Evaluation of ONC's Workforce Programs
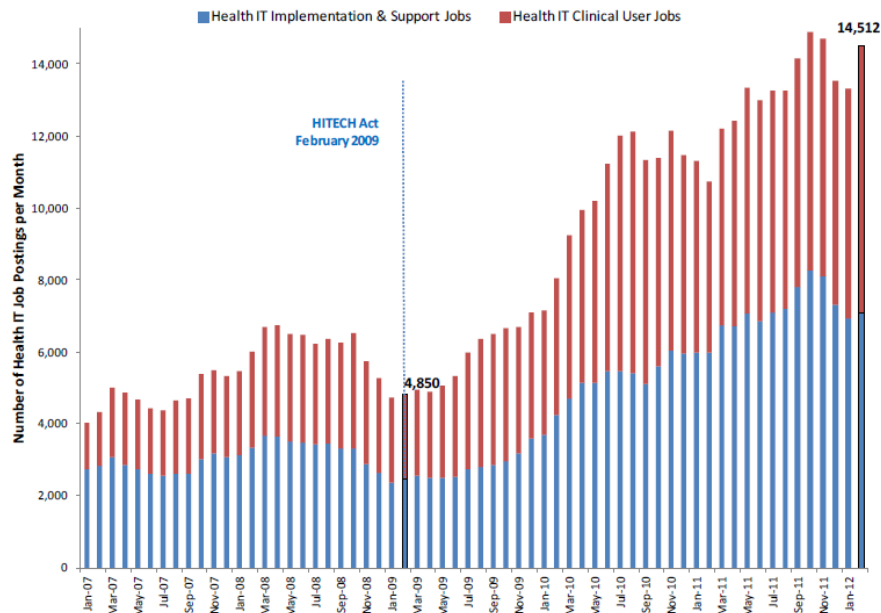
September 2013

Outline of Today's Discussion
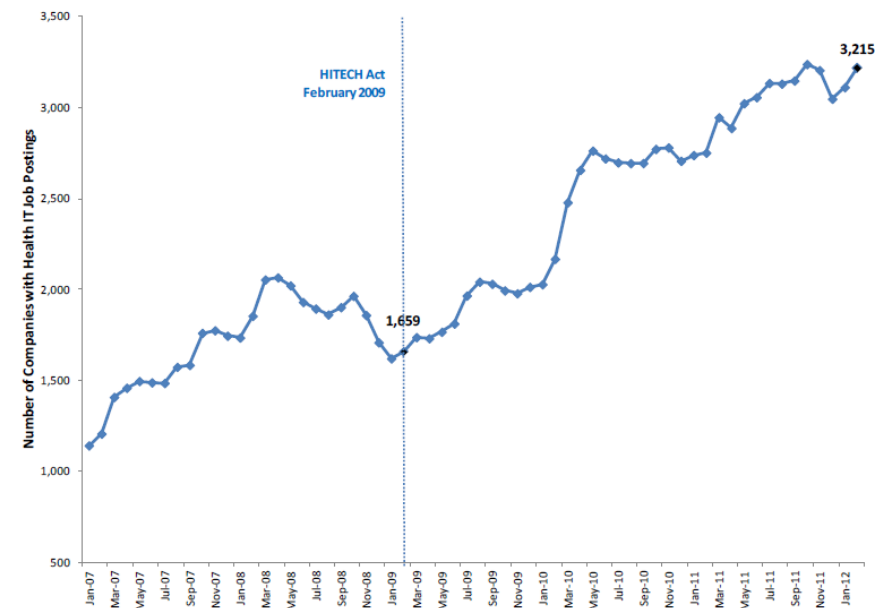
➢ Progress in training health IT professionals

- Community College Consortia Program

- University-Based Training Program

➢ Early findings from the program evaluation

➢ Next steps and feedback

Increasing Demand for Health IT Professionals

Putting the **I** in Health **IT**⭐
www.HealthIT.gov

Number of online postings per month: 2007 -12

Health IT Implementation & Support Jobs
Health IT Clinical User Jobs

HITECH Act
February 2009

4,850

14,512

Number of companies with online health IT job postings: 2007-12

HITECH Act
February 2009

1,659

3,215

Students Enrolled and Students Completed: July 2013

Legend: Cumulative Enrollment · Cumulative Completion · Cumulative Enrollment (adjusted for attrition)

Labeled values: 32,612 · 20,309 · 19,040
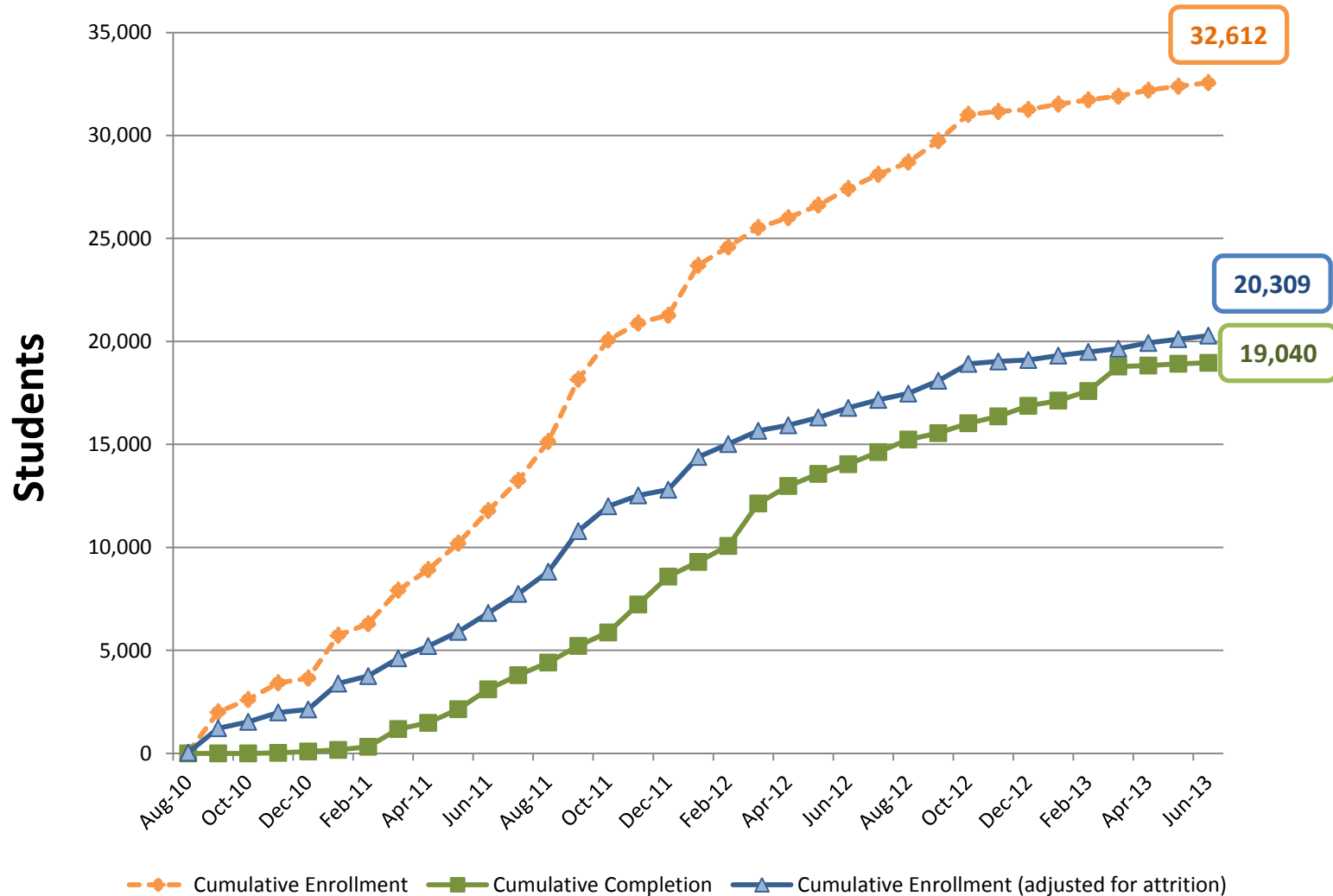
Community College Consortia
Student Completion Status by Consortia

Community College Students July 2013

Students Enrolled or Completed: 20,238
Attrition Rate: 37.7%

Legend: ■ Successfully Completed* ■ Actively Enrolled ■ Withdrew or Failed

Chart data:

| Consortia	Successfully Completed*	Actively Enrolled	Withdrew or Failed
Bellevue (8 Colleges)	3,904		823
Los Rios (13 Colleges)	2,555	181	1,880
Cuyahoga (17 Colleges)	4,461		2,244
Pitt (20 Colleges)	4,166	794	5,250
Tidewater (22 Colleges)	3,954	223	2,106

Y-axis: Students (0 to 12,000)

* Enrollment to date includes unique students reported in June 2013 cycle

Community College Consortia
Distribution of Program Completers

Putting the **I** in Health**IT**
www.HealthIT.gov

Number of students who successfully completed the Community College Consortia Program by state:

