

Appendix A. Data Appendix

The analytical data set was created by appending daily reports provided by DYEE from the online job matching portal. These daily reports are at the youth-job level and consist of all applications (both complete and incomplete), along with employer characteristics and youth demographics. For each application for a particular job, we observe the status of the application (i.e., applied, selected, hired). The data also includes timestamps for when the application was submitted, when the youth was selected by an employer, when the youth was first notified to complete the hiring process, and when the youth was finally hired into the position. When a youth logs into the portal, they are assigned a unique system ID.

This ID identifies each youth throughout the application and hiring process. There are some instances where a youth created more than one system ID. Of all the youths observed in the system, approximately 2.67% (200) made duplicative portal accounts. If a set of users shared the same first name, last name, and date of birth but varied on system ID, we assume that the youth created a duplicative account. For these users, we reassigned their system ID such that one unique ID is assigned to the youth. In instances where observations were identical on first name and last name, but one set of system ID observations had a valid birth date and another set of system ID observations were missing birth date information, we removed observations where the birth date field is missing. There were 164 instances of this occurring. Finally, there were some cases in which the first name and last name matched but varied on system ID or birth date. We identified duplicative observations by matching non-missing middle name, address, and email address. There was a total of 29 instances of this occurring.

Youth must apply for each job separately and as such, we observe all youth-job applications in a particular recruiting report. The snapshots recruiting reports in this analysis begin on May 19th and end August 10th. The earliest date youth could apply was March 18th and last date a youth can apply for a position through SuccessLink was June 19th. The last data a youth could be selected was July 24th 2022. If a youth does not complete a job application or is not eligible for the position, they will receive an ‘Incomplete’ or ‘Do Not Qualify’ status.

The daily recruiting snapshots have a few irregularities which required processing prior to analysis. First, we drop duplicate observations in terms of first name, last name, system ID, job posting title, status, and date of the snapshot (or report date). There were a handful of observations which had identical first name, last name, system id, report date, and job posting title, but varied by recruiting report status. For these observations, we select the higher status (e.g., hired over applicant).

We observe some youth-job observations with a “Continuing Candidate” status. All observations associated with this status are with the City of Boston Office of Human Resources. For these youth-application observations, we only see the “Continuing

Candidate” status, as such, we cannot determine the date in which these youth applied or were selected for employment by status alone. There are 6 youth who are associated with the “Continuing Candidate” status. For these handful of observations, we utilize only timestamp data to determine these youth’s application and employer selection decisions. Furthermore, there are approximately 300 youth who applied to a job posting titled “Summer 2022 Continuing Candidates”. Discussions with DYEE determined that this job posting was created as a means to onboard youth who were continuing employment with a year-round employer partner. We keep these observations and treat these youth as being selected by an employer.

Finally, the Self-Withdrew (Portal) and Self-Withdrew (Recruiter) status implies that the youth rescinded the particular job application. A total of 156 youths or 537 youth-applications were only observed with a “Self-Withdrew” status. Since an employer may have seen the youth’s application prior to being withdrawn, we include these observations within our analysis that follows. A total of 43 youth-applications which were self-withdrawn were placed into onboarding. A nonnegligible portion of applications were incomplete or invalid. This data appendix includes an analysis on this subsample of youth.

Using the rich data provided by the online job portal, we are also able to observe the total number of applications a youth submitted, the date of a youth’s earliest application (i.e. when a youth first entered the application system), and whether or not a youth has ever submitted a resume to any job application and construct a measure of resume quality based on a count of the number of characters. Youth were also asked an open-ended question which asked youth “why do they want to participate in the SYEP this summer” from which we also constructed quality measures including a character count. We also computed a Flesch reading score for both the resume and response to the open-ended question. The Flesch reading score provides a metric of reading ease with higher values denoting easier readability.

Table A1. tabulates the number of applications by age, race, gender, exam school status, and language fluency of the applicant. We can see that older youth are also more likely to submit only one job application. Older youth also have more outside options in comparison to those 15 years old or younger. We also report the total number of applications submitted per position averaged over all a youth’s applications. From this metric, we can see that youth submitting only one application are not selecting unpopular positions but rather are more likely to be applying to jobs that are oversubscribed.

Table A1: Applicant Demographics by Number of Applications

	(1) Apply to 1 Job Mean/SD/N	(2) Apply to 2 to 3 Jobs Mean/SD/N	(3) Apply to 4 to 10 Jobs Mean/SD/N	(4) Apply to 11+ Jobs Mean/SD/N
Age	16.9 (1.506) 2,037	16.6 (1.140) 759	16.4 (1.131) 782	16.2 (1.058) 181
White	0.17 (0.377) 2,053	0.15 (0.357) 764	0.088 (0.284) 791	0.092 (0.290) 185
African American	0.43 (0.495) 2,053	0.40 (0.491) 764	0.49 (0.500) 791	0.52 (0.501) 185
Asian	0.089 (0.285) 2,053	0.089 (0.285) 764	0.11 (0.310) 791	0.043 (0.204) 185
Hispanic or Latino	0.22 (0.417) 2,053	0.24 (0.426) 764	0.23 (0.419) 791	0.22 (0.413) 185
Other Race	0.086 (0.281) 2,053	0.12 (0.324) 764	0.090 (0.286) 791	0.13 (0.337) 185
Female	0.45 (0.498) 2,053	0.53 (0.499) 764	0.51 (0.500) 791	0.55 (0.499) 185
Attends Exam School	0.20 (0.403) 1,809	0.26 (0.441) 720	0.25 (0.434) 741	0.22 (0.414) 174
Fluent in Another Language	0.32 (0.466) 1,943	0.36 (0.481) 762	0.32 (0.465) 791	0.30 (0.461) 185
Avg Num of Other Apps Per Slot	7.47 (13.20) 2,054	10.4 (12.85) 764	11.2 (9.415) 791	9.99 (4.887) 185
Continuing Candidate	0.13 (0.335) 2,054	0.10 (0.305) 764	0.021 (0.145) 791	0.043 (0.204) 185

Source: Authors' calculations based on data from the Boston Office of Youth Employment and Opportunity.

Note: This sample includes youth who submitted at least one valid application by June 15th. The 'other race' category includes American Indian or Alaska Native, Native Hawaiian or Pacific Islander, two or more races, or youth who opt out of reporting their race.

Appendix B. Incomplete and Invalid Applications

During the 2022 summer job cycle, we observed unique 5,488 youth-users who had applied prior to the employer selection deadline of June 2nd. Of those these users, a majority of them (3,762) successfully submitted at least one job application, while approximately 33.2% of all users (1,726) never completed a valid job application, (i.e. their assigned system ID only received an ‘Incomplete’, ‘Initial DNQ’, or ‘Did Not Qualify (DNQ)’ status). In the ‘Initial DNQ’ status, the youth did not answer one or more of the screening questions correctly, for example, reported age disqualified them from a particular position. DYEE staff have the ability to move youth applications out of this bin after the applicant change their answers and alert DYEE of these changes. Importantly, potential site employers had the ability to see these applicants, but not the responses to the screening questions and thus why the youth received an ‘Initial DNQ’ status. If someone was assigned a ‘Does Not Qualify (DNQ)’ status, this means that a DYEE intern verified that the youth is not eligible for the position.

