



# 2005 International Conference on Characterization & Metrology

*Welcome!*



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**The Erik Jonsson School of Engineering and Computer Science**

A composite image showing a cowboy on a horse herding a group of longhorn cattle on a dirt path. In the background, a city skyline is visible, including a prominent tower with a spherical top. The scene is set against a clear blue sky.

***Welcome to  
Richardson!***



*Largest Announced Project in 2003*



*From Site Selection magazine, May 2004*



# TI's Texas Two-Step

**Chip-maker's second 300-millimeter wafer fab in three years helps Texas toast global competition for world's most coveted high-tech factory.**

by RON STARNER

**The Erik Jonsson School of Engineering and Computer Science**



# Program Highlights



**\$3B Capital Project**

**1000 Direct Jobs at TI**

**1500 Addl. Students and Researchers at UTD**

**75,000 Addl. Jobs**

**Over 15 Years**

**TEXAS INSTRUMENTS**



**T.I. RICHARDSON PROJECT**

Conceptual Design

Phase 1 - Bird's Eye View (South)

March 2004



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# TI's Next Generation 300mm Fab



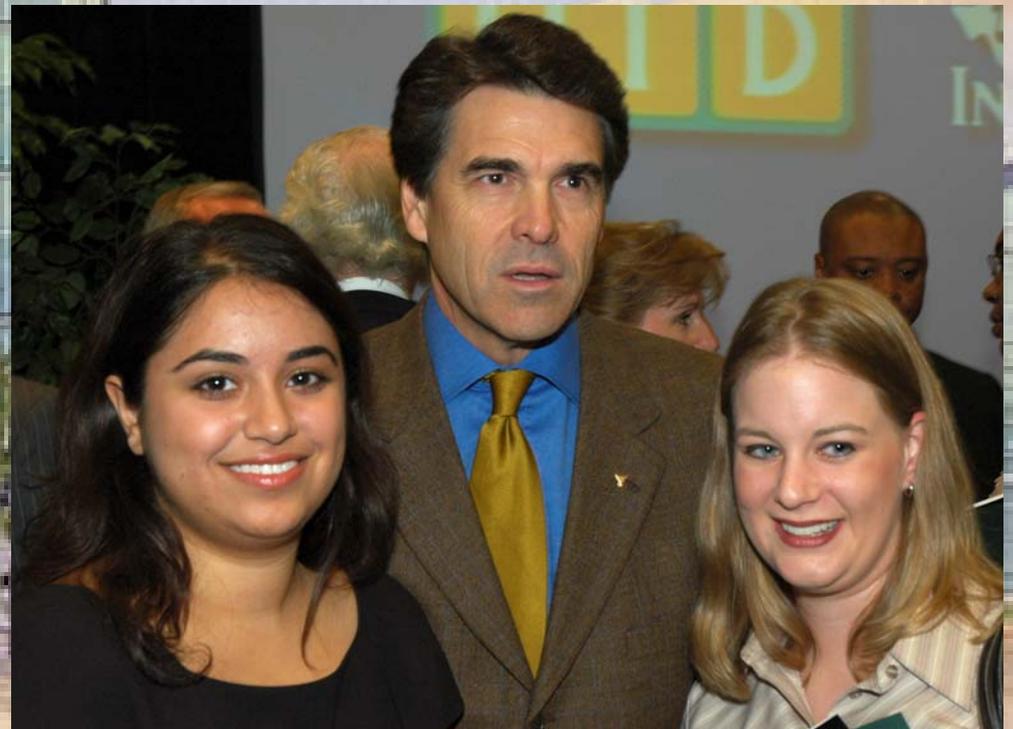
February 2005

