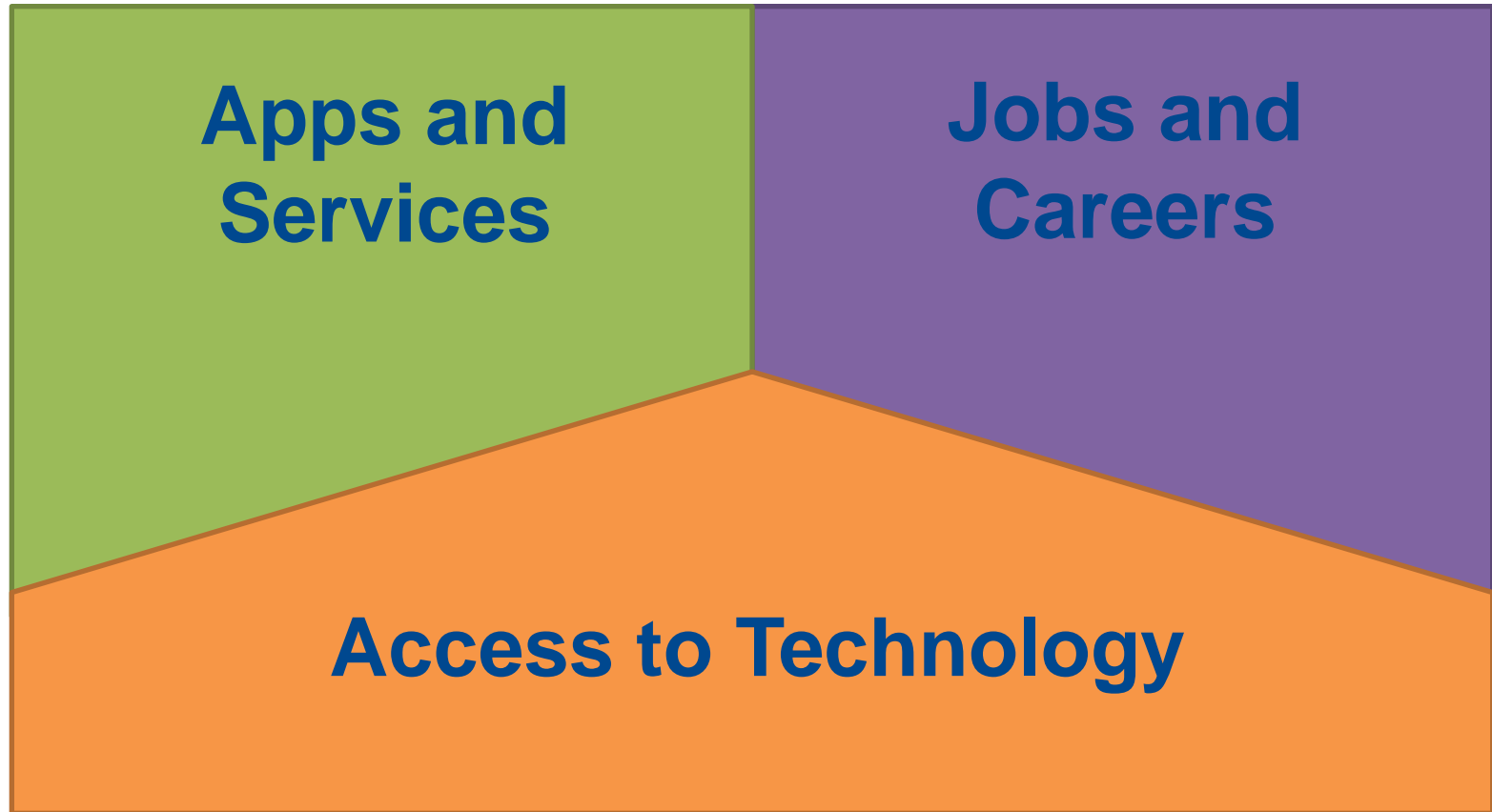


# **Improving Women's Lives with Mobile and Internet**

**Ann Mei Chang**  
U.S. Department of State  
@annmei

# Vast Opportunities and Challenges



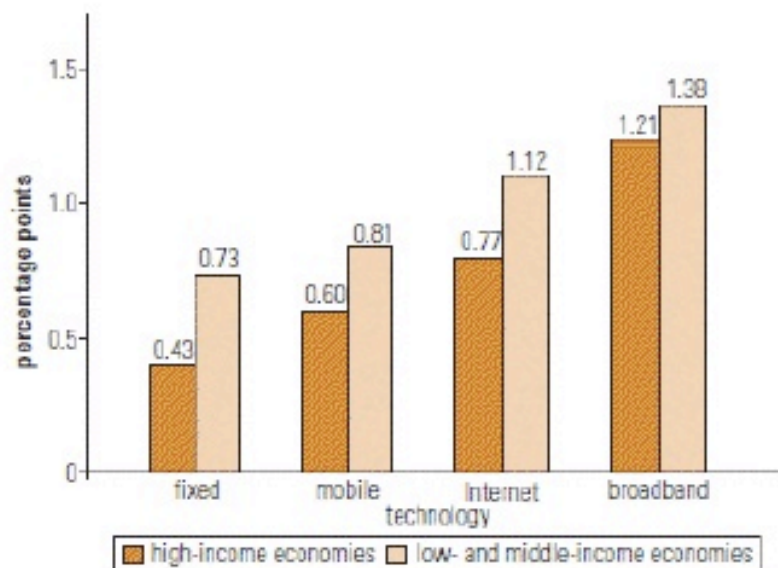
**Apps and  
Services**

**Jobs and  
Careers**

**Access to Technology**

# Mobile/Internet Drive Economic Growth

Figure 3. Growth Effects of ICT Infrastructure

