Increasing the Participation and Completion of Students in Nontraditional CTE

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Wyoming ACTE Conference

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Overview

- Perkins IV – Understand the Legislation
- History of Nontraditional Career as a Public Policy Priority
- How is Wyoming Doing?
- Why Nontraditional Careers?
- Facts about Nontraditional Career Participation

Perkins IV

Understand the provisions in Perkins IV that drive accountability for nontraditional career and technical education and special populations

Special Populations

- Individuals with disabilities;
- Individuals from economically disadvantaged families, including foster children;
- Single parents, including single pregnant women
- Displaced homemakers;
- Individuals with limited English proficiency; and
- Students pursuing nontraditional fields

Nontraditional Fields

- Occupations or fields of work, including careers in computer science, technology, and other emerging high skill occupations, for which individuals from one gender comprise less than 25 percent of the individuals employed in each such occupation or field of work.

Perkins IV

- Special Populations Provisions
  - State Leadership Set-aside ($60,000-$150,000) for nontraditional training
  - Disaggregated data requirement
  - Improvement plans and sanctions
  - Language in every section of the Act
  - Required use of local funds

Core Indicator

- Participation in Nontraditional Training and Employment Programs
- Completion of Nontraditional Training and Employment Programs

Accountability

- State and local report requires disaggregated data
  - Gender
  - Race/ethnicity
  - Individuals with disabilities
  - Migrants
  - Individuals with limited English proficiency
  - Individuals from economically disadvantaged families including foster children
  - Single parents, including single pregnant women
  - Displaced homemakers
  - Individual preparing for nontraditional fields

Accountability

- State and local report requires
  - Identify and quantify any gaps in performance between disaggregated student populations and all CTE students

Improvement Plans (State and Local)

- Does not meet 90% of ANY measure in the first year
- Shows improvement the following year but still does not meet 90% of that or ANY measure in year two
- Plan must address performance gaps between disaggregated populations and all CTE students

Local Plan

- Describe how LEA will provide activities to prepare special populations, including single parents and displaced homemakers, for high skill, high wage, or high demand occupations that will lead to self-sufficiency

Required Use of Local Funds

- provide activities to prepare special populations, including single parents and displaced homemakers, for high skill, high wage, or high demand occupations that will lead to self-sufficiency

Supportive Services

- Named in conference report as transportation, child care, dependent care, tuition, books, and supplies and other services
- May use Perkins funds for this purpose for special populations participating in CTE
- Supplement not supplant
- Address barriers to participation in CTE

References

- Equity analysis of Perkins IV available at http://www.napequity.org/pdf/EquityProvisionsPerkins4TableFinal.pdf

How Well is Wyoming Doing?

- Participation of underrepresented gender students in nontraditional CTE
- Completion of underrepresented gender students in nontraditional CTE

Wyoming Secondary Nontraditional Core Indicator

Measure	2006-07[1]	2007-08[2]	2008-09[3]
Participation	29.21%	35.94%	33.99%
Completion	26.56%	28.26%	30.37%

Source: 1 and 3 - Wyoming Consolidated Annual Report
2 - Wyoming State Dept. of Ed. Perkins IV State Report

Secondary Nontraditional Performance – 2008-09

Measure	All Programs	Programs NT for Males	Programs NT for Females
Participation	33.99% 3094/9106	34.38% 164/477	33.97% 2931/8629
Completion	30.37% 324/1067	23.64% 13/55	30.73% 311/1012

Secondary Concentrators Nontraditional for Females

- Agriculture – 40.78% female
- Business Mgmt. – 60.76% females
- Architecture & Construction – 13.25%
- Information Technology – 38.61%
- Manufacturing – 5.70%
- STEM – 5.56%
- Transportation, Distribution, Logistics- 5.52%

Secondary Concentrators Nontraditional for Males

- Health Science – 10.98%
- Human Services – 5.70%
- Education & Training – 10.26%

Wyoming Postsecondary Nontraditional Core Indicator

Measure	2006-07	2008-09
Participation	19.96%	23.05%
Completion	13.71%	11.11%

Postsecondary Nontraditional Performance – 2008-09

Measure	All Programs	Programs NT for Males	Programs NT for Females
Participation	23.05% 2588/11230	13.61% 524/3850	27.97% 2064/7380
Completion	11.11% 71/639	7.94% 27/340	14.72% 44/299

Postsecondary Concentrators Nontraditional for Females

- Agriculture – 54.75%
- Business Mgmt. – 72.16%
- Architecture & Construction – 19.14%
- Information Technology – 28.34%
- Manufacturing – 8.99%
- STEM – 25.00%
- Transportation, Distribution, Logistics- 10.43%

Secondary Concentrators Nontraditional for Males

- Health Science – 12.24%
- Human Services – 4.00%
- Education & Training – 12.15%

Why Nontraditional?