Students Completed

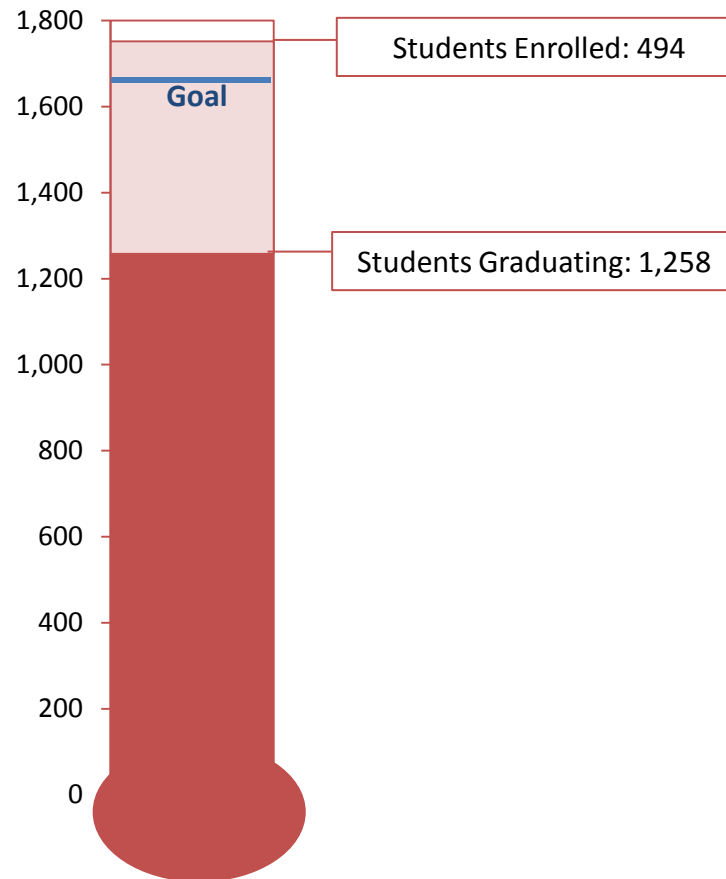|	
▨	1-50
▨	51-150
▨	150-300
▨	301-500
▨	401+
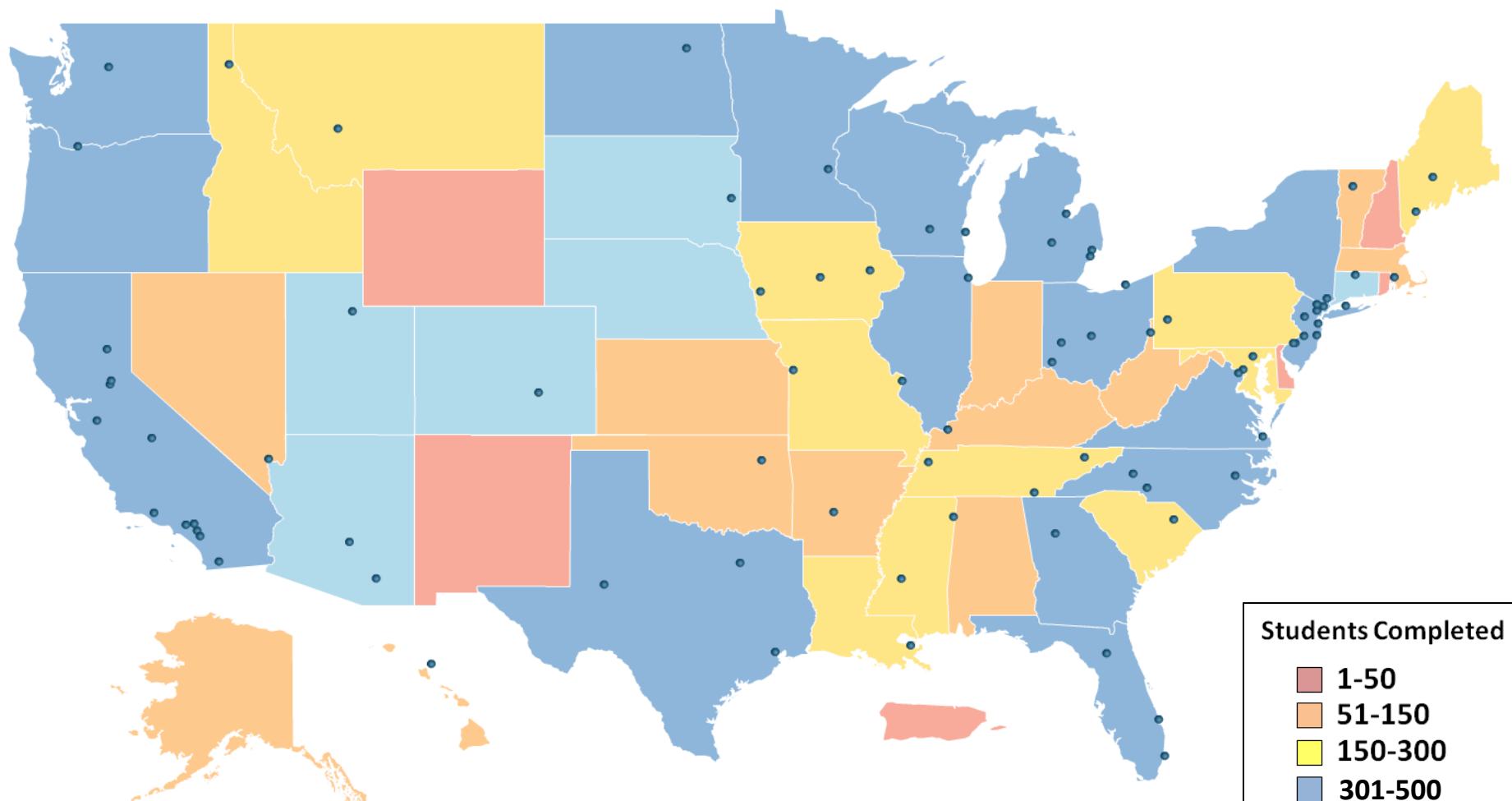
Notes: Each point on the map represents a participating community college