The frequency of missing information varies by whether a user has ever submitted a valid application or only has incomplete applications. For those who have at least one valid application, 0.91% (30) of youth are missing either their date of birth or self-reported race or gender. For those who only have invalid applications, 75.86% (1,141) youth are missing such information.

It appears that entering one’s social security number may be a barrier for applicants as a significant number of invalid users are missing such information. Of invalid users, 63.43% are missing race information, 63.43% are missing gender information, 94.55% are missing social security numbers, 94.55% are missing phone numbers, and 55.05% are missing street addresses.

It may also be the case that incomplete or do not qualify users do not have social security numbers and thus are not eligible for the program. Table B1 contains the average age, racial composition, and gender composition for users who have at least one valid job application and those who only have invalid job applications. Column 3 reports the differences in means between these two groups, along with the standard error below in parentheses. Column 4 reports the p-value resulting from a two-sample t-test for differences in means. We find that youths that only have invalid job applications are statistically more likely to be older.

Creating and submitting a valid job application may pose as a barrier for youths with roughly one-third failing to submit an application. However, it is difficult to assess which youth characteristics may be correlated with not completing an application due to the large amount of missing data (hence the incompleteness). As a result, for the remainder of the analysis, we focus exclusively on youths who have submitted at least one valid job application.

Table B1: Descriptive Statistics between Valid and Invalid Users

	Invalid Mean/Obvs.	Valid Mean/Obvs.	Diff in Means/Std.Err. in Diff	p-value
Age	17.78	16.71	1.064	0.0000
	434	3,727	(0.076)	
Missing Birth Date	0.75	0.01	0.739	0.0000
	1,726	3,762	(0.007)	
African American	0.47	0.44	0.027	0.2061
	636	3,761	(0.021)	
White	0.17	0.15	0.021	0.1777
	636	3,761	(0.015)	
Hispanic or Latino	0.21	0.23	-0.014	0.4251
	636	3,761	(0.018)	
Asian	0.06	0.09	-0.034	0.0043
	636	3,761	(0.012)	
Other Race	0.10	0.09	0.001	0.9372
	636	3,761	(0.013)	
Missing Race	0.63	0.00	0.631	0.0000
	1,726	3,762	(0.008)	
Female	0.57	0.49	0.087	0.0000
	636	3,761	(0.021)	
Male	0.41	0.50	-0.098	0.0000
	636	3,761	(0.021)	
Missing Gender	0.63	0.00	0.631	0.0000
	1,726	3,762	(0.008)	
Observations	5488			

Notes: This sample conditions on youth who have submitted at least one valid application by June 15th. Column 1 reports the averages for youths who only submitted incomplete or does not qualify job applications. Column 2 reports the average for youths who submitted at least one valid job application. Column 3 reports the differences in the reported averages. Column 4 contains the p-value from a two-sampled t-test. The 'other race' category includes American Indian or Alaska Native, Native Hawaiian or Pacific Islander, two or more races, or opt out of reporting race.

Appendix C . Youth Interest Areas

In the following section, we report distribution of youth’s reported interest areas and compare them to the number of job listings within the particular interest area. Interest areas are self-reported at the youth level. A vast majority of youth (93 percent) did not report their industry interest area.

The distributions of youth interest areas are contained in Figure C1. Youth interests are spread out across numerous areas, from the arts, health care, and STEM-related fields. However, a majority of the positions available through the SYEP are concentrated among the areas of camp counselors, education, or human services. Given these two distributions, there is a clear mismatch between youth interests and jobs available. In addition, Figure C2 plots youth’s ‘revealed’ preferences, that is, the distribution of all of the youth’s applications by job area type.

Figure C1: Distribution of Job Interests to Jobs Available

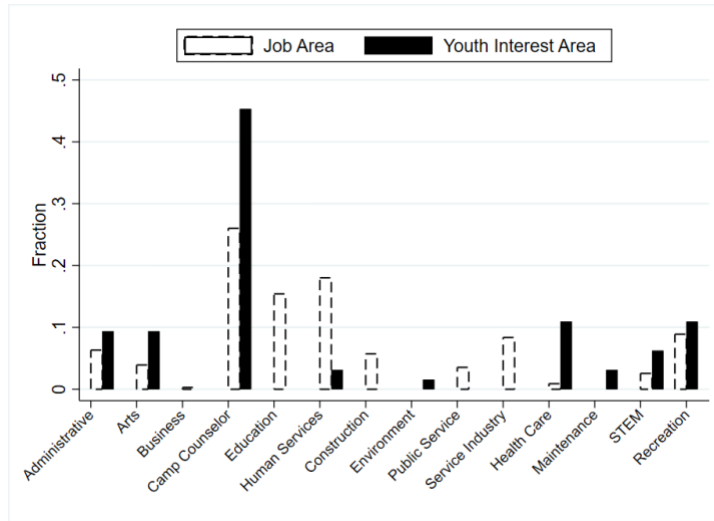
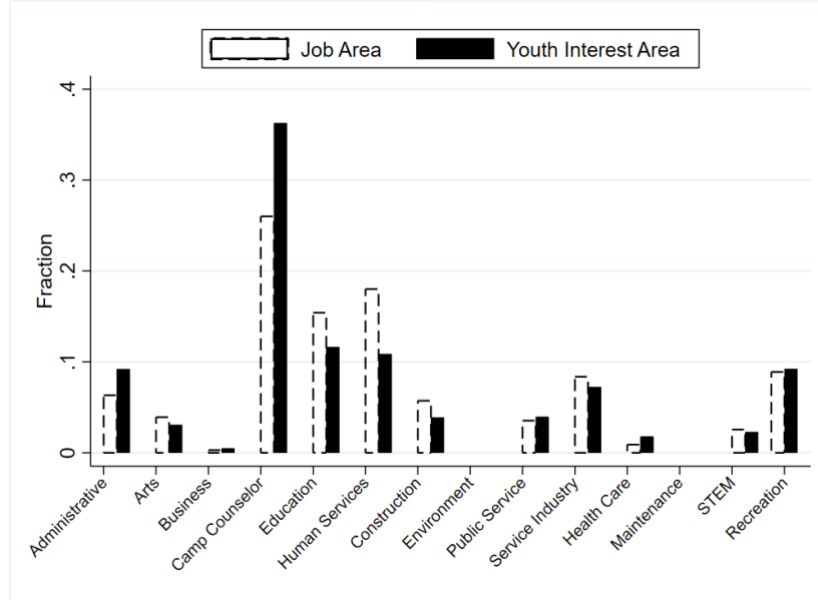


Figure C2: Distributions of Job Application to Jobs by Interest Area



Appendix D. Number of Applications

Table D1. Number of Submitted Applications to a Job Site by Industry

	(1)
Slots Requested	0.49*** (6.15)
Fraction of Youth Living in Same Zipcode	442.15*** (3.66)
Childcare Industry	32.69 (1.31)
Community/Social Assist. Industry	-12.88 (-0.53)
Construction Industry	46.06 (1.21)
Education Industry	-8.35 (-0.34)
Food Service Industry	44.13 (0.90)
Healthcare Industry	0.11 (0.00)
Information Finance and Insurance Industry	-21.30 (-0.44)
Protection Industry	93.87** (2.25)
Public Administration Industry	40.52 (1.39)
Recreation Industry	5.85 (0.20)
Science Industry	-6.61 (-0.17)
Sports Industry	7.32 (0.28)
Constant	28.61 (1.28)
Observations	163

Note: This table presents results of an OLS regression with the number of applications received by June 15th. Observations are at the employer-level. Omitted categorical variable is the Arts and Entertainment Industry. Of the 168 employers, one was missing an industry field.

