

Workshop 26: Recruiting Women

Schedule and outcomes

7:00-8:30 **Identifying and locating “low-hanging fruit” and their influencers**

Leveraging others’ work: Local programs, initiatives, and organizations that can help

Break

8:45-10:00 **Developing messages that reflect women’s and girls’ values—and those of their influencers**

Choosing media for communicating messages

Assessing your recruiting projects



Strategic Planning for Recruiting Women into Undergraduate Computing: Harvesting the Low-Hanging Fruit

An NCWIT Extension Services For Undergraduate Programs Workshop

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Identify “Low-Hanging Fruit”

Criteria

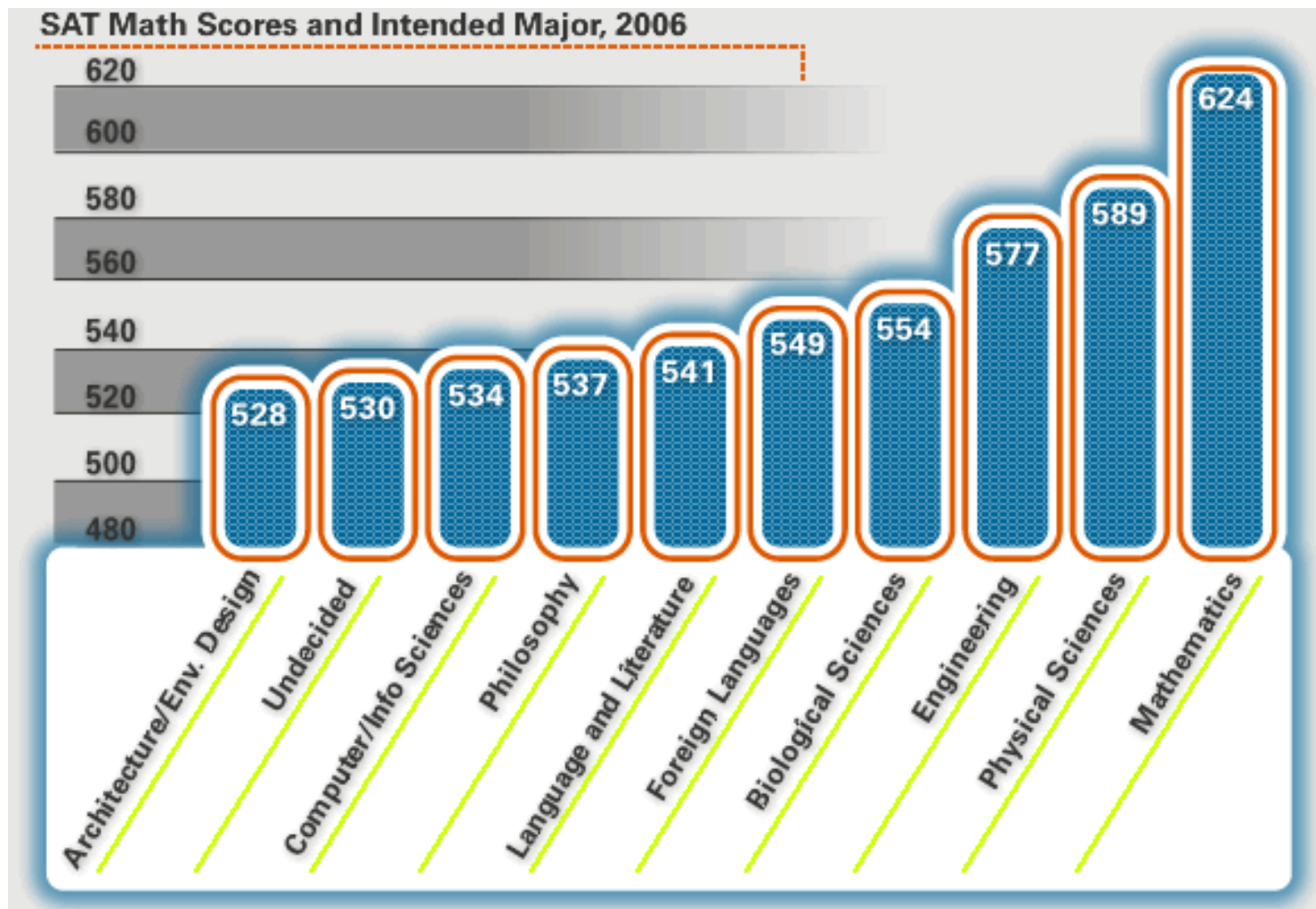
Largest majors

Contact possibilities already available

Your program and their interests



Majors with Demonstrated Math Competence



15 Largest Majors in the U.S.

Table 1: Bachelor's Degrees Awarded 2004-2005 in the U.S.

