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Vision
The Program for Women in Science and Engineering (WiSE) will enrich science, technology, engineering and math (STEM) fields by engaging more women, creating the opportunity for a more competitive and diverse state, national, and global workforce.

Mission
Create awareness, provide opportunities, serve as a resource, and engage people at Iowa State University, across Iowa and beyond to enhance the STEM educational experience for women.

- Create awareness about the opportunities for women in STEM.
- Provide innovative outreach and undergraduate opportunities for a diverse audience of women and girls to explore and succeed in STEM education.
- Serve as a resource on innovative strategies, best practices, and research on the success of women in STEM.
- Engage and lead a broad range of individuals and organizations in transforming the STEM educational experience for women.
CONNECT WITH WiSE

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Ames, Iowa 50011-2060
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E-mail: wise@iastate.edu
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2015 -16 Staff
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Janice Crow, Outreach & Study Abroad Coordinator
Sarah DuBois, Program Assistant
Carly Hughes, First-year Programs Coordinator
Allie Parrott, Undergraduate Programs Coordinator
Karen Bittner, Transitions Programs Graduate Assistant
Melissa Slagle, Outreach Programs Graduate Assistant
Xue (Snow) Bai, Taking the Road Less Traveled Undergraduate Assistant
Rachael Barnes, Student Role Model Undergraduate Assistant
Stephanie Hernandez, Undergraduate Office Assistant
Jackie Mesenbrink, Undergraduate Office Assistant
Jen Kuenstling, Student Role Model Undergraduate Kit Assistant

WiSE Advisory Board Members
Jennifer Serra, Rockwell Collins and Advisory Board President 2015-16
LeQuetia Ancar, College of Engineering
Scott Bowman, Idea Build Works
Veronica Bryant, Cargill
Karen Dau, Undergraduate Student – Chemical Engineering
Hannah Deering, Workiva
Barb Hunt, Vermeer
Christine Ieong, Boeing
Gayle Keyes, John Deere
Carol Kersey, DuPont Pioneer
Joi Latson, Undergraduate Student -Global Resource Systems
Jennifer Lillo, Undergraduate Student – Global Resource Systems
Glenna Lovig, Undergraduate Student – Civil Engineering
Carol Kersey, DuPont Pioneer
Janine McCormick, Emerson Process Management
Jennifer Owens, College of Liberal Arts and Sciences
Laura Phillips, Pella Corporation
Linda Powell, Guthrie Center Community Schools
Kathy Rogotzke, North Iowa Community College
Elizabeth Shroyer, Undergraduate Student – Mechanical Engineering
Pam St. John, TPI retired
Donna Van Pelt, ISU Foundation

WiSE Staff at the Fall Tailgate
In recognition of the Program for Women in Science and Engineering’s anniversary of enhancing the science, technology, engineering and math educational experience for women, WiSE developed a series of events to celebrate 30 years of offering programs and services that engage people at Iowa State, across Iowa and beyond. Spring 2016 highlights include:

**Anniversary Keynote**

WiSE proudly hosted Reshma Saujani at Iowa State University on January 28, 2016. Reshma Saujani is the Founder and CEO of Girls Who Code, a national non-profit organization working to close the gender gap in technology and prepare young women for jobs of the future. Reshma met with staff members and students to discuss relevant issues that women in technology face. Over 120 students, faculty, staff and corporate partners attended a pre-lecture dinner with Saujani. Over 400 people attended the lecture.

**WiSE Champions Honored**

In celebration of our 30th anniversary and to honor those who have provided endless support and advocacy of our programs, WiSE will be honoring 30 Champions throughout 2016. Since January, WiSE has honored 3 champions each month whose service has enhanced our ability to serve K-12 students across Iowa and undergraduate women at Iowa State University. The champions are honored at a luncheon with the WiSE staff and a small token of appreciation. Below are the champions that were honored during the spring of 2016:

- **Dr. Jonathan Compton**, Senior Research Analyst, Office of the Registrar
- **Dr. Diane Rover**, University Professor, Electrical and Computer Engineering
- **Dr. Kurt Earnest**, Coordinator of Residence Life/Academic Services, Department of Residence
- **Dr. Theresa Windus**, Professor, Department of Chemistry
- **Elaine Crabbs**, Event Coordinator, Event Management Office
- **Jay Staker**, 4-H Stakeholder & Partnership Development Manager and Interim Director, Iowa Space Grant Consortium
- **Dr. Susan Rhoades**, former Director, Academic Success Center
- **Anthony Hamilton**, Document Center Operator, Union Drive Copy Center
- **Dr. Kristen Constant**, Morrill Professor and Department Chair, Materials Science & Engineering
- **Katie Mott**, Enrollment Services Adviser II, Admissions
- **Dr. Jen Leptien**, Program Coordinator II, Learning Communities
- **Dr. Howard Tyler**, Professor, Animal Science

