsthand -- in both conventional cleanroom processing techniques and applied process development. The hands-on aspect of the class was huge.”

“Hands-on learning involving actually fabricating MEMS devices.”

Relation to fundamentals

“Correlations between what we do in the lab and the fundamental materials science, chemistry, physics behind those processes”

“MEMS physics and design class”

*(1) Most successful learning activities in your MEMS curriculum
(continued)*

MEMS design

“Design of the structure and instrumentation and how they are interlinked.”

Project in MEMS class

(2) Most valuable skills/assets that you (will) bring to your employer?

**Breadth of knowledge base:
fabrication, design, basic physics of MEMS, materials science,
analysis.**

Examples:

“Electical engineering background (fundamentals),
basic physics/science background ... MEMS fabrication; also
III-V semiconductor materials background;-combination of MEMS
and photonics background.”

“MEMS design and fabrication experience;Fundamental scientific/engineering
understanding;Experiemental testing/characterization experience”

“Design, modeling, hands-on fabrication experience;Understanding of device physics,
rigorous mechanical engineering education and experience; Interdisciplinary education
spanning mechanical enginnering, biology, chemistry; Broad awarenenss of state of
research in field; Communication, teamwork, leadership skills.”

Inference

- **Students identify (1) hands on fab training, and (2) broad science and engineering background as essential for their careers in MEMS**
- **Students feel that they should have at least MS degree to be skilled in MEMS**
- **Large majority of MEMS workforce have and will have MS or Ph.D degrees**
- **Students trained in MEMS have high expectations on having MEMS related academic or research oriented jobs**