University-Based Training Program
Progress towards training goal

Progress towards goal of training 1,685 students

Students Enrolled: 494

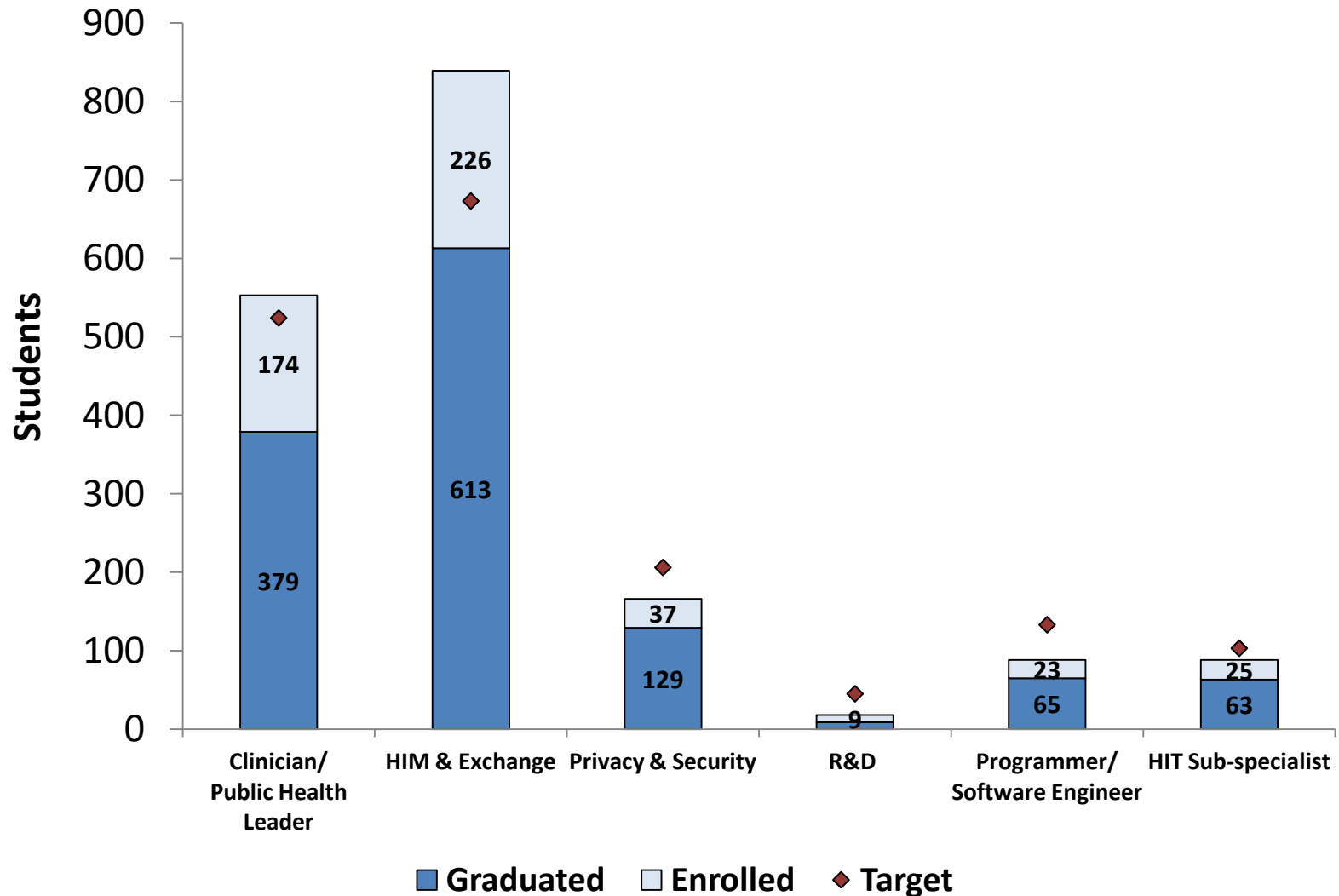Students Graduating: 1,258

Goal

*Reporting Period: May 22, 2013

University-Based Training Program
Progress towards training goal: By University

*Reporting Period: May 22, 2013

8
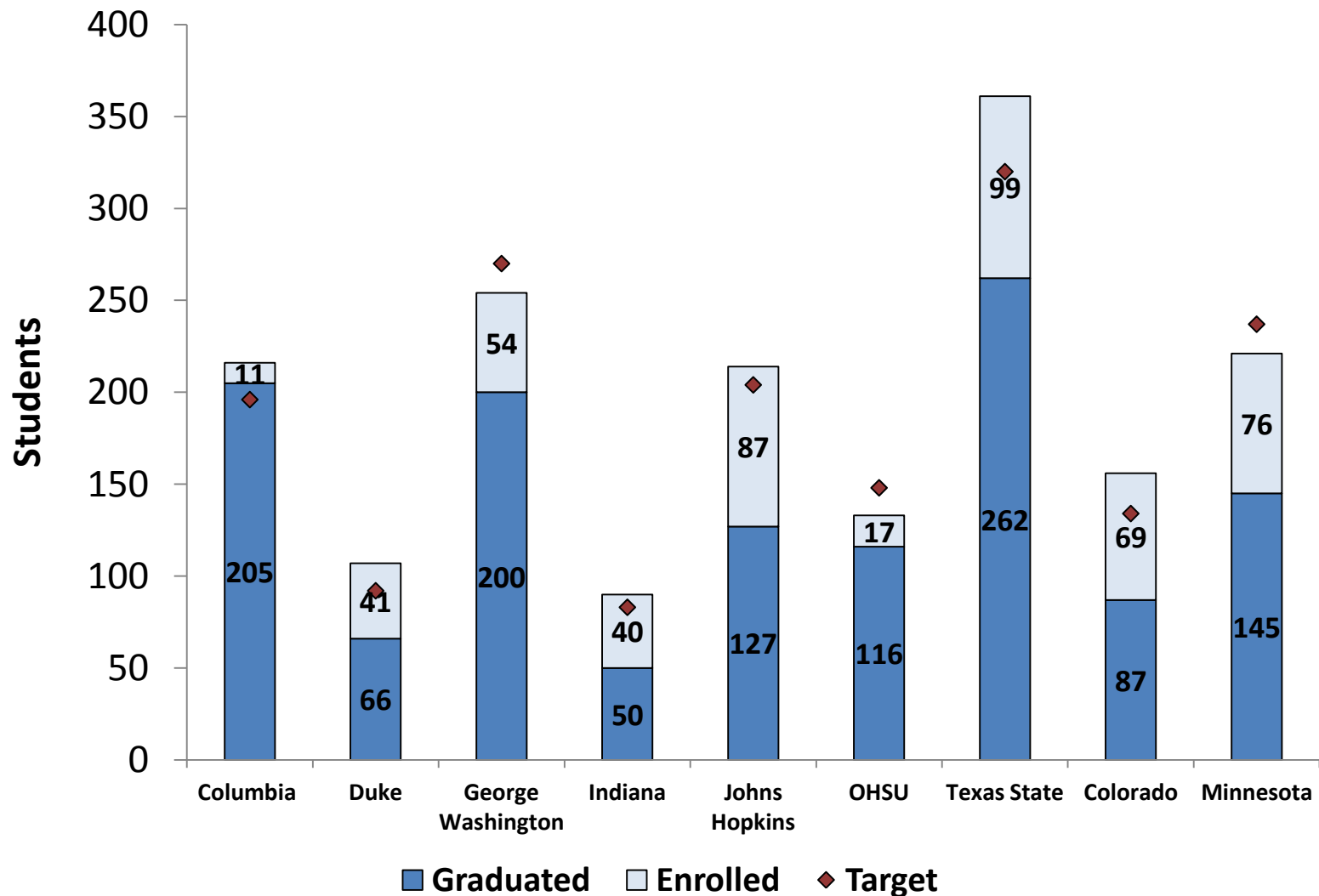
University-Based Training - May 2013*
Progress towards training goal: By role

Putting the **I** in Health **IT**
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Students

Role	Graduated	Enrolled
Clinician/Public Health Leader	379	174
HIM & Exchange	613	226
Privacy & Security	129	37
R&D	9	
Programmer/Software Engineer	65	23
HIT Sub-specialist	63	25

■ Graduated □ Enrolled ◆ Target

*Reporting Period: May 22, 2013

9

Overview of the Independent Evaluation of the Workforce Program

Background

- ONC funded NORC at the University of Chicago to conduct a program evaluation of the four workforce programs

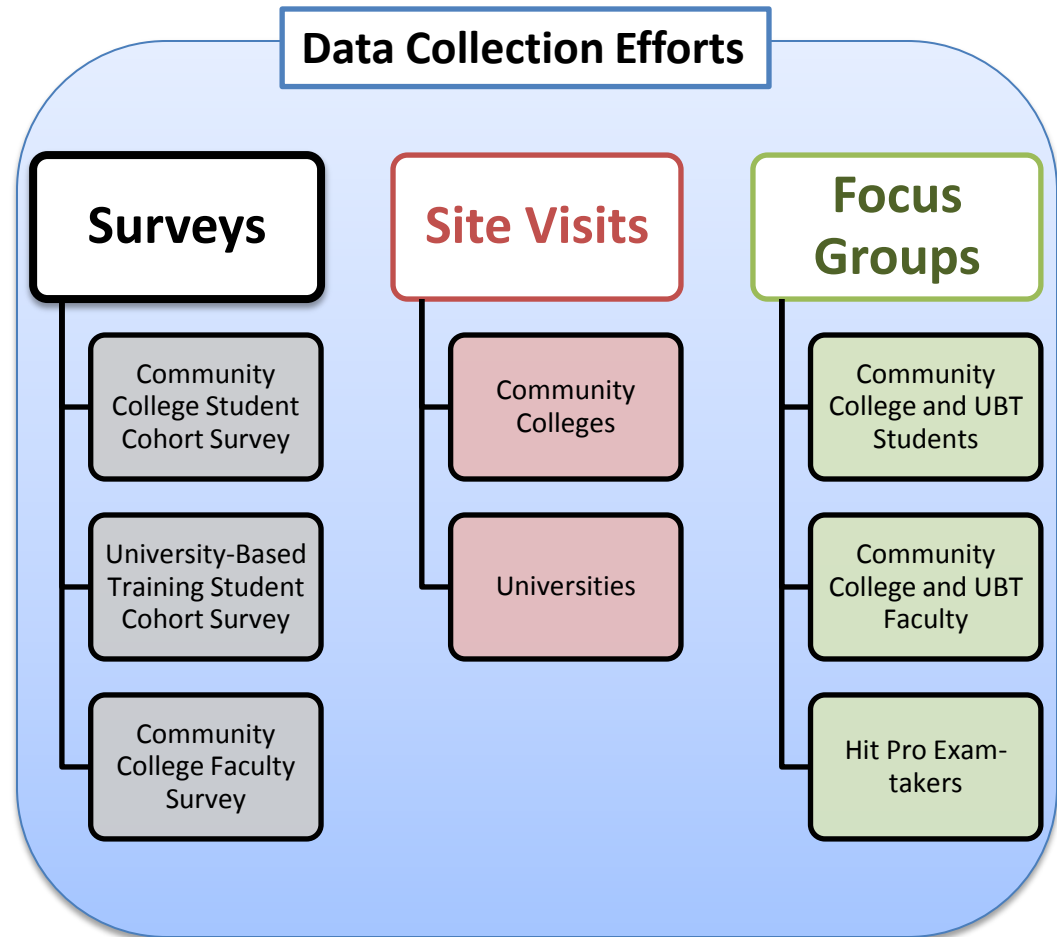- Contract period of performance: March 2010 through December 2013

Research Questions & Data Collection

KEY RESEARCH QUESTIONS

What processes did the grantees use to implement the programs and meet program goals?

To what extent did the grantees meet their respective Workforce Program requirements?

To what extent did the students enrolled in funded community colleges and universities gain employment in health IT?

Data Collection Efforts

Surveys
- Community College Student Cohort Survey
- University-Based Training Student Cohort Survey
- Community College Faculty Survey

Site Visits
- Community Colleges
- Universities

Focus Groups
- Community College and UBT Students
- Community College and UBT Faculty
- Hit Pro Exam-takers

COMMUNITY COLLEGE PROGRAM EVALUATION

Office of the National Coordinator for
Health Information Technology

Community College Student Survey: Methodology

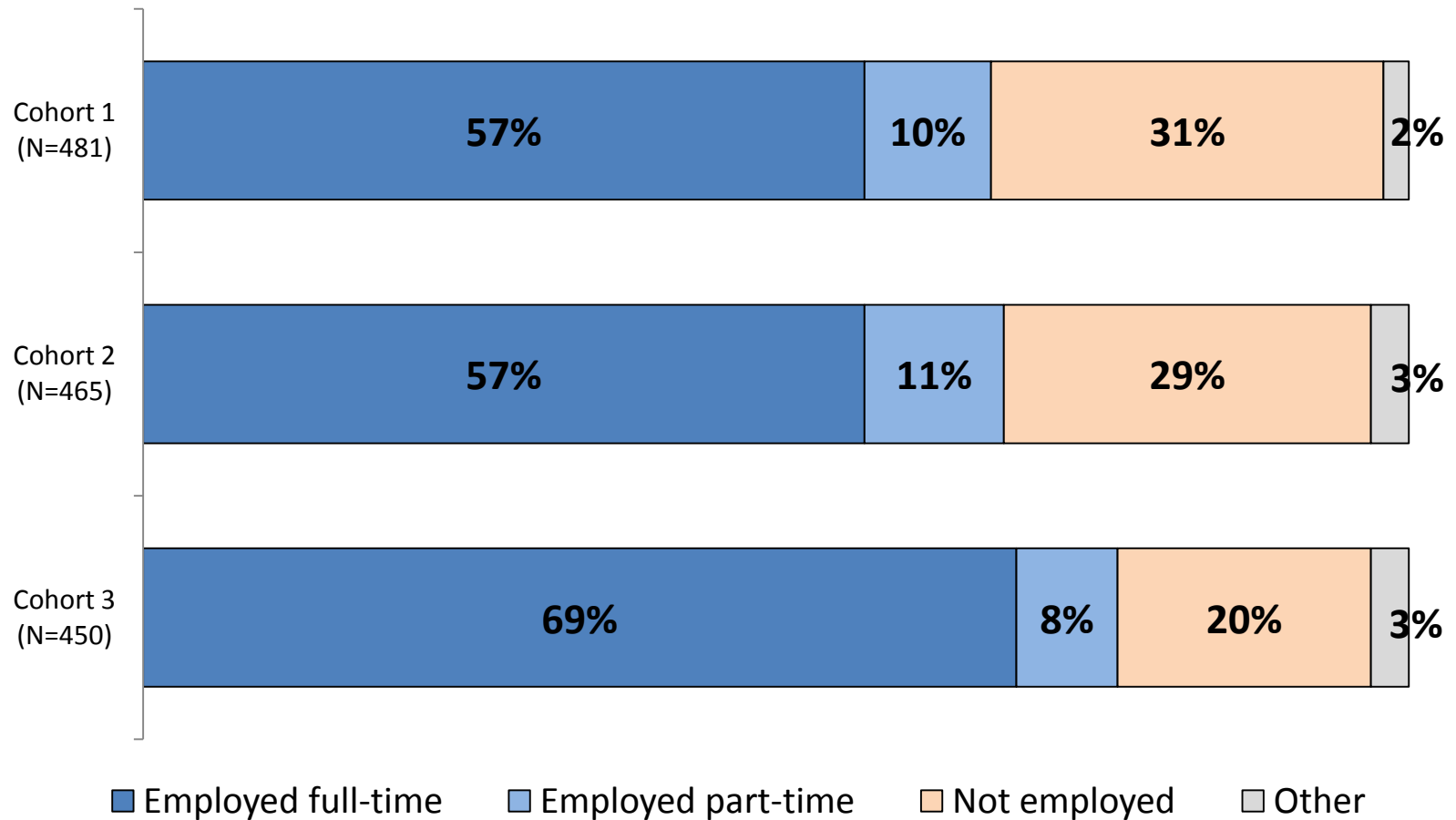|	Baseline			Follow-up		
	Cohort 1	**Cohort 2**	**Cohort 3**	**Cohort 1**	**Cohort 2**	**Cohort 3**
Matriculation Date(s)	8/2010 – 11/2010	12/2010 – 3/2011	4/2011 – 11/2011	8/2010 – 11/2010	12/2010 – 3/2011	4/2011 – 11/2011
Sample size	623	616	682	623	616	682
# of respondents	481	465	450	463	419	436
Response rate	77%	76%	66%	74%	68%	64%
Field period	3/2011 – 7/2011	8/2011 – 12/2011	4/2012 – 8/2012	11/2011 – 3/2012	3/2012 – 8/2012	1/2013 – 5/2013