Societal Issues that Led to the Implementation of Public Policy

Societal Issues

- Children's Defense Fund report on children in poverty in early 1970
- Increasing single parent households headed by women on public assistance
- Women entering the workforce at a faster rate than any other population
- Women hold majority of low paying jobs
- Pay gap and pay equity

Solution

Access for women in poverty to education and job training for occupations providing wages leading to economic self-sufficiency

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Nontraditional occupations

Historical Perspective

- Gender equity provisions in Perkins
  - 1976 Amendments
    - Full-time Gender Equity Coordinator- $50,000
  - 1984 Perkins Act
    - Full-time Gender Equity Coordinator- $60,000
    - Set-asides 3.5% Gender Equity, 8.5% SP/DH

Historical Perspective

- Gender equity provisions in Perkins
  - 1990 Perkins Act
    - Full-time Gender Equity Coordinator- $60,000
    - A-F requirements
    - Set-asides 3% Gender Equity, 7% SP/DH, .5% either
    - Special population focus

Historical Perspective

- Gender equity provisions in Perkins
  - 1998 Perkins Act (Perkins III)
    - State Leadership Set-aside ($60,000-$150,000)
    - Language sprinkled throughout the Act
    - Accountability Measure

Historical Perspective

- Gender equity provisions in Perkins
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Why Continue the Policy?

- Children in poverty continue to be living in single parent households headed by women
- Workforce competitiveness, especially in STEM fields, does not allow us to ignore more than 50% of the potential workforce pool
- Making slow progress on increasing the participation and completion of women in nontraditional fields, particularly STEM careers.

Why Continue the Policy?

- Pay gap and pay discrimination continues to be an issue
- Women still clustered in the lowest paying occupations
- Nontraditional careers a path to economic self-sufficiency for women
- Career satisfaction more important to today's workforce participants

Startling Statements

- Conduct your own poll
- Survey three other people in the room
- Average their answers
- Be prepared to report out your polling results

Women Clustered in Low Wage Jobs

- Secretaries and administrative assistants $619
- Registered nurses $1,035
- Elementary and middle school teacher $891
- Cashiers $361
- Nursing, psychiatric, and home health aides $430
- Retail salespersons $443
- First-line supervisors/managers of retail sales workers $597
- Waiters and waitresses $363
- Maids and housekeeping cleaners $371
- Customer service representatives $587

Source: US Dept. of Labor Women's Bureau
http://www.dol.gov/wb/factsheets/20lead2009.htm

20 Leading Occupations of Employed Women
2009 Annual Averages
(employment in thousands)

Occupation	Total Employed Women	Total Employed (Men and Women)	Percent Women	Women's Median Weekly Earnings
Total, 16 years and older (all employed women)	66,208	139,877	47.4	$657
Secretaries and administrative assistants	3,074	3,176	96.8	619
Registered nurses	2,612	2,839	92.0	1,035
Elementary and middle school teachers	2,343	2,862	81.9	891
Cashiers	2,273	3,056	74.4	361
Nursing, psychiatric, and home health aides	1,770	2,002	88.5	430
Retail salespersons	1,650	3,182	51.9	443
First-line supervisors/managers of retail sales workers	1,459	3,311	44.1	597
Waiters and waitresses	1,434	2,005	71.6	363
Maids and housekeeping cleaners	1,282	1,428	89.8	371
Customer service representatives	1,263	1,862	67.9	587
Childcare workers	1,228	1,292	95.1	364
Bookkeeping, accounting, and auditing clerks	1,205	1,306	92.3	627
Receptionists and information clerks	1,168	1,277	91.5	516
First-line supervisors/managers of office and administrative support	1,163	1,632	71.3	705
Managers, all others	1,106	3,249	34.1	1,037
Accountants and auditors	1,084	1,754	61.8	902
Teacher assistants	921	1,006	91.6	474

Wage Inequity in Wyoming

- According to the September 10, 2007 Casper Star Tribune
  - Wyoming men's wages rank 15th among the states.
  - Wyoming women's wages rank 48th among the states

Why Do We Need to Encourage Students to Study Science, Technology, Engineering and Math?