Major	Degrees awarded	Major	Degrees awarded
Business	308,597	English language, literature	54,402
Social sciences	126,037	Computer and information sciences	51,291
Education	107,636	Liberal arts and sciences	45,006
Psychology	85,997	History	31,493
Visual and performing arts	78,955	Physical sciences, chemistry	18,970
Communication, journalism	73,146	Foreign languages, literatures, linguistics	18,473
Engineering	66,005	Mathematics, statistics	14,410
Biological, biomedical sciences	65,437	<i>Source: National Center for Education Statistics, Data Digest</i>	



What About CS Might Interest Them?

Could they double major?

Do you have a minor?

Do you have tracks/emphases?

- Computational biology
- HCI
- Media computation
- Scientific computing
- Graphics
- Games

Other:



Do You Have Access to Students Already?

CS-Zero courses

Service courses (e.g., to engineering students required to take CS)

Literacy courses

Summer bridge

Other:



Locate Your Audience

On Campus

Undecided students
Introductory computing
courses
Computing service
courses
Student organizations
Greek organizations

Off Campus

High schools
Community colleges
Local businesses



Two audiences: Girls/women, their influencers

Family
Friends
Teachers
Guidance
counselors
Extracurricular
group leaders
Celebrities
Boys
Companies



Leverage Your Existing Assets

*Tired of trying to
do it all yourself?*

*Losing footing in
your academic
career?*



Developing Your Recruiting Plan: 1

Answer questions on pp. 3-4

Review and add to pp. 6-7

Share your ideas for finding
low-hanging fruit and who
can help you get it

Leverage Points: Recruiting Resources Checklist

University Resources

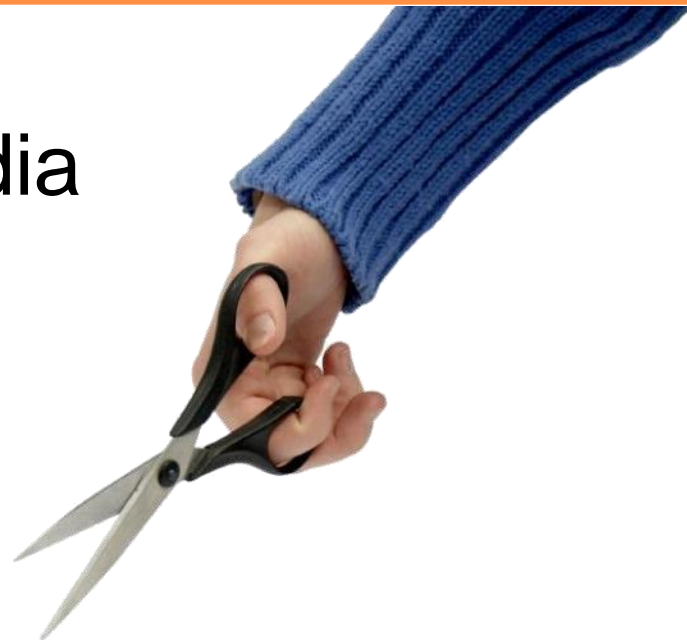
Resource	How They Help
<input type="checkbox"/> Administration Office	<input type="checkbox"/> Identify and communicate with potential applicants <input type="checkbox"/> Share information about recruitment efforts <input type="checkbox"/> Provide information about recruitment efforts
<input type="checkbox"/> Communication Office	<input type="checkbox"/> Connect department with local business and industry <input type="checkbox"/> Communicate for special events and partnership
<input type="checkbox"/> Community Relations Office	<input type="checkbox"/> Connect with local business and industry <input type="checkbox"/> Conduct education outreach <input type="checkbox"/> Establish and maintain contact with local business and industry
<input type="checkbox"/> School of Education / Teacher's College	<input type="checkbox"/> Design and develop program for K-12 students <input type="checkbox"/> Develop and implement program for K-12 students <input type="checkbox"/> Provide career counseling to students and graduates <input type="checkbox"/> Introduce available computer science and CS
<input type="checkbox"/> University Career Service	<input type="checkbox"/> Provide alternative career options and guidance <input type="checkbox"/> Introduce available computer science and CS
<input type="checkbox"/> School/Institute of STEM	<input type="checkbox"/> Introduce available computer science and CS
<input type="checkbox"/> Computer Science Department Faculty and Courses	<input type="checkbox"/> Introduce available computer science and CS