**Anniversary Highlights By the Numbers**

- 34% increased enrollment for women in STEM fields at ISU since 1986
- Over 63,000 - Participants in the Taking the Road Less Traveled career exploration conference since 1986
- 3,300 - Students who have participated in the WiSE 1st year learning community since 1995
- $800,000 - amount awarded in scholarships to women in STEM majors
- 6,500 - number of boys and girl visited by the Student Role Models each year
- 375 - number of students funded annually through WiSE Tutoring
- 90% of WiSE First-year students retained to their STEM major between 2000-2013
- 46 - Number of STEM women featured on the Women Impacting ISU calendar since 2006
- 7,480 - Number of unique visitors to the WiSE website from January 2016 to May 2016
- 463 - Number of students who participated in the Transitions Learning Community since 2013.
- 143 - Number of K-12 classrooms WiSE Student Role Models have visited across Iowa in the 2015-16 academic year

**Fall Events**

WiSE will continue to celebrate in the fall with the following events:

**Welcome Kickoff**, Sunday August 21, 2016

Welcome new and returning WiSE undergraduates through our 30th Anniversary Fall Kickoff where students have the opportunity to interact with WiSE staff, campus programs, STEM-related student organizations, and corporate partners during a resource fair.

**STEM Fest**, Saturday, September 17, 2016

Celebrate thirty years of WiSE with hands-on science and engineering activities for people of all ages. Event is free of charge and open to the public.

**Tailgate at Jack Trice Stadium**, Saturday, October 1, 2016

Food, prizes, face painting, games and Cyclone spirit! Event is free of charge and open to students, corporate partners, alumnae, faculty and staff.

**Awards Banquet**, Saturday, December 3, 2016

A celebration dinner and awards ceremony will be held to celebrate individuals and corporations for their significant contributions to the success of the program over the past thirty years. Fee to participate, registration required.
## WiSE BY THE NUMBERS

### STEM Enrollment by Gender & Classification

<table>
<thead>
<tr>
<th></th>
<th>Fall 2010</th>
<th>Fall 2011</th>
<th>Fall 2012</th>
<th>Fall 2013</th>
<th>Fall 2014</th>
<th>Fall 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1,036</td>
<td>1,095</td>
<td>1,188</td>
<td>1,310</td>
<td>1,280</td>
<td>1,306</td>
</tr>
<tr>
<td>Male</td>
<td>2,026</td>
<td>2,223</td>
<td>2,381</td>
<td>2,644</td>
<td>2,666</td>
<td>2,734</td>
</tr>
<tr>
<td>Sophomore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>846</td>
<td>868</td>
<td>970</td>
<td>1,093</td>
<td>1,154</td>
<td>1,152</td>
</tr>
<tr>
<td>Male</td>
<td>1,639</td>
<td>1,741</td>
<td>1,912</td>
<td>2,055</td>
<td>2,200</td>
<td>2,286</td>
</tr>
<tr>
<td>Junior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>868</td>
<td>941</td>
<td>956</td>
<td>1,097</td>
<td>1,178</td>
<td>1,367</td>
</tr>
<tr>
<td>Male</td>
<td>1,741</td>
<td>1,822</td>
<td>1,975</td>
<td>2,208</td>
<td>2,339</td>
<td>2,426</td>
</tr>
<tr>
<td>Senior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1,110</td>
<td>1,206</td>
<td>1,282</td>
<td>1,409</td>
<td>1,453</td>
<td>1,811</td>
</tr>
<tr>
<td>Male</td>
<td>2,177</td>
<td>2,353</td>
<td>2,628</td>
<td>2,837</td>
<td>3,083</td>
<td>3,336</td>
</tr>
<tr>
<td>Total Enrollment</td>
<td>11,443</td>
<td>12,249</td>
<td>13,292</td>
<td>14,655</td>
<td>15,353</td>
<td>16,418</td>
</tr>
<tr>
<td>Total Male Enrollment</td>
<td>7,583</td>
<td>8,139</td>
<td>8,896</td>
<td>9,744</td>
<td>10,288</td>
<td>10,782</td>
</tr>
<tr>
<td>Total Female Enrollment</td>
<td>3,860</td>
<td>4,110</td>
<td>4,396</td>
<td>4,911</td>
<td>5,065</td>
<td>5,636</td>
</tr>
<tr>
<td>Percentage Female</td>
<td>33.7%</td>
<td>33.6%</td>
<td>33.1%</td>
<td>33.5%</td>
<td>33.0%</td>
<td>34.3%</td>
</tr>
</tbody>
</table>