Table D2. Number of Submitted Applications to a Job Site by Neighborhood

	(1)
Slots Requested	0.60*** (6.94)
Fraction of Youth Living in Same Zipcode	419.69** (2.53)
Chinatown	7.40 (0.14)
Dorchester	-5.19 (-0.10)
Downtown	-7.01 (-0.14)
East Boston	-20.53 (-0.38)
Fenway	-3.85 (-0.06)
Hyde Park	-9.48 (-0.18)
Jamaica Plain	-11.63 (-0.23)
Mattapan	2.03 (0.04)
Mission Hill	8.84 (0.16)
Roslindale	42.11 (0.74)
Roxbury	1.85 (0.04)
South Boston	5.46 (0.11)
South End	-4.02 (-0.07)
West Roxbury	42.93 (0.65)
Constant	37.60 (0.81)
Observations	163

Note: This table presents results of an OLS regression with the number of applications received by June 15th. Observations are at the employer-level. Omitted categorical variable is the Allston Neighborhood. Of the 168 employers, one was missing a neighborhood location.

Table D3. Number of Submitted Applications to a Job Site by Occupation

	(1)
Slots Requested	0.67*** (4.09)
Fraction of Youth Living in Same Zipcode	432.07*** (3.45)
Community and Social Services Occupation	-26.05** (-2.13)
Early Childhood Education Occupation	9.99 (0.74)
Art and Design Occupation	-4.97 (-0.38)
Architecture and Engineering Occupation	-11.97 (-0.31)
Maintenance Occupation	1.35 (0.08)
Protective Services Occupation	43.98 (1.62)
Education Occupation	-17.49 (-1.34)
Office and Administration Occupation	22.53* (1.67)
Recreation Occupation	2.31 (0.20)
Sciences Occupation	29.62 (1.05)
Computer and Mathematical Occupation	-5.03 (-0.24)
Food Services Occupation	-11.06 (-0.35)
Legal Occupation	66.11 (0.99)
Agriculture Occupation	-26.70 (-0.73)
Healthcare Occupation	-36.58 (-0.93)
Business and Finance Occupation	-55.46 (-1.47)
Construction Occupation	39.02 (0.88)
Constant	46.62*** (3.65)
Observations	163

Note: This table presents results of an OLS regression with the number of applications received by June 15th. Observations are at the employer-level. Omitted categorical variable is Recreation Occupations. Of the 168 employers, one was missing occupation coding.

Table D4. Number of Submitted Applications to a Job Site by Employer Characteristics

	(1)
Slots Requested	1.35*** (3.73)
Fraction of Youth Living in Same Zipcode	418.98*** (3.36)
YMCA Job	-234.31** (-2.27)
Parks and Recreation Job	-19.79 (-0.87)
Boston Public Library Job	-26.91 (-1.22)
Additional Application	-11.26 (-0.83)
Hybrid Position	-18.02 (-1.45)
Remote Position	-32.85 (-0.85)
Works with Vulnerable Population	9.94 (0.77)
Accommodate Summer School	12.26 (0.94)
Require Youth Orientation	3.38 (0.18)
Regular Evaluations	-34.25* (-1.74)
Provide Training	3.07 (0.23)
Measures Outcomes	15.15 (0.97)
Provide Mentoring	1.14 (0.08)
Constant	43.82 (1.61)
Observations	163

Note: This table presents results of an OLS regression with the number of applications received by June 15th. Observations are at the employer-level.

Table D5. Number of Submitted Applications to a Job Site by Location

	(1)
Slots Requested	0.58*** (7.36)
Recorded Location on Application	-11.56 (-0.24)
Distance to T Station or Stop in Feet (100s)	0.58 (0.52)
T Station	-10.06 (-0.78)
Constant	72.33 (1.50)
Observations	166

Note: This table presents results of an OLS regression with the number of applications received by June 15th. Observations are at the employer-level.

Table D6. Poisson Regression on Number of Applications Submitted

	(1)	(2)	(3)	(4)	(5)
Age 15	-0.16*** (-3.88)	-0.16*** (-3.84)	-0.16*** (-3.93)	-0.16*** (-3.94)	-0.17*** (-4.19)
Age 16	-0.26*** (-6.24)	-0.26*** (-6.21)	-0.27*** (-6.37)	-0.25*** (-5.80)	-0.25*** (-5.85)
Age 17	-0.42*** (-9.55)	-0.42*** (-9.48)	-0.43*** (-9.57)	-0.40*** (-8.78)	-0.40*** (-8.84)
Age 18	-0.47*** (-9.82)	-0.46*** (-9.74)	-0.47*** (-9.83)	-0.43*** (-8.88)	-0.45*** (-9.11)
Age 19	-0.72*** (-6.30)	-0.58*** (-4.92)	-0.58*** (-4.96)	-0.54*** (-4.62)	-0.51*** (-4.26)
Age 20 or Older	-0.81*** (-6.89)	-0.54*** (-4.12)	-0.54*** (-4.09)	-0.50*** (-3.75)	-0.49*** (-3.60)
Missing Birth Date	0.26*** (2.89)	0.30*** (3.31)	0.28*** (3.16)	0.29*** (3.20)	0.26*** (2.91)
African American	0.39*** (12.48)	0.40*** (12.56)	0.43*** (13.18)	0.43*** (12.95)	0.43*** (11.59)
Hispanic or Latino	0.33*** (9.40)	0.35*** (9.38)	0.38*** (10.04)	0.37*** (9.75)	0.38*** (9.17)
Asian	0.23*** (5.37)	0.25*** (5.53)	0.23*** (4.97)	0.22*** (4.81)	0.27*** (5.59)
Other Race	0.49*** (11.84)	0.49*** (11.84)	0.51*** (12.24)	0.51*** (12.21)	0.52*** (11.86)
Female	0.13*** (6.85)	0.13*** (6.80)	0.13*** (6.50)	0.13*** (6.56)	0.13*** (6.49)
Continuing Candidate	0.02 (0.37)	0.02 (0.49)	0.03 (0.50)	0.05 (0.90)	0.04 (0.77)
Fluent in Another Language		-0.03 (-1.30)	-0.03 (-1.36)	-0.03 (-1.37)	-0.02 (-0.90)
Enrolled in School		0.23* (1.65)	0.22 (1.57)	0.23 (1.63)	0.19 (1.34)
Attends Exam School			0.11*** (4.17)	0.11*** (4.19)	0.09*** (3.48)
Previously Participated				-0.08*** (-3.27)	-0.08*** (-3.16)
Constant	0.61 (0.60)	0.56 (0.56)	0.58 (0.57)	0.59 (0.58)	0.83 (0.58)
Observations	3762	3762	3762	3762	3762
Postal Code Controls	No	No	No	No	Yes

Note: This table reports the results of a Poisson regression with the number of applications submitted as the dependent variable. Age fourteen or younger, male, and white are omitted categorical variables. The 'other race' category includes American Indian or Alaska Native, Native Hawaiian or Pacific Islander, two or more races, or opt out of reporting race. Although not reported here, we include the following as controls in the regression: a dummy variable for whether or not the youth reported their gender and race, secondary language, school enrollment status, school name, previous SYEP status, earliest application date, and a set of dummy variables for youth ZIP code.