- In the last 50 years, more than half of America's sustained economic growth was fueled by engineers, scientists and advanced-degree technologists, a mere 5% of America's 132 million-person workforce. (1)

- Twenty-five percent of our scientists and engineers will reach retirement age by 2010. (1)

- By the year 2050, 85% of the entrants into the workforce will be people of color and women. (2) In 2003, women were 26.1% of all STEM occupations. In 2004, African Americans and Hispanics were 6.2% and 5.3% of all STEM occupations respectively. (3)

- The National Bureau of Labor Statistics projects that our greatest needs will be in computer-related fields that propel innovation across the economy. (1) Female bachelors degree recipients dropped from 37% in 1985 to 27% in 2003. (2)

Why Do We Care if Women and Minorities Become Engineers and Scientists?

- As a consequence of a lack of diversity we pay an opportunity cost, a cost in designs not thought of, in solutions not produced.

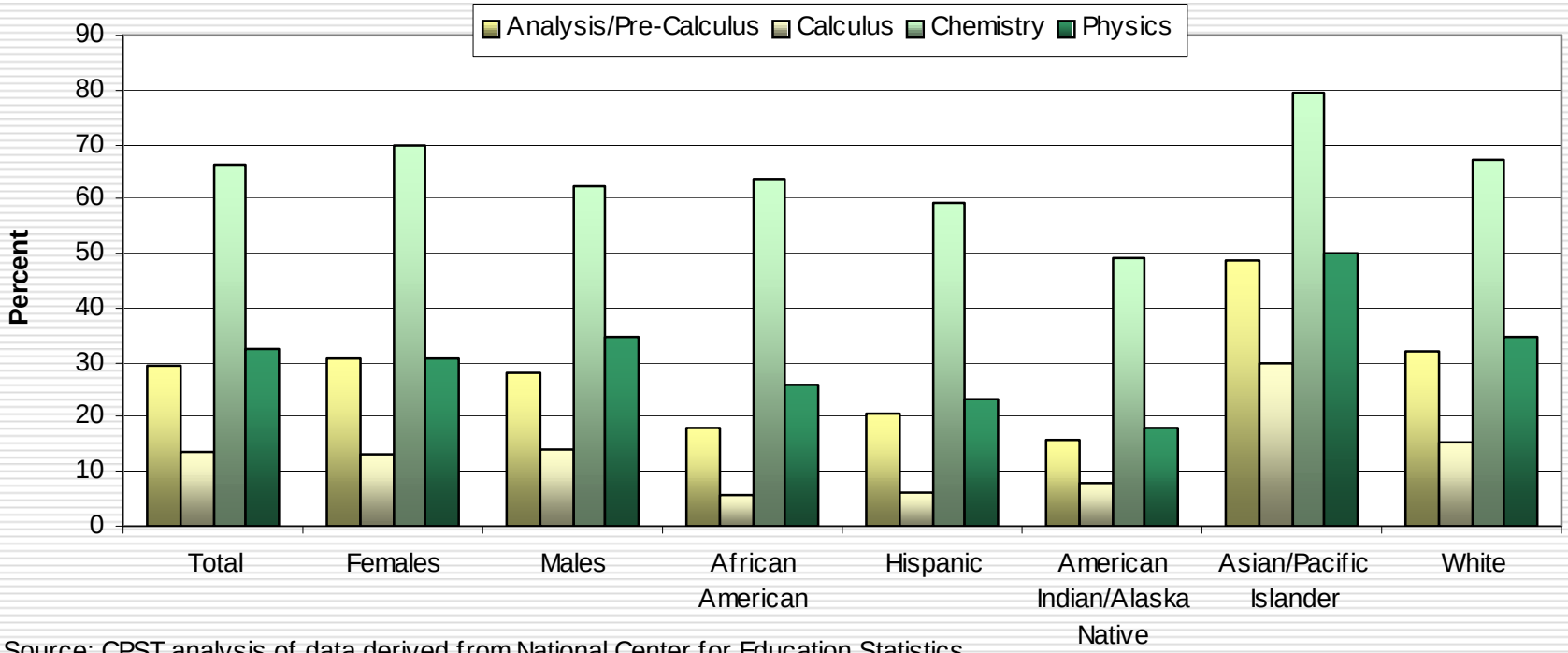
Source: Dr. Bill Wulf, Past President, National Academy of Engineering

- If we do not engage women and minorities in the engineering enterprise, we are ignoring more than 50% of America's intellectual talent.

Source: Bostonworks.com

High school females are more likely to take chemistry and pre-calculus courses than male students; however, they are less likely to take physics.

