

# Engaging Industry Partners to Develop Simulations for Workforce Development

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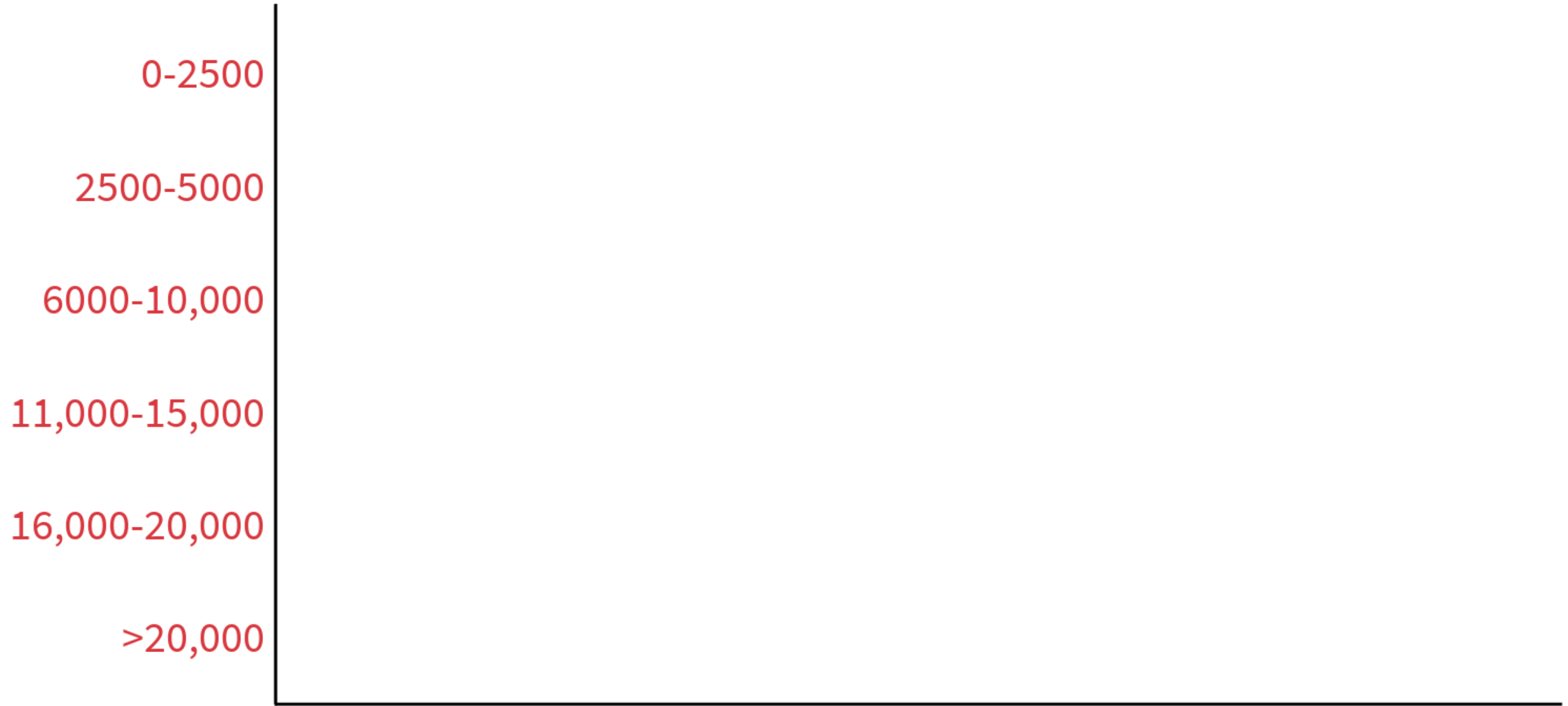
Naomi Boyer & Mori Toosi  
Polk State College