Student Groups & Services

Resource	How They Help
<input type="checkbox"/> Student Volunteer Organization	<input type="checkbox"/> Provide service to area K-12 schools and community <input type="checkbox"/> Mentor kids
<input type="checkbox"/> Computer Science Student Groups	<input type="checkbox"/> Provide positive learning experience <input type="checkbox"/> Provide service on and off campus
<input type="checkbox"/> Women's Center	<input type="checkbox"/> Introduce guest speakers <input type="checkbox"/> Host special events <input type="checkbox"/> Provide information booth
<input type="checkbox"/> New Student Week/Orientation	



Tailor Message and Media



For Women and
Their Influencers

Which Messages Do All Audiences Need to Hear?

Job projections (BLS): Computing and mathematical occupations will grow 25% by 2016

High salaries

Flexibility: industry, geographic

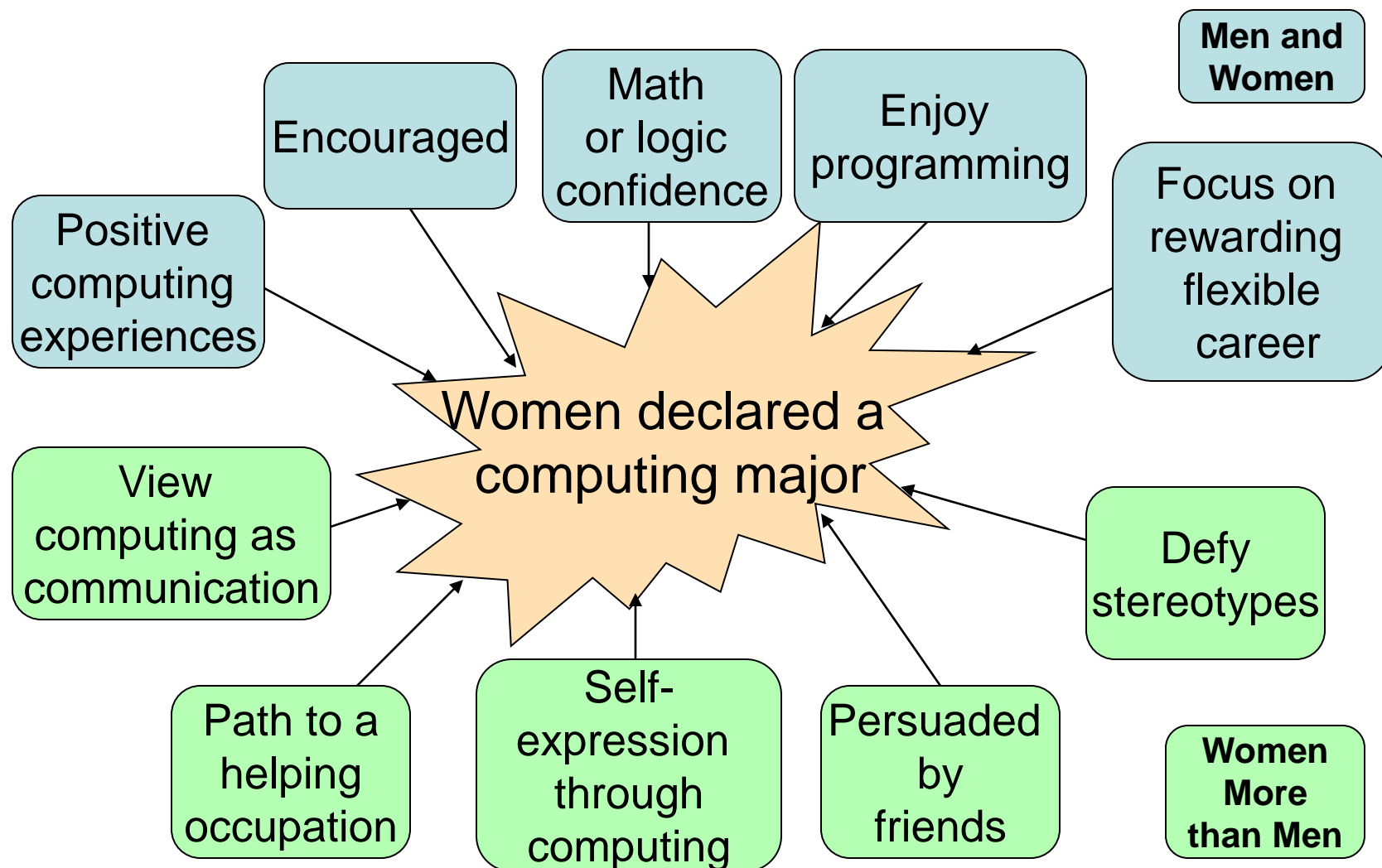
Social relevance

Work with others

Time with family



Go Beyond What Attracted Current Students



Source:
Focus
groups
with 182
CS
students
in 16
programs



Specific Audiences' Needs

What existing NEED or GOAL or INTEREST of the audience can be met by studying CS?

How will these be met?

Department of Biology
Biology & Biology-Chemistry Majors



Overcoming Objections, Biases

Cognitive dissonance:
we attend to what
we already believe
or want to believe

Offer quality evidence

Assure them that they
can be successful



What media do they pay attention to?

Direct contact (e.g., send students to high school classes)

Media (television, radio, newspapers)

Fact sheets

Posters (e.g., from Grace Hopper conference)

AND INFORMATION TECHNOLOGY

the Numbers

<p>54 Percent of the total 2004 U.S. population is female with bachelors</p>	<p>25 Percent of the 2004 U.S. workforce is female</p>	<p>11 Percent of corporate officers in top 500 companies in 2003 were women</p>