Survey periods cover roughly two-thirds of matriculated students

Reasons for Entering the Program

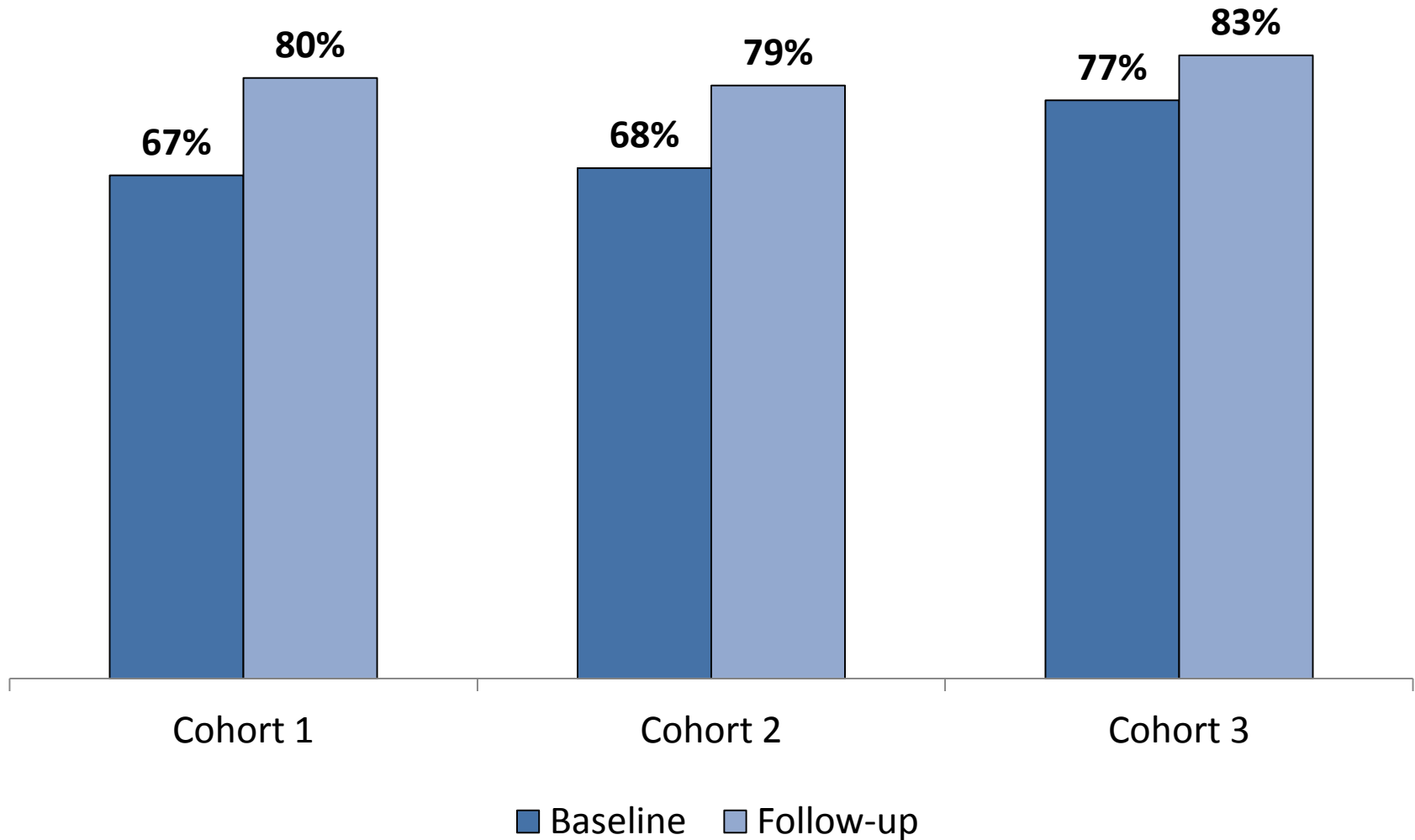**What motivated you to enter the program? (Select all that apply)**

Cohort 1 (N=481) Cohort 2 (N=465) Cohort 3 (N=450)
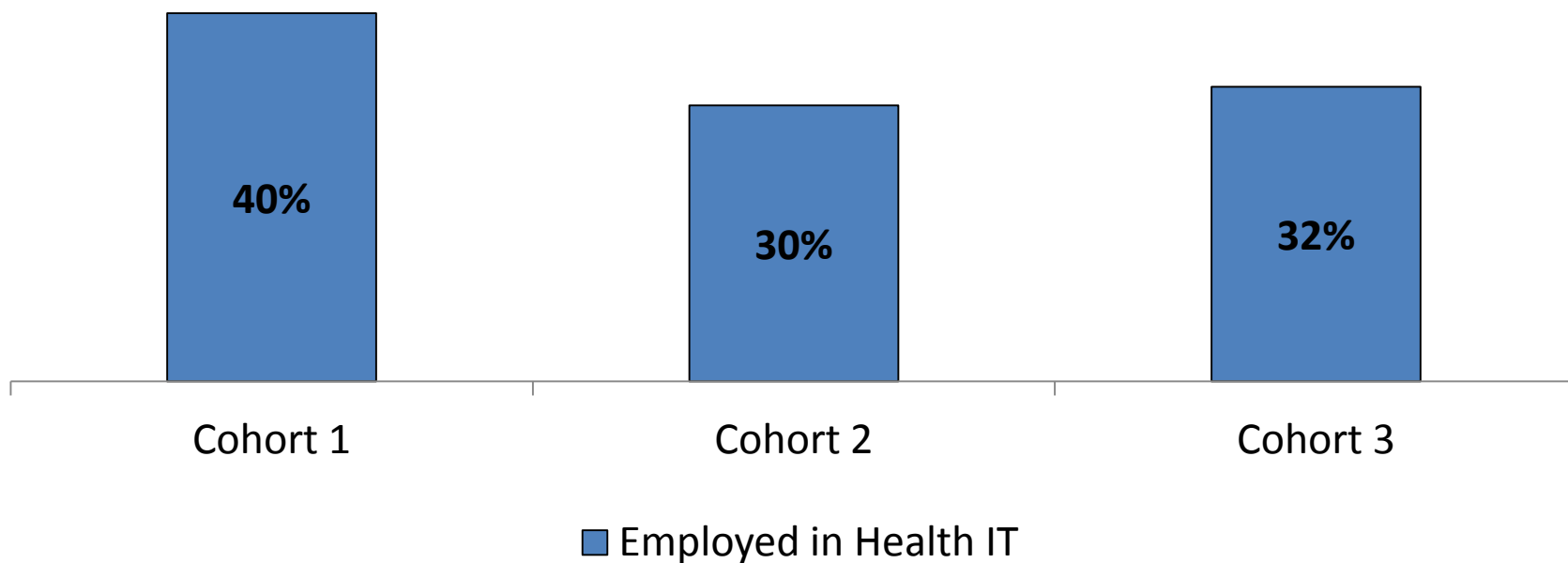
Reason	Cohort 1	Cohort 2	Cohort 3
Help obtain new job	71%	68%	45%
Improve skills for current job	40%	40%	54%
Personal interest	36%	39%	35%
Increase opportunities for promotion	33%	34%	35%
Help prepare for competency exam	32%	29%	20%
Other	7%	5%	11%
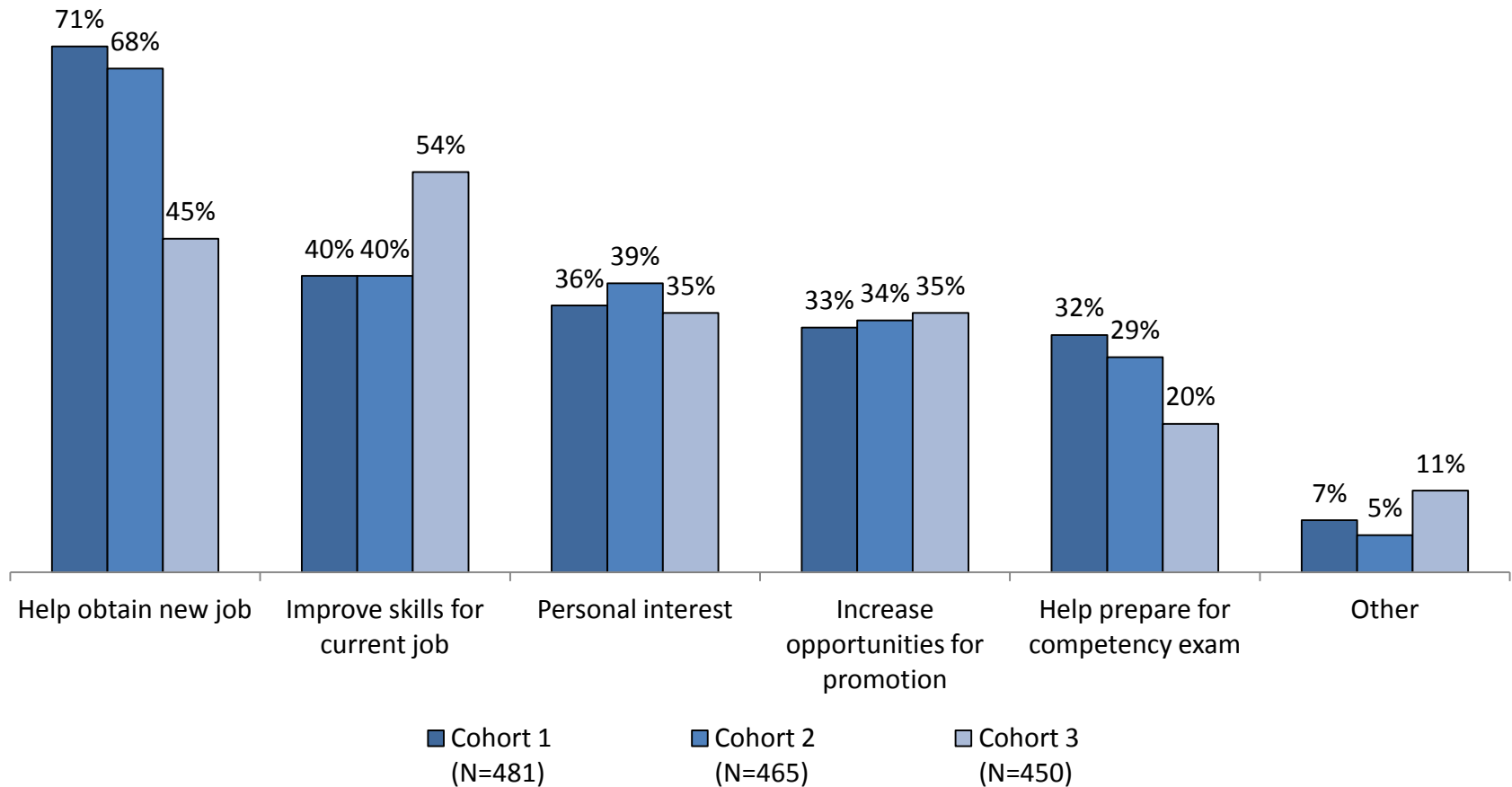
Employment Prior to Program Enrollment