### WiSE Signature Program Participation

<table>
<thead>
<tr>
<th></th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-year LC</td>
<td>225</td>
<td>259</td>
<td>270</td>
<td>263</td>
<td>280</td>
<td>375</td>
<td>428</td>
</tr>
<tr>
<td>Second-year/Transfer LC</td>
<td>31</td>
<td>26</td>
<td>75</td>
<td>99</td>
<td>100</td>
<td>122</td>
<td>230</td>
</tr>
<tr>
<td>TRLT</td>
<td>3,177</td>
<td>2,964</td>
<td>2,902</td>
<td>2,996</td>
<td>2,451</td>
<td>1,255</td>
<td>2,002</td>
</tr>
<tr>
<td>Student Role Models</td>
<td>5,518</td>
<td>5,927</td>
<td>6,423</td>
<td>9,832</td>
<td>7,129</td>
<td>8,709</td>
<td>5,644</td>
</tr>
<tr>
<td>Daily Students Visits/EIS</td>
<td>210</td>
<td>265</td>
<td>334</td>
<td>353</td>
<td>312</td>
<td>291</td>
<td>386</td>
</tr>
<tr>
<td>Scholarships Awarded</td>
<td>25</td>
<td>44</td>
<td>30</td>
<td>94</td>
<td>81</td>
<td>78</td>
<td>77</td>
</tr>
<tr>
<td>Academic Support/Tutoring</td>
<td>n/a</td>
<td>122</td>
<td>286</td>
<td>275</td>
<td>300</td>
<td>376</td>
<td>470</td>
</tr>
</tbody>
</table>

### WiSE 1st-Year Retention to ISU Fall 2000-2014*

<table>
<thead>
<tr>
<th></th>
<th>WiSE Female</th>
<th>STEM Female</th>
<th>Other LC Female</th>
<th>Total Female</th>
<th>STEM STEM</th>
<th>Total Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>total # of Students</td>
<td>2,990</td>
<td>6,750</td>
<td>2,644</td>
<td>12,384</td>
<td>24,351</td>
<td>36,735</td>
</tr>
<tr>
<td>1st-Year Retention to ISU</td>
<td>91%</td>
<td>88%</td>
<td>79%</td>
<td>87%</td>
<td>87%</td>
<td>87%</td>
</tr>
<tr>
<td>1st-year GPA</td>
<td>2.99</td>
<td>2.94</td>
<td>2.69</td>
<td>2.90</td>
<td>2.73</td>
<td>2.78</td>
</tr>
</tbody>
</table>

Note: "# of students" is the total number of students at the start, not the total number of students retained

### WiSE 1st-Year Retention to STEM Fall 2000-2014*

<table>
<thead>
<tr>
<th></th>
<th>WiSE Female</th>
<th>STEM Female</th>
<th>Other LC Female</th>
<th>Total Female</th>
<th>STEM STEM</th>
<th>Total Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # of Students</td>
<td>2,615</td>
<td>5,913</td>
<td>2,087</td>
<td>10,615</td>
<td>21,070</td>
<td>31,685</td>
</tr>
<tr>
<td>One Year Retention to STEM</td>
<td>91%</td>
<td>87%</td>
<td>77%</td>
<td>86%</td>
<td>89%</td>
<td>88%</td>
</tr>
</tbody>
</table>

Note: "# of students" is the total number of students retained to this point

### Graduation Rates in STEM Fall 2000-2011*

<table>
<thead>
<tr>
<th></th>
<th>WiSE Female</th>
<th>STEM Female</th>
<th>Other LC Female</th>
<th>Total Female</th>
<th>STEM STEM</th>
<th>Total Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Stds</td>
<td>2,044</td>
<td>4,669</td>
<td>2,179</td>
<td>8,892</td>
<td>17,764</td>
<td>26,656</td>
</tr>
<tr>
<td>4-Yr Grad</td>
<td>37%</td>
<td>40%</td>
<td>25%</td>
<td>36%</td>
<td>23%</td>
<td>28%</td>
</tr>
<tr>
<td>5-yr Grad</td>
<td>62%</td>
<td>56%</td>
<td>39%</td>
<td>53%</td>
<td>52%</td>
<td>52%</td>
</tr>
<tr>
<td>6-Yr Grad</td>
<td>65%</td>
<td>58%</td>
<td>41%</td>
<td>55%</td>
<td>56%</td>
<td>56%</td>
</tr>
</tbody>
</table>

Note: "# of students" is the total number of students retained to this point

*data provided by the Office of the Registrar
The Program for Women in Science and Engineering invited the Founder and CEO of Girls Who Code, Reshma Saujani, to kick-off our 30th Anniversary Celebration. Saujani works to close the gender gap in technology and prepare young women for jobs of the future. Honored with a number of prestigious distinctions for her efforts, including being named a Wall Street Journal Magazine Innovator of the Year and one of Forbes’ Most Powerful Women Changing the World, Reshma has established herself as a leader and role model at the forefront of creating positive change. The author of Women Who Don’t Wait in Line, Reshma advocates for a new model of female leadership focused on embracing risk and failure, promoting mentorship and sponsorship, and boldly charting your own course — personally and professionally. Saujani visited the Girls Who Code Club at Central Academy in Des Moines as a part of visit.
WISE continues to collaborate with others at Iowa State and across the state to offer experiential activities stimulate the interest in STEM fields among Iowa youth. WISE worked on the following special projects in FY16 in addition to our signature programs.