Appendix E. Timing of Applications

Table E1. Youth who Applied in March 2022 - Descriptive Statistics

	(1) Mean	Std. Dev.	Count
Age	16.6	1.129	1,032
African American	0.40	0.490	1,038
White	0.20	0.399	1,038
Hispanic or Latino	0.22	0.415	1,038
Asian	0.087	0.282	1,038
Other Race	0.092	0.290	1,038
Female	0.48	0.500	1,038
Fluent in Another Language	0.31	0.463	1,036
First Language English	0.87	0.338	1,036
Attends Exam School	0.24	0.427	972
Previously Participated	0.33	0.471	1,038
Number of Applications	3.67	4.482	1,038
Avg. # of Other Applications Per Slot	6.82	4.570	1,038
Recorded Resume Response	0.41	0.493	1,038
Avg. Resume Character Length	5903.1	3786.8	820
Avg. Resume Flesch Score	-22.7	45.12	820
Avg. Why Work Question Character Length	317.9	286.0	901
Avg. Why Work Question Flesch Score	69.5	15.55	901
Selected by Employer	0.70	0.460	1,038
NU List Selected	0.082	0.274	1,038
Selected by DYEE	0.16	0.363	1,038

Table E2. Youth who Applied in April 2022 - Descriptive Statistics

	(1) Mean	Std. Dev.	Count
Age	16.6	1.088	1,341
African American	0.44	0.497	1,351
White	0.15	0.358	1,351
Hispanic or Latino	0.22	0.413	1,351
Asian	0.11	0.309	1,351
Other Race	0.080	0.271	1,351
Female	0.45	0.498	1,351
Fluent in Another Language	0.32	0.468	1,349
First Language English	0.84	0.364	1,349
Attends Exam School	0.26	0.437	1,271
Previously Participated	0.26	0.441	1,351
Number of Applications	3.03	3.504	1,351
Avg. # of Other Applications Per Slot	6.51	3.762	1,351
Recorded Resume Response	0.49	0.500	1,351
Avg. Resume Character Length	5744.0	3646.2	1,077
Avg. Resume Flesch Score	-19.4	43.88	1,077
Avg. Why Work Question Character Length	318.7	286.3	1,187
Avg. Why Work Question Flesch Score	66.9	38.16	1,187
Selected by Employer	0.65	0.478	1,351
NU List Selected	0.088	0.284	1,351
Selected by DYEE	0.17	0.379	1,351

Table E3. Youth who Applied in May 2022 - Descriptive Statistics

	(1) Mean	Std. Dev.	Count
Age	16.6	1.536	855
African American	0.47	0.499	866
White	0.10	0.304	866
Hispanic or Latino	0.26	0.440	866
Asian	0.075	0.264	866
Other Race	0.091	0.288	867
Female	0.51	0.500	866
Fluent in Another Language	0.35	0.478	829
First Language English	0.81	0.392	829
Attends Exam School	0.18	0.381	772
Previously Participated	0.19	0.392	867
Number of Applications	2.73	3.397	867
Avg. # of Other Applications Per Slot	5.94	3.742	867
Recorded Resume Response	0.50	0.500	867
Avg. Resume Character Length	6306.7	3971.9	684
Avg. Resume Flesch Score	-23.2	49.46	684
Avg. Why Work Question Character Length	266.8	253.2	730
Avg. Why Work Question Flesch Score	69.0	21.70	730
Selected by Employer	0.54	0.499	867
NU List Selected	0.093	0.291	867
Selected by DYEE	0.19	0.391	867

Table E4. Youth who Applied in June 2022 - Descriptive Statistics

	(1) Mean	Std. Dev.	Count
Age	16.3	1.360	611
African American	0.57	0.496	623
White	0.074	0.262	623
Hispanic or Latino	0.22	0.416	623
Asian	0.055	0.227	623
Other Race	0.082	0.274	623
Female	0.46	0.499	623
Fluent in Another Language	0.33	0.470	617
First Language English	0.86	0.345	617
Attends Exam School	0.15	0.356	553
Previously Participated	0.14	0.352	623
Number of Applications	0.11	0.718	623
Avg. # of Other Applications Per Slot	5.69	3.722	623
Recorded Resume Response	0.56	0.497	623
Avg. Resume Character Length	5925.1	3919.3	518
Avg. Resume Flesch Score	-19.8	49.17	518
Avg. Why Work Question Character Length	244.7	229.0	526
Avg. Why Work Question Flesch Score	68.9	16.50	526
Selected by Employer	0.29	0.453	623
NU List Selected	0.026	0.158	623
Selected by DYEE	0.31	0.463	623

Table E5. Youth who Applied in July 2022 - Descriptive Statistics

	(1) Mean	Std. Dev.	Count
Age	16.2	1.384	276
African American	0.58	0.495	281
White	0.096	0.295	281
Hispanic or Latino	0.19	0.389	281
Asian	0.032	0.176	281
Other Race	0.11	0.313	282
Female	0.52	0.501	281
Fluent in Another Language	0.24	0.429	277
First Language English	0.90	0.307	277
Attends Exam School	0.16	0.367	256
Previously Participated	0.13	0.334	282
Number of Applications	0	0	282
Avg. # of Other Applications Per Slot	4.91	3.432	282
Recorded Resume Response	0.55	0.499	282
Avg. Resume Character Length	7393.1	4685.0	220
Avg. Resume Flesch Score	-37.5	54.23	220
Avg. Why Work Question Character Length	249.4	263.4	238
Avg. Why Work Question Flesch Score	70.2	16.46	238
Selected by Employer	0.21	0.405	282
NU List Selected	0	0	282
Selected by DYEE	0.21	0.405	282

Appendix F. Employer Site Selection

Employers were asked to select youth for jobs by June 15th so we categorize a youth as “selected by employer” based on the timestamp of when the youth’s status changed. Of the 5,488 valid youth applicants, 3,762 youth applied before the June 15th cut-off date for which they could be observed by an employer. Of these 3,762 youth, over two-thirds (66 percent) were selected by an employer. This implies that just under one-third (33 percent or 1,254) of valid applicants were not selected by an employer for a summer job. However, after the deadline, youth could also be selected by either the job matching algorithm or at the We Hire in-person event. By the end of the selection process about 75 percent of youth were offered at least one job from any source, with 61 percent (2,495) selected by an employer, 11 percent (420) selected by the research team using the job matching algorithm and 3 percent (129) selected by OYEO at the We Hire event.