<p>1,500,000 Number of computer and information related jobs expected to be added to the U.S. workforce by 2012</p>	<p>50 Percent of those jobs for which U.S. education and training are needed</p>	<p>55 Percent of Advanced Placement (AP) test-takers in 2004 who were girls</p>
<p>48 Percent of AP Computer Science test-takers in 2004 who were girls</p>	<p>15 Percent of AP Computer Science test-takers in 2004 who were girls</p>	<p>11 Percent of 2006 female high school seniors who took AP Computer Science</p>

When Hope is a Way of Life

Overview The University of Maryland School of Medicine is a national leader in offering innovative approaches to cancer diagnosis and treatment. With comprehensive programs for treating all types of cancer, we are a major cancer center for patients throughout the state and region. As an academic cancer center, we have more than 240 scientists and clinical investigators working on cutting-edge research, including clinical trials that enable patients to receive the latest therapies long before they become widely available. All of our physicians and researchers are on the faculty of the University of Maryland School of Medicine, an urban professional school of the University of Maryland, Baltimore.

ADVANCED IN PATIENT CARE

- Leading in providing the most comprehensive cancer care for patients. Our state-of-the-art cancer center, the University of Maryland Cancer Center, is the only cancer center in the state that provides comprehensive cancer care for all types of cancer.
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RESEARCH ADVANCES

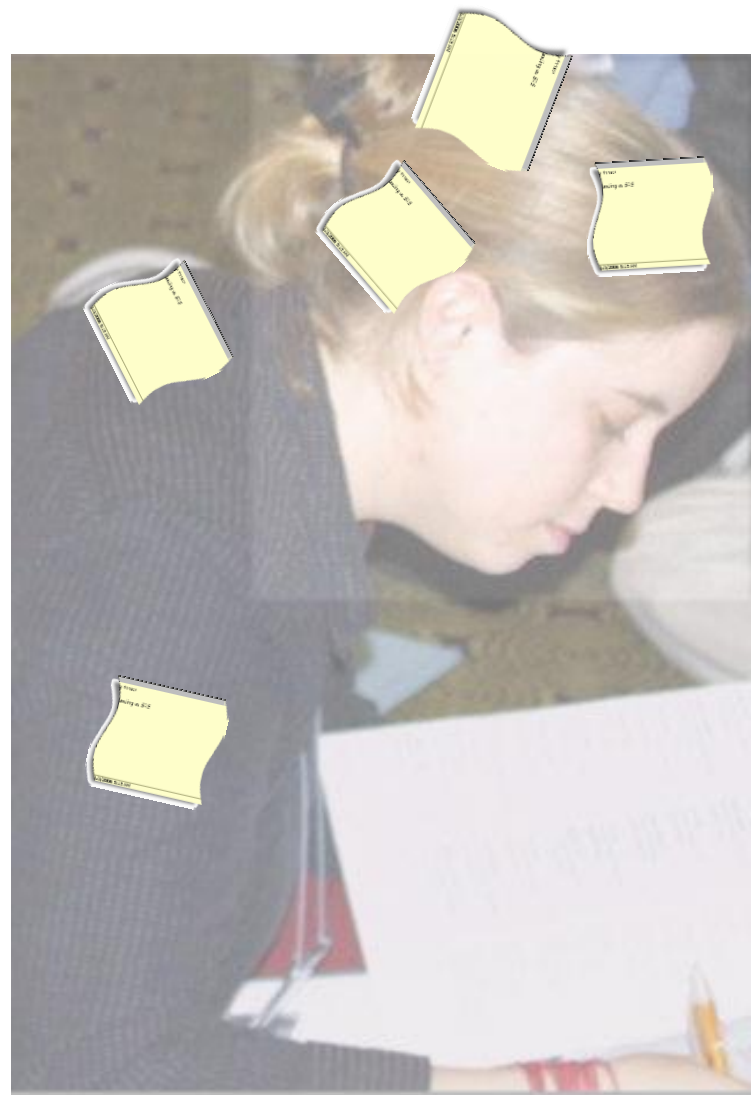
- Our research is focused on understanding the molecular basis of cancer. We are leading the way in understanding the molecular basis of cancer, and we are developing new therapies based on our research.
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Make Your Message Stick

