April 2015

The Impact of the Rappaport Public Policy Fellows Program on Career Trajectories: An Update

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Executive Summary

Since 2001, the Rappaport Public Policy Fellows program has partnered graduate students with state and local government agencies for a summer of public service in the Greater Boston area. The program aims to encourage careers in public service, as well as public service in the Boston area. Though it is difficult to quantify the effect the fellows have had on the governments that they serve, we are able to quantify the effect of the fellowship on the career trajectories of the fellows, and thus determine the effect of receiving the fellowship on future public service.

We recently updated a 2011 study¹ - authored by Edward Glaeser, David Luberoff, Paulina O'Brien and Kristina Tobio - that compared the career paths of Rappaport Fellows and of runners-up who barely missed receiving the fellowship. The runners-up are students made it to the final round but ultimately were not chosen, however, their qualifications were so similar to the ultimate fellowship winners that one could argue the fellows were chosen more or less randomly from the elite pool of finalists.

The 2011 study used a dataset that contained historical job sector and

location information on 102 former fellows and 91 runners-up over the 2001 to 2011 time period. The updated study adds three more years of data (2012-2014), and has job and location information on 141 former fellows and 131 runners-up. Overall, a comparison of these two groups suggests the fellowship had a positive, significant effect on future work in the public sector and in the public sector in the Boston area. For example, 34 percent of former fellows currently work in the public sector, as compared to only 22.1 percent of the runners-up, for a difference of about 12 percentage points.

An even more significant and long-term effect is observed when calculating the share of former fellows and runners-up who ever, not just currently, work in the public sector. We find that 54.5 percent of former fellows work in the public sector at some point during their careers, as opposed to only about 36 percent of runners-up, for about an 18 percentage point, strongly statistically significant difference. In a related calculation, we also find that former fellows spend nearly 37 percent of their working years in the public sector, while the runners-up only spend 19.5 percent of their working years in the public sector. This difference is also strongly

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The authors thank Olivia Christaldi who compiled most of the new data used in this analysis.

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significant. Given this finding, we reason that it would be more useful to focus our analysis on if former fellows and runners-up have ever worked in the public sector or in the public sector in Greater Boston over the course of their entire career. These variables give us a better picture of the career trajectories of former fellows and help to identify a strong, long-term commitment to public service and the Greater Boston area.

Next, we calculate a difference of 5.7 percent between former fellows *currently* working in the public sector in Greater Boston (14.9 percent) and runners-up doing the same (9.2 percent). However, 35.2 percent of former fellows work in the public sector in Boston at some point in their careers, as compared to only 19.3 percent of runners-up, for a statistically significant difference of 15.9 percent. The former fellows spend 16.6 percent of their working years in the public sector in

Boston, over 10 percentage points more than the runners-up, who only spend 6 percent of their working years there.

All of these findings are summarized in Figure 1, which shows that former fellows, as compared to runners-up, have a higher probability of working in the public sector and working in the public sector in the Boston area across a variety of outcomes. These results suggest that the program is not only managing to target aid to students who are likely to serve, but also increasing their likelihood of working in government.

Fellows Program and Data Description

The Rappaport Public Policy Fellows program began in 2001, and though it has evolved over the years, its core structure has remained the same. Graduate students from the Boston area apply², and winners receive a \$7,000 stipend for working full-time in a public-sector entity

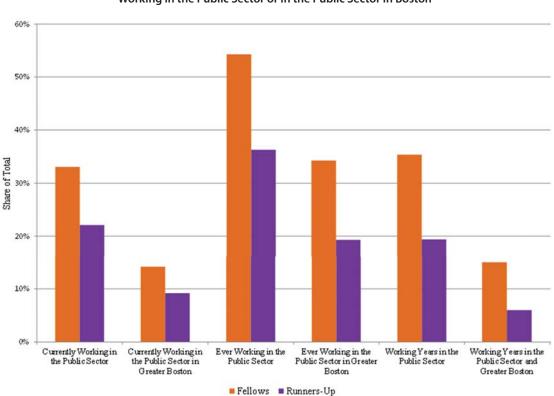


Figure 1: Probability of Former Fellows v. Runners-Up Working in the Public Sector or in the Public Sector in Boston

in greater Boston, usually for a state or local entity (though a few have worked in the regional offices of a federal entity). Rappaport Institute staff work with the students and government entities to ensure a good match, and the staff and outside mentors are on hand throughout the summer to confirm that everything is going well.

