

Semiconductor Workforce Pipeline Model

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(TEEX)



- Texas A & M University System
- Mission statement of TEEEX
 - Train- Serve- Respond
- 1000 employees/ 7 Divisions



Introduction

- What is the semiconductor workforce pipeline model?
- Classified as “Critical Need” within the workforce
- Issues for Industry Training
- Long-term solutions with this model



Major Issues

- Complex manufacturing process
- Need clean-room environment
- Lack of skilled workforce
- Industry Constraints
 - Major investment of training
 - Multi-million tools
 - Production vs. Training time
 - Lack of educator/ academic combination



Solutions

- Combine existing TEEEX curriculum
- “Hands on” learning of mini-fabs
- Develop partners
 - Industry
 - Colleges
 - High Schools



Training Layout

- Current employee
 - Two-day process classes with 50% lab time
- College Students
 - Four-day process classes with 50% lab time
- High School Students
 - Four-hour “career day” style



Current Employees

- Unable to train with tools
 - Production time
- Major Investment for an engineer
 - 18-24 months to train
 - Over \$100K
- Need the training
- Complex process to understand
- Screens potential employees



College Students

- Provides new employees for the companies
- Quicker assimilation
- Skip the basics
- More qualified than other students
- Internships with the partner companies



High School Students

- Gives motivation for math and science studies
- Provides a goal or target
- Piques interest in some
- Deters others




Partners

- Richland Community College
 - Provides the Mini-fab
- Blinn Community College
- ST Microelectronics, Dallas
Semi/ Maxim, supplier
companies, etc.
- Multiple High Schools from
around the state



Long term goals

- Establish additional partners
- Continue the pipeline to create a more skilled workforce
- To be more competitive as a nation on the global market
- Create similar model in other geographic regions



Open to
questions!