STUDENT TRAINING PROGRAM IMPACT REPORT
A Letter From
The Director of Workforce Development

It is part of our mission at Dana-Farber Cancer Institute (DFCI) to train the next generation of healthcare workers. In 2007, the Office of Workforce Development began to take a more strategic approach to ensure that youth from underserved and underrepresented neighborhoods surrounding Dana-Farber in the city of Boston have the resources, skills, knowledge and access needed to pursue a career in healthcare career.

In doing this work, we have found that our Student Training initiative serves as a platform to address several societal and workforce needs. Consider that racial and ethnic minorities make up more than 35 percent of the U.S. population. However, across all health professions, they are underrepresented. For example, people of color make up 14 percent of physicians, 14 percent of nurses, and 17 percent of city and county public health officials.

Data shows that about 70 percent of medical school graduates currently come from families in the top 20 percent in parental income, or those who make more than $100,000 a year. Urban communities are often the gateway to the education, training and employment of
healthcare professionals, yet the healthcare workforce does not reflect the socioeconomic, racial and ethnic diversity of the population.

We are proud of the strong partnerships we have built with our school partners and community-based agencies and grateful for the support of the DFCI community. The Workforce Development Student Training initiative ensures that underserved and underrepresented Boston youth have opportunities to engage in experiential learning, college and career readiness programs. Over 300 students from our community partners have completed internships and hundreds more have participated in connecting activities.

The commitment, engagement, and ongoing support of everyone involved have led to meaningful impact. Taking a strategic and deliberate approach to grooming our future workforce has resulted in us being able to fill the pipeline to careers at Dana-Farber with highly skilled and prepared individuals. This report is a summary of the impact that the Workforce Development Student Training initiative has had since 2007. As part of the Human Resources department, we are committed to identifying the best talent in our community and beyond.

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Candace A. Burns
Director, Workforce Development
The Social Cause
Committed to addressing labor market shortages

The Gap in the Healthcare Workforce
Our nation suffers from a long-standing shortage of healthcare professionals, and the gap is projected to be even larger in the coming decade. It is estimated that in 2020, there will be a shortage of

20,400 Physicians
28,200 Nurse Practitioners
2 million Allied Health Professionals

The Massachusetts Youth Employment Market
Meanwhile, the youth (age 16-19) job market has been challenged. Black and Hispanic teens, especially those residing in low-income families, have experienced the greatest difficulty finding summer employment.

Summer employment rate of youth in Massachusetts (1999-2012)

- 67%
- 49%
- 40%
- 37%
- 36%
On average, the summer employment rate of youth from ethnic minority and low-income families is less than 30%.

For every year a teen works, his/her income in his/her twenties rises 14-16%.

Positive effects of teen employment on earnings can last for up to 10 years.
The Student Training Initiatives
Commited to increasing interest in healthcare careers

As part of the Dana-Farber Cancer Institute’s Department of Human Resources, the Workforce Development Student Training Program is a year-round comprehensive initiative designed to expose high school students in Boston to careers in healthcare and biomedical sciences. Participants are supervised and mentored by clinicians, researchers, and staff at Dana-Farber.

The Student Training Program (STP) is designed to increase engagement, recruitment, and retention of an increasingly diverse workforce by helping local students identify sustainable paths of professional development. To meet our long-term goal, STP maintains the following objectives:

- **Life Readiness**: Enhance students’ life readiness skills including time management, self-awareness, and critical thinking.
- **Career Readiness**: Expose students to career paths in healthcare; Develop career readiness skills including job search, professionalism, effective communication, and leadership.
- **College Readiness**: Ensure students’ academic success and college access and achievement; Provide scholarships and ongoing support to alumni.
Our Programs

Summer Jobs Program

Dana-Farber employs youth from its school and community partners to participate in full-time summer internships. Students gain real work experiences and participate in weekly college and career readiness workshops.

Academic-year Internship Program

Students who successfully complete the Summer Jobs Program and have a specific interest in clinical, research, or health administration careers are eligible to apply for academic year internships. Students deepen their professional networks through an intensive relationship building experience with their mentors and supervisors. Graduating seniors are also eligible to apply for scholarship funding.

Job Shadow Day

Dana-Farber partners with Boston Private Industry Council to offer shadow opportunities on National Groundhog Job Shadow Day. Students are paired with professionals working in careers of interest. Students spend time on-site to learn about work environments, job responsibilities, and the challenges and rewards of healthcare careers.
Student Trainee Demographics
Committed to serving underrepresented populations

Race and Ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>DFCI Workforce Development</th>
<th>Boston Public Schools</th>
<th>Boston Workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>White/Caucasian</td>
<td>4%</td>
<td>13%</td>
<td>77%</td>
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<tr>
<td>Asian/Pacific Islander/Middle</td>
<td>14%</td>
<td>9%</td>
<td>7%</td>
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<tr>
<td>Eastern</td>
<td></td>
<td></td>
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<tr>
<td>Hispanic/Latino</td>
<td>28%</td>
<td>40%</td>
<td>15%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>50%</td>
<td>36%</td>
<td>18%</td>
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</tbody>
</table>

Schools and Affiliations

- Community-based Partners: 11%
- John D. O’Bryant: 48%
- Fenway High School: 17%
- Madison Park High School: 24%

Gender

- Male: 25%
- Female: 75%
Investment Equals Short and Long-term Impacts
Committed to enhancing professional skills

Short Term Skill Gains
According to the analysis of pre-test and post-test, student trainees showed significant gains in all five “Foundation Skills” as measured by ratings on the Massachusetts Work-Based Learning Plan.