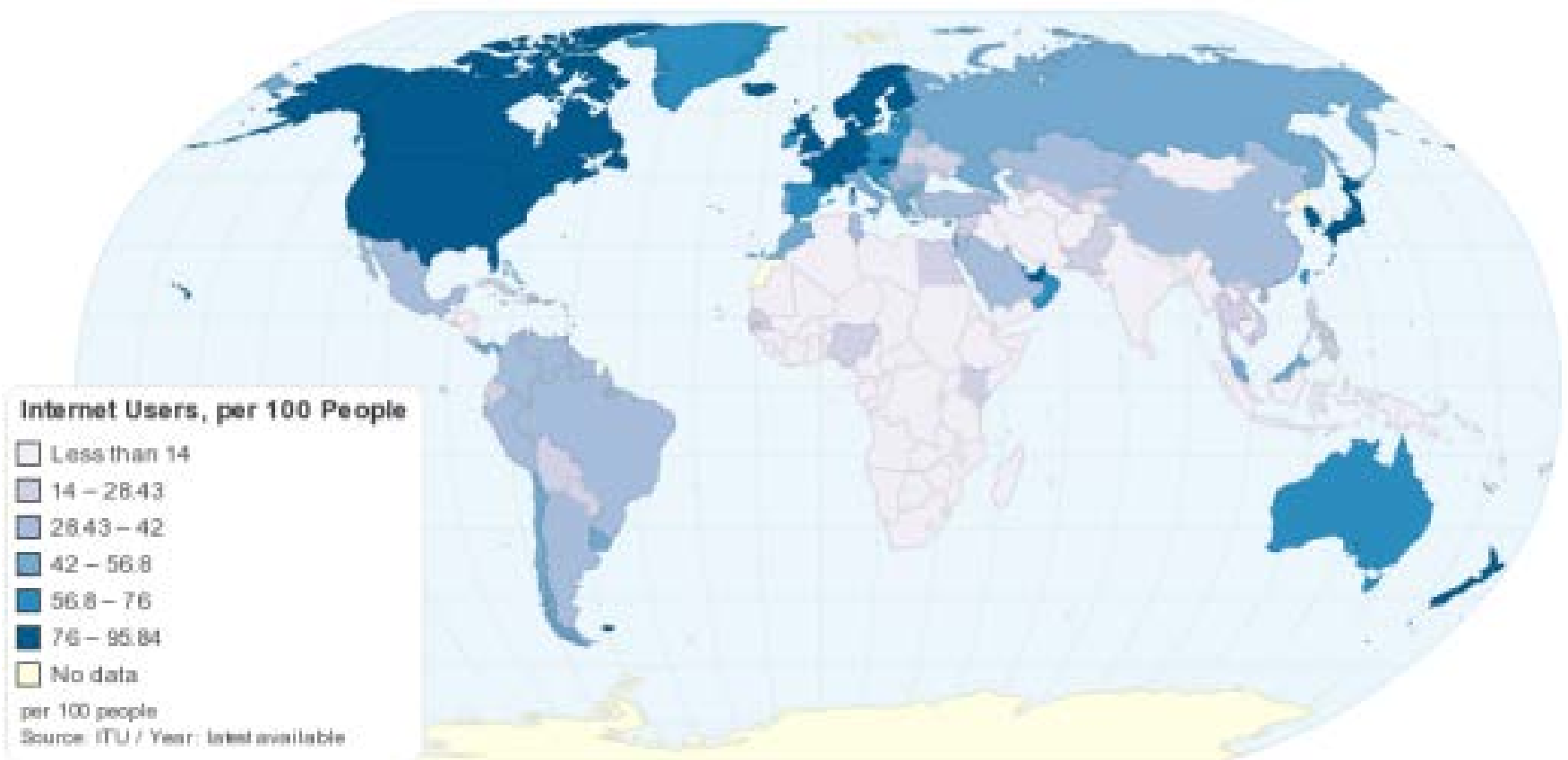


Source: Qiang 2009.

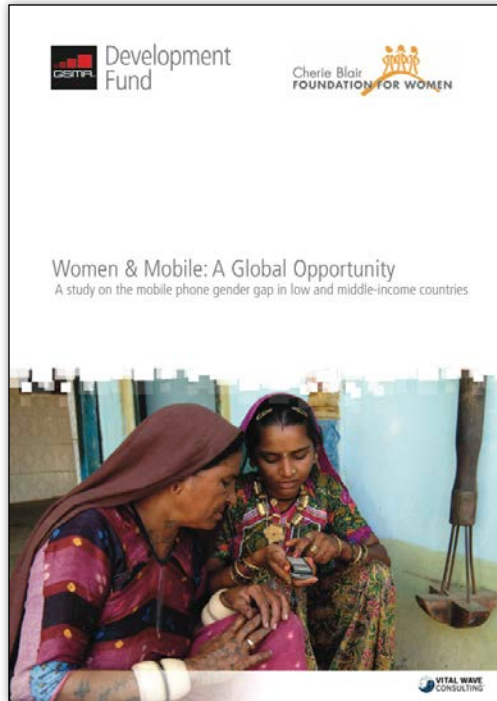
Note: The y axis represents the percentage-point increase in economic growth per 10-percentage-point increase in telecommunications penetration. All results are statistically significant at the 1 percent level except for those for broadband in developing countries, which are significant at the 10 percent level.