Women in Computing
Today, knowledge of computer programming is a necessary skill for every profession, especially in science and engineering. Beyond STEM, careers in education, healthcare, art, music and every other imaginable occupation calls for computational competency. As a result of our efforts to bring awareness to the lack of women in engineering and computer science the following projects have been initiated:

1. WISE submitted an NSF INCLUDES Grant to create alternative models to the 7-week Girls Who Code camps currently offered. The grant would pilot 1-day, 3-day and 2-week immersive programs for girls to explore coding across the state of Iowa. Partners include Electrical and Computer Engineering, the Technology Association of Iowa, the Board of Regents, Iowa Department of Education, Des Moines Area Community College, Southwestern Community College, Purdue University, and the Iowa Governor's STEM Advisory Council.

2. WISE partnered on an NSF S-STEM Grant to provide full-tuition scholarships and programs to women with financial need in Electrical, Computer, and Software Engineering majors at Iowa State University. Scholarships for women interested in exploring computing at Kirkwood and Des Moines Area Community College are also eligible.

3. WISE was asked to serve as a client for a computational communication course within the Greenlee School of Journalism that is co-taught by Computer Science faculty. Projects will focus on the recruitment of girls to computer science and is co-sponsored by Yahoo!

4. WISE hosted a meeting with individuals interested in starting a Girls Who Code club at Ames High School. Participants will participate in a one-day “jump-start” program in the fall and Saturday help sessions once a month. Students will meet weekly at Ames High School.

Iowa Governor’s STEM Advisory Council
WISE engaged with the STEM Advisory Council in the following ways during FY16:

1. The STEM Equity Working Group has been charged by the Iowa Governor’s STEM Advisory Council to study the effectiveness of current programs in reaching students of diversity then prescribe recommendations for further engaging diverse students in STEM programs. Lora Leigh Chrystal is serving on this committee and assisted in presenting recommendations to the Governor and the Advisory Council in June.

2. Janice Crow reviewed submissions for STEM Teacher of the Year Awards will be announced at the Annual STEM Advisory Council Conference.


National Alliance for Partnerships in Equity
WISE partnered with the College of Engineering to offer a workshop for faculty and staff on Micro-messaging. Micromessages are small, subtle, often subconscious messages we send and receive in our communication with others in the form of a gesture, word choice, treatment, or even tone of voice. These messages can be either positive (micro-affirmations) or negative (micro-inequities). 30 faculty and staff attended a 2-day “train the trainer” workshop and another 40 attended a 2-hour “awareness building” workshop.

Student Role Model Program
Created to generate K-12 students’ interest and confidence in science, technology, engineering, and mathematics (STEM) activities and career opportunities, the Student Role Model program offers exciting challenges through hands-on activities facilitated by ISU undergraduate student role models. Through this program, undergraduate students majoring in a STEM degree visit classrooms, community centers, and school fairs across the state to increase awareness and engagement in STEM.

The Student Role Model Program has continued to make great strides in reaching out to K-12 schools to help implement hands-on STEM-related activities into the classroom experience. Student Role Models have assisted with many special events such as the Tama Area Family STEM Festival, Dubuque Area Family STEM Festival, South Tama STEM Festival, STEM Day in Ottumwa, TAG Science Fair, and the Iowa State Science and Technology Fair. A new partnership was developed this year with DuPont Pioneer and the Chrysalis After School Program. Through this program, 5th and 6th grade girls in the Des Moines area benefited from Pioneer professionals and ISU students leading them through hands-on science activities. A new online system that allows the Student Role Models to electronically view visits that fit in their schedules was implemented bringing some positive changes to the Program. Role Models continue to make great strides in reaching out to new communities in the state which has allowed the program to reach over 5,500 students throughout the year.

Science Explorations
Science Explorations is a student organization for Iowa State students studying in STEM fields to gain leadership experience by planning, organizing and facilitating a four week after school camp for girls in grades 3-6 each semester. Members work with other clubs and organizations on campus to plan engaging lessons and activities for the girls to stimulate interest and excitement for STEM fields. The program hosted over 50 students in the fall and spring and participation in the student organization continues to increase reaching 33 members this year.