Former fellows, as compared to runners-up, have a higher probability of working in the public sector in the Boston area across a variety of outcomes. These results suggest that the program is not only managing to target aid to students who are likely to serve, but also increasing their likelihood of working in government.

The fellows meet once a week, usually for an outing or with an outside speaker. They also connect regularly with the Institute staff, and many even have mentors they talk to regularly. Because the Institute has extensive contact with different officials and agencies across the area, we are able to ensure that students end up working only for supervisors who have a good track record of delivering meaningful experiences. We have found the best experiences for the fellows allow them to focus on a single primary project that can provide a clear sense of mission.

The Institute staff work to spread information about the program at Boston-area schools through information sessions. Approximately 100 students apply each year, and from that group the Institute's staff chooses about 35 finalists. Then, the selection committee³ - usually made up six outsiders such as members of Institute's Advisory Board, former fellows, or those with experience working in the public sector - reads the finalists' applications. After

a multi-hour meeting, the committee chooses the winners. The selection committee is solely responsible for choosing the fellows, though the winners are chosen to ensure a reasonable distribution of interest areas and schools.

If the fellowships were randomly allocated across the elite group of 35 finalists, our analysis would be quite straightforward. Due to the randomization, we would simply compare the outcomes for fellowship winners and other recipients and be done with it. Even though the selection process is not truly random, finalists are not demonstrably chosen because they are unmistakably likely to remain in public service or in the Boston area.

Of course, the finalists demonstrate interest in public service, and in the Boston area, simply by applying, and their enthusiasm for government and passion for public service undoubtedly contributes to their being chosen as finalists. However, because this is likely true of all the finalists, we are comfortable comparing the future career paths of fellows and runners-up. The finalists are all quite accomplished, and would likely thrive in the private or non-profit sectors as well as the public sector. Experience or interest in greater Boston is rarely discussed in the selection committee meeting. We do acknowledge that our comparison of fellows and runners-up is not perfect, it is the best available and we believe our results are useful and informative.

The Institute regularly maintains a database on fellowship winners, and since our first study in 2011, this database has been continuously updated. We have records on 179 fellowship winners who have been through the program since 2001. We are missing data on only two fellowship winners since that date. Of the remaining fellows, 141 currently have full or part-time jobs; 33 are still students; and 3 are in transition (e.g., they graduated in 2014 but, as best we know, do not have a job at this

time). We will not include students, fellows in transition, or the two missing fellowship winners in our analysis. Thus, though we do have data for the 2014 fellows and runners-up, these observations are dropped because they contain only students or those in transition.

Before performing the original analysis in 2011, the Institute did not maintain records on finalists who did not receive fellowship. In order to create a comparison group, we performed internet searches on the 185 finalists who did not receive fellowships since 2001. We were unable to find data on 16 finalists (or about 9 percent of the runners-up pool). Of the remaining runners-up, 131 currently have full or part-time work; another 38 are in school; and none are in transition. Though we are missing information for some of the runnersup, we do not believe this a problem. If, for instance, we were better at finding employment for people in the private sector, this would result in a bias induced by selective data collection. However, we believe that it is easier to find people who are working around Boston and easier to find people who are working in the public sector. Thus, any potential bias would likely be against the fellows program. For example, if we tend to miss finding the runners-up who work in the private sector, then it will look as if runners-up are more likely to work in the public sector. Overall, while it is true imperfect data collection is an issue, we doubt that it is driving our results.