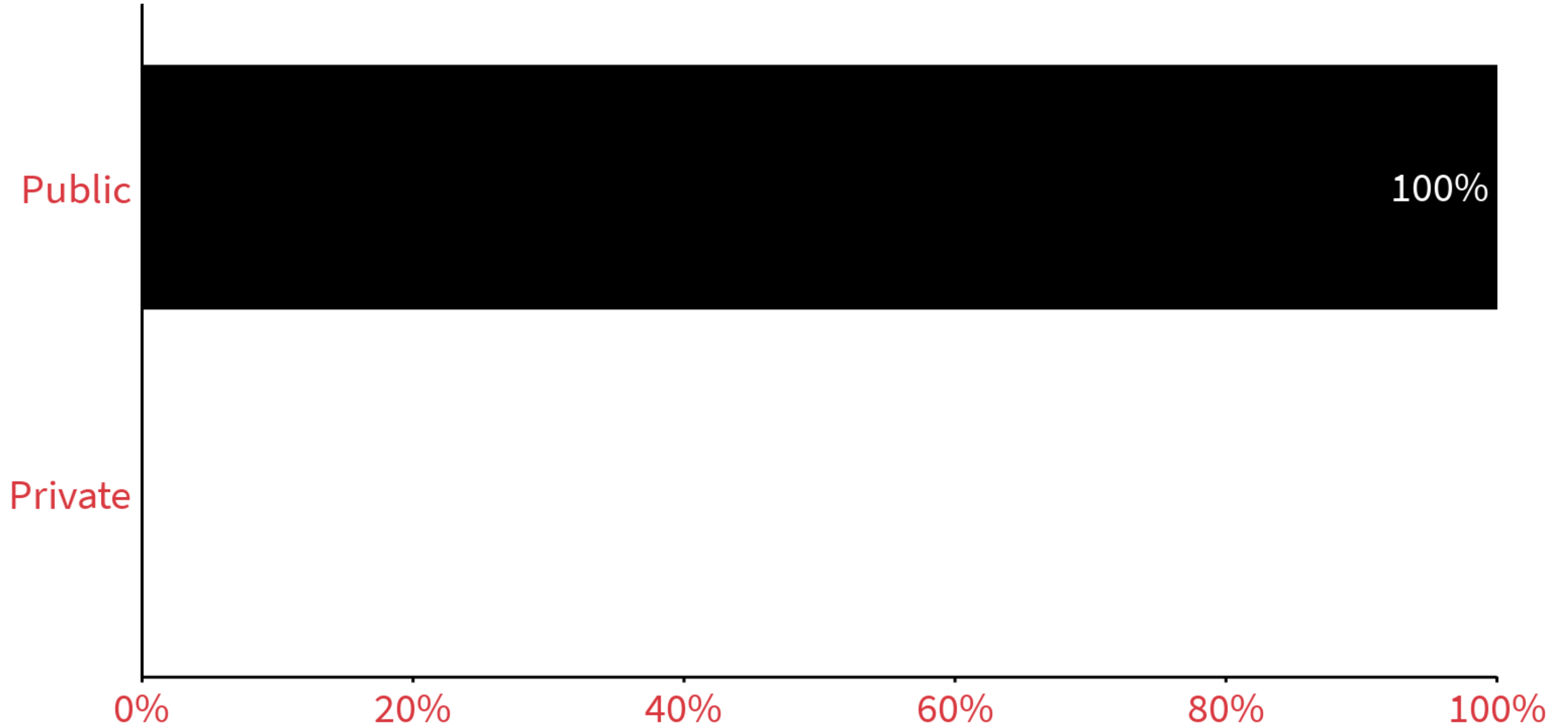
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University of Texas at Austin



# What's your institutional enrollment?



# Is your institution public or private?



# Which programs do you have at your institution? (Select all that apply)

Advanced Manufacturing Technologies

Agriculture and Bio Technologies

Energy & Environmental Technologies

Engineering Technologies

Information Technologies

Micro & Nano Technologies

Security Technologies

# Engaging Industry Partners to Develop Simulations for Workforce Development

## Introduction

- **NSF ATE Grant: Ensuring workforce readiness for the energy and manufacturing industries through educational simulations**
  - **Excelsior College**
  - **Polk State**
  - **Industry Partners-Advisory Committee**
    - **Energy**
    - **Manufacturing**

## Engaging Industry Subject Matter Experts (SME's)

- **Developed Content for Simulations**
- **Developed Content for Courses**



# Engaging Industry Partners to Develop Simulations for Workforce Development

- 1) **Center for Energy Workforce Development (CEWD) Energy Industry Fundamentals Certificate**
- 2) **Develop 3D simulations for electrical safety, blueprint reading, electrical troubleshooting, and machine operation safety**
- 3) **Simulations will be provided in learning mode and assessment mode**
- 4) **Industry partners reviewing and providing feedback on content and simulations**
- 5) **Supports career readiness with realistic scenarios developed in collaboration with industry experts**
- 6) **Simulations enhance the student learning experience by providing students multiple opportunities to understand and practice technical concepts.**

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## Process

- **SME's Develop Content for Scenarios**
- **Content Reviewed by Industry Advisory Committee**
- **Vendor Develops Flowcharts and Storyboards**
- **Storyboards Reviewed by SME's, and Industry Advisory Committee**
- **Vendor Develops Simulation**
- **Simulation Reviewed by PI, Co-PI's, SME's and Industry Advisory Committee**
- **SME/Faculty Integrate Simulations into Course(s)**
  - **Learning Mode**
  - **Assessment Mode**

**What are some things you would want to see in simulations in your program/discipline? Enter a word or words.**



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[Electrical PPE Flowchart](#)

[Electrical Simulation-PPE](#)

[Manufacturing-PPE](#)



# How would you rate content of the simulations?

Poor

Fair

Average

Good

Excellent

# How would you rate the user interface of the simulations?

Poor

Fair

Average

Good

Excellent

# What did you like about the simulations

# How could the simulations be improved?

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## Importance of Industry Collaboration

- **Industry SME's**
  - › **Expertise**
  - › **Alignment with Standards & Work Practices**
- **Industry Feedback**
  - › **Ensure Industry Needs are Satisfied**
  - › **Current and Relevant Content**