Reaching the Future Workforce

Kimberly S. Adams
Vice President
Diversity, Inclusion & Equal Opportunity Programs
The Challenge

• Nationally Recognized as Critical Issue
  – U.S. Vitality Derived From Well-Trained People and the Innovations They Produce
  – Need to Develop, Recruit, and Retain the Best and Brightest to Maintain America’s Competitiveness

• STEM Talent Pipeline Seriously Threatened
  – Growth in Occupations Requiring STEM Skills
  – Significant Number of Anticipated Retirements
  – Students Not Interested in Engineering Career
Roughly a quarter of the nation's 637,000 aerospace workers could be eligible for retirement this year, raising fears that America may be facing a serious skills shortage in the factories that churn out commercial and military aircraft.
LM Workforce

Retirements Become Critical Issue
By 2012, minority groups will comprise 35% of labor force - will be the majority between 2025-2030

2008 – 44% children minority

2023 – 50%+ children minority
Latinos Account for 22 Percent of the U.S. School-Aged Population – Up from 9 Percent 30 Years Ago


The Gap in High School Graduation Has Nearly Disappeared for African Americans, But Persists for Latinos

Educational Attainment: Percent High School Graduate or Higher

Non-Latino White  | African American  | Latino  | Asian American

Note: Chart shows data for adult population aged 25 and older.
Although High School Completion Has Improved for All Groups Since 1972, 20% of Latino Males Still Leave High School Without a Diploma

NAEP Mathematics Scores Improved; African Americans’ and Latinos’ Scores Continue to Lag Non-Latino Whites’ Scores

More Than Half of Asian Americans Hold a Bachelor’s Degree or Higher – All Other Ethnic Categories Lag

Educational Attainment: Percent Bachelor's or Higher

Note: Chart shows data for adult population aged 25 and older.
Lockheed Martin Approach

• National Programs
  – Engineers in the Classroom
  – FIRST Robotics

• Key Partnerships
  – NACME
  – Great Minds in STEM
  – Innovate+Educate
  – STEMconnector

• Local Programs/Support
  – IT Apprenticeship Programs
  – School to Work
OUTREACH GOALS:
✓ Fill our engineer, scientist and technologist workforce pipeline
  • Short-Term: Increase the number of college freshman entering our target degree programs with an affinity toward Lockheed Martin
  • Long-Term: Develop and inspire students across the entire K-12 spectrum to enter a technical degree program in college

STRATEGY:
✓ Create STEM partnerships that provide Lockheed Martin “employee-student” engagement opportunities
  • Best-Practice, Standards-Based Programs
  • School Curriculum
  • Local Clubs; Design Competitions

INITIATIVE COMPONENTS:
✓ Pre-Engineering Curriculum – to provide academic RIGOR
  • Project Lead The Way®; Engineering Academies

✓ Extracurricular Based Programs – to show real-world RELEVANCE
  • 4-H Robotics Clubs, Team American Rocketry Challenge, FIRST Robotics, MATHCOUNTS

✓ Student Engagement Activities – to build lasting RELATIONSHIPS
  • Science & Engineering Festivals; Career Fairs
  • STEM Club Mentors/Coaches

LM Engineer and Non-Engineer Volunteers Make the Strategy Work
Engineers in the Classroom

Whole-Systems Approach to Lockheed Martin’s STEM Education Outreach Initiative

**Involve**
- ✓ Students
- ✓ Teachers
- ✓ Guidance Counselors
- ✓ Parents
- ✓ LM Engineer Volunteers
- ✓ LM Non-Engineer Volunteers
- ✓ STEM Corporate Partners
- ✓ STEM Professional Associations/College Chapters

**Key Program & Partnership Elements**
- ✓ STEM Focused; Standards-Based Support Materials
- ✓ Nationwide Reach
- ✓ Employee Engagement Opportunities
  - Large Group
  - Small Group
  - One-on-One
- ✓ Engage Students Across the Entire K-12 Spectrum
- ✓ Training/Professional Development
  - Teachers/Extracurricular Activity Leaders
  - Employees
Engineers in the Classroom


THE STRATEGY

Develop school partnerships at the local level to create Lockheed Martin pipelines in communities nationwide.

✓ High School
  • Partner with High Schools located near LM facilities, which also have an engineering/technology focus and represent diverse populations

✓ Middle School
  • Partner with Middle Schools that feed into partner High Schools

✓ Elementary School
  • Partner with Elementary Schools that feed into partner Middle Schools

✓ Bridge to College
  • Annual, merit-based scholarships tied to corporate technical degree programs, for graduates of LM partner High Schools
EITC Ambassadors
Student Brochures
EITC Ambassadors
Educator’s Guide/Classroom Posters
Innovate+Educate

- **Convene, Align, Focus, Seed and Scale with Industry to Support State STEM Infrastructures**
  - Increase competitiveness and growth with a focus on STEM and Jobs
  - Increase STEM pipeline including two-year degrees
  - Align and expand “what is working in STEM” at state level
  - Advance college and career readiness for all students

- **Broaden Range of STEM Opportunities to Under-represented Populations**

- **Become a National Voice of Industry to Move STEM Agenda Forward**
Innovate+Educate

New Mexico STEM Network

- Funded in Year One by Lockheed Martin, Intel, Monster, Gates Foundation, Kellogg Foundation, IBM and AT&T
  - Developed infrastructure
  - Engaged key stakeholders
  - Launched 3 Projects
    - Seamless Summer of STEM
    - New Options NM
    - Education 360
School to World
...a strategic business partnership...

“Curriculum is often irrelevant for those without a destination in mind.”

Statewide Event and Partnership
Let’s keep our eye on the prize

STUDENT SUCCESS . . .

OUR FUTURE