Use mnemonic devices

- Images
- Rhymes
- Acronyms

Use multiple media



Will it Really Work?

Test with intended audience

Focus group, individuals

Encourage honesty

Ask them what your message means to them and
whether it influences their intended behaviors

If recycling existing materials, test these, too!



Practice Tailoring Messages

In discussion groups, brainstorm messages for women and their influencers

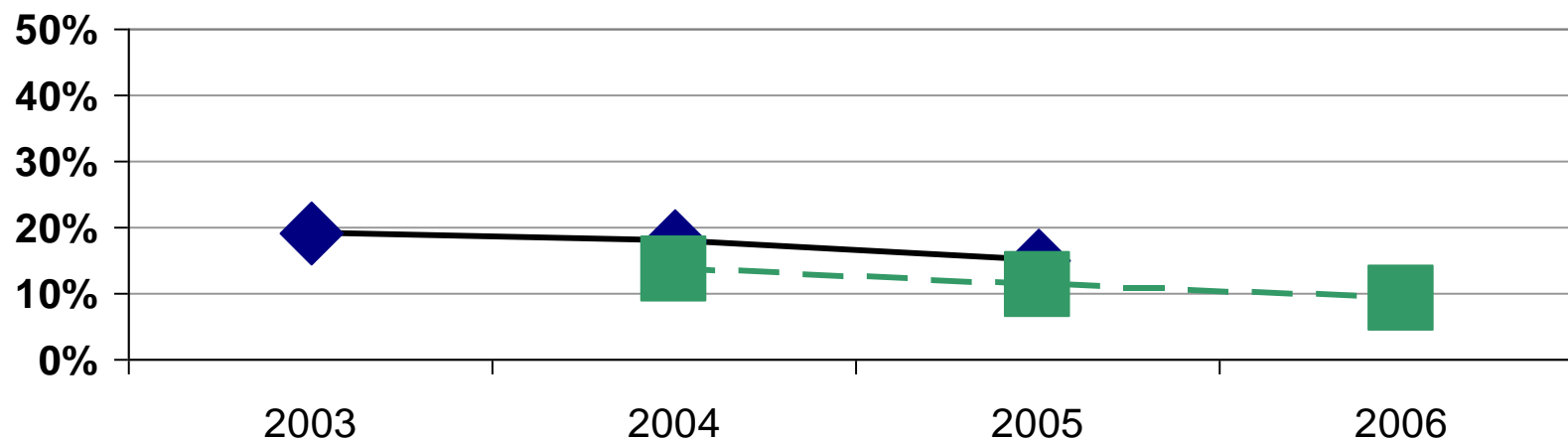
- Advisors on campus
- Undeclared majors
- Teachers
- Biology majors
- Guidance counselors
- Undeclared engineering students
- Career services/financial aid
- Campus paper
- High school students
- Other