Figure 1-7. High School Graduates' Science and Mathematics Course Taking, Selected Courses, 2005 by Gender and Race/Ethnicity

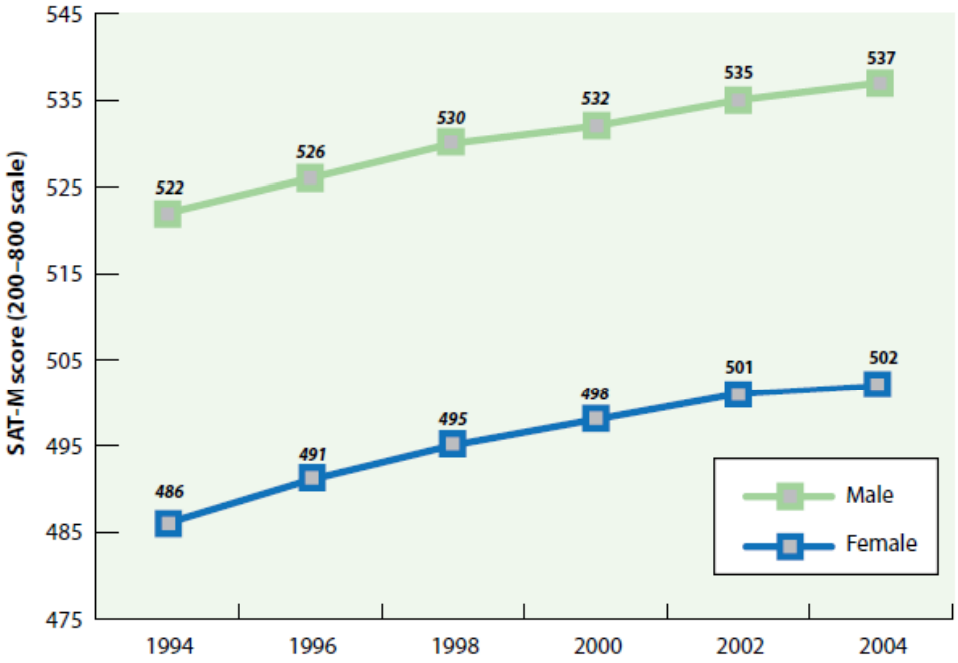


Source: CPST analysis of data derived from National Center for Education Statistics *Digest of Education Statistics, 2007.*

CPST

Where the Girls Are: The Facts About Equity in Education

FIGURE 15. SAT MATHEMATICS MEAN SCORE, BY GENDER, 1994–2004



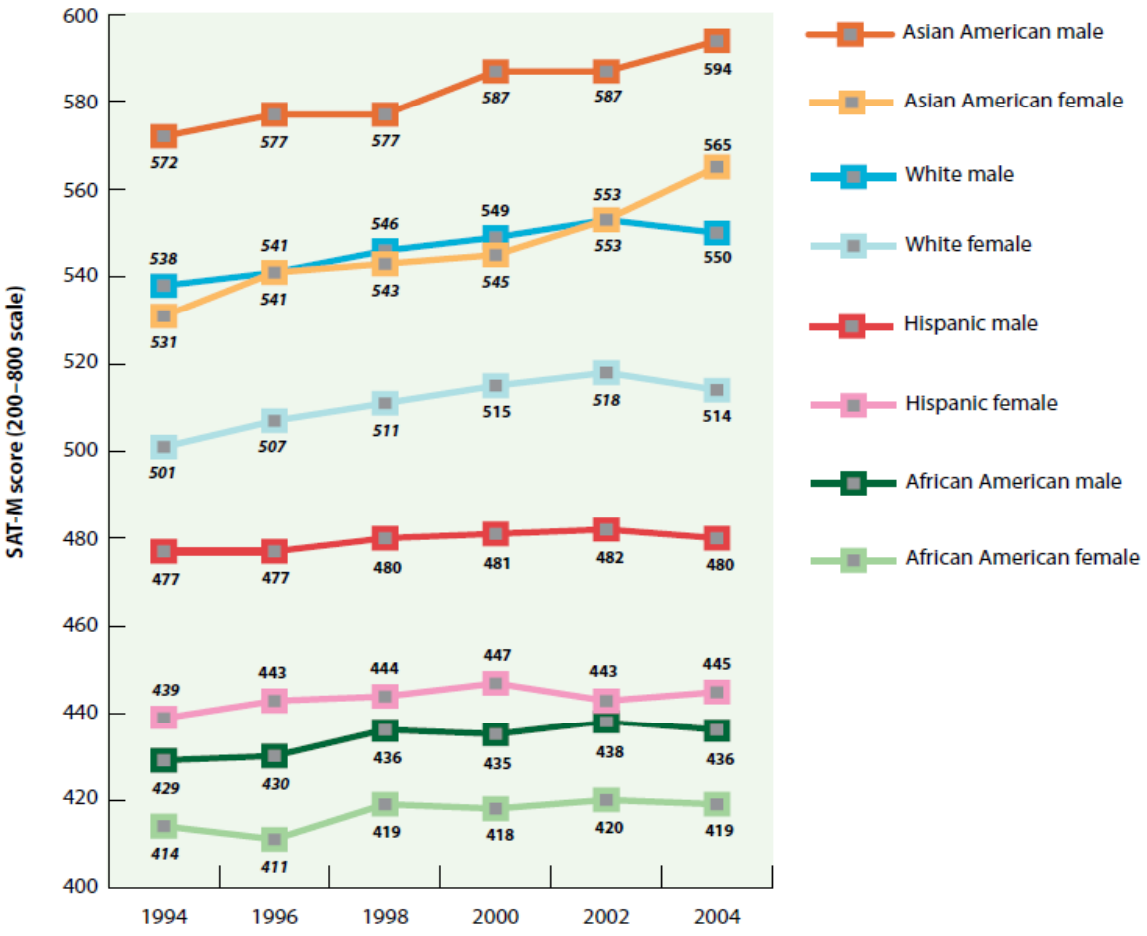
Note: **Bold** indicates significant difference between boys and girls. *Italic* indicates significant difference from 2004.

