EXTENSION
NCWIT&
SERVICES

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

Lecia J. Barker and J. McGrath Cohoon

Senior Research Scientists

National Center for Women & IT
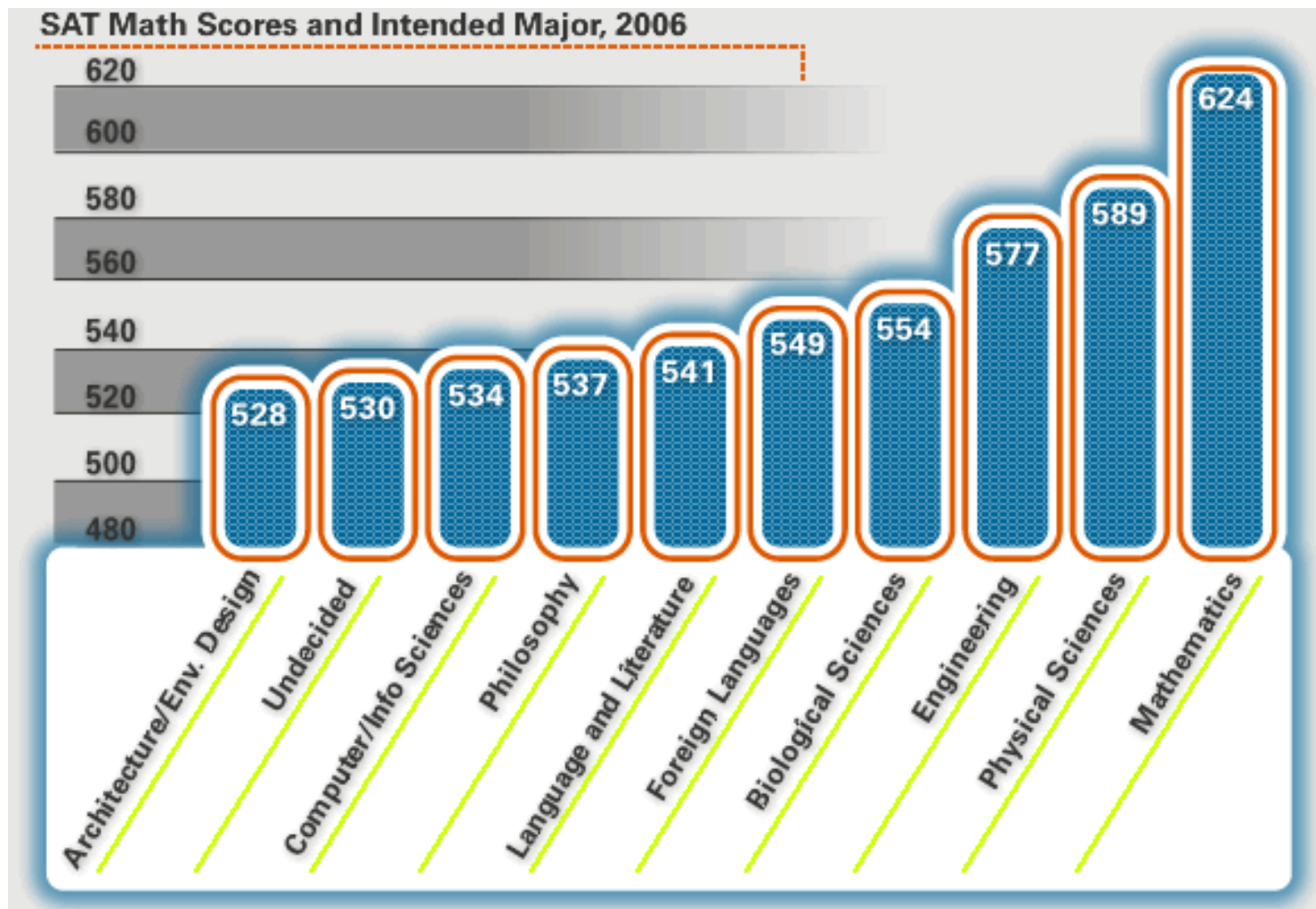
Identify "Low-Hanging Fruit"