**The Erik Jonsson School of Engineering and Computer Science**



# Natural Science & Engineering Research Building

Ground Breaking 11/18/2004



**UT****D**

# *Additional Recent Benefits*

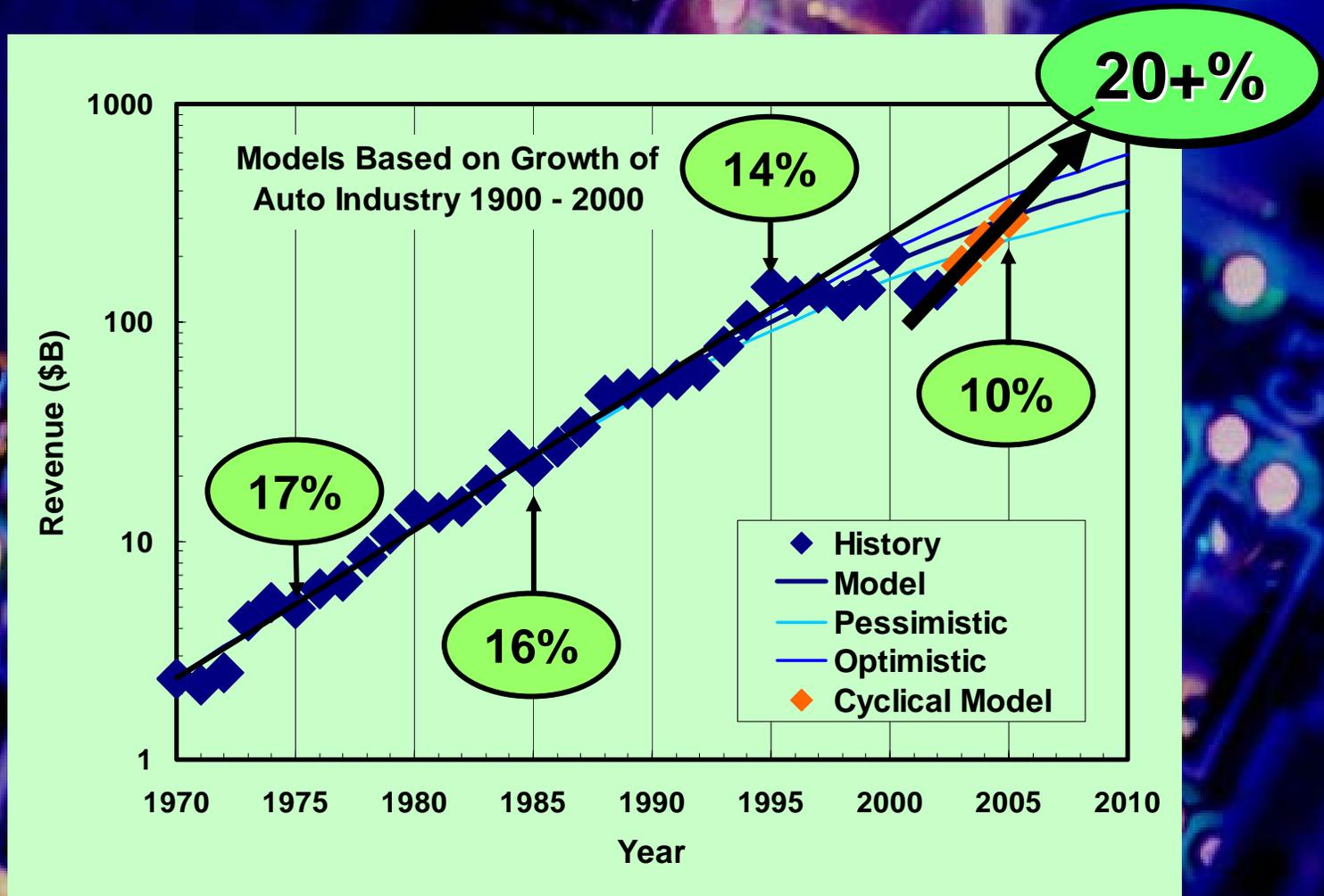
- **Cisco Expanding in Richardson**
  - Committed to "... growth in Richardson... New hires will come from the experienced labor pool as well as the 1<sup>st</sup> class University System in Texas."
- **New Startups in the Area**
- **New Research Programs at UT Dallas**
  - Information Assurance & Network Security
  - Machine Understanding and Translation of Human Language
  - Electronic Textiles
- **Industry/UTD/Community College/K-12 Partnership Announced**
  - Increase Collin/Dallas County Science and Engineering Interest and Enrollments
  - Continue to Drive Diversity



# Introduction

## **Semiconductors as a Growth Industry?**

# Maturation of the Semiconductor Industry - Projections from a Historical Study of Industry Growth Trends



## ■ Past Predictions Close, But Too Optimistic

	Predicted	Actual
• 2002 – 2003	29%	18%
• 2003 – 2004	29%	31%

## ■ Revised (Cyclical/Growth) Model

	2002 Model	2005 Model
• 2004 – 2005	<del>29%</del> →	20%
• 2005 – 2006		0%

– 10% AVERAGE GROWTH Remainder of the Decade

## ■ Drives

- Additional Pressure on Margins
- Additional Focus on R&D and Manufacturing Cost & Cycletime