World Bank

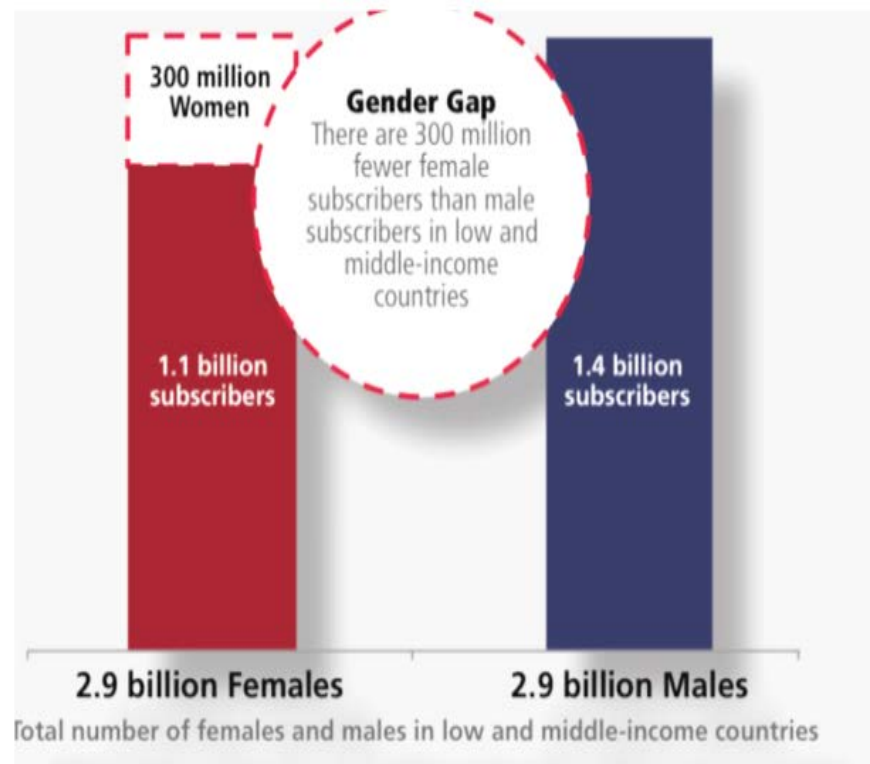
# The Digital Divide Still Exists



# But, Significant Mobile Gender Gap



A woman is **21% less likely** to own a mobile phone than a man in low- to middle- income countries.



*GSMA and Cherie Blair Foundation Report*

# And, Significant Internet Gender Gap

23 PERCENT FEWER WOMEN THAN MEN ARE ONLINE IN DEVELOPING COUNTRIES. THIS REPRESENTS 200 MILLION FEWER WOMEN THAN MEN WHO ARE ONLINE TODAY.



REGION	GAP
Sub-Saharan Africa	43%
South Asia	33%
Europe and Central Asia	29%
Latin America and the Caribbean	10%
Middle East and North Africa	34%
East Asia and Pacific	20%

**UN Broadband Commission Target: “Gender Equality in Access to Broadband by 2020”**

## **UN Broadband Commission 5<sup>th</sup> Target (set March 2013 in Mexico City):**

*“Gender equality in broadband  
access by the year 2020”*



**Apps and  
Services**

**Jobs and  
Careers**

**Access to Technology**

# **Building Apps Women (and Men) Will Use**

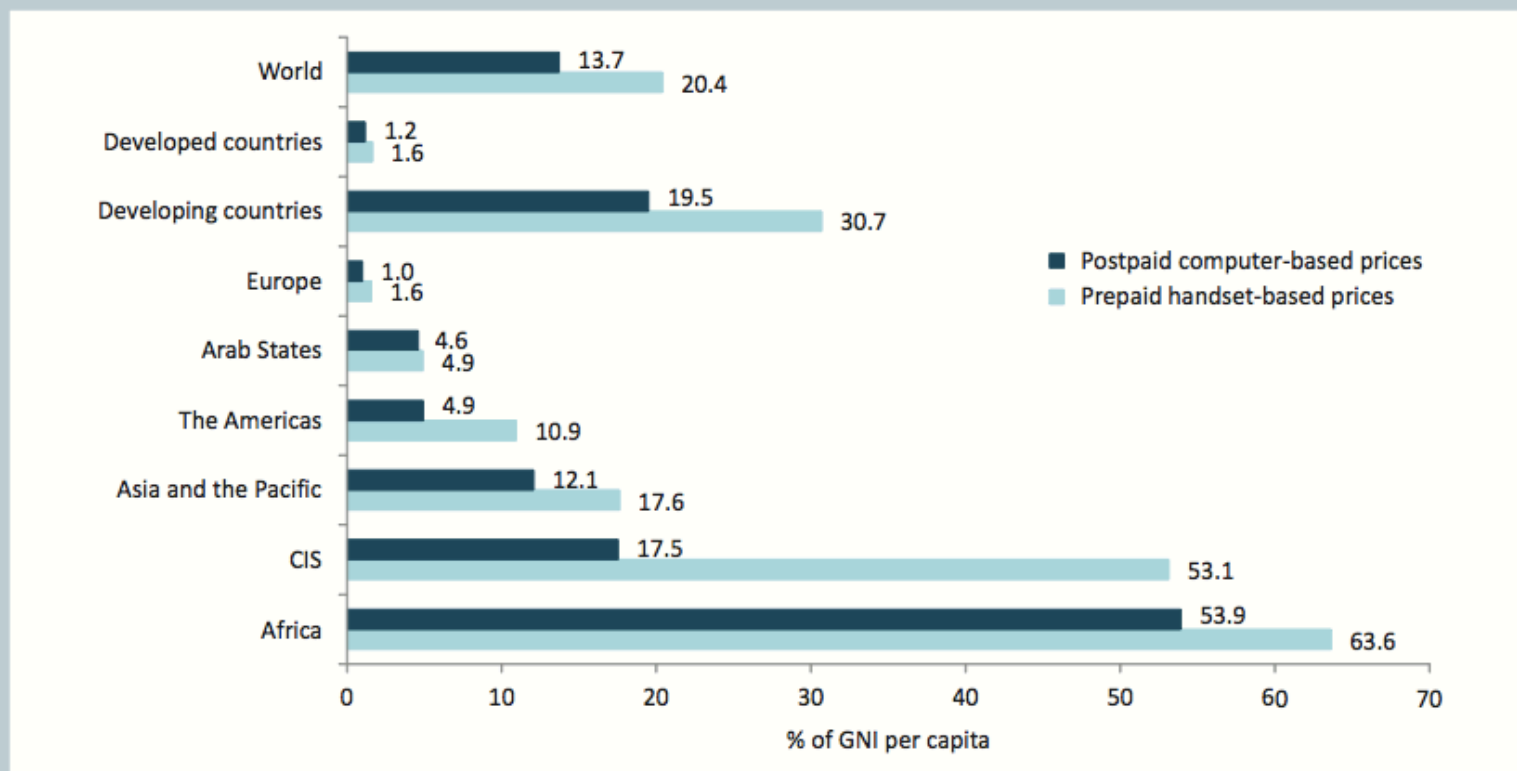
## **10 Challenges to Consider...**

# 1 Is there Network Coverage?

- 85% of world's population covered by commercial wireless signals, providing greater reach vs. electrical grid (80%). - GSMA
- But, in Africa just **50 percent** of the rural population is covered by cell service - ITU