Criteria

Largest majors

Contact possibilities already available

Your program and their interests

Majors with Demonstrated Math Competence

SAT Math Scores and Intended Major, 2006

Major	Score
Architecture/Env. Design	528
Undecided	530
Computer/Info Sciences	534
Philosophy	537
Language and Literature	541
Foreign Languages	549
Biological Sciences	554
Engineering	577
Physical Sciences	589
Mathematics	624

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	*Source: National Center for Education Statistics, Data Digest*	

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

Tailor Message and Media
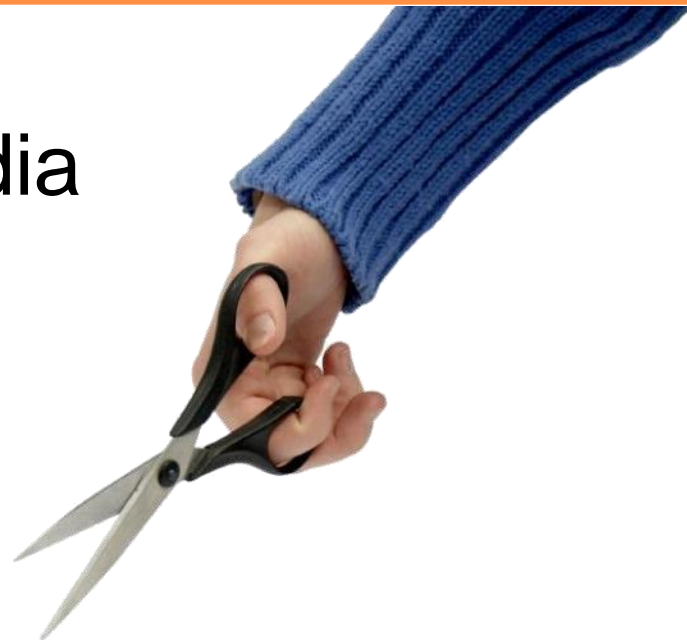
For Women and Their Influencers