Employment: Pre and Post-Program

Bar chart comparing Baseline and Follow-up employment percentages across three cohorts:
- Cohort 1: Baseline 67%, Follow-up 80%
- Cohort 2: Baseline 68%, Follow-up 79%
- Cohort 3: Baseline 77%, Follow-up 83%

Legend: ■ Baseline ■ Follow-up

Employed in Health IT at Follow-up

Are you currently employed in health IT

40%	**30%**	**32%**
Cohort 1	Cohort 2	Cohort 3

◾ Employed in Health IT
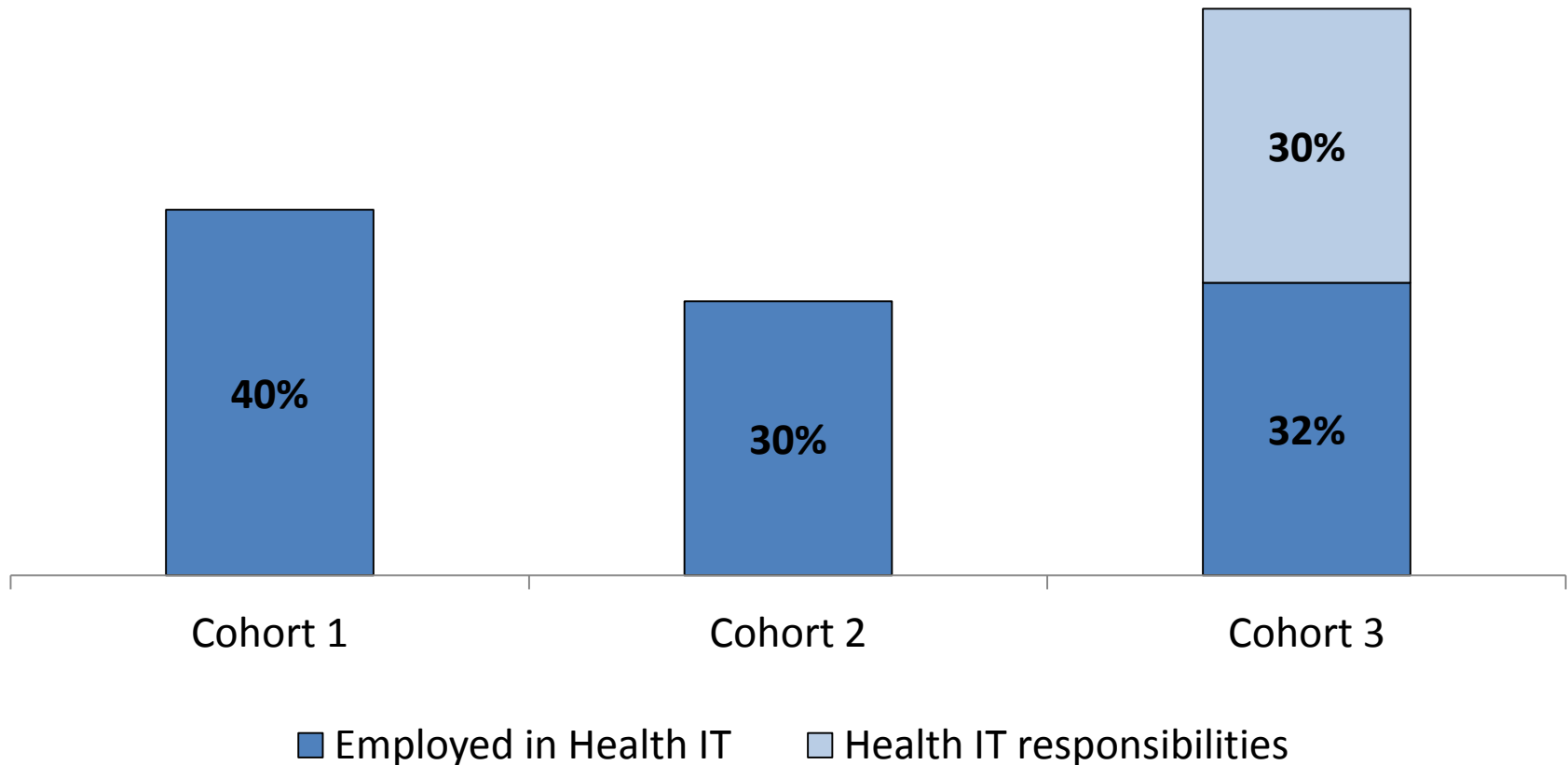
Students' Employment at Follow-up

	Cohort 1	Cohort 2	Cohort 3
Currently Employed in Health IT	40% (N=185)	30% (N=124)	32% (N=139)
Health-care provider (e.g., physician, nurse, etc.)	9%	4%	15%
Technical/software support (maintenance)	22%	28%	11%
Implementation specialist	11%	15%	6%
Consultant (e.g., practice workflow redesign specialist)	12%	19%	5%
Administrative (e.g., medical coder)	21%	9%	16%
Other	24%	25%	30%

Student Employment in Health IT at Follow-up

	Cohort 1	Cohort 2
Current job in Health IT with same employer as prior to program	61% (N=113)	65% (N=80)
Since entering the program		
Received salary/wage increase in primary job	34%	26%
Received promotion in primary job	17%	15%
Change in position or title change	21%	25%
Strongly or somewhat agree that		
Salary/wage increase due to program participation	36%	33%
Promotion was due to program participation	63%	33%
Position/job title change due to program participation	54%	35%
Current job in Health IT with different employer as prior to program	39% (N=72)	36% (N=44)
Strongly or somewhat agree that		
Program participation had positive impact on obtaining current job	63%	68%
Program participation had positive impact on position or job title	60%	68%

Health IT Setting
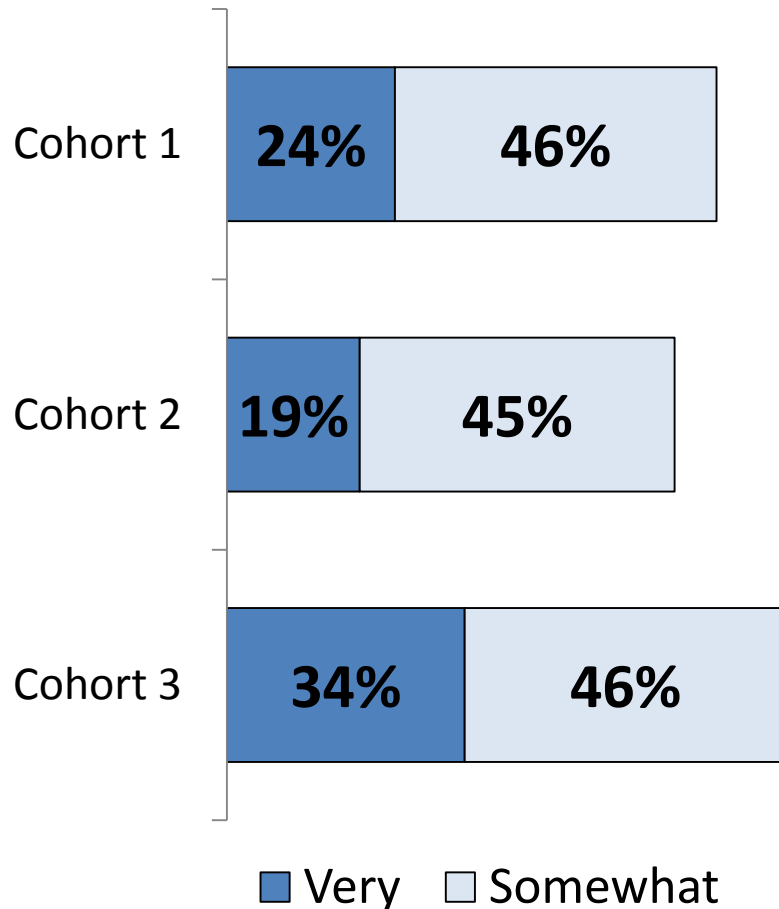
Setting	Percent
Hospital	37%
Health department of gov't agency	17%
Physician's Office	6%
Other provider setting	6%
IT consulting/training	6%
IT vendor	4%
REC	1%
Other	23%