# 2 Is Data Service Affordable?

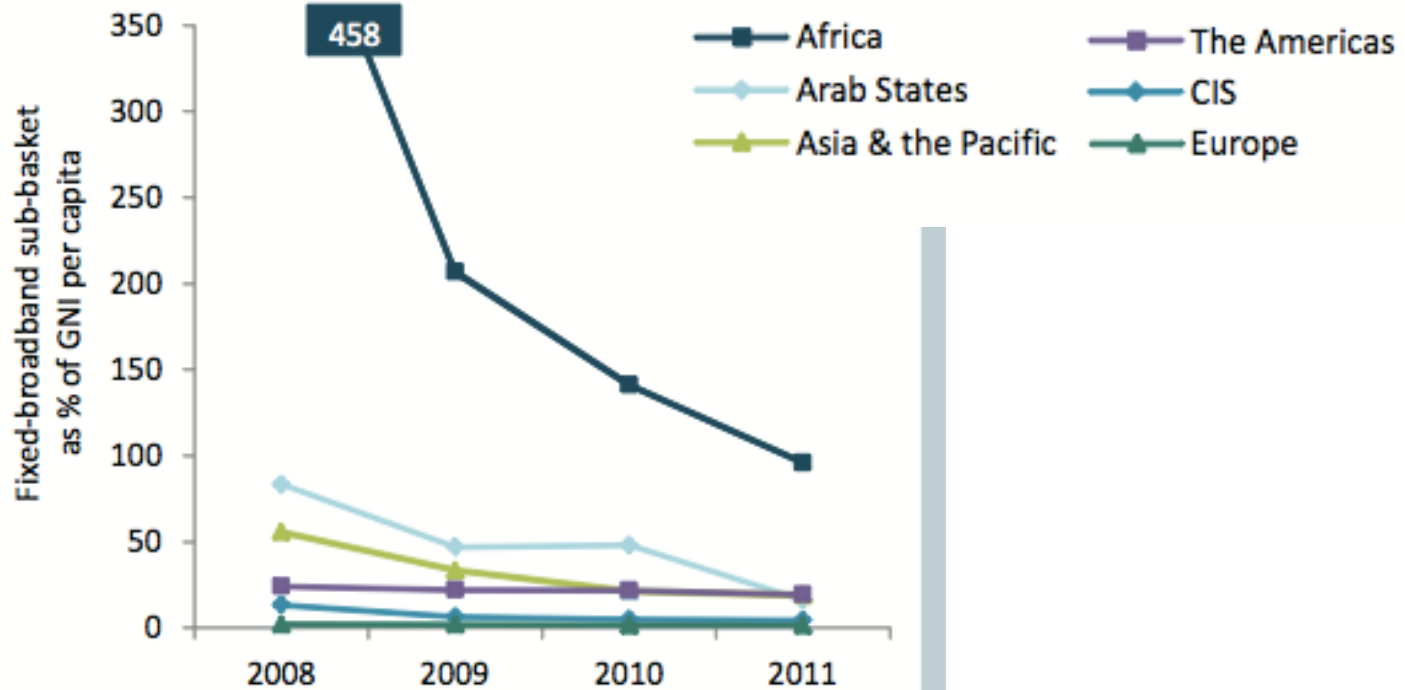
Chart 3.17: Mobile-broadband prices as a percentage of GNI per capita, 2011, by region and by level of development



Source: ITU.

Note: Simple averages. Kuwait is not included, as GNI per capita was not available. Averages do only include those 116 countries for which both prepaid handset-based and postpaid computer-based prices were available.

# Fixed-broadband Even Worse



Source: ITU.

Note: Simple averages.

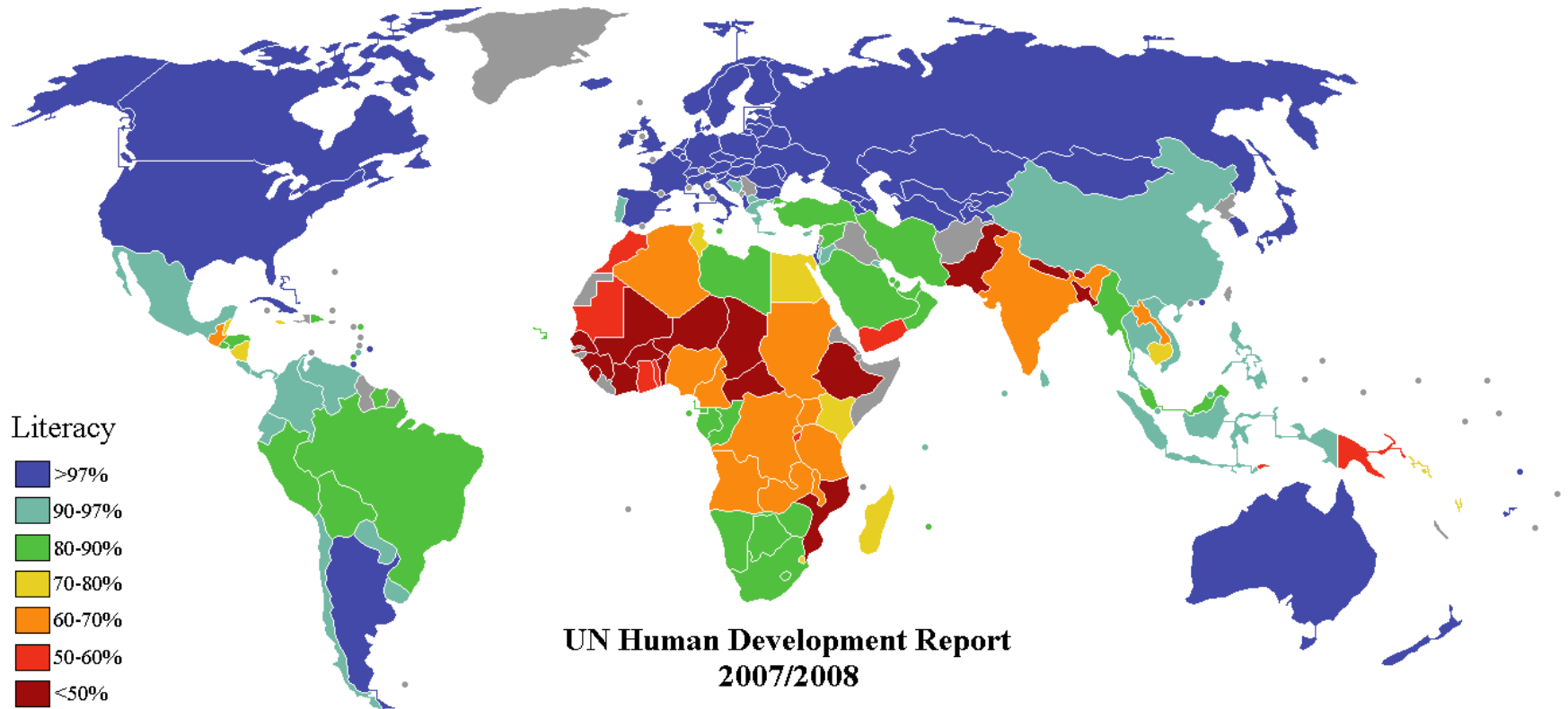
# 3 Are there Cultural Barriers?