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

Men and Women

Encouraged

Math or logic confidence

Enjoy programming

Focus on rewarding flexible career

Positive computing experiences

Women declared a computing major

View computing as communication

Path to a helping occupation

Self-expression through computing

Persuaded by friends

Defy stereotypes

Women More than Men
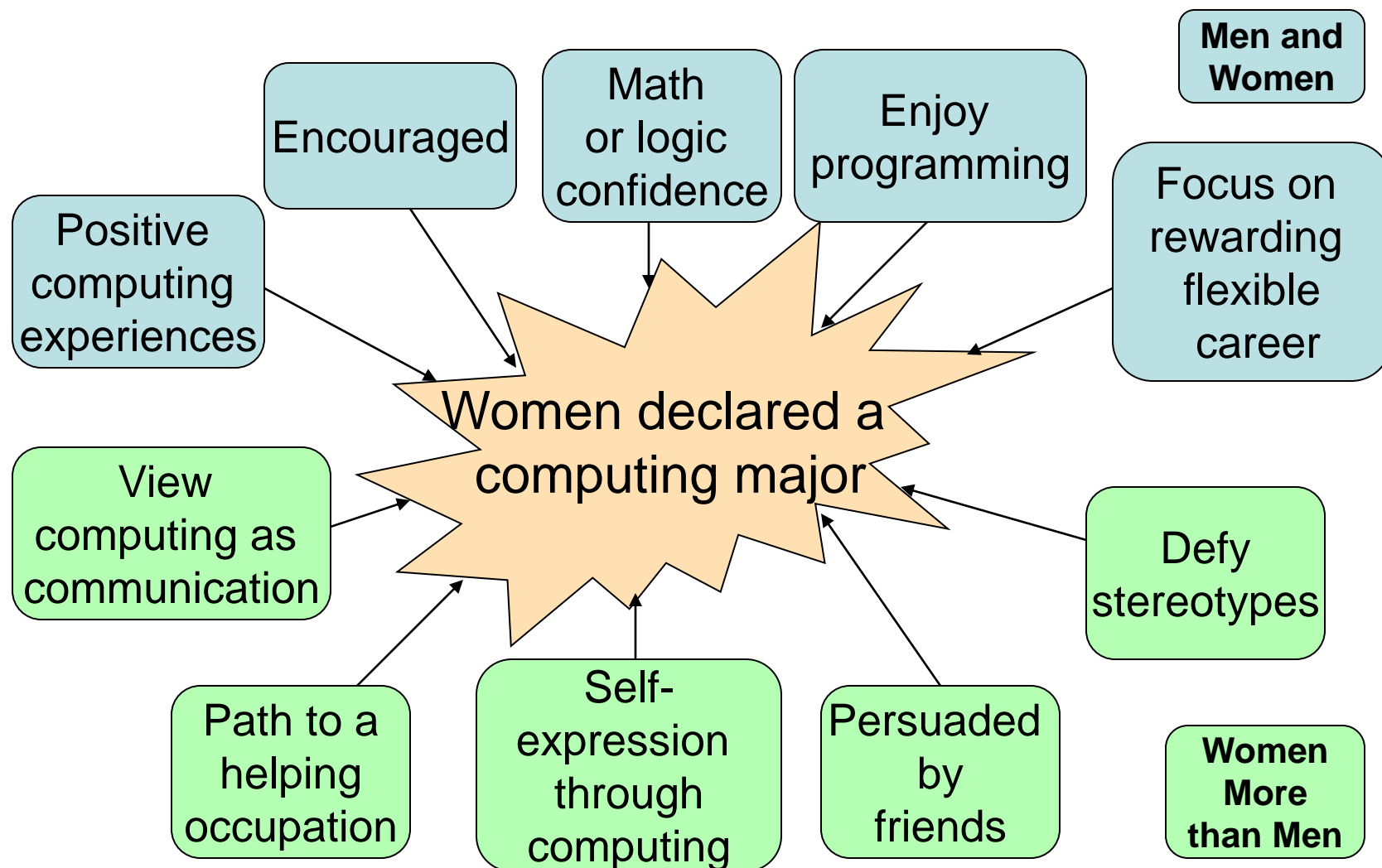
Source: Focus groups with 182 CS students in 16 programs

Specific Audiences' Needs

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

How will these be met?

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)

Make Your Message Stick

Use mnemonic devices

- Images
- Rhymes
- Acronyms

Use multiple media
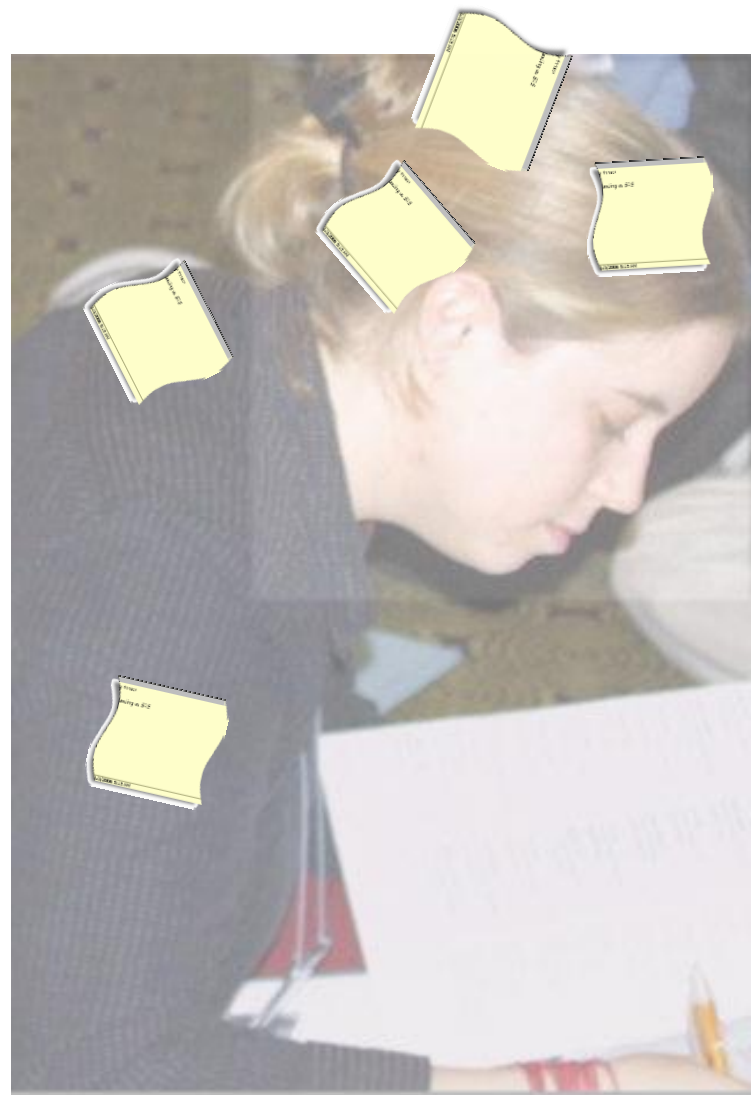
Will it Really Work?

