CSin3:
A three-year bachelor’s degree program in Computer Science

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Hartnell
16,000 students annually (unduplicated headcount)

In 2015-16, over 700 “Dreamer” students enrolled (291 enrolled in 2010-11)

56% first generation students (5th highest of 113 California community colleges)

85% receive financial aid

68% of students are Latino/Hispanic

About 90% of all students take at least one remedial course in English or math

39% of adults over 25 years old do not have a high school diploma

6% of adults in the District have a bachelor’s degree or higher
Part of the CSU system that serves 400,000 students

Undergraduate enrollment: 7,000

Computer science approximately 3% of total

37% Hispanic, 35% white, 7% African American, 7% multiracial

55% first generation

35% low income

62% women

33% of students from local area
What challenges does CSin3 address?

Higher Education Challenges

- In past six years, CSUs turned away ~140K students
- CC->CSU 6-year graduation rate is <20%
- Average student loan debt for 2014 CSU graduate: $18K

Computer Science Demand Challenge

- Not enough qualified CS graduates
- U.S. colleges and universities are expected to produce less than 50% of the needed graduates in CS

Tech Workforce Diversity Challenge

- ~60% White Americans
- ~15% Women
- ~4% Hispanic Americans (greater than 35% of CA population)
- ~2% African Americans
All students are pursuing a Bachelor’s Degree in Computer Science.

Partnership between community college (Hartnell) and state university (CSUMB).

Cohort-based.

Accelerated - completion in 33 months.

Significant support and engagement beyond coursework.

Students supported by scholarships.

Total tuition and fees <$12,000.

CSin3 from 30,000 feet.
Mission

A CSin3 student who embraces high expectations, cultivates curiosity, maintains a positive attitude, has a tenacious work ethic, and commits to the cohort learning community, upon graduation, will be well-prepared to compete with graduates from any top 10 computer science program for opportunities in the industry or academia.
Maria Rivera
2016 Graduate

Born in Mexico; parents moved to USA to work in fields in Salinas; 6 siblings
First generation to go to college
Never heard of CS prior to info session in January of her high school senior year
CSin3 from 2013-2016
Interned at Salesforce summer 2015; now full-time employee
CSin3 Demographics

*in categories traditionally underrepresented in CS*

Of the 123 students served/being served in 4 cohorts...

URM Total - 86%

Hispanic - 81%

First Generation College - 71%

Female - 43%
What does a CSin3 student encounter upon being accepted into the program in February?

1. A small team of faculty and staff becomes her primary point of contact for all things college.

2. A cohort of ~30 additional students become her supportive learning community for the next 36 months.

3. Growth mindset, grit, general college readiness, Math and CS are emphasized/practiced during math intensive and summer bridge.
Nuts & Bolts View of 3-year Pathway

**Fall 1**
- 4 courses at Hartnell
- 1 course at CSUMB

**Winter 1**
- 1 course at Hartnell

**Spring 1**
- 4 courses at Hartnell
- 1 course at CSUMB

**Summer 1**
- 2 courses at Hartnell

**Fall 2**
- 1 course at Hartnell

**Winter 2**
- 4 courses at Hartnell
- 1 course at CSUMB

**Spring 2**
- 5 courses at CSUMB

**Summer 2**
- Internship

**Fall 3**
- 5 courses at CSUMB

**Winter 3**
- 1 course at Hartnell

**Spring 3**
- 4 courses at CSUMB

Pathway meets all bachelor’s degree requirements (120 units)

Students don’t see institutional boundaries. Panther and Otter from day one.
## Support Team Structure

Small faculty/staff support team consists of…

| Faculty leadership (one faculty lead from each institution) | • Interface/interact with cohorts on a daily basis  
• Lead career and educational support services:  
• Plan and implement pathway |
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Pre-college Prep
February - May all students participate in *Math Intensive* using Khan Academy and Saturday workshops

Summer Bridge
A weeklong “bootcamp” to officially launch the cohort

Friday Enrichment Workshops
Cohorts meet 2-3 hours every Friday for grade-level appropriate enrichment (Begins with getting acclimated to college and study skills, moves to internship prep, finishes with job searching)

Organized Study Time
1-2 hours per day of designated, required study time and space, which includes Peer Led Team Learning program

Industry Involvement
Industry organizations and professionals engage with students from year one
Student focus remains squarely on academics and professional development.
Outcomes after 3.5 years

Graduation
22 out of 32 (69.8%) cohort 1 students in May 2016
(2 more from cohort 1 are expected to graduate in Dec 2016)

Jobs
16 out of 22 graduates had job offers at graduation
(2 more since graduation)

Transfer
28 out of 32 (87.5%) students in each of the first two cohorts transferred from Hartnell to CSUMB
Board of Trustees / Policy Level Implications

Reflections from Erica Padilla-Chavez, Hartnell CCD Board President
Biggest Challenges

**Institutionalization** of program procedures across institutions

Consistently cultivating a strong **cohort culture**

Expanding to **serve more students** (classroom capacities and assignments, faculty)
Lessons Learned (so far)

1. Still learning…
   (Change is an iterative process)

2. Impact of program is orders of magnitude greater with each new cohort

3. Importance of transitioning to a support team structure that does not depend on individuals
Questions

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http://csin3.hartnell.edu

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