Comparison of Fellowship Winners and Other Finalists

Mean Comparisons

Our first evaluation of fellowship winners and finalists is a simple comparison of the mean outcomes for each group. In the original 2011 study, we found that the former fellows had statistically significant higher (at 1 percent) mean than the runners-up for share currently in Greater Boston while working in public

service. At the time, almost 20 percent of former fellows were working in Greater Boston in the public sector as compared to 4.4 percent of runners-up. Additionally, former fellows had a statistically significant (at 5 percent) higher mean for currently working in the public sector. Forty percent of fellows were currently working in the public sector, as compared to 26 percent of runners-up. For this new study, we find that 34 percent percent of former fellows are currently working in the public sector, as compared to 22.1 percent of runners-up. This difference is statistically significant at the 5 percent level. As for those currently working in Greater Boston in the public sector, the share of former fellows is 14.9 percent and the share of runners-up is 9.2 percent. Unfortunately, this difference is not statistically significant.

We find that about 55 percent of former fellows work in the public sector at some point in their career, while only 36.3 percent of the runners-up do the same. This difference is highly statistically significant at the 1 percent level.

After further analysis of the data, we reasoned that it would be more useful to compare if former fellows and runners-up had ever worked in the public sector or in the public sector in Greater Boston over the course of their entire career, after receiving or applying for the Fellowship. We realized that a variety of factors may affect whether someone is currently in the public sector or in Greater Boston, such as the time since graduating, government budgets and hiring practices, the tendency for the nonprofit and public sector job markets to be closely intertwined, personal finance issues such as the need to repay loans or buy a home, the inability to find an opening in a particular area of interest or expertise, and so on. Thus, we decided

	M	eans	Difference	Probability that the means for the two groups are the same	Significance Level	
	Fellowship	No Fellowship	Fellowship-No Fellowship	p-value on dummy variable		
1. Public Sector	54.5%	36.3%	18.2%	0.2%	p<.01	
2. Boston	62.1%	59.3%	2.8%	60.8%		
3. Both	35.2%	19.3%	15.9%	0.3%	p<.01	

Table 1: Mean Comparison for Fellowship Recipients and Runners-Up Work in Public Sector, Boston or Both at Any Time After Fellowship

Note: These probability calculations contain a control variable for the fellowship year. Fellowships = 145 observations, No Fellowships = 135 observations. These calculations include the observation where the fellow or runner-up is **currently** a student or in transition, or if their current whereabouts are unknown, as long as they held a job sometime after applying for the fellowship.

that "working in the public sector ever" and "working in the public sector in Greater Boston ever" are better variables to use to compare the career trajectories of former fellows, as they better indicate a strong, long-term commitment to public service and the Greater Boston area.

As shown in Table 1, when we use our "ever" variables as outcomes, we find that about 55 percent of former fellows work in the public sector at some point in their career, while only 36.3 percent of the runners-up do the same. This difference is highly statistically significant at the 1 percent level. Additionally, we find that 35.2 percent of former fellows work in the public sector in the Boston area at some point in their career, as compared to only 15.9 percent of runners-up. This difference is also highly statistically significant at the 1 percent level. Unsurprisingly, given the location of the pool of schools the applications are drawn from, about 60 percent of both former fellows and runners-up work in the Boston area at some point in their careers.

Regression Results

Our mean comparisons did not include controls for individual characteristics, so we run a set of regressions that include a gender variable and a dummy variable for being a Harvard, MIT, Harvard Kennedy School (HKS), or non-HKS Harvard student at the time of the application. These regressions also include a dummy variable for being a former fellow and control for the fellowship year. Our outcome variables are binary (1 or 0), representing the individual ever working in the public sector or ever working in the public sector in Boston, so we estimate probit regressions which give us the marginal effects of each of the variables in the regression.