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
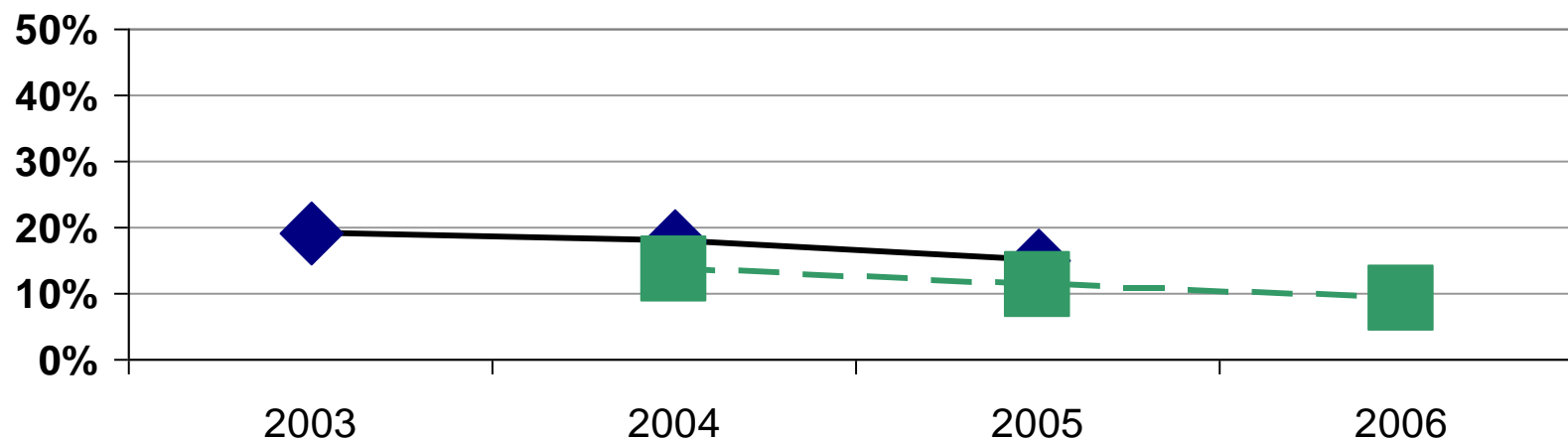
- Advisors on campus
- Undeclared majors
- Teachers
- Biology majors
- Guidance counselors