WISE Ambassador Program
The WISE Ambassador program provides an additional way for undergraduates to engage with WISE in a leadership role. Ambassadors volunteer to assist WISE by connecting with high school students during the recruitment process. Ambassadors staff WISE booths at various events, and meet with prospective students and their families during the regular daily visits. Following the prospective student visits, ambassadors send handwritten postcards or email messages to the students as a follow-up. In addition, students who are interested in returning to campus may schedule a time to visit with an ambassador with a similar major or interest as well as attend a class or visit their WISE floor. This
Reaching out...

The Student Role Model Program reaches out to over 5,644 students each year across the state of Iowa. Students enjoy hands-on activities being led by Iowa State women in STEM majors.
past year we had 20 Ambassadors.

Career Conferences
Taking the Road Less Traveled: A Career Conference for Girls (TRLT) began in the spring of 1987 with a one-day conference to provide the opportunity for 6th-12th grade girls to learn from professional women in STEM on the Iowa State University campus. The conference continued to expand and WiSE has been offering six conferences per year since the mid-1990s. Today, over 63,000 girls, parents and educators have participated in Taking the Road Less Traveled. Taking the Road Less Traveled brought over 2,000 8th-10th grade girls to campus to learn about STEM majors and careers during the fall and spring conferences. With a focus on majors and careers that remain underrepresented, the conference has added new sessions focused on engineering, coding, and making mobile apps in addition to including undergraduate role-models into the lunch session and keynote speakers.

SWE University
SWE University is a collaborative outreach event with the Society of Women Engineers student organization, College of Engineering, and WiSE. SWE University focuses on increasing the number of female students entering the College of Engineering at Iowa State. Over 85 high school juniors and students submitted application forms to attend SWE U and 60 students were admitted. During the two-day experience, SWE U participants explored campus, learned about each engineering discipline, connected with current students, met other SWE U participants, and stayed overnight in an Iowa State residence hall. The event concluded with a dinner and banquet in which SWE U participants and their parents had the opportunity to visit with engineering faculty and staff. Fifty three students attended SWE University, and 91% of students partook in an assessment survey evaluating their experience at SWE University. One hundred percent of SWE U. students agreed with the statements, “Attending SWE University increased my interest in Engineering” and “Attending SWE University increased my interest in Engineering.” These results demonstrate the impact of SWE University for participants and the College of Engineering, in terms of both promoting diversity and increasing overall enrollment.

PROGRAMS FOR UNDERGRADUATES

Fall Kickoff
WiSE held its inaugural Fall Kickoff Event the day before fall classes began. The Kickoff began immediately after Learning Community Orientations and was open to all undergraduate women in STEM. We intentionally invited all undergraduate women in STEM after learning from our survey last spring that many students felt disconnected from or “not a part of WiSE” after their first or second year. We enjoyed a successful event with our Resource Fair, Hickory Park food, Kona Ice Truck, and the ever popular dunk tank! Planning is already underway for our 2nd Kickoff. Fall Kickoff Highlights:
- Over 25 corporate partners and campus organizations participated in the Resource Fair
- Over 500 undergraduate women participated in the Kickoff
- All corporate partners and campus organizations would like to participate again
- One corporate partner said, “I enjoyed interacting with the students and the punch cards provided a great avenue to have a good group of folks stop by our booth. Thank you for the opportunity!”

Community Leadership & Public Service
For the second-year, WiSE has partnered with the Leadership Studies Program and Leadership ISU Learning Community to provide a leadership course (CL PS 270) for first-year WiSE students. This year, a service learning component has been added to the course through a partnership with the Community Housing Initiatives Program in Ames. WiSE students are developing interactive activities for elementary and middle school children.

STEM Neighborhood Project
A collaborative effort across departmental learning communities (Physics, Geology and WiSE) and the Math Department to provide team based learning in Math 165 (Calculus I) and authentic research projects to first-year students during their second semester. The STEM Neighborhood Service Learning Project had students learn about a neighborhood and apply calculus to evaluate home insulation problems. Students reported their results through a poster session with both the ISU and Capitol East neighborhoods.

Scholarships
During FY16, 92 scholarships were awarded totaling $129,000. Thirty-one scholarships were awarded to incoming first-year students and sixty-one scholarships have been awarded to current undergraduate students. Scholarships awarded this past year included
- Endowed scholarships for Janice L. Davison, Sylvia Stoesser, Laurel Ann Crowe, Diane Brandt and Charlie Wright, Jr.
- Non-endowed scholarships were awarded by WiSE to support first year and returning students in STEM fields.