- Ability to travel
- Associations with promiscuity
- Interaction with males at distribution points
- Traditional beliefs about female asset ownership



*Photo credit: John Moore/Getty Images*

# 4 Is there Adequate Literacy?



Female literacy rates **25%+ lower** in Africa and South Asia. – *UNESCO Institute for Statistics*

# 5 How about Digital Literacy?



*Photo credit: PicCell Wireless*



# 6 Do Women Perceive a Need?



*Photo credit: William Owen Smith and Mayang Adnin*

- **Over 2/3 of BoP women say improved health is a priority, but only 39% want health information via mobile (GSMA)**

# 7 Is it Usable on the Device?



- Small screen
- 12-key entry
- Clumsy navigation
- BoP women, regardless of literacy, do not find SMS as useful or enjoyable as calling, with only half as many having used it (GSMA)
- 50x more searches on smart vs. feature phones

# 8 Are there Existing Platforms?

facebook®



# 9 How to Scale Awareness?

- Carrier distribution!
- Billboards, TV, radio
- Word of mouth
- Can be expensive



***Will people remember your service when they need it?***

# 10 Will the App be Maintained?

- Addressing issues in the field
- Multiple platforms
- Technology changes (tablets, OS update)
- Changes in human processes and behaviors
- Feature requests

**Sustainability is 80% of the Problem!**

**Apps and  
Services**

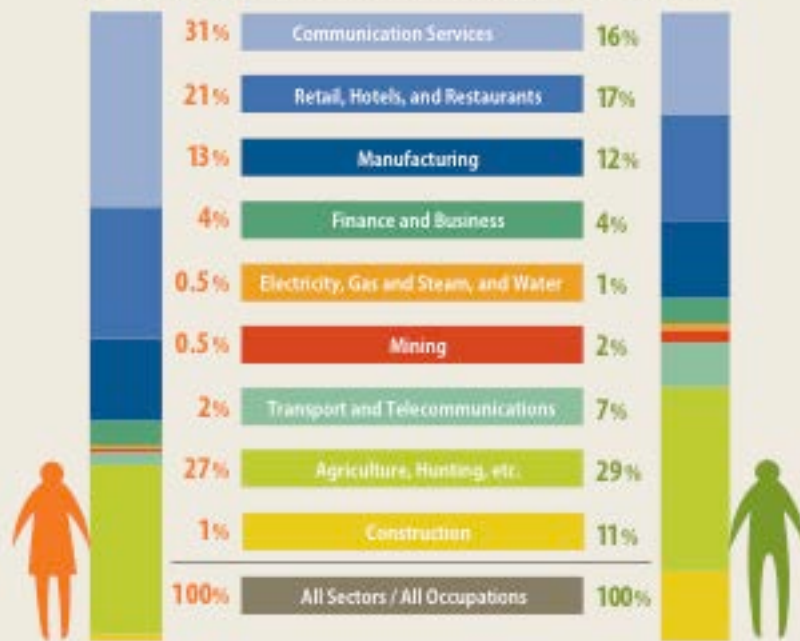
**Jobs and  
Careers**

**Access to Technology**

# Women Choose Lower Wage Sectors

**FIGURE 2.7** *Women and men work in different sectors (and different occupations)*

distribution of female / male employment across sectors



*“Across the world, women are overrepresented in education and health; equally represented in social sciences, business, and law; and underrepresented in engineering, manufacturing, construction, and science”  
– World Bank*

Source: WDR 2012 team estimates based on data from LABORSTA Labor Statistics Database, International Labour Organization.

Note: Totals do not necessarily add up due to rounding.