As shown in columns (1)-(5) in Table 2, we find that former fellows are about 18 percent more likely than runners-up to work in the public sector at some time in their career. This means that around 54 percent of former fellows work in the public sector at some point, while only 36 percent of runners-up do the same. Note that this coefficient is fairly consistent across the regression variations. The strongly negative coefficient on the non-HKS Harvard student indicator makes sense. Applicants from the Faculty of Arts and Sciences generally pursue positions in academia, while students from the School of Public Health and the Design School tend to go into the non-profit sector. Most MIT applications study at the Department of Urban Studies and Planning, which helps explain the strongly positive coefficient on this indicator.

Columns (6)-(10) show that there is really no difference between former fellows and runners up with regard to working in the greater Boston

Table 2: Regression Results: Fellows v. Non-Fellows Ever Working in the Public Sector, Staying in Boston, or Both

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Ever Working in the Public Sector				Staying in Greater Boston					Staying in Greater Boston and Working in the Public Sector					
Fellowship Indicator	0.183***	0.176***	0.184***	0.171***	0.171***	0.030	0.0145	0.0293	0.0337	0.0345	0.159***	0.144***	0.161***	0.146***	0.143***
	(0.00220)	(0.00348)	(0.00218)	(0.00482)	(0.00484)	(0.607)	(0.809)	(0.625)	(0.570)	(0.564)	(0.00290)	(0.00792)	(0.00256)	(0.00662)	(0.00828)
Fellowship Year	-0.0180**	-0.0205**	-0.0170**	-0.0187**	-0.0176**	0.0261***	0.0216***	0.0216***	0.0264***	0.0264***	0.00269	-0.00277	-0.000407	0.00230	0.00369
	(0.0311)	(0.0161)	(0.0452)	(0.0261)	(0.0360)	(0.00135)	(0.00965)	(0.00965)	(0.00120)	(0.00122)	(0.714)	(0.711)	(0.956)	(0.754)	(0.617)
Gender		0.0875	0.0661	0.0685	0.0822		-0.0909	-0.0773	-0.117*	-0.118*		-0.00709	-0.0126	-0.0390	-0.0245
Indicator (Male=1)		(0.171)	(0.303)	(0.282)	(0.195)		(0.150)	(0.226)	(0.0587)	(0.0584)		(0.900)	(0.824)	(0.481)	(0.661)
Harvard		-0.0909					-0.211***					-0.227***			
Graduate Student		(0.147)					(0.000481)					(4.22e5)			
Indicator		(0.147)					(0.000461)					(4.2265)			
HKS Student Indicator			0.510					-0.236***					-0.143**		
			(0.440)					(0.000271)					(0.0128)		
Harvard															
Graduate Student, Not				-0.199***					-0.00158					-0.148**	
HKS Indicator				(0.00833)					(0.983)					(0.0249)	
MIT Graduate					0.146*					-0.00626					0.198**
Student Indicator					(0.0853)					(0.940)					(0.0106)
Observations	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280

Notes:

- (1) Regression results are from a probit model, where the dependent variable is equal to 1 or 0.
- (2) Coefficients indicate marginal effects.
- (3) All regressions include a control for fellowship year.
- (4) Pvalues in parentheses (***p<0.01, **p<0.05, *p<0.1)
- (5)Pvalues are equal to the estimated probability that the variable has no effect.
- (6) These calculations include the observations where the fellow or non-fellow is currently a student or in transition, or if their current whereabouts are unknown as long as they held a job sometime after applying for the fellowship.
- (7) Means for Non-Fellows: Ever in Public Sector: 35.6%; Ever in Boston: 60%; Ever in Boston in the Public Sector: 19.3%

area. This is unsurprising, because it seems reasonable that graduates of Boston area universities would work in the area sometime after graduation. Harvard graduates (including HKS graduates) and well as HKS graduates alone both are less likely to work in the Boston area sometime after graduation. This may be because Harvard and HKS are more likely to draw graduate students from all around the world, and these graduates may leave the Boston area more readily after graduation.