Supervisor Survey
- Felt that the work completed by the student trainee was valuable to their department: 97%

Student Survey
- Felt that they gained additional supervisor skills from hosting a student trainee: 95%
- Are interested in a career in healthcare: 90%
- Would recommend the Summer Jobs Program to friends and family: 100%
Long-term Impacts

100% of our students graduated from high school

77% majored in healthcare

Clevanne Julce
Student Training Program Alumna
Research Study Coordinator at Boston University
Graduated from UMass Amherst in 2013

The Student Training Program will always be one of my best decisions because I had a support system that cared about each aspect of my life, mentally, careerwise and even spiritually. I evolved into the person I am now through this experience. Here at Dana-Farber you are surrounded with just so many people who would be more than honored to help, guide and advise you if you just ask.

Engagement • Experience • Employment
<table>
<thead>
<tr>
<th>Fast Facts and Figures</th>
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<tbody>
<tr>
<td><strong>9,845</strong> hours</td>
</tr>
<tr>
<td>were completed by 2014</td>
</tr>
<tr>
<td>summer job students</td>
</tr>
<tr>
<td><strong>6</strong> career-readiness</td>
</tr>
<tr>
<td>workshops and college</td>
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<tr>
<td>tours each summer</td>
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<tr>
<td><strong>&gt;40%</strong> participants</td>
</tr>
<tr>
<td>are returning students</td>
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<tr>
<td><strong>&gt;20</strong> students</td>
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<tr>
<td>participate in the Job</td>
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<tr>
<td>Shadow Day each year</td>
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<tr>
<td><strong>2/3</strong> of students</td>
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<tr>
<td>speak another language</td>
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<tr>
<td>other than English at</td>
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<tr>
<td>home</td>
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<tr>
<td><strong>The College</strong></td>
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<tr>
<td><strong>Achievement Program</strong></td>
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<tr>
<td>was launched in 2014</td>
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<td><strong>527</strong> DFCI staff</td>
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<tr>
<td>volunteered in the</td>
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<tr>
<td>program</td>
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<tr>
<td><strong>98%</strong> student</td>
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<tr>
<td>Retention</td>
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<tr>
<td><strong>67</strong> departments</td>
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<tr>
<td>participated as host</td>
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<tr>
<td>sites</td>
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<td><strong>$178,000</strong> in</td>
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<tr>
<td>scholarships were</td>
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<td>awarded to student</td>
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<tr>
<td>trainees</td>
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<tr>
<td><strong>14</strong> alumni</td>
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<tr>
<td>have been hired by</td>
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<tr>
<td>Dana-Farber</td>
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Testimonials

Manuel Tejeda
Summer Jobs and Academic-year Student
Fenway High School, Class of 2017

During my first summer at Dana-Farber, I learned and built new skills along the way. I definitely think someone who is very interested in the medical field should consider applying for a spot as a student trainee at Dana-Farber. The tools and resources they provide are extremely helpful.

Xiudi Chen
Summer Jobs and Academic-year Student
John D. O’Bryant Alumni, Class of 2014
Massachusetts College of Pharmacy and Health Sciences, Class of 2018

This is a great opportunity for learning and for personal growth. I learned how to communicate effectively and network, build a good resume, and prepare for interviews. I also learned how to manage my time wisely so that I can balance my school and work at DFCI. Moreover, the scholarship from DFCI made it possible for me to go to my dream school, Massachusetts College of Pharmacy and Health Sciences, to pursue my goal to be a pharmacist.

Doreen Hearsey
Supervisor, Dana-Farber Cancer Institute

The time I put into being a mentor was well worth it. The benefits that my department and many researchers will get out of it will last for years. The functioning of the lab will be more efficient due to the work that was accomplished this summer. Also, guiding a student to not be afraid to raise his hand in class and ask questions is a big plus.
A sincere thank you to all participating departments who make this program not only possible, but so successful!

Adult Psychosocial Oncology  
Ambulatory Practice Management  
Cancer Biology  
Cancer Immunology & AIDS  
Cell Manipulation Core Facility  
Center for Cancer Genetics & Prevention  
Center for Molecular Oncologic Pathology  
Central Sterile Supply  
Communications  
Community Benefits  
Core Lab  
Cutaneous Oncology  
DF/HCC Initiative to Eliminate  
Cancer Disparities  
Development  
Diagnostic Imaging  
Early Drug Development Center  
Environmental Health & Safety  
Division of Hospital Medicine  
Facilities Management  
Finance  
Friends Corner Gift Shop  
Friends Place  
Health Information Services  
Human Resources  
Information Services  
Materials Control  
Medical Oncology  
Nursing & Patient Care Services  
Office of Medical Affairs & Professional Credentialing  
Office of Research & Technology Ventures  
Pasquello Tissue Laboratory  
Patient & Family Programs & Services  
Patient Safety  
Pediatric Oncology  
Pediatric Psychosocial Oncology  
Psychosocial Oncology & Palliative Care  
Radiation Oncology  
Research Administration  
Research Communications  
Security

We are thankful for the support of our collaborating partners!

Boston Private Industry Council  
Fenway High School  
John D. O'Bryant High School  
of Math & Science  
John Hancock MLK Summer Scholars Program  
Madison Park Technical Vocational High School  
Sociedad Latina  
Youth Enrichment Services

References:

- Andrew Sum et al. Confronting the Youth Demographic Challenge. Sar Levitan Center for Social Policies, Johns Hopkins University, 2000
- Boston Healthcare Careers Consortium, 2011 April, Profile of the Current Educational & Training Opportunities for Boston’s Healthcare Workforce
- BPS Communications Office, 2013 April, Boston Public Schools at a Glance 2012-2013
- Health Resources and Services Administration. Projecting the Supply and Demand for Primary Care Practitioners Through 2020 <http://bhpr.hrsa.gov/healthworkforce>