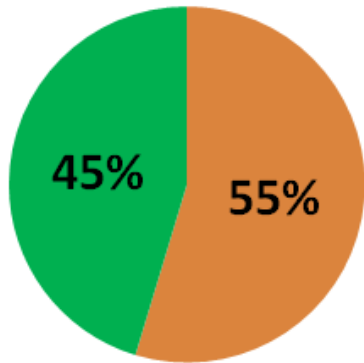
# High School Advanced Placement

**Male**

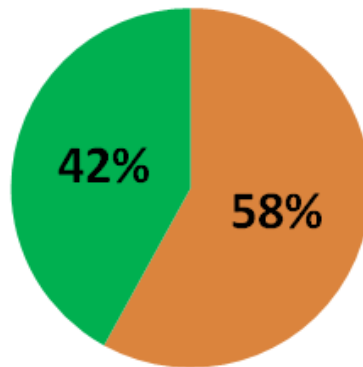
Exams 2011

**Female**

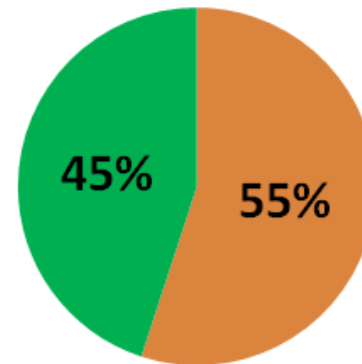
Total AP Tests



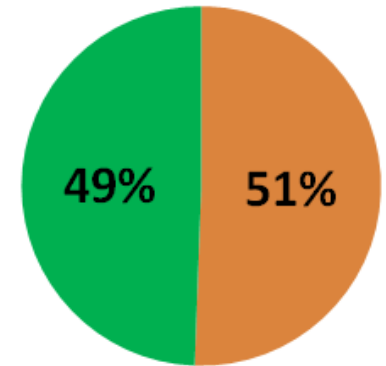
Biology



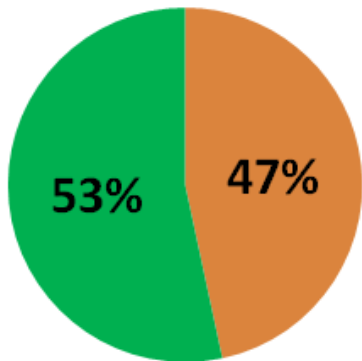
Environmental Science



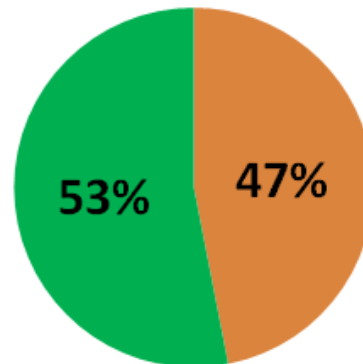
Statistics



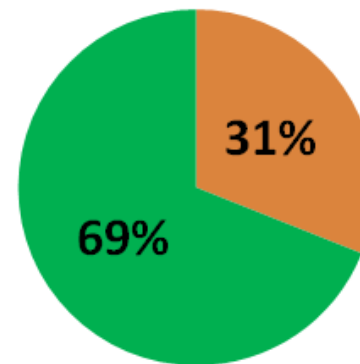
Calculus



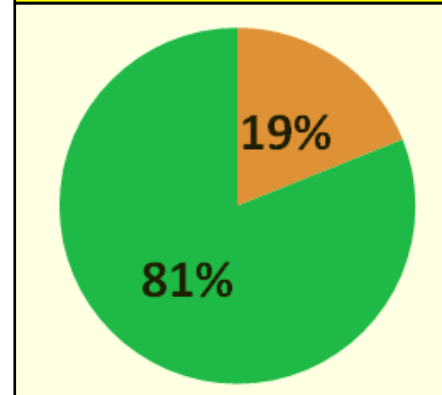
Chemistry



Physics



**Computer Science**



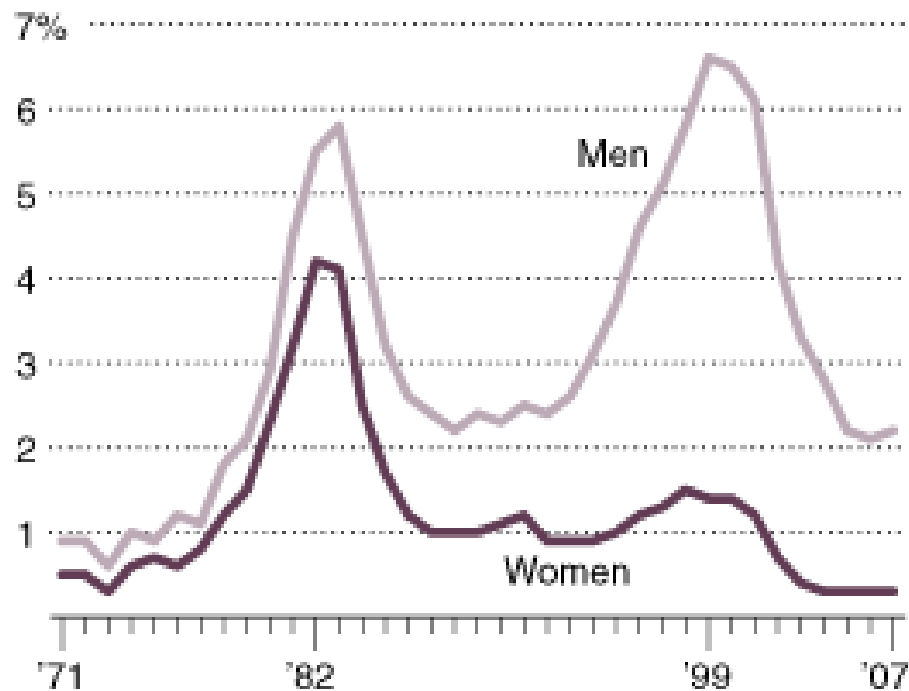
Source: College Board, Advanced Placement (AP) Exam Data 2011, available at <http://professionals.collegeboard.com/data-reports-research/ap/data>. Calculus represents the combined data of Calculus AB and BC. Physics represents the combined data of Physics B, C:Electricity and Magnetism, and C:Mechanics. Computer Science represents combined data of Computer Science A and B.



# Fewer Women Studying Computer Science— Dropping from 37% in 1984 to 18% in 2010

## Widening Gap

The percentage of female college freshmen who list computer science as a probable major is 0.3 percent, down from 4.2 percent in 1982.

