

Research Article

Salience in Email Recruitment

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Abstract: Text reminders and mailed flyers with behaviorally informed messages are regularly used in public sector communication. Mass email blasts are another inexpensive option to communicate with target audiences. Evidence suggests that email recipients may have become habituated to “spam” in their email inboxes and frequently discard these messages before they read them. Thus, email may be less effective than other communication forms because they never reach their intended audience. Little research has been completed on the efficacy of these email messages, however. This study uses a randomized controlled trial to examine which email format, a letter with university logos signed by a university official or an informational flyer with a photograph, is the more salient option when recruiting for a teacher training program designed for diverse, underrepresented students. Our findings show that emails in the form of an official letter from university officials were more effective at increasing email openings and, subsequently, clicks on the program website link compared to email messages written as flyers. We also show that the initial emails sent in the fall were less successful at driving recipients to the information website than reminder emails sent around six weeks later. Messages that emphasized the long-term career opportunity of teaching were more successful at pushing recipients to open the follow-up message than those that highlighted the challenge of a career in teaching.

Keywords: Email recruitment, salience, framing

Introduction

Studies have shown that email messages can be cost-effective in marketing, fundraising, and political campaigns (Aufreiter et al, 2014; Gaynor & Gimpel, 2020; Hartemo, 2016; Turnbull-Dugarte et al, 2021). One potential concern regarding email messaging is that due to the ubiquity of listservs, email advertisements, and phishing scams, many email recipients have become accustomed to deleting emails from unknown sources without ever reading them (Kong et al, 2021, 2022). Such behavior may undermine the effectiveness of email recruiting efforts. While there is anecdotal evidence of the use of these tools in the public sector, there is very little evidence of their effectiveness in this domain.

This study reports results from a randomized controlled trial (RCT) of a mass email campaign to recruit diverse, underrepresented applicants for a training program for public sector jobs. We use a RCT to understand the importance of the form of the email for recipient engagement, which should not suffer from many of the endogeneity issues that plague observational studies. In particular, we test the salience of two email forms designed to increase the likelihood that the recipient downloads the complete recruitment email after seeing a preview of the message (opening) and the likelihood that the recipient will click a link to a website with additional information and a program application (clicking). We also test the effects of two different messages—one emphasizing career challenge and the other emphasizing long-term job security. Finally, we sent both an introductory email and a follow-up email about six weeks later. We can, therefore, determine if reminder emails are more effective for both opening and clicking.

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The number of people who plan to work in the public sector has declined considerably over the past few decades, and recruiting new teachers has been one of the biggest challenges (Light, 2000; Neal, 2016; Linos, 2018). Enrollment in teacher education programs has declined by 38 percent since 2009 (Pelika, 2022). The diversity of the public-school teaching workforce is also an issue. Pelika (2022) reports that 79 percent of teachers are White, yet less than 50% of the student population is White. Evidence suggests that having a racially diverse group of teachers within a school has benefits for all students (Bartanen & Grisson, 2023; Dee, 2004; Egalite, Kisida & Winters, 2015; Gershenson et al, 2022; Shirrell, Bristol, & Britton, 2023).¹ These findings are consistent with the representative bureaucracy literature, which suggests that the actions and behaviors of public bureaucrats are different based on the racial and ethnic match between the bureaucrat and their client. This literature shows that the greater the match, the better the service delivery and less discriminatory behavior that occurs (Grisson, Darling-Aduana, & Hall, 2023; Hong, 2017; Meier, 2019; Riccucci, Van Ryzin, & Jackson, 2018). Hiring teachers that better represent the student population depends on more applicants from underrepresented social groups.

The Syracuse University School of Education partnered with several school districts in the Syracuse, New York metropolitan area to recruit new teachers from underrepresented groups by establishing the Bal-danza Fellows Program (BFP). The BFP is designed for diverse, underrepresented candidates who are college