- Undeclared engineering students
- Career services/financial aid
- Campus paper
- High school students
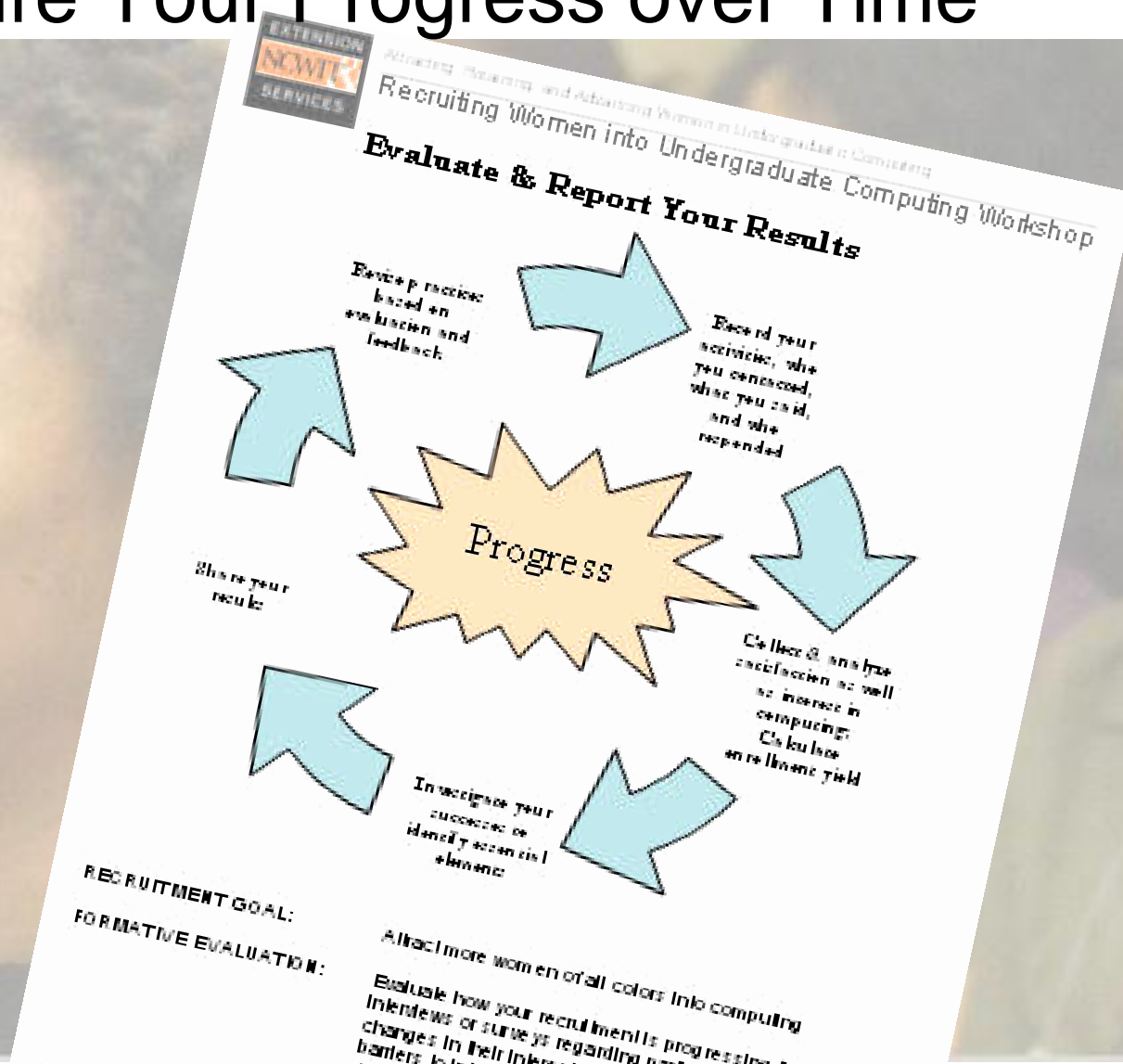- Other

Track and Report Results

Women's Representation in Computer Science
Source: CRA Taulbee data and University enrollment data

50%
40%
30%
20%
10%
0%

2003   2004   2005   2006

◆ Taulbee CS bachelor degrees   ■ University CS declared majors

Measure Your Progress over Time

Track Your Numbers

For More…

www.ncwit.org

Extension Services for Undergraduate Programs

Feedback for us regarding the Workbook?