WiSE Learning Communities
The Women in Science and Engineering (WiSE) Learning Communities offer living and learning opportunities for women majoring in science, technology, engineering, and math (STEM). WiSE Learning Communities began in FY96 with 52 first-year students and has grown to 428 first-year students, with 230 students participating in the Transfer Learning Community, Sophomore Success Seminar and/or participating in the Sophomore Success Learning Community, and/or living in Frederiksen Court apartments. Highlights from 2015-16 include:
• Training for fourteen peer mentors for First-Year Learning Community was enhanced and restructured with clear job expectations and professional development objectives.
• In collaboration with Student Counseling Services and the Department of Residence, WiSE provided peer mentors across the university the with mental health awareness training. The training included how to identify behavior patterns with common student concerns, helping strategies, how to handle difficult conversations/scenarios, and appropriate referral resources.
• Utilizing the Mapworks (Making Achievement Possible) student retention tool at Iowa State, WiSE staff and peer mentors were able to identify at-risk students early in their first semester, and intervene with students presenting the greatest need first. Peer Mentors were trained on how to best support students through active listening strategies, addressing individual needs, and appropriate campus referral resources.
• Six peer mentors from the WiSE First-Year, Transitions, and M-STEM learning communities were selected by ISU Learning Communities as exemplary peer mentors for the 2015-16 academic term. Peer mentors were nominated by students and learning community coordinators, and were recognized for their contributions and outstanding work in helping to serve students in the learning community. Carly Hughes was also recognized as an Exemplary Supervisor of the Year for Learning Communities.
• M-STEM Learning Community Peer Mentor, Raul Hernandez was selected for the Erroll B. Davis/Alliant Energy Award & $5,000 Scholarship. Raul was one of three students selected from three different Iowa Regents Institutions and was recognized during an April ceremony in Iowa City.
• WiSE Staff were honored at the annual Learning Communities Institute with the following awards:
  • Lora Leigh Chrystal was awarded Carly Brooke Learning Community Advocate Award
  • Allie Parrott was awarded the Learning Community Collaborator Award
  • Carly Hughes was awarded the Peer Mentor Supervisor of the Year Award

First-Year Learning Communities
WisE works with the Department of Residence to coordinate thirteen first-year residential learning communities in seven residence halls across campus. The First-Year learning community has grown exponentially from the initial 52 first-year students in 1995 to 428 in FY16. In order to meet the increasing demand, the Department of Residence continues to increase the number of spaces allocated to WiSE First-Year learning communities. Each WiSE floor is comprised of twenty-two to twenty-five women in STEM majors and is led by a peer mentor. Peer mentors are upper-division STEM students who help first-year students transition to college. Peer mentors play a vital role in the planning and implementation of programs and activities for their mentees and also refer them to applicable campus resources. WiSE students consistently provide positive feedback about their peer mentors at end of the year evaluations.

University Studies 201: Career Readiness
Students enrolled in University Studies 201 engage in a variety of topics to prepare them for their STEM careers. They connect with other WiSE Learning Community members to build a community of support among other underrepresented students. Students build their confidence in professional networking and interviewing through resume and cover letter assignments, practicing their elevator speeches, and participating in a career fair experience. Students discuss issues relevant to women in STEM fields and develop the skills to navigate challenges associated with being a member of an underrepresented group. Karen Bittner, the 2015-2016 Transitions Coordinator, added two new components to the course this year:
• A new personal wellness component emphasizes the importance of maintaining mental and physical well-being as a prerequisite for career and professional success.
• A new diversity component in the class provides students with the opportunity to address issues relevant to multiple underrepresented groups, from gender to race to sexual orientation.

Transitions (Second-Year & Transfer) Learning Community
WiSE Peer Mentors plan and execute monthly activities for their mentees. These activities help build community for Learning Community members and contribute to their professional development and leadership skills—each event addresses at least two of WiSE’s Outcomes for Women in Leadership (i.e., building community, enhancing academic achievement and retention, building professional development, and increasing awareness of and addressing issues facing women in STEM). Event Highlights:
• Over 70 Transitions Learning Community members attended a record-painting event, where Learning Community members painted quotes to inspire their success on vintage records.
• Peer Mentors arranged a career preparation event and provided valuable resume advice and feedback, instructions on searching for internships on ISU’s CyHire website, and guidance on developing and practicing elevator speeches.
• WiSE Transfer students joined the Multicultural Learning Community (M-STEM) for a game night.

M-STEM Learning Community
WiSE piloted the M-STEM Learning Community for Multicultural transfer students pursuing STEM majors at Iowa State. M-STEM has proven to be beneficial for the students participating. There are eight students enrolled in the UST 201 M-STEM course and fifteen total who have joined the M-STEM learning community. This fall, M-STEM State.

Applicable campus resources.
students have taken advantage of free tutoring, transfer tips, connecting with campus departments such as Multicultural Student Affairs (MSA), building community with the WiSE transfer learning community, guidance from M-STEM staff, and establishing professional portfolios with resumes and networking plans.

**Developing Leaders**

Leadership development is an important component of the WiSE learning community experience. By offering a variety of programs and workshop experiences focused on professionalism, academics, and leadership, students develop the skills to excel in college and beyond graduation. Additionally, WiSE provides over 100 leadership opportunities annually through the Student Role Model, Ambassador and Peer Mentoring Programs.