Source: AAUW Educational Foundation analysis of unpublished data provided by the College Board.

AAUW (2008). *Where the Girls Are: The Facts About Equity in Education.* Washington DC: Author.

Across Race/Ethnicities, Boys Tend To Outscore Girls in Math

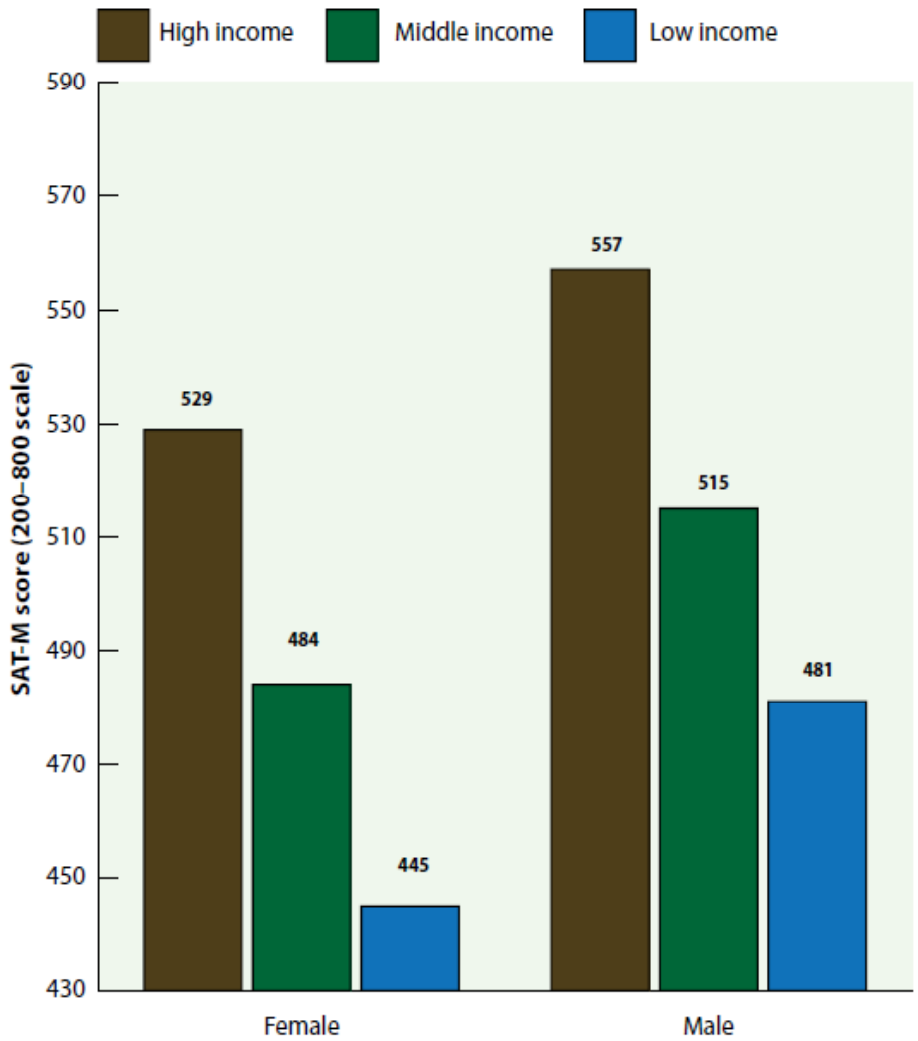
FIGURE 16. SAT MATHEMATICS MEAN SCORE, BY GENDER AND RACE/ETHNICITY, 1994–2004



AAUW (2008) *Where the Girls Are: The Facts About Equity in Education*. Washington DC: Author