Table F1 compares the descriptive statistics for youth who were selected versus not selected by an employer. In terms of demographic characteristics, youth who were selected by an employer were on average older, white, male, attended an exam school, and also indicated that they had previously participated in the OYEO program. In contrast, youth who were Black, Hispanic, or fluent in another language and/or did not have English as their first language were less likely to be selected by an employer.

In terms of labor market dynamics, we also find evidence that youth who exhibit higher levels of effort in their job search, as measured by the number of submitted job applications and week of earliest job application submitted, were more likely to be selected by an employer. Furthermore, youth who apply to less competitive jobs, as measured by the average number of applications per slot, were more likely to be selected. Youth selected by an employer were less likely to have uploaded resume or answered the open-ended “Why Work” text question, although those with longer text responses to the open-ended question were more likely to get selected by an employer.

Table F1. Descriptive Statistics for Youth Selected versus Not Selected by an Employer

	Not Selected Mean/Std. Dev.	Selected Mean/Std. Dev.	Diff in Means/ Std.Err. in Diff	<i>p-value</i>
Age	16.45 (1.283)	16.84 (1.377)	-0.390 (0.047)	0.0000
African American	0.49 (0.500)	0.42 (0.494)	0.070 (0.017)	0.0000
White	0.08 (0.258)	0.18 (0.382)	-0.102 (0.012)	0.0000
Hispanic or Latino	0.27 (0.446)	0.21 (0.406)	0.063 (0.014)	0.0000
Asian	0.09 (0.288)	0.09 (0.287)	0.001 (0.010)	0.9161
Other Race	0.07 (0.270)	0.11 (0.302)	-0.032 (0.010)	0.0014
Female	0.49 (0.500)	0.48 (0.500)	0.012 (0.017)	0.5040
Fluent in Another Language	0.36 (0.482)	0.31 (0.463)	0.049 (0.016)	0.0027
First Language English	0.83 (0.376)	0.85 (0.357)	-0.018 (0.013)	0.1444
Attends Exam School	0.17 (0.367)	0.26 (0.436)	-0.087 (0.015)	0.0000
Previously Participated	0.18 (0.366)	0.31 (0.460)	-0.131 (0.015)	0.0000
Continuing Candidate	0.00 (0.000)	0.15 (0.341)	-0.146 (0.010)	0.0000
Number of Applications	2.46 (2.384)	3.34 (4.114)	-0.881 (0.128)	0.0000
Avg. Num of Other Apps Per Slot	13.40 (18.986)	6.65 (7.484)	6.751 (0.411)	0.0000
Earliest App Submitted in March	0.21 (0.409)	0.31 (0.459)	-0.094 (0.015)	0.0000
Earliest App Submitted in April	0.35 (0.476)	0.36 (0.480)	-0.004 (0.017)	0.7936
Earliest App Submitted in May	0.30 (0.455)	0.19 (0.403)	0.104 (0.014)	0.0000
Earliest App Submitted in June	0.13 (0.357)	0.14 (0.341)	-0.006 (0.012)	0.6318
Recorded Resume Response	0.58 (0.496)	0.51 (0.500)	0.065 (0.017)	0.0002
Avg. Resume Character Length	6899.11 (4318.965)	5493.35 (3291.955)	1405.758 (136.514)	0.0000
Avg. Resume Flesch Score	-36.31 (46.445)	-9.15 (42.466)	-27.160 (1.640)	0.0000
Avg. Work Question Length	262.46 (237.948)	333.67 (292.795)	-71.211 (10.377)	0.0000
Avg. Work Question Flesch Score	69.14 (24.974)	67.91 (28.577)	1.232 (1.028)	0.2306
Observations	1,267	2,495		

Source: Authors' calculations based on data from the Boston Department of Youth Engagement and Employment.

Notes: Column 1 reports the averages for youth who were not selected for employment by at least one employer. Column 2 reports the average for youth who were selected by a employer. Column 3 reports the differences in the reported averages. Column 4 contains the p-value from a two-sampled t-test.

Table F2. Predict Site Selection - Logit Specification

	(1)	(2)	(3)	(4)	(5)	(6)
Age 15	0.16 (0.93)	0.15 (0.87)	0.13 (0.77)	0.12 (0.72)	0.37** (2.08)	0.40** (2.18)
Age 16	0.35** (2.08)	0.35** (2.04)	0.31* (1.85)	0.17 (1.01)	0.55*** (3.02)	0.62*** (3.27)
Age 17	0.40** (2.29)	0.40** (2.26)	0.37** (2.10)	0.18 (0.99)	0.58*** (3.08)	0.68*** (3.42)
Age 18	0.50*** (2.68)	0.48*** (2.59)	0.46** (2.46)	0.22 (1.17)	0.65*** (3.25)	0.69*** (3.27)
Age 19	1.89*** (3.99)	1.43*** (2.88)	1.42*** (2.85)	1.12** (2.22)	1.54*** (2.63)	1.80*** (2.95)
Age 20 or Older	2.13*** (4.46)	1.08** (2.00)	1.09** (2.00)	0.79 (1.43)	1.18* (1.95)	1.58** (2.37)
Female	-0.02 (-0.22)	-0.01 (-0.10)	-0.03 (-0.41)	-0.04 (-0.52)	0.03 (0.32)	0.05 (0.56)
African American	-0.85*** (-5.91)	-0.85*** (-5.85)	-0.76*** (-5.15)	-0.73*** (-4.91)	-0.71*** (-4.55)	-0.62*** (-3.80)
Hispanic or Latino	-0.97*** (-6.45)	-1.00*** (-6.25)	-0.91*** (-5.61)	-0.86*** (-5.29)	-0.80*** (-4.70)	-0.60*** (-3.41)
Asian	-1.00*** (-5.54)	-1.03*** (-5.41)	-1.16*** (-5.94)	-1.13*** (-5.79)	-1.13*** (-5.52)	-0.98*** (-4.62)
Other Race	-0.38** (-2.08)	-0.35* (-1.95)	-0.30 (-1.63)	-0.32* (-1.72)	-0.35* (-1.81)	-0.27 (-1.35)
Fluent in Another Language		0.01 (0.14)	0.01 (0.13)	0.01 (0.13)	0.01 (0.12)	-0.00 (-0.02)
Enrolled in School		0.98** (2.18)	0.87* (1.91)	0.78* (1.72)	0.58 (1.17)	0.40 (0.77)
Attends Exam School			0.38*** (3.32)	0.38*** (3.37)	0.40*** (3.32)	0.39*** (3.12)
Previously Participated				0.56*** (5.56)	0.57*** (5.33)	0.42*** (3.75)
Number of Applications					0.16*** (10.59)	0.16*** (10.26)
Avg. # of Other Applications Per Slot					-0.08*** (-11.88)	-0.07*** (-10.99)
Recorded Resume Response						-1.57*** (-8.44)
Avg. Resume Character Length						0.00*** (9.82)
Avg. Resume Flesch Score						0.04*** (12.91)
Avg. Why Work Question Character Length						0.00** (2.48)
Avg. Why Work Question Flesch Score						0.00 (0.20)
Constant	1.95 (1.55)	4.41*** (3.11)	4.29*** (3.07)	4.46*** (3.23)	3.57** (2.55)	2.84** (1.99)
Observations	3723	3723	3723	3723	3723	3723
Has Gender/Race + Has Gender/Race × African-American	-0.85	-0.85	-0.76	-0.73	-0.71	-0.62
p-value	0.000	0.000	0.000	0.000	0.000	0.000