Track and Report Results

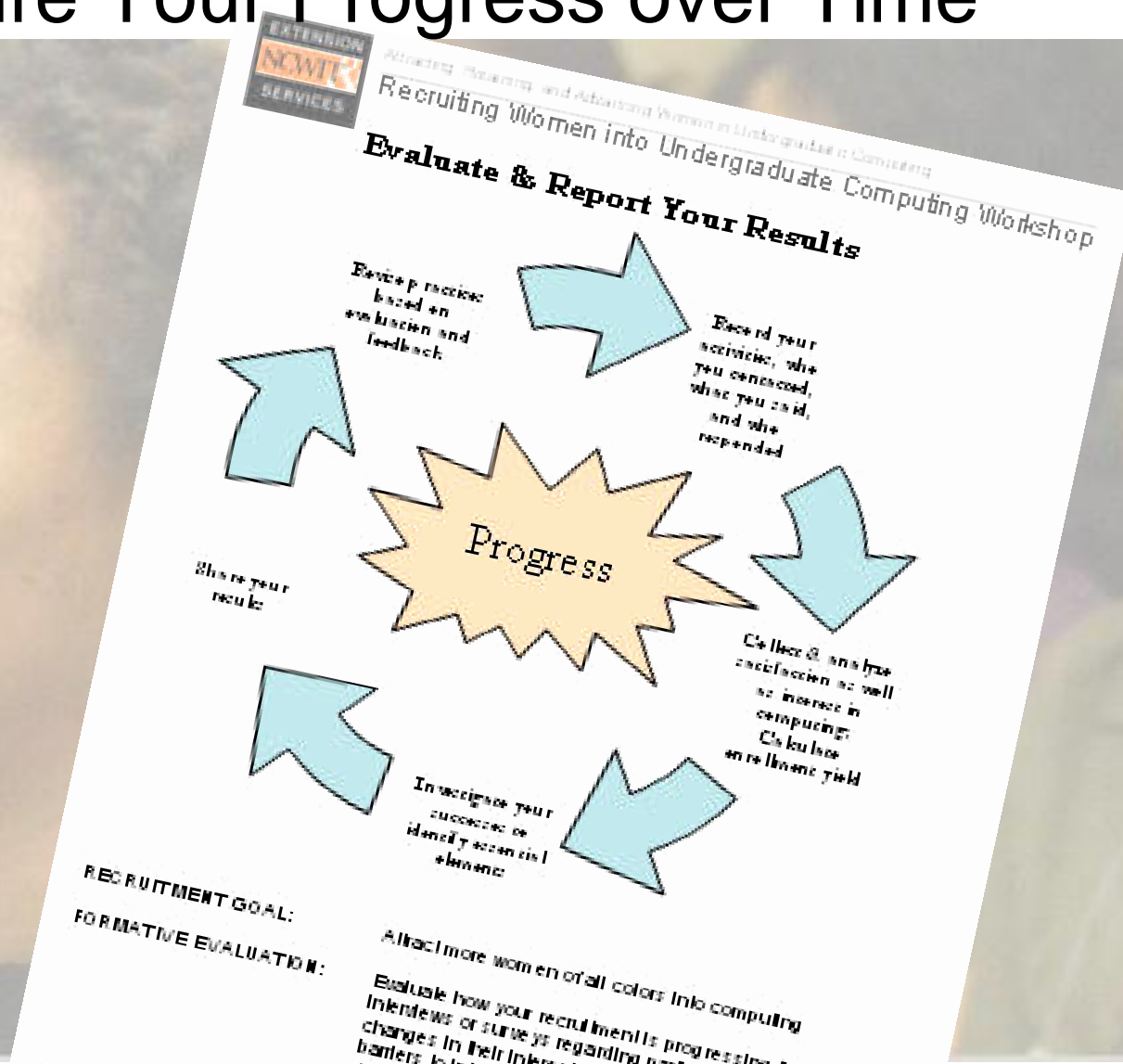
Women's Representation in Computer Science

Source: CRA Taulbee data and University enrollment data



—◆— Taulbee CS bachelor degrees —■— University CS declared majors

Measure Your Progress over Time



Track Your Numbers

EXTENSION NCWIT SERVICES *Attracting, Retaining, and Advancing Women in Undergraduate Computing*

Annual Summative Evaluation

Enrollment Yield from Recruitment Initiatives

Academic Year _____

	Date	# Female Contacts	# Subsequent Enrollees	# Male Contacts	# Subsequent Enrollees	# Minority Contacts	# Subsequent Enrollees
Initiative 1: _____							
Initiative 2: _____							
Initiative 3: _____							
Initiative 4: _____							
Initiative 5: _____							
Initiative 6: _____							

Calculate ENROLLMENT YIELD from each Initiative for each sex as
 (# Subsequent Female Enrollees) / (# Female Contacts)



For More...

www.ncwit.org

Extension Services for Undergraduate Programs

Feedback for us regarding the Workbook?