Gender Gaps Vary by Family Income Level

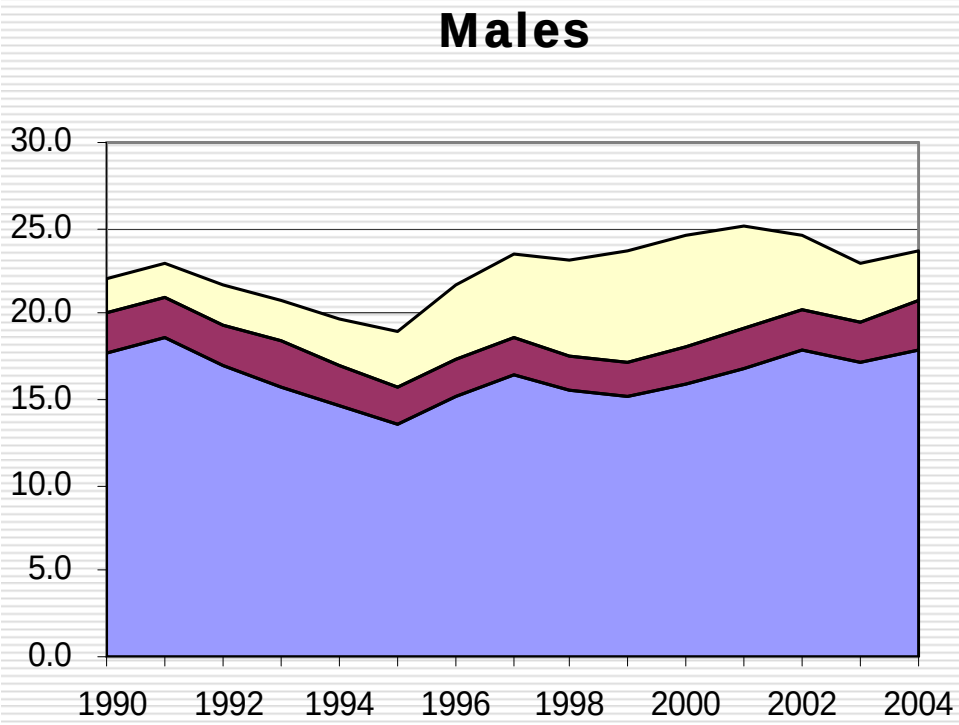
FIGURE 19. SAT MATHEMATICS MEAN SCORE, BY GENDER AND FAMILY INCOME LEVEL, 2004

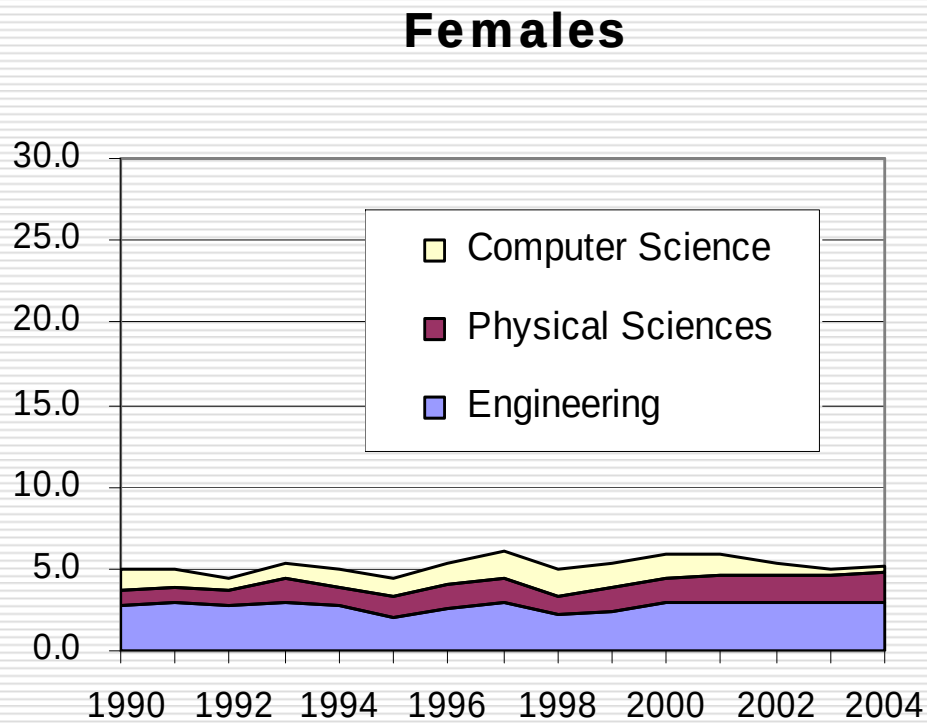


middle-income students reported an annual family income of $50,000 to $70,000.