Columns (11)-(15) show the former fellows are about 16 percent more likely to work in the public sector in Greater Boston at some point

in their career, meaning that about 35 percent of former fellows at some point work in the public sector in Greater Boston, as opposed to only 19 percent of runners-up. Both findings are statistically significant at the 1 percent level. Again, the MIT graduates are more likely to stay in the Boston area and work in public service, while all permutations of Harvard graduates students are less likely to do both.

Finally, we run a series of probit regressions with a dataset that contains an observation for each person-year pair. The dependent variable is 1 if the individual worked in public service (or public service in Greater Boston) for

that particular year, and zero otherwise. Our regressions include various controls, along with the dummy variable for being a former fellow. These regressions show (depending on controls) an approximately 16 percent marginal effect on years worked in the public sector for former fellows, and an about 9 percent marginal effect for years worked in public service in the Boston area for former fellows. Both of these are strongly significant at the 1 percent level. These final results, along with our other findings, confirm our belief that the Rappaport fellowship has a long lasting effect on the fellows' long-term dedication to public service and the Greater Boston area.

Our goal was to determine if the Rappaport Fellowship changes the trajectories of people's lives, and our analysis supports this theory. A relatively modest early investment seems to significantly tie people to greater Boston and to the public sector, and fosters a long-term commitment to public service and the Boston area.

Conclusion

Though our study is not perfectly randomized, and we are missing some information about the runners-up, we believe our results are compelling. Fellowship winners are about 18 percent more likely to work in the public sector at some point in their careers. They are also about 16 percent more likely to work in government in the Boston area at some point in their career.

Our results also assure us that the fellowship program does not subsidize people who typically later work in high-paying for-profit jobs afterwards. Only three-in-ten of our fellowship winners work in the private sector and many of these people work in firms that work closely with public-sector entities. Additionally, many of the fellows who work in non-profits work at entities that have strong connections to government agencies. Thus, the program certainly seems to be targeting recipients who are interested in serving in the public sector, perhaps because they are disproportionately likely to find the fellowship appealing.

This analysis does not aim to compare the Rappaport Public Policy Fellows program with any other interventions meant to encourage public service, nor does it intend to provide a cost-benefit analysis of the program. Our goal was to determine if the Rappaport Fellowship changes the trajectories of people's lives, and our analysis supports this theory. A relatively modest early investment seems to significantly tie people to greater Boston and to the public sector, and fosters a long-term commitment to public service and the Boston area.

ENDNOTES

- 1. http://www.hks.harvard.edu/content/download/68607/1247238/version/1/file/fellows_final.pdf. Parts of this update most notably Section II, which describes the history of the Rappaport Public Policy Fellows program draw from this original text.
- ^{2.} From 2001 to 2005, the fellowship was only open to students from graduate schools and programs at Harvard, MIT, Boston University, and Suffolk University. Since that time, the program is open to any graduate student studying in greater Boston and fellows have included students from Boston College, Brandeis, Northeastern, Clark, Tufts, UMass/Boston, and UMass/Dartmouth.
- ^{3.} From 2001 to 2005, the selection committee generally included advisory board members and representatives from some or all of the schools whose students were eligible for the fellowship, but not former supervisors or fellows.

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- "Greater Boston's Economy and the Entrepreneurial Age," by Edward L. Glaeser (Harvard University), Kristina Tobio (Taubman Center for State and Local Government) and Steve Poftak (Rappaport Institute for Greater Boston) February 2014.
- "Using Technology to Improve Transportation: All Electronic-Tolling and Beyond Conference Proceedings," (Rappaport Institute for Greater Boston and The Center for Strategic Studies at the D'Amore McKim School of Business at Northeastern University) October 2013.
- "Greater Boston's Economy: The Impact of College Quality on College Completion Rates," by Joshua Goodman (Harvard Kennedy School) September 2012.
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