Responsibilities

- 53% — Use an EHR
- 43% — Other IT-related responsibilities
- 29% — Train others to use an EHR
- 21% — Designing clinical interventions w/ EHR system
- 8% — Helped employer select an EHR vendor
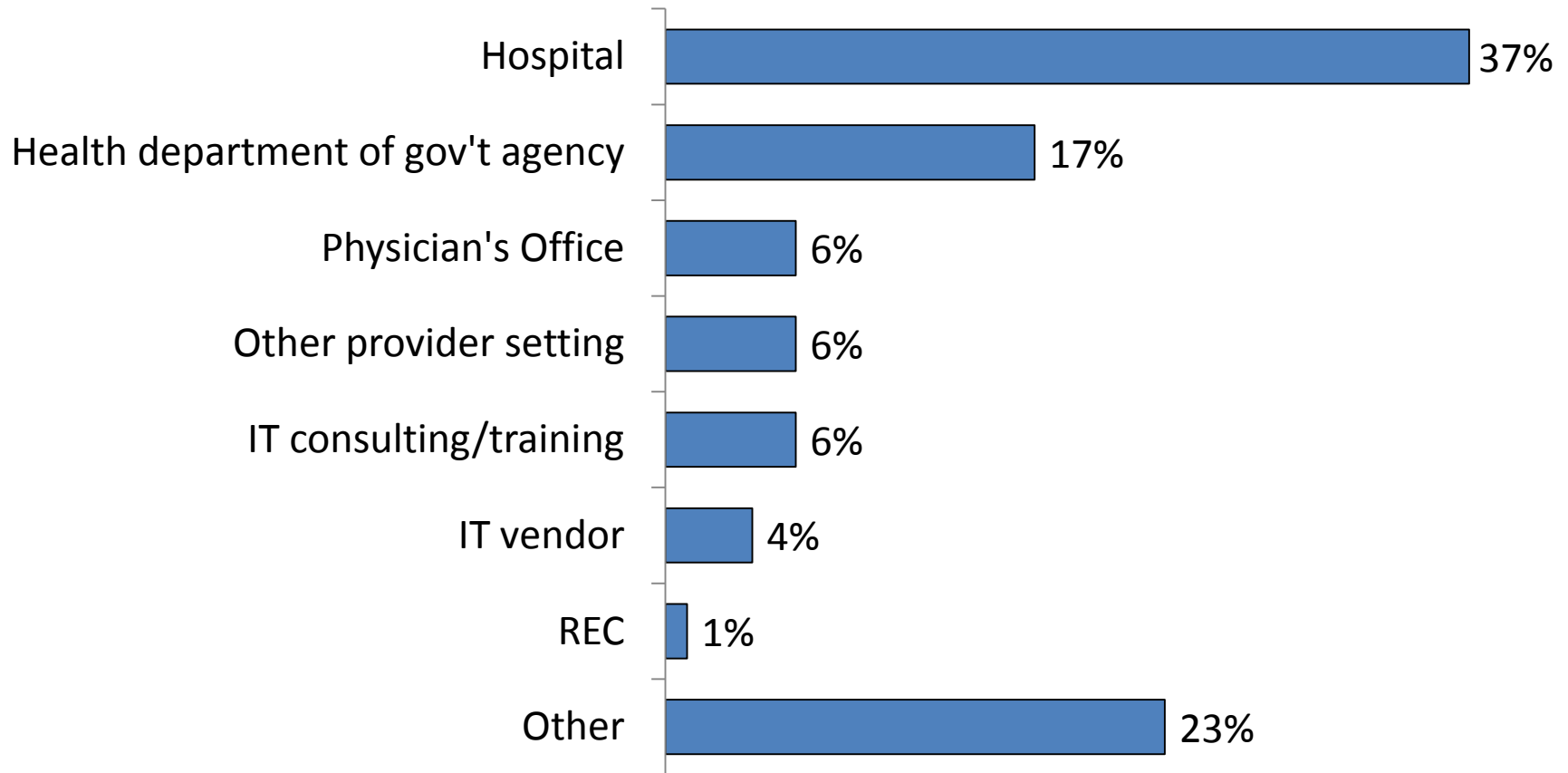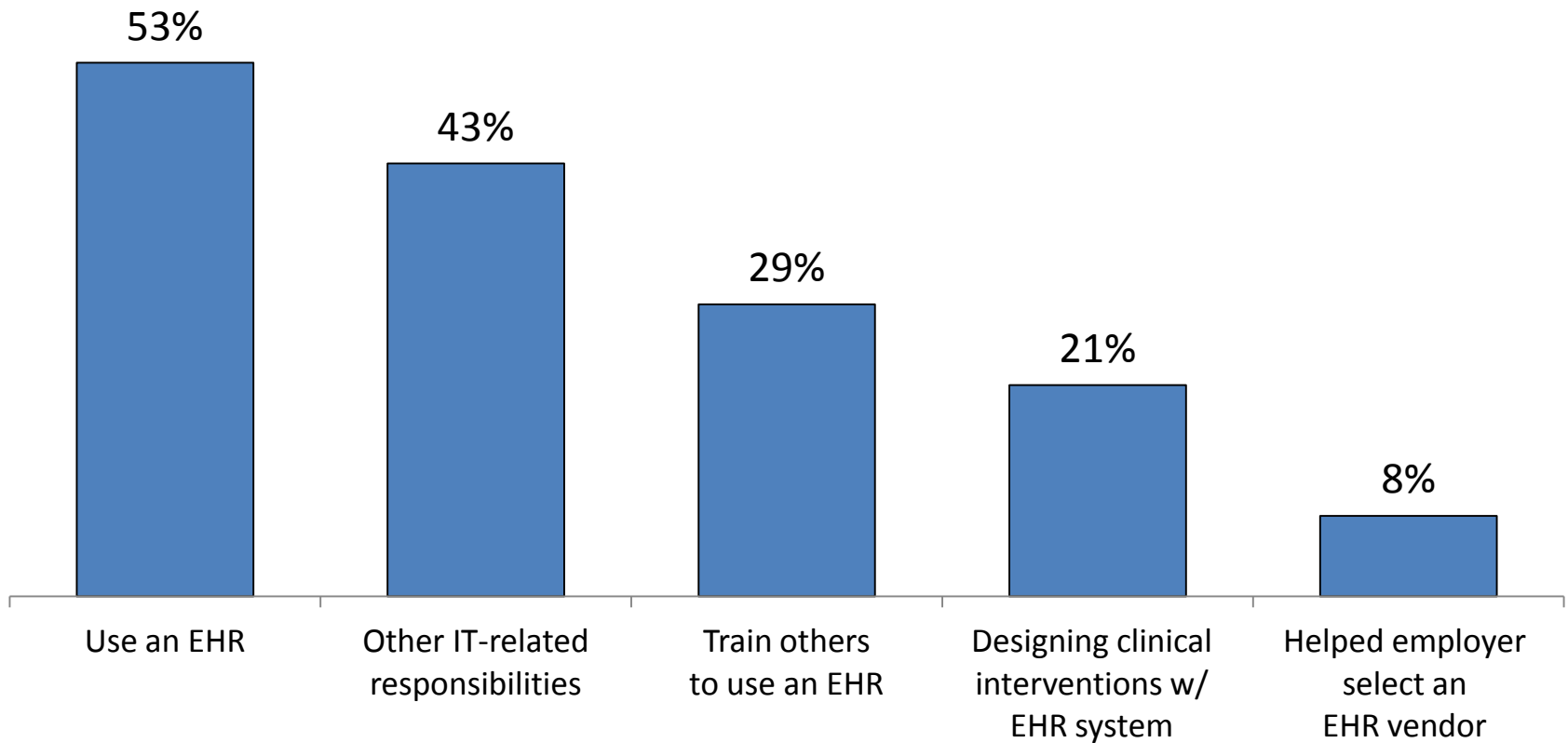
Students' Satisfaction

Program Satisfaction

Cohort	Very	Somewhat
Cohort 1	24%	46%
Cohort 2	19%	45%
Cohort 3	34%	46%

Legend: ■ Very □ Somewhat

Recommend Program to Others

Cohort	Yes	Maybe	No
Cohort 1	58%	29%	13%
Cohort 2	50%	31%	19%
Cohort 3	66%	23%	11%