AAUW (2008). *Where the Girls Are: The Facts About Equity in Education.* Washington DC: Author.

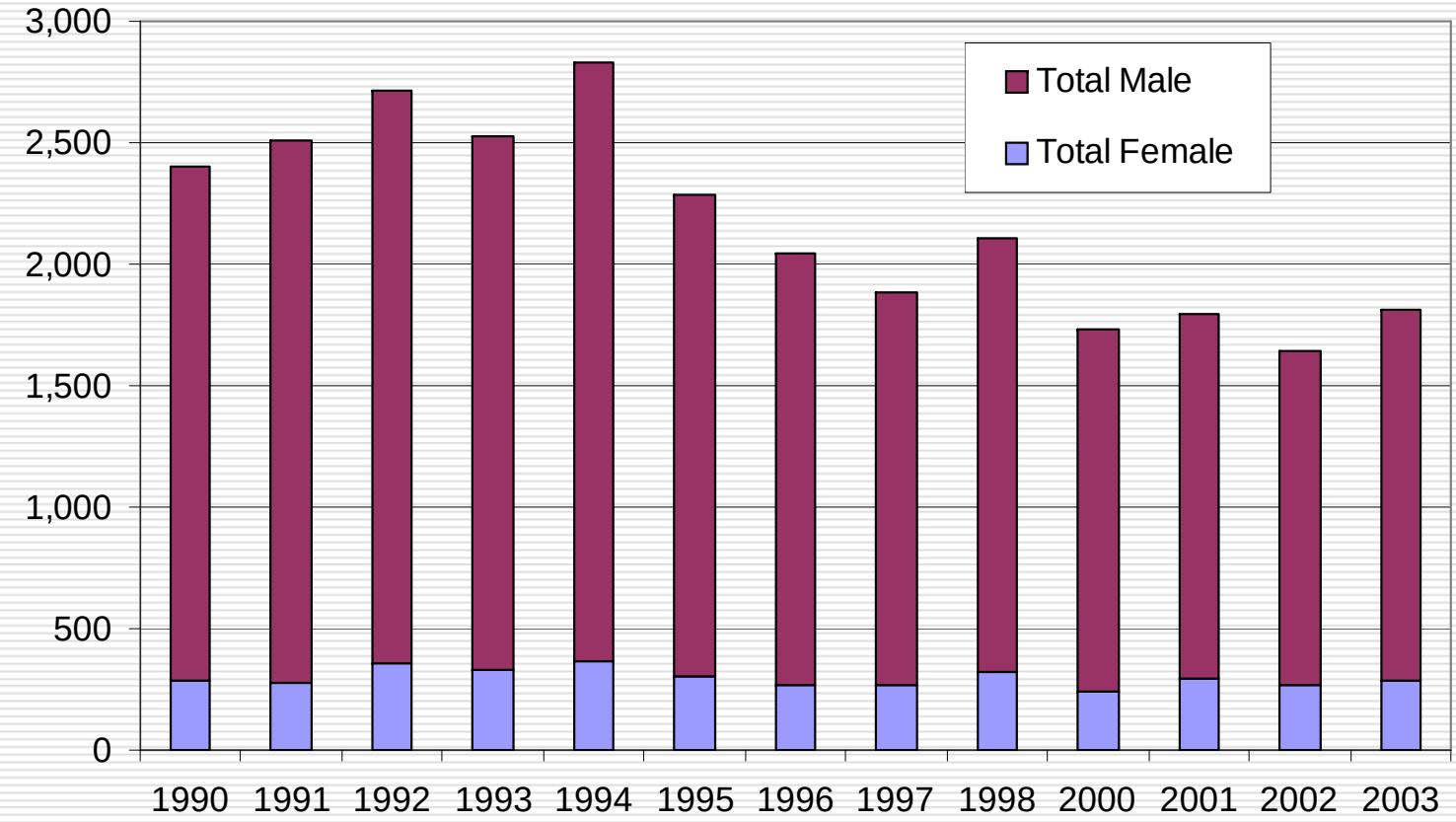
Males Far More Likely to Plan to Major in Technical Fields Than Are Females





