REVERSING THE BRAIN DRAIN IN SCIENCE, ENGINEERING, AND TECHNOLOGY

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IN3
A Rich Pool of Talent in Companies’ Own Backyard

A significant portion of young SET talent is female.

Female SET Talent Age 25-29

- Science: 66%
- Engineering: 21%
- Technology: 43%
- SET Overall: 41%
Athena Traits

• Fully 63% of female scientists entered the field because of a desire to contribute to society’s health and well-being.

• For women in SET, the desire to give back is a more powerful motivator than money.
Massive Losses

- Quit rates are huge: Over half (52%) of highly credentialed women leave their private sector SET jobs.
- Fully a quarter abandon their training (leave field).
The Fight or Flight Moment

Female attrition spikes between ages 35 and 40.
Companies Facing Serious Talent Shortfalls

“Scramble for Scientists; Shortage Threatens to Slow Growth of Booming Biotech Industry”

“China’s Looming Talent Shortage”

“Gates Sees Engineer Shortage Looming”

“As Jobs Sit Empty, Europe Debates Its Future”

- **U.S.** needs 1.5 million computer specialists by 2016
- In **Germany**, 22,000 engineering positions unfilled due to shortage of qualified applicants
- **India** anticipates shortfall of 500,000 high tech workers by 2010
Antigens in SET Corporate Culture

- Hostile macho cultures
- Extreme work pressures
- Isolation
- Mysterious career paths
- Systems of risk and reward
Hostile “Macho” Cultures

An astonishing **63%** of women in SET report dealing with sexual harassment.

In engineering and tech, more than a quarter of women feel they are seen as intrinsically less capable.
Isolation

• As women climb the ranks, their numbers dwindle
• One third of SET women feel extremely isolated at work
• Vicious cycle caused by lack of female role models, mentors and sponsors
Mysterious Career Paths

- Confusion about what it takes to get ahead
- 45% of SET women feel stalled in their careers
- 83% of women are without sponsors
Risk and Reward System

• Work cultures encourage a state of crisis
• Risks are perceived as being greater for women
• Women do less to advertise their success
• Women become producers rather than creators
Extreme Work Pressures

• The average female global tech worker logs **73 hours**.

• More than half of SET workers operate in multiple time zones.

• Nearly \( \frac{3}{4} \) of SET women report fierce face time pressures.

Elements of Extremity

- **Feel pressure to put in extensive face time**
  - SET: 71%
  - All sectors: 19%

- **Need to be available 24/7**
  - SET: 36%
  - All sectors: 26%

- **Work with colleagues in multiple time zones**
  - SET: 54%
  - All sectors: 14%
Intervening at the Fight or Flight Moment

Cutting female attrition by 25% would add **220,000** highly-qualified women to the SET labor market.
New Company Initiatives

• **Expanding recruitment:** Pfizer “Student Mentoring,” Google wider filters

• **Targeting line and technical roles:** Alcoa “Women in the Line,” Intel “Technical Female Leadership Series”

• **Tackling the fight or flight moment:** J&J “Crossing the Finish Line,” BT “Freedom to Work”

• **Creating on-ramps:** GE India “Restart,” MIT “Midcareer Acceleration Program”

• **Fighting isolation:** Cisco “Executive Talent Insertion Program,” Microsoft “Mentoring Rings”

• **Leveraging Athena traits:** IBM “Corporate Service Corps,” GE “Africa Project”