CS EXPANSION OVERVIEW

MAJOR GOALS

Increase undergraduate enrollments by 27% to 1009 (982 at this time).
- Increase graduate enrollments by 27% to 311
- Hire faculty and staff to support growth in students
- Grow in stature by enhancing research in Cyber Sustainability
- Create a new Data Science degree program
  - Expediting a Professional MS in Cybersecurity
UNDERGRADUATE ENROLLMENTS

CS EXPANSION

Initial Proposal developed in 2012

<table>
<thead>
<tr>
<th>Year</th>
<th>Proposed</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012-13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013-14</td>
<td></td>
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<tr>
<td>2014-15</td>
<td></td>
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</tr>
<tr>
<td>2015-16</td>
<td></td>
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<tr>
<td>2016-17</td>
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</tbody>
</table>
• 360 Indiana Residents (37%)
• 319 Out of State (32%)
• 303 International students (31%)
• 100 Female (10%)
• 42 Under Represented Minorities (4%)
BS GRADUATE PLACEMENT

SELF REPORTED DATA FOR 117 OUT OF 158 2014 GRADUATES

- Employed: 74%
- Still Looking: 19%
- Other Plans: 3%

Employment Distribution:
- Northeast: 1%
- Southeast: 4%
- Midwest: 48%
- West: 1%
- Foreign: 41%
### CPP Members Hire Our BS Grads

**Self Reported Data for 79 Out of 159 2014 Graduates**

<table>
<thead>
<tr>
<th>Region</th>
<th>High</th>
<th>Low</th>
<th>Median</th>
<th>Average</th>
<th>Bonus</th>
</tr>
</thead>
<tbody>
<tr>
<td>East</td>
<td>$115,000</td>
<td>$53,000</td>
<td>$100,000</td>
<td>$93,953</td>
<td>$5,000 - $25,000</td>
</tr>
<tr>
<td>West</td>
<td>$120,000</td>
<td>$64,490</td>
<td>$92,245</td>
<td>$92,245</td>
<td>$9,300</td>
</tr>
<tr>
<td>Midwest</td>
<td>$105,000</td>
<td>$22,880</td>
<td>$65,000</td>
<td>$64,669</td>
<td>$2,500 - $10,000</td>
</tr>
<tr>
<td>South</td>
<td>$85,000</td>
<td>$66,000</td>
<td>$71,000</td>
<td>$70,500</td>
<td>$3,000 - $10,000</td>
</tr>
</tbody>
</table>

**CPP Members Hired 41% of All Employed BS Students**
1. **Student experience**  
   Managing large enrollments

2. **Student success**  
   Retention and diversity

3. **Program quality**  
   Faculty recruiting and retention
## Freshman Course Enrollments

<table>
<thead>
<tr>
<th></th>
<th>Admitted</th>
<th>Accepted</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>968</td>
<td>313</td>
</tr>
<tr>
<td>2015</td>
<td>1544</td>
<td>??</td>
</tr>
</tbody>
</table>

Bar chart showing enrollment trends from 2009 to 2014.
MANAGING THE GROWTH IN STUDENTS

ONGOING PROGRAMS

• Better support for students
  • More teaching assistants, supplemental instruction, student led help desk
• Increased summer course offerings
• New UG program manager, ombudsperson
• New instructional lab coordinator
• Laptop-based exams to curb dishonesty
• Multiple sections of freshman courses
• New retention and recruitment programs
  • Bridge program, NCWIT
CS BRIDGE PROGRAM

LEVELING THE PLAYING FIELD

• Programs designed to reach future Boilermakers and improve domain knowledge for successful transition to CS program

• “Bridge to CS 180”
  • Has grown from 20 to 60 students (10 women)
  • First year retention rate = 79%
  • Students participate in a CS Bridge Learning Community

• Free course for all admitted CS freshmen over summer

• Free online CS 180 for all Indiana high school students
  • Same material as CS AP course
  • 233 students (51 women)
  • 14 Indiana teachers
  • 86 homeschooled students
Purdue is one of 10 universities chosen for an exclusive partnership with NCWIT

- NCWIT has provided a consultant to help organize recruitment and retention efforts
  - CS Learning Communities
  - Expanded external recruiting
  - Focused data collection
  - Mentors for Aspiring Girls in Computing (MAGIC)

- Google and NCWIT provide $10,000 for initiatives that encourage
FACULTY RECRUITING AND RETENTION

CHALLENGES

• Competition for top CS talent has increased dramatically
  • Enrollments in CS are up nationwide, as is faculty hiring

• In addition, industry is attracting faculty talent too
  • 3 CS faculty members have moved to Google over the past 2 years

• Universities are “poaching”
  • Six retention cases in CS over the last 6 months
  • Offers have been very aggressive

PURDUE UNIVERSITY