Source: CPST, data derived from Higher Education Research Institute

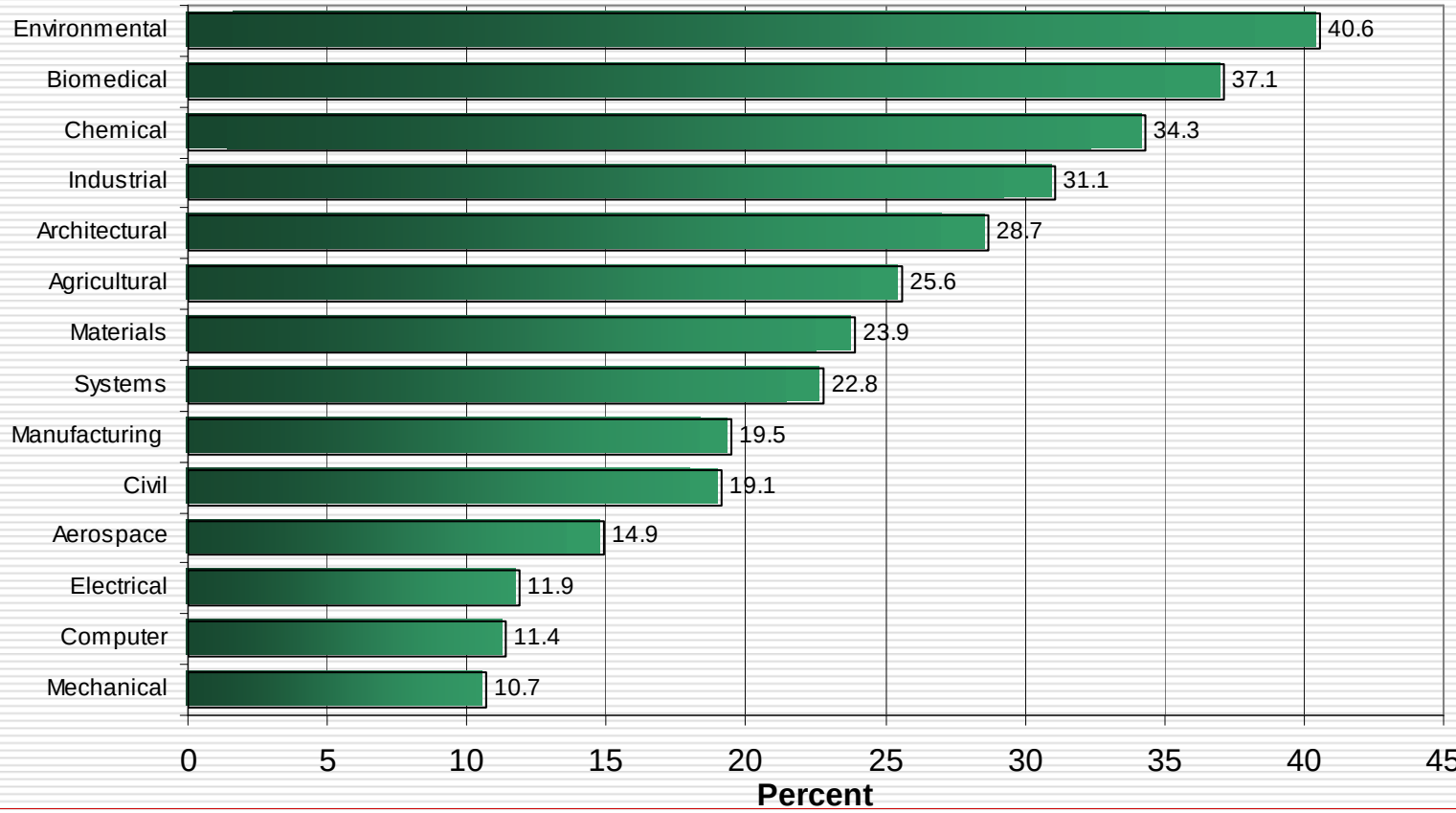
Women in Engineering at the 2-Year Level: Degrees Granted



Source: CPST, data derived from National Center for Education Statistics

Women in Engineering Fields

Figure 2-8. Women as a Proportion of Total Undergraduates in Selected Engineering Disciplines, Fall 2006



Source: CPST, data derived from Engineering Workforce Commission, *Engineering & Technology Enrollments, Fall 2006.*

Questions?

National Alliance for Partnerships in Equity
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