Note: The sample conditions on those who submitted at least one complete and valid job application prior to the June 15th cut-off date. The dependent variable is equal to one if the youth was selected for employment by at least one partner site and is equal to zero otherwise. Omitted categorical variable is aged fourteen or youth, white, and male. The 'other race' category includes American Indian or Alaska Native, Native Hawaiian or Pacific Islander, two or more races, or opt out of reporting race. Although not reported here, we include the following as controls in the regression: a dummy variable indicating if the youth reported their birth date (columns 1-6), a dummy variable for whether or not the youth reported their gender and race (columns 1-6), a dummy variable if the youth chose to opt out of reporting their gender (columns 1-6), a dummy variable indicating if the youth recorded being fluent in a secondary language (columns 2-6), a dummy variable indicating if the youth recorded enrollment status (columns 2-6), a dummy variable indicating if the youth recorded their school name (columns 3-6), a dummy variable indicating if the youth recorded previous SYEP status (columns 4-6), a set of dummy variables for earliest application date (columns 1-6), and a dummy variable indicating if the youth completed the open-ended text question (column 6). * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table F3. Predict Site Selection - Random Effects Specification

	(1)	(2)	(3)	(4)	(5)	(6)
Age 15	-0.04 (-1.30)	-0.04 (-1.33)	-0.04 (-1.35)	-0.04 (-1.40)	-0.03 (-1.14)	-0.02 (-0.84)
Age 16	0.00 (0.15)	0.00 (0.07)	0.00 (0.05)	-0.02 (-0.80)	-0.02 (-0.75)	-0.00 (-0.12)
Age 17	0.03 (0.84)	0.02 (0.73)	0.02 (0.69)	-0.01 (-0.35)	-0.02 (-0.63)	-0.00 (-0.01)
Age 18	0.08** (2.53)	0.08** (2.37)	0.08** (2.33)	0.04 (1.11)	0.02 (0.61)	0.03 (1.00)
Age 19	0.31*** (3.78)	0.21** (2.56)	0.21** (2.56)	0.16* (1.95)	0.10 (1.46)	0.14** (2.15)
Age 20 or Older	0.36*** (3.64)	0.18* (1.74)	0.18* (1.76)	0.14 (1.37)	0.05 (0.55)	0.11 (1.04)
Female	0.00 (.)	0.00 (.)	0.05 (0.80)	0.03 (0.54)	0.04 (0.64)	0.90*** (11.95)
African American	-0.21*** (-10.24)	-0.21*** (-10.25)	-0.21*** (-10.21)	-0.20*** (-9.93)	-0.14*** (-7.50)	-0.13*** (-7.64)
Hispanic or Latino	-0.21*** (-9.32)	-0.22*** (-9.06)	-0.22*** (-9.03)	-0.20*** (-8.59)	-0.15*** (-6.84)	-0.13*** (-6.48)
Asian	-0.17*** (-6.28)	-0.18*** (-6.19)	-0.18*** (-6.20)	-0.17*** (-5.96)	-0.14*** (-5.45)	-0.11*** (-4.72)
Other Race	-0.20*** (-7.09)	-0.20*** (-7.16)	-0.20*** (-7.15)	-0.20*** (-7.21)	-0.13*** (-5.42)	-0.12*** (-5.29)
Fluent in Another Language		0.01 (0.44)	0.01 (0.46)	0.01 (0.50)	0.01 (0.62)	0.01 (0.86)
Enrolled in School		-0.30*** (-4.07)	-0.32*** (-4.09)	-0.34*** (-4.38)	-0.24*** (-3.52)	-0.19*** (-2.92)
Attends Exam School			0.06 (0.56)	0.04 (0.38)	0.03 (0.28)	0.00 (0.05)
Previously Participated				0.09*** (5.34)	0.07*** (4.92)	0.06*** (4.11)
Number of Applications					-0.02*** (-11.88)	-0.02*** (-11.65)
Number of Job Applications per Slot Available					-0.02*** (-23.64)	-0.02*** (-23.30)
Recorded Resume Response						-0.26*** (-10.29)
Character Count of Resume						0.00*** (12.64)
Resume Flesch Score						0.01*** (12.98)
Character Count of why work question						0.00 (0.86)
Why work question Flesch Score						-0.00 (-1.46)
Constant	0.56*** (11.30)	0.87*** (9.51)	0.82*** (7.50)	0.84*** (7.67)	0.93*** (9.50)	0.00 (.)
Observations	10335	10335	10335	10335	10335	10335

Note: The sample conditions on those who submitted at least one complete and valid job application prior to the June 2nd cut-off date. Observations are clustered at the youth-level. The dependent variable is equal to one if the youth was selected for employment and is equal to zero otherwise. Omitted categorical variable is aged fourteen or youth, white, and male. The 'other race' category includes American Indian or Alaska Native, Native Hawaiian or Pacific Islander, two or more races, or opt out of reporting race. Although not reported here, we include the following as controls in the regression: a dummy variable indicating if the youth reported their birth date (columns 1-6), a dummy variable if the youth chose to opt out of reporting their gender (columns 1-6), a dummy variable indicating if the youth recorded their school name (columns 3-6), a set of dummy variables for application week (columns 1-6), and a dummy variable indicating if the youth completed the open-ended text question (column 6). * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table F4. Predict Site Selection - Logit Random Effects Specification