Legend: ■ Yes ■ Maybe ■ No

Community College Site Visits
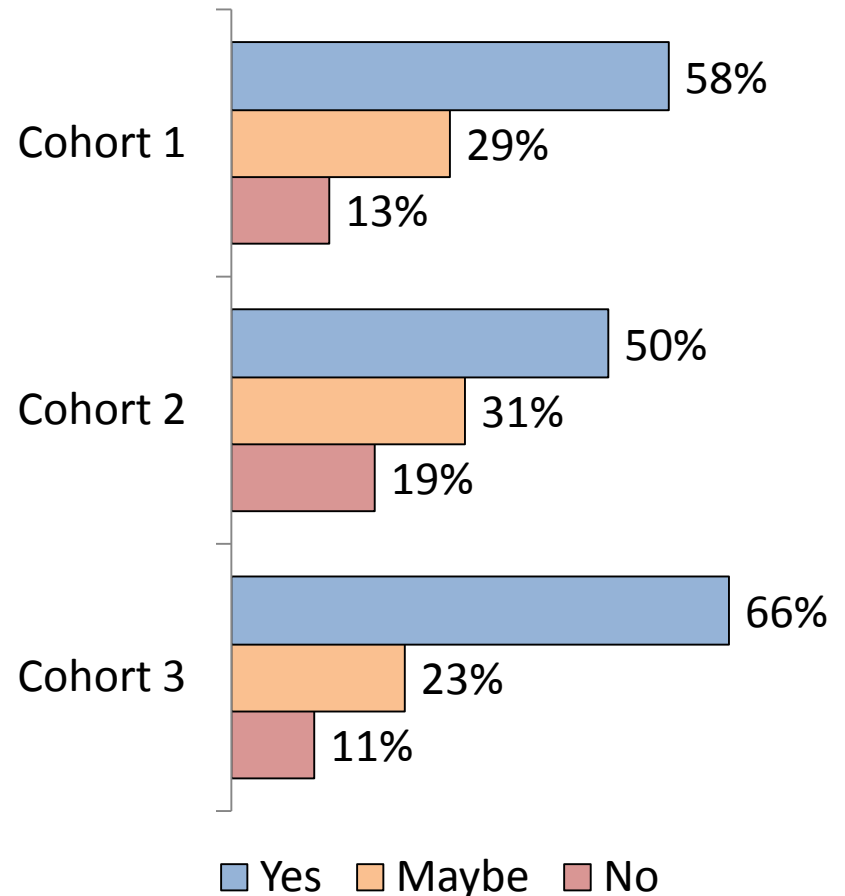
11 in-person and 5 virtual site visits*

Selection criteria

- School location
- Workforce roles offered
- Number of students enrolled and early attrition rates
- Learning format
- State unemployment rates

Small group discussions/ focus groups with:

- Consortium directors
- Program directors and administrative teams
- Career counselors
- Faculty members
- Students
- Local employers

* Round 1 site visits took place between June and August 2011. Round 2 site visits took place between March and June 2012

Key Site Visit Findings Related to Employment

Concerns with Program Structure

- Program directors, instructors, and students expressed anxiety regarding graduates' job prospects and were skeptical that a six-month, non-credit program without a certification would provide sufficient health IT training.

Context

- Regional labor market conditions play critical role in the job-search experience.

Improvements

- Students requested additional opportunities for hands-on experience, including internship opportunities as well as an appropriate workload.
- Employers requested a central repository to help connect employers and students.
- Many schools would have liked other ONC-funded health IT grantees to be more involved in their programs, particularly in helping connect students to possible jobs.

Site Visit Key Findings: Implementation and Program Design

Implementation

- Flexibility afforded grantees critical to launching programs.
- Several colleges altered structure of the roles and curriculum.
- Collaboration with leads and member colleges varies across the regions.
- Majority of faculty members are employed in health IT.

Students

- Some schools found students insufficiently prepared for the difficulty of the courses and/or the workload.
- Students' backgrounds affected their experiences in the classroom as well as their ability to find jobs after the fact.

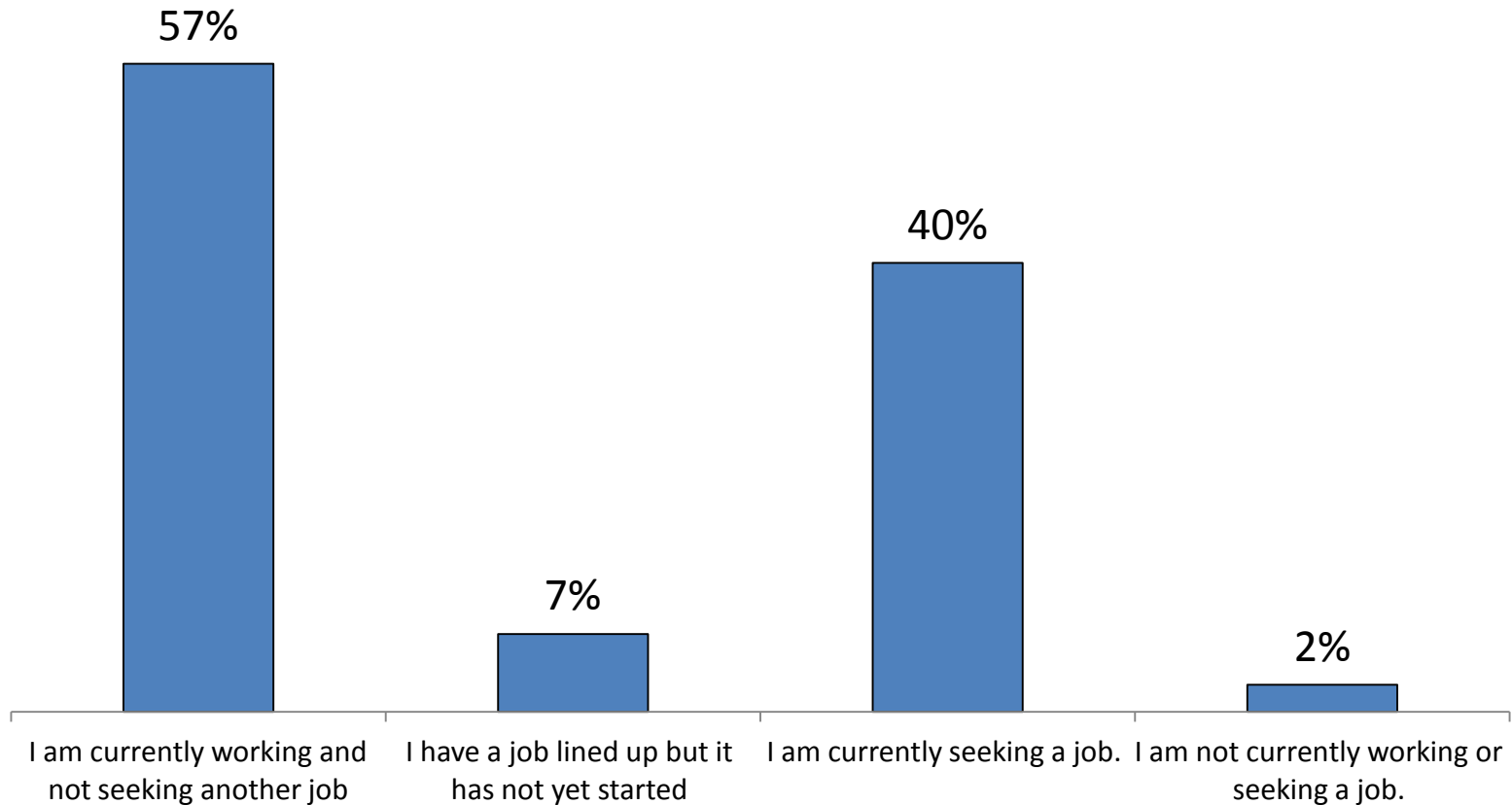# UNIVERSITY-BASED TRAINING PROGRAM EVALUATION

UBT Survey Methodology

	Cohort 1 baseline	Cohort 2 baseline	Cohort 3 baseline	Cohort 1 follow-up	Cohort 2 follow-up
Matriculation Date(s)	Sept. 2011	Jan. 2012	Sept. 2012	Sept. 2011	Jan. 2012
Sample size	477	124	440	477	124
# of respondents	360	96	325	340	94
Response rate	75%	77%	74%	71%	76%
Field period	8/2011 – 11/2011	12/2011 – 2/2012	8/2012 – 11/2012	4/2012 – 8/2012	8/2012 – 11/2012

Presentation includes UBT findings from baseline surveys of cohorts 1, 2, and 3 & follow-up surveys of cohorts 1 and 2.
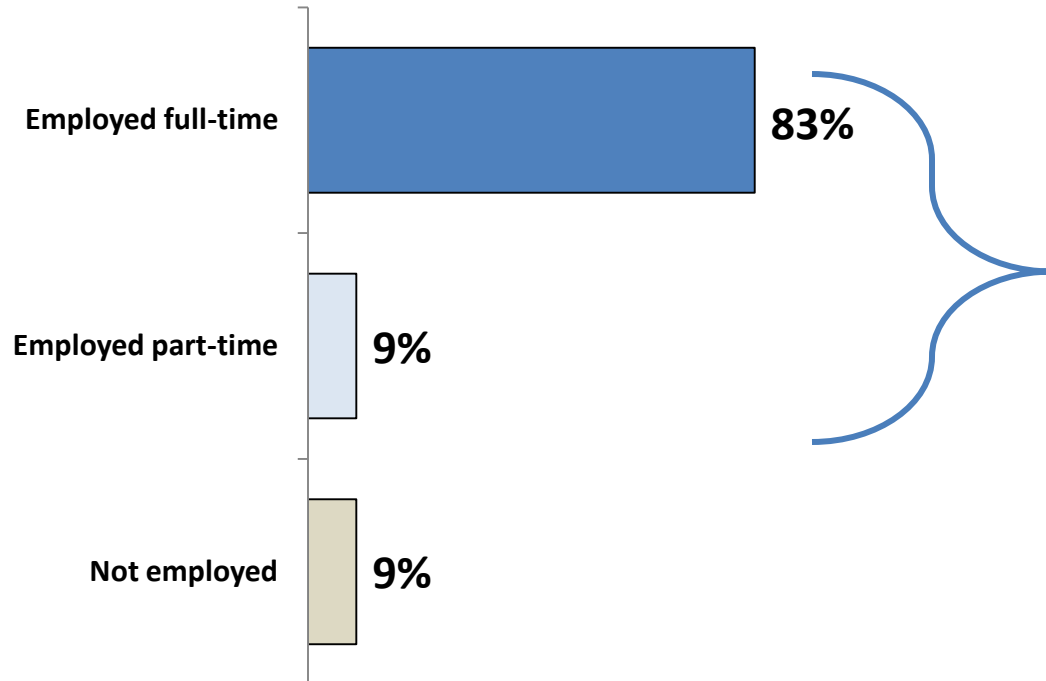
Employment Status at Baseline