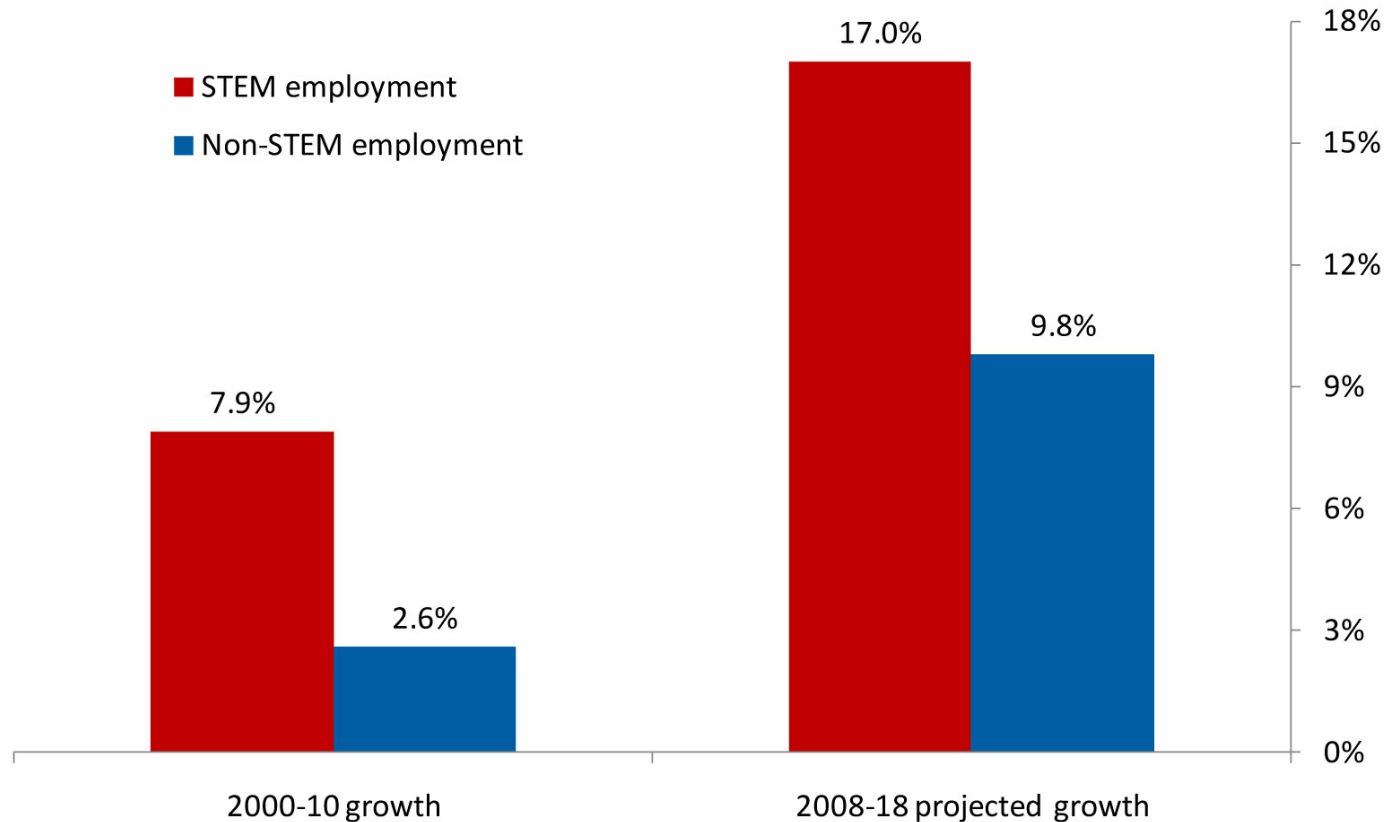


Source: U.C.L.A. Higher  
Education Research Institute

THE NEW YORK TIMES

# STEM is Where the Jobs Are

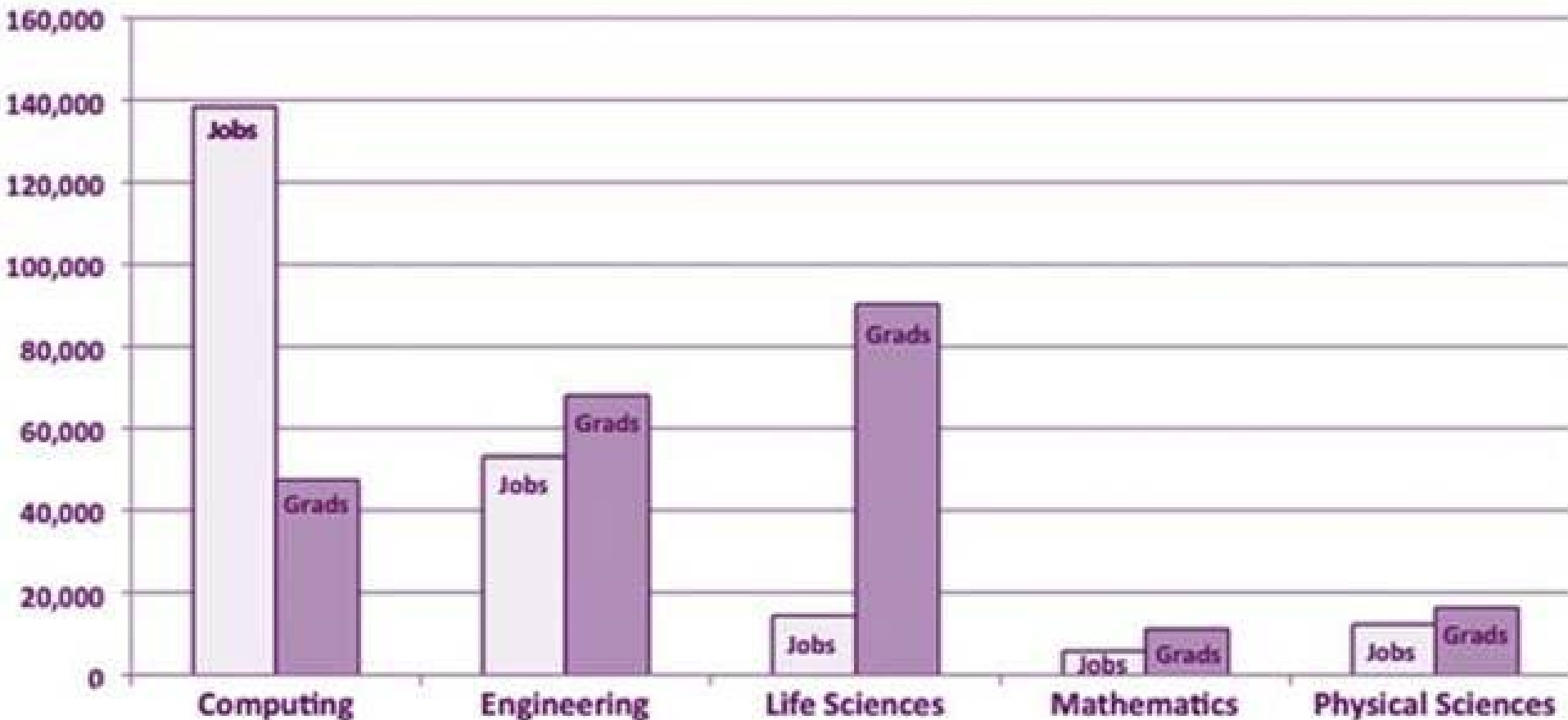
Figure 1. Recent and Projected Growth in STEM and Non-STEM Employment



Source: ESA calculations using Current Population Survey public-use microdata and estimates from the Employment Projections Program of the Bureau of Labor Statistics.