	(1)	(2)	(3)	(4)	(5)	(6)
Age 15	-0.10 (-0.62)	-0.11 (-0.65)	-0.10 (-0.64)	-0.11 (-0.67)	-0.00 (-0.01)	0.04 (0.28)
Age 16	0.14 (0.86)	0.13 (0.77)	0.13 (0.77)	0.02 (0.12)	0.09 (0.63)	0.17 (1.22)
Age 17	0.27 (1.61)	0.25 (1.50)	0.25 (1.49)	0.12 (0.68)	0.12 (0.79)	0.20 (1.36)
Age 18	0.55*** (3.05)	0.52*** (2.90)	0.52*** (2.88)	0.35* (1.90)	0.27 (1.58)	0.33** (1.97)
Age 19	1.67*** (3.84)	1.22*** (2.84)	1.22*** (2.84)	1.04** (2.32)	0.59* (1.79)	0.81** (2.54)
Age 20 or Older	2.20*** (4.12)	1.28** (2.24)	1.29** (2.26)	1.13* (1.96)	0.38 (0.79)	0.68 (1.11)
Female	-0.18*** (-2.84)	-0.18*** (-2.88)	-0.19*** (-2.90)	-0.19*** (-3.03)	-0.01 (-0.16)	0.03 (0.48)
African American	-0.96*** (-9.41)	-0.97*** (-9.43)	-0.97*** (-9.39)	-0.95*** (-9.25)	-0.49*** (-4.68)	-0.48*** (-4.79)
Hispanic or Latino	-0.93*** (-8.23)	-0.97*** (-7.98)	-0.97*** (-7.97)	-0.93*** (-7.70)	-0.50*** (-4.28)	-0.46*** (-3.96)
Asian	-0.72*** (-5.36)	-0.74*** (-5.28)	-0.74*** (-5.31)	-0.72*** (-5.15)	-0.50*** (-3.89)	-0.40*** (-3.12)
Other Race	-0.92*** (-6.62)	-0.93*** (-6.69)	-0.93*** (-6.66)	-0.94*** (-6.74)	-0.51*** (-3.84)	-0.49*** (-3.79)
Fluent in Another Language		0.03 (0.45)	0.04 (0.48)	0.04 (0.53)	0.06 (0.85)	0.07 (1.01)
Enrolled in School		-1.62*** (-3.63)	-1.67*** (-3.68)	-1.77*** (-3.90)	-0.90** (-2.43)	-0.74** (-1.99)
Attends Exam School			0.47 (0.92)	0.38 (0.74)	0.20 (0.45)	0.05 (0.12)
Previously Participated				0.36*** (4.40)	0.25*** (3.51)	0.20*** (2.79)
Number of Applications					-0.11*** (-8.28)	-0.10*** (-7.81)
Number of Job Applications per Slot Available					-0.24*** (-18.30)	-0.23*** (-17.58)
Recorded Resume Response						-1.66*** (-8.79)
Character Count of Resume						0.00*** (10.54)
Resume Flesch Score						0.04*** (10.97)
Character Count of why work question						0.00 (0.55)
Why work question Flesch Score						-0.00 (-0.57)
Constant	0.18 (0.70)	1.83*** (3.50)	1.81*** (3.47)	1.87*** (3.57)	2.32*** (5.38)	2.02*** (4.66)
Insig2u	-0.29** (-2.09)	-0.31** (-2.20)	-0.31** (-2.21)	-0.29** (-2.13)	-1.29*** (-4.78)	-1.42*** (-5.11)
Observations	10327	10327	10327	10327	10327	10327

Note: The sample conditions on those who submitted at least one complete and valid job application prior to the June 2nd cut-off date. Observations are clustered at the youth-level. The dependent variable is equal to one if the youth was selected for employment and is equal to zero otherwise. Omitted categorical variable is aged fourteen or youth, white, and male. The 'other race' category includes American Indian or Alaska Native, Native Hawaiian or Pacific Islander, two or more races, or opt out of reporting race. Although not reported here, we include the following as controls in the regression: a dummy variable indicating if the youth reported their birth date (columns 1-6), a dummy variable if the youth chose to opt out of reporting their gender (columns 1-6), a dummy variable indicating if the youth recorded their school name (columns 3-6), a set of dummy variables for application week (columns 1-6), and a dummy variable indicating if the youth completed the open-ended text question (column 6). * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Appendix G. Job Matching Algorithm

One drawback of the random assignment algorithm is that it does not maximize youth-job matches. To measure this, we retroactively applied the Ford–Fulkerson algorithm and compared our results. The Ford–Fulkerson algorithm finds the maximum number of “matches” between youths and job slots (or flow network). For this exercise, we consider all youth who submitted at least one job application and were not hired by June 15th.

We completed a direct one-to-one comparison between the job matching pilot algorithm and the Ford-Fulkerson algorithm. For this comparison, we considered the same set of available youth and job slots which were used by the pilot algorithm in the June 2nd snapshot. To compute the number of job slot edges within the graph, we compute the number of slots still available for each employer by taking their total slot allocation and subtracting the number of youth hired by June 2nd. There were a total of 350 employment slots available and 661 youth unplaced youth. The Ford–Fulkerson algorithm made 256 youth-job matches while the pilot algorithm made 285 matches. Overall, our simple job matching pilot was slightly more efficient than the Ford–Fulkerson algorithm.

We also compared the descriptive statistics of the youth applicants selected by the Ford-Fulkerson and the job matching pilot using a two-sample t-test. The Ford-Fulkerson selected younger, less African American, more White, more other race, and less youth who indicated they were fluent in another language. Recall that the pilot algorithm took into account the race and language fluency of youth applicants and gave priority to those who were underrepresented within the pool of employer-selected youth. As such, the results of racial and language-fluency differences across algorithms should be expected. Overall, our simple job matching pilot appeared to enhance equity to a greater degree than the Ford–Fulkerson algorithm.

Table G1. T-test Between Ford–Fulkerson and Pilot Job Matching Algorithm

	F F Algorithm Selected Mean	Pilot Algorithm Mean	Difference	p value
Age	16.52	16.84	0.315	0.003
African American	0.44	0.60	0.162	0.000
White	0.09	0.02	0.069	0.001
Hispanic or Latino	0.28	0.24	0.039	0.304
Asian	0.09	0.07	0.012	0.600
Other Race	0.10	0.06	0.042	0.072
Female	0.55	0.52	0.024	0.576
Fluent in Another Language	0.34	0.44	0.102	0.015
First Language English	0.83	0.85	0.025	0.437
Attends Exam School	0.20	0.19	0.009	0.792
Missing School Name	0.07	0.09	0.017	0.475
Previously Participated	0.22	0.28	0.058	0.117
Number of Applications	4.19	4.44	0.255	0.458
Avg Num of Other Apps Per Slot	10.17	9.84	0.330	0.667
Earliest App Submitted in March	0.25	0.25	0.001	0.973
Earliest App Submitted in April	0.38	0.40	0.021	0.616
Earliest App Submitted in May	0.34	0.31	0.028	0.495
Earliest App Submitted in June	0.03	0.03	0.001	0.959
Recorded Resume Response	0.53	0.53	0.002	0.954
Avg Resume Character Length	6457.98	6794.25	336.270	0.319
Avg Resume Flesch Score	31.02	34.35	3.334	0.375
Avg Work Question Length	285.42	302.23	16.805	0.500
Avg Work Question Flesch Score	68.94	66.31	2.632	0.333

Note: This table presents the results of a two-sample t-test between youth who were selected by the Ford-Fulkerson algorithm and youth who were selected by the job matching pilot algorithm. Note that since a youth could have been selected by both algorithms, a subset of youth appears in both samples (119 youth in total).