How would you describe your current employment status? (Select all that apply)
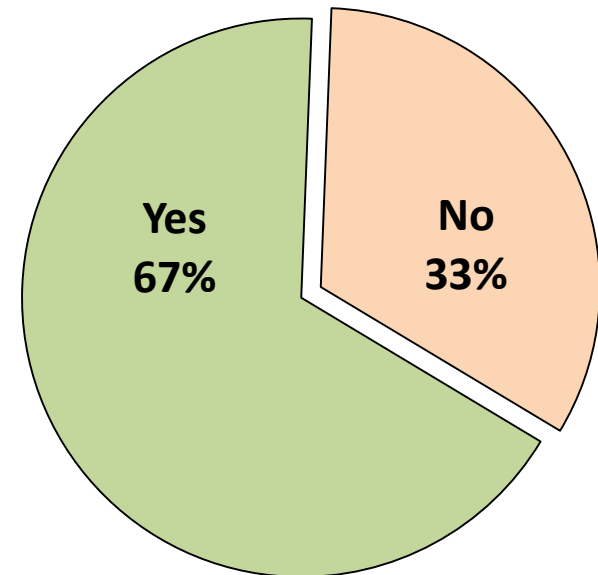**(Cohort 1, 2 & 3, n=781)**

57%	7%	40%	2%
I am currently working and not seeking another job	I have a job lined up but it has not yet started	I am currently seeking a job.	I am not currently working or seeking a job.

Baseline: Employment Status and Preparation

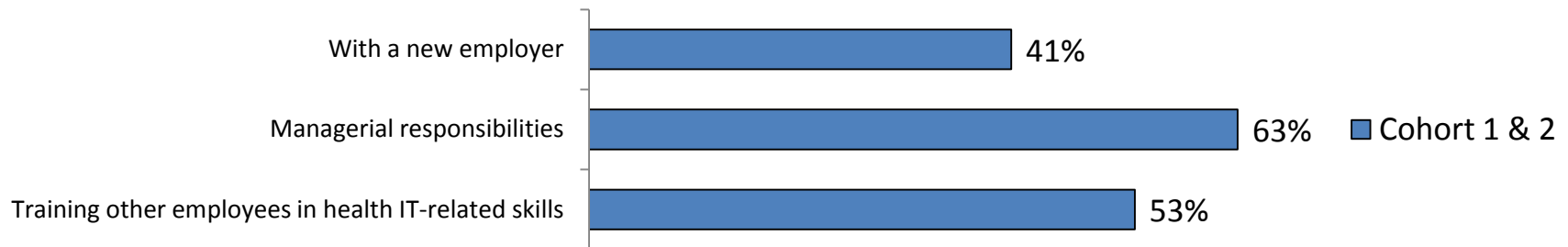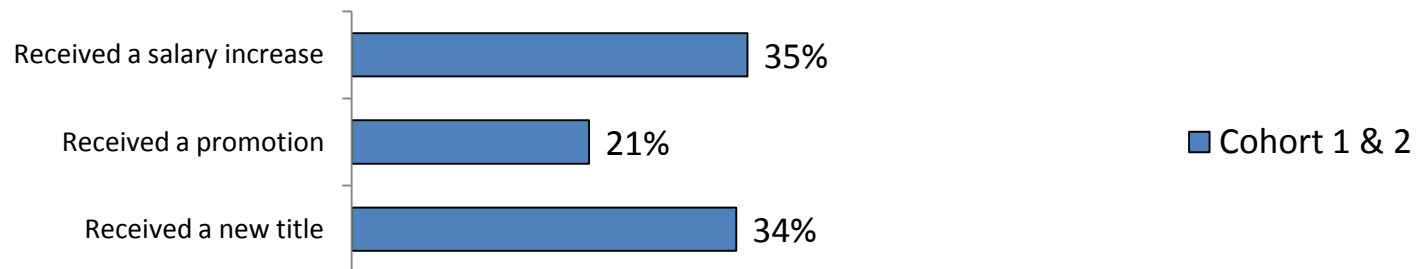|		Cohort 1 & 2	Cohort 3
Students **with a job or one lined up**, more than half (Cohorts 1 & 2: 58%; Cohort 3: 51%) had a job in health IT.	In general, I feel the skills I am learning/learned in the program helped me to obtain my health IT job	61%	71%
	In general I feel the skills I am learning/learned in the program will help me perform well in my health IT job	88%	88%
Students **currently seeking a job**, majorities (Cohorts 1 & 2: 93%; Cohort 3: 92%) were looking for jobs in health IT.	The skills I learned will help me obtain the type of position in health IT I am seeking	80%	78%
	The skills I learned will adequately prepare me for the type of health IT job I am seeking	74%	75%

Follow-up: Employment

Current employment status

Currently employed in Health IT

Employed full-time — 83%

Employed part-time — 9%

Not employed — 9%

Yes 67%

No 33%

Employed in health IT (Cohorts 1 & 2 Follow-up: 67%)

With a new employer — 41%
Managerial responsibilities — 63%
Training other employees in health IT-related skills — 53%

■ Cohort 1 & 2

Working in health IT with the same employer as prior to the program (Cohorts 1 & 2 Follow-up: 59%)

Received a salary increase — 35%
Received a promotion — 21%
Received a new title — 34%

■ Cohort 1 & 2

University-Based Training Program Site Visits

During 2011-2012, the NORC research team conducted either an in-person or a virtual site visit to each of the nine UBT grantees and their partners.

Site visits included small group discussions/focus groups with:

- Program directors and administrative teams
- Faculty members
- Students
- Career counselors
- Local employers

Students' Views of Workforce Program

Foundation

- Students generally believe the program provides a solid foundation in health IT

Hands-on experience

- Students emphasized the importance of hands-on experience with EHRs and opportunities to apply their skills in a clinical setting.

Group work

- Students appreciated opportunities for group work – in both online and in-person formats – citing soft skills development and exposure to the diverse backgrounds of classmates as an added benefit.

What Employers Are Seeking in Employees

Hands-on experience

- Students need experience in at least one—if not several—health-care setting(s).
- Hands-on experiences and exposure to various clinical systems.

Programs vary in their ability to incorporate internships and practice into curriculum

- Many distance-based programs identified extensive administrative challenges with coordinating internships across states as a barrier to implementation.

Employers believe these experiences help students by:

- Expanding and linking students' clinical and technical backgrounds;
- Giving them an understanding of the needs of clinical staff; and
- Teaching decision-making, problem-solving, and soft skills in real-world situations.

Employers' Views of the Workforce Program

Familiarity

- Most employers **are not familiar** with the ONC program.

Role alignment

- Employers generally thought the training roles align well with their employment needs. However…
- Job titles do not always correspond with roles, making it challenging for students to know what positions to apply for—and for some employers to grasp applicants' skills.
- Many employers ideally want employees who could cover multiple roles.

Adaptability

- To ensure that future students are prepared for positions in health IT, employers feel the programs need to be nimble and able to update curricula in "real-time" to reflect ongoing changes in the industry.

CURRICULUM MATERIALS

Modification of Materials

- More than three-quarters did not modify the materials or modified minimally.

Usefulness of Materials

- The vast majority (94%) found the materials useful. Close to half found them very useful.

Satisfaction with the Materials

- Close to three-quarters (73%) perceived students to be satisfied with the materials. 20% perceived them to be very satisfied.

NORC invited all 648 CCC instructors to participate in the survey.

- Survey was in the field from 9/22/2011-1/3/2012

- 460 instructors responded (80% response rate).

Key Site Visit Findings:
Curriculum Materials

Quality

- The schools appreciated the availability of ONC-funded curriculum materials. Although several programs raised concerns over the quality of some of those materials, many commented they noticed improvements since Version 1.0, but that some problems do still exist.

Quantity

- The Curriculum Development Centers intentionally created a large volume of materials in order to create a "buffet" of options for instructors; however, some schools noted that the sheer volume of materials received was overwhelming, making it difficult for them to decide what to include in their courses.

Revisions

- While some colleges left it to individual instructors to revise the materials on their own, in most cases, instructors received refined versions of the materials from the colleges.

Utility

- The schools appreciated the availability of ONC-funded curriculum materials. Although several programs raised concerns over the quality of some of those materials, many commented they noticed improvements since Version 1.0, but that some problems do still exist.

COMPETENCY EXAM

Community College Students' Experience with HITPro Exam at Survey Follow-up

	Cohort 1	Cohort 2	Cohort 3
Taken the HIT Pro exam	23%	22%	15%
Strongly/somewhat agree that			
Courses prepared me adequately to answer the questions on the exam	61%	67%	63%
Exam topics seem relevant to skills required by my current position/type of health IT job I hope to obtain	68%	73%	50%
Of those who have <u>not</u> yet taken the exam, planning on taking the HIT Pro exam	46%	46%	31%

Discussions with Competency Exam Takers

Exam's Utility

- Exam takers were unsure whether the exam would help them secure a new position or advance in their current work roles.

Certification

- Students agreed the exam would be more beneficial for employment purposes if it conferred a certification.

Familiarity

- Exam takers were concerned that most employers are not familiar with the exam.
- They recommended that more information about it be posted on government websites or through a marketing campaign to employers about the benefits of the exam.
- Participants also expressed concern that, without additional job training or relevant work experience, the exam does not carry much value on a resume.

NORC conducted two rounds of focus groups with exam takers (not enrolled in ONC-funded programs).

Topics covered include:

- Background/ Recruitment/ Motivation for taking the Exam

- Exam's perceived relevance and value

- Employment prospects

Additional Work in the Pipeline

- Additional analyses of student surveys

    - Regression analyses

    - Comparisons across cohorts

    - Longitudinal analysis

- Syntheses of quantitative and qualitative data in Summative Report by the end of the year

Questions for Consideration

- What additional information would you like to see come out of the evaluation?

- How can the key findings from the evaluation be framed in a manner most useful for the policy community?

- Other questions?

For additional information, please contact:

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