In addition to leadership development activities within the First-year and Transitions programs, WiSE offered the following opportunities:

**Leadership Conference**

Seventy-five students gathered at the Alumni Center to learn more about leadership skills and to increase their leadership confidence. The conference sessions were based on chapters from Reshma Saujani’s book, *Women who Don’t Wait in Line: Break the Mold, Lead the Way*. Session topics included reducing fear of failure, being authentic, staying motivated and excited about their major or field of study, and building a professional network. In an online assessment, students demonstrated an increased confidence in their leadership skills, were more willing to take risks and fail in the pursuit of success, reported greater enthusiasm for their major, and increased their confidence in networking with STEM professionals. They also loved the mini cupcakes.

**Iowa Women Lead Change Conference**

WiSE Staff and students participated in the 2015 IWLC Conference in Des Moines. Keynote speakers included Arianna Huffington, President of the Huffington Post and Anna Maria Chavez, CEO of the Girl Scouts of the USA.

**Noche de Reinas**

WiSE sponsored and participated in Sigma Lambda Beta’s “Noche de Reinas” – a night dedicated to supporting, empowering, and recognizing women in our community. Over 30 women in STEM were nominated and six were selected and honored. M-STEM peer mentor and officer in the Sigma Lambda
Beta Fraternity, Raul Hernandez, helped recognize women in STEM during the ceremony.

**Academic Support**

_Tutoring continues to be a significant way of providing academic support for our students. Together with the College of Engineering, WiSE offered free tutoring to over 470 students representing over 20 majors, an increase of 95 students in FY15. Students were surveyed in FY15 and based on feedback, WiSE piloted the Study Owls as a way to academically support additional students._

**Study Owls**

WiSE unveiled a new group tutoring program, Study Owls, in September 2015. Study Owls is designed to provide additional academic assistance to students in courses that are most frequently requested for tutoring services. These courses include MATH 165, MATH 166, CHEM 167, and CHEM 177. Study Owls are held each Sunday evening, in 8 different locations and times across campus to optimize attendance. WiSE worked with the Academic Success Center to hire qualified tutors and the Department of Residence to find suitable space on campus. Study Owls Highlights:

- 23 students have utilized Study Owls in the first 4 weeks of the program
- One first year student says, “I have attended multiple Chemistry 167 sessions and have found them very helpful. I have found that getting to the session with my homework done works really well! I have talked to a lot of girls on my floor and have talked them into doing Study Owls too. I find it very helpful!”

**Professional Development**

_WiSE provides women with the tools necessary to thrive in industry and academia through hosting graduate school panels, networking events, and a variety of workshops to enhance resumes, interviewing skills, and career fair preparation. 2015-16 job shadows and visits included: Vermeer Corporation, Emerson Process Management, Workiva, Henry Doorly Zoo, and the ISU Veterinary School. John Deere also hosted a speed mentoring event with their Women in Operations Group._

**WiSE Learning Community**

2015-16 First-year highlights:

- **Graduate School Talk:** On April 21st, WiSE hosted a round table discussion with Dr. Bridget Scanlon on graduate careers in environmental sustainability. Dr. Scanlon facilitated a small group discussion with undergraduate students about women pursuing graduate careers in environmental conservation, water sustainability, and other related issues.

- **March Mindness:** First-year learning community students participated in a month-long competition, March Mindness, focused on studying. Students attended WiSE group Study Owls, peer mentor led homework sessions, and tracked individual study hours. Students logged over 700 hours of studying.

- **Diversity and Inclusion:** WiSE has made a priority of partnering with college diversity officers on programming and hiring personnel. Along with other campus groups, WiSE and M-STEM students attended a Workiva Diversity in Technology event; the new Vice-President for Diversity and Inclusion, Dr. Reginald Stewart, gave the keynote address. WiSE co-sponsored the LGBTSS Pride Week Keynote Speaker Angelica Ross and the ISU Transforming Gender and Society Conference.

- **Financial Literacy:** Dr. Clinton Gudmunson, faculty member in Human Development Studies, provided a financial workshop for WiSE Transitions and M-STEM learning community students. Dr. G taught students about the importance of creating a budget, repaying student loans, choosing credit cards, wise investing, and the do’s and don’ts of buying a house.

- **Community Building:** M-STEM learning community students participated in the Charity Bowling Event that raised funds for ACCESS, and also came in 3rd place out of 17 teams. WiSE Transitions and M-STEM students participated in a laser tag event on April 24th.

- **End of Year Learning Communities Celebration:** Women across the learning communities joined together at the end of the semester to review and reflect back on the academic year, learn about next steps for the learning community, and how they can continue to stay involved with WiSE in the future.