Table G2. T-test Between Ford–Fulkerson and Pilot Job Matching Algorithm

	(1) Employer	(2) NU	(3) We Hire	(4) NU List – We Hire	(5) Total Selected	(6) Total Applicants	(7) Employer - DYEE	(8) p-value
Age	16.8 (1.392)	16.8 (1.185)	16.3 (1.228)	16.7 (1.210)	16.8 (1.372)	16.7 (1.366)	0.176 (0.065)	0.0068
White	0.18 (0.386)	0.093 (0.291)	0.047 (0.212)	0.083 (0.277)	0.17 (0.375)	0.15 (0.355)	0.099 (0.018)	0.0000
African American	0.42 (0.493)	0.51 (0.500)	0.63 (0.486)	0.54 (0.499)	0.43 (0.496)	0.44 (0.496)	-0.121 (0.023)	0.0000
Asian	0.091 (0.287)	0.093 (0.291)	0.047 (0.212)	0.083 (0.277)	0.089 (0.285)	0.091 (0.288)	0.007 (0.014)	0.5924
Hispanic or Latino	0.21 (0.404)	0.23 (0.420)	0.19 (0.392)	0.22 (0.414)	0.21 (0.407)	0.23 (0.419)	-0.013 (0.019)	0.4895
Other Race	0.11 (0.308)	0.071 (0.258)	0.094 (0.293)	0.078 (0.268)	0.098 (0.298)	0.095 (0.293)	0.028 (0.014)	0.0498
Female	0.48 (0.500)	0.49 (0.501)	0.47 (0.501)	0.49 (0.500)	0.48 (0.500)	0.49 (0.500)	-0.006 (0.024)	0.8110
Attends Exam School	0.26 (0.437)	0.23 (0.422)	0.20 (0.402)	0.23 (0.420)	0.25 (0.434)	0.23 (0.420)	0.030 (0.022)	0.1656
Fluent in Another Language	0.31 (0.462)	0.34 (0.474)	0.30 (0.459)	0.33 (0.470)	0.31 (0.464)	0.33 (0.469)	-0.019 (0.022)	0.3932
Number of Applications	3.34 (4.191)	4.33 (3.604)	5.65 (6.364)	4.62 (4.442)	3.37 (4.101)	3.04 (3.744)	-1.278 (0.201)	0.0000
Avg Num. of Other Apps Per Slot	6.65 (7.163)	9.54 (8.999)	9.66 (7.307)	9.55 (8.678)	7.07 (7.565)	8.92 (12.32)	-2.899 (0.354)	0.0000
Earliest App Submitted in March	0.31 (0.462)	0.28 (0.449)	0.25 (0.434)	0.27 (0.445)	0.29 (0.455)	0.28 (0.447)	0.036 (0.022)	0.0972
Earliest App Submitted in April	0.36 (0.479)	0.41 (0.493)	0.32 (0.467)	0.39 (0.489)	0.36 (0.481)	0.36 (0.479)	-0.034 (0.023)	0.1369
Earliest App Submitted in May	0.19 (0.395)	0.26 (0.439)	0.24 (0.429)	0.25 (0.435)	0.21 (0.405)	0.23 (0.420)	-0.060 (0.019)	0.0018
Earliest App Submitted in June	0.14 (0.348)	0.048 (0.213)	0.19 (0.397)	0.083 (0.276)	0.14 (0.342)	0.14 (0.346)	0.058 (0.016)	0.0003
Recorded Resume Response	0.51 (0.500)	0.55 (0.498)	0.40 (0.492)	0.52 (0.500)	0.52 (0.500)	0.53 (0.499)	-0.005 (0.024)	0.8301
Completed Work Question	0.81 (0.392)	0.86 (0.345)	0.93 (0.256)	0.88 (0.325)	0.82 (0.384)	0.83 (0.372)	-0.070 (0.018)	0.0001
Avg Resume Character Length	5493.3 (3070.4)	6742.9 (3895.3)	6154.7 (3632.0)	6629.2 (3861.4)	5748.2 (3318.6)	5976.8 (3629.1)	-1.1e+03 (161.212)	0.0000
Avg Resume Flesch Score	-9.15 (40.10)	-32.8 (44.40)	-26.4 (44.58)	-31.6 (44.69)	-13.2 (42.66)	-18.5 (44.76)	22.447 (2.039)	0.0000
Avg Work Question Length	333.7 (289.1)	327.1 (313.1)	284.1 (274.9)	318.4 (305.3)	329.3 (291.7)	308.4 (280.4)	15.300 (14.871)	0.3036
Avg Work Question Flesch Score	67.9 (29.48)	66.2 (33.53)	70.4 (13.49)	67.2 (30.04)	67.8 (30.20)	68.3 (27.57)	0.726 (1.506)	0.6299
Observations	2,495	420	129	541	2,884	3,762		

Source: Authors' calculations based on data from the Boston Office of Youth Employment and Opportunity.

Appendix H. Onboarding Barriers

We code youth as reaching the hiring stage if we observe an “Onboarding” status and those as being hired if their last status update for a particular job posting was “Hired”. This includes youth who were hired and later self-withdrew from the position. Table H1 provides descriptive statistics of those who reached an hiring or onboarded-implied status but did not get hired (column 1) and those who were successfully onboarded and hired (column 2).

Table H1. Descriptive Statistics for Youth who were Hired versus Youth who Failed to Make it through the Onboarding Process (Not Hired)

	Not Hired Mean/Obvs.	Hired Mean/Obvs.	Diff in Means/Std.Err. in Diff	p-value
Age	16.68 801	16.87 2,062	-0.192 (0.057)	0.0008
African American	0.49 812	0.41 2,071	0.080 (0.020)	0.0001
White	0.08 812	0.20 2,071	-0.122 (0.015)	0.0000
Hispanic or Latino	0.29 812	0.18 2,071	0.107 (0.017)	0.0000
Asian	0.08 812	0.10 2,071	-0.020 (0.012)	0.0907
Other Race	0.07 812	0.11 2,071	-0.044 (0.012)	0.0003
Female	0.53 812	0.46 2,071	0.065 (0.021)	0.0015
Fluent in Another Language	0.39 809	0.28 1,968	0.103 (0.019)	0.0000
First Language English	0.80 809	0.87 1,968	-0.069 (0.015)	0.0000
Attends Exam School	0.20 744	0.27 1,866	-0.070 (0.019)	0.0002
Previously Participated	0.21 813	0.33 2,071	-0.123 (0.019)	0.0000
Continuing Candidate	0.00 813	0.18 2,071	-0.174 (0.013)	0.0000
Number of Applications	3.99 813	3.12 2,071	0.873 (0.169)	0.0000
Avg Num. of Other Apps Per Slot	8.53 813	6.49 2,071	2.041 (0.311)	0.0000
Earliest App Submitted in March	0.30 813	0.29 2,071	0.011 (0.019)	0.5540
Earliest App Submitted in April	0.41 813	0.35 2,071	0.065 (0.020)	0.0012
Earliest App Submitted in May	0.24 813	0.19 2,071	0.046 (0.017)	0.0058
Earliest App Submitted in June	0.05 813	0.17 2,071	-0.122 (0.014)	0.0000
Recorded Resume Response	0.64 813	0.47 2,071	0.173 (0.020)	0.0000
Avg Resume Character Length	7407.89 787	4909.85 1,558	2498.043 (135.679)	0.0000
Avg Resume Flesch Score	-47.12 787	3.94 1,558	-51.062 (1.539)	0.0000
Avg Work Question Length	304.21 710	340.05 1,662	-35.843 (13.062)	0.0061
Avg Work Question Flesch Score	67.68 710	67.84 1,662	-0.153 (1.354)	0.9098
Observations	813	2,071		

Source: Authors’ calculations based on data from the Boston Department of Youth Engagement and Employment.

Notes: Column 1 reports the averages for youth who were selected for employment by an employer-partner but never made it to the “Hired” status. Column 2 reports the average for youth who were onboarded and reached the “Hired” stage. Column 3 reports the differences in the reported averages. Column 4 contains the p-value from a two-sampled t-test.

Figure B1. Job Application Flow

High-Level Job Hiring Process