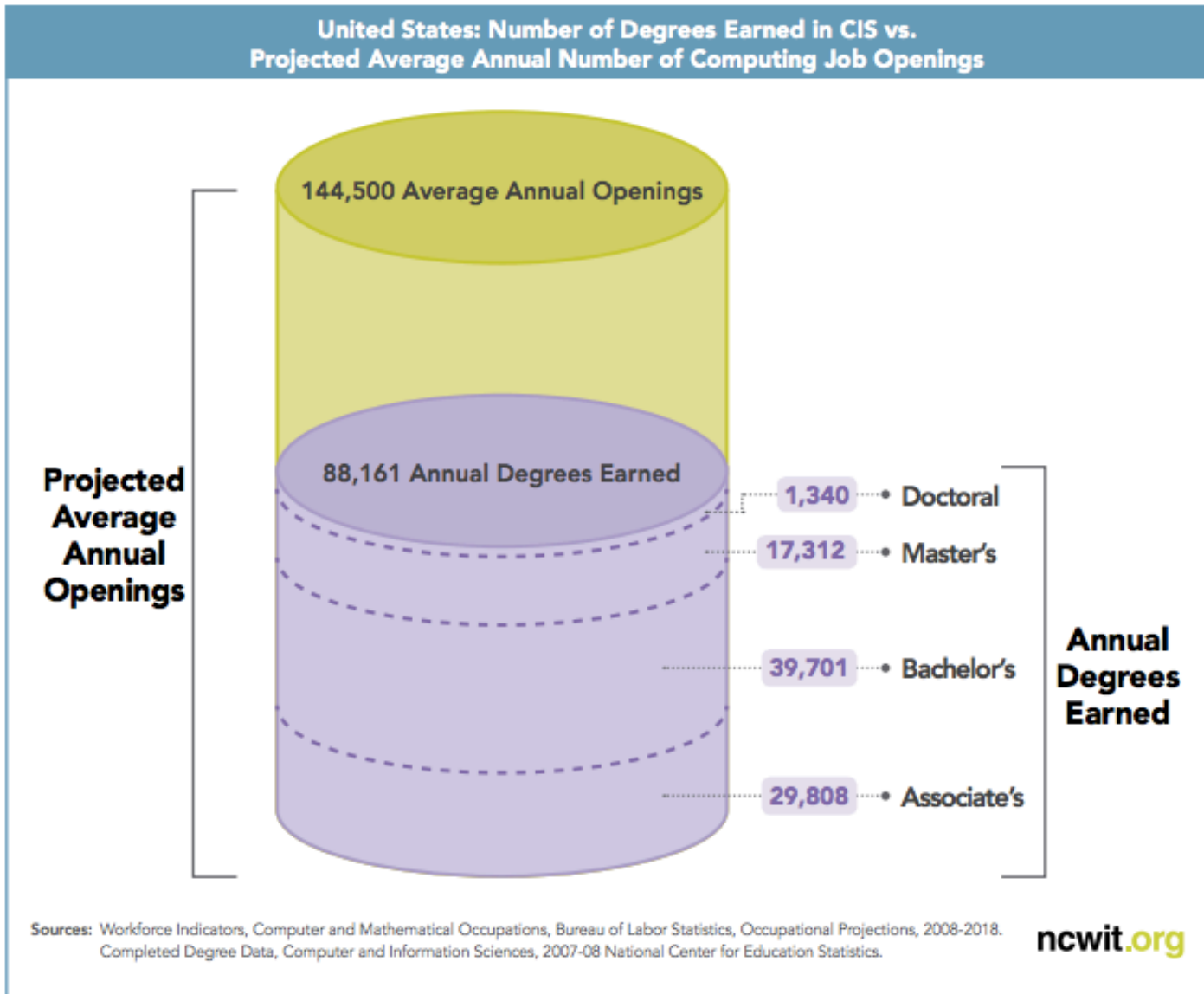
# Annual STEM Job Openings vs College Graduates Through 2018

□ Job Openings   ■ Bachelors Awarded



Data Sources: US-BLS Employment Projections, 2008-2018 ([http://www.bls.gov/emp/ep\\_table\\_102.pdf](http://www.bls.gov/emp/ep_table_102.pdf)), National Science Foundation Division of Science Resource Statistics (<http://www.nsf.gov/statistics/nsf08321/tables/tab5.xls>), and National Center for Education Statistics ([http://nces.ed.gov/programs/digest/d08/tables/dt08\\_286.asp](http://nces.ed.gov/programs/digest/d08/tables/dt08_286.asp)).

# Est. 1.4M new computing jobs by 2018, half unfilled if current trends continue



# We Need Girls and Women in Tech!

- Better products by designing for both women and men
  - Social and fun, not just functional
  - Improved usability
  - Targeted marketing/promotion
  - Identify new trends/opportunities
- Empower women to improve their own and their families lives
- Bridge the global talent gap

# WICTAD International Forum

- 100 participants from 5 continents in DC, January 2013
- Organized by S/GWI and UN Women
- Bring gender focus to ICT efforts and leverage ICT for gender efforts – working at the intersection
- Goals: connect, collaborate, shared goals/targets, and build a movement
- Ongoing collaboration and input into post-MDG and WSIS+10 process

# Questions and Discussion

Ann Mei Chang  
U.S. Department of State

[changam@state.gov](mailto:changam@state.gov)

@annmei