- **Managing Dead Week Stress with Canvas Painting:** One of the most popular programs each semester—canvas painting—wook place during the final two weeks of school. During dead and finals week, the WiSE conference room was transformed into a creative space where students could de-stress and paint inspirational quotes and more.
SWE University

SWE University, formerly known as SWE Sleepover, is a recruitment event for female high school junior and senior students who may be interested in exploring engineering at Iowa State University. The College of Engineering, Society of Women Engineers, and the Program for Women in Science and Engineering have partnered on this event to recruit more female students to engineering. Over 85 prospective students submitted application forms to attend SWE U, and 60 students were admitted to the program. During the two-day experience, SWE U participants explored campus, learned about each engineering discipline, connected with current students, met other SWE U participants, and stayed overnight in an Iowa State residence hall. The event concluded with a dinner and banquet where SWE U participants and their parents had the opportunity to visit with engineering faculty and staff.
A LOOK TO THE FUTURE

Financial Summary

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Expenditures

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<td><strong>TOTAL Expenditures</strong></td>
<td><strong>793,713</strong></td>
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This is an exciting time for the Program for Women in Science and Engineering (WiSE). Over 5,600 women enrolled in science, technology, engineering and math (STEM) majors, Iowa State University has set another new record! Our vision is to enrich STEM fields by engaging more women, thereby creating the opportunity for a more competitive and diverse state, national, and global workforce. Our priorities for FY17 will include:

1. **30th Anniversary Celebration.** WiSE will continue to celebrate thirty years of the Program for Women in Science and Engineering. In August 2016, WiSE will celebrate with a STEM festival on the Iowa State University campus and a tailgate for students and alumni. WiSE will conclude the year with a banquet and awards celebration. Award categories will include:
   - Undergraduate STEM Leadership Award
   - Strategic Partner Award
   - Leader in K-12 STEM Education Award
   - Inspiring Change: Iowa State University Faculty Advocate Award
   - Inspiring Change: Iowa State University Staff Advocate Award
   - Inspiring Change: Iowa State University Administrator Award
   - Emerging Leader Award
   - Leading Change Award
   - WiSE Service Award

   Look for updates and announcements at [www.wise.iastate.edu/30years.html](http://www.wise.iastate.edu/30years.html).

2. **Strategic Plan Development and Implementation.** In FY17, the current strategic plan will expire and we will begin planning for our new strategic plan in August with internal and external partners. Consultant Nancy Franz, former Associate Dean of the College of Human Sciences, will facilitate initial planning sessions in August that will engage internal and external stakeholders.

3. **Partnerships and Financial Support.** Record enrollments at Iowa State University and the increased demand for WiSE programs and services will require a focus on leveraging existing partnerships and developing new relationships in order to support the growing number of students. In tandem with the development of the new strategic plan, WiSE will explore streamlining existing programs and services to focus on areas with specific needs and increase sources of revenue in support of our mission.

4. **Development of a New Marketing Campaign.** As WiSE concludes its 30th Anniversary Campaign, WiSE will launch a new marketing campaign. Included will be a new platform for communication, new print materials, website and media.

We are very proud of our accomplishments over the past year and look forward to another successful year. Please continue to support WiSE and consider joining us in our celebration.

Lora Leigh Chyrstal
Director, Program for Women in Science and Engineering
WISE has seen growth in the enrollment and graduation of female STEM students from Iowa State since the program began in 1986. For the sixth straight year, WISE has seen record enrollment of undergraduate women in STEM, with 5,636 female STEM students (an increase of over 500 women since FY14). The percentage of undergraduate STEM students who were female increased slightly to 34.3%. The charts show the history of enrollment and percentage of women in STEM over WISE’s lifetime. Additional charts with college specific data and information about degrees awarded in STEM are available at www.wise.iastate.edu/data.html.
WiSE Kickoff

WiSE held its inaugural Fall Kickoff Event the day before fall classes began. The Kickoff began immediately after Learning Community Orientations and was open to all undergraduate women in STEM. We intentionally invited all undergraduate women in STEM after learning from our survey last spring that many students felt disconnected from or “not a part of WiSE” after their first or second year. We enjoyed a successful event with our Resource Fair, Hickory Park food, Kona Ice Truck, and the ever popular dunk tank!
2015-16 WiSE Events

(Left Page - left to right)
Row 1: Job Shadow to General Mills and Transitions Learning Community Event
Row 2: Transitions Learning Community Staff and First-year Learning Community Peer Mentors
Row 3: StrengthsQuest™ Retreat and January WiSE 30th Anniversary Champions
Row 4: Football Tailgate and WiSE Students at the Iowa Women Lead Change (IWLC) Conference with Girl Scout CEO, Maria Chavez.
Program for Women in Science and Engineering

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wise@iastate.edu

The Program for Women in Science and Engineering will enrich science, technology, engineering and math fields by engaging more women, creating the opportunity for a more competitive and diverse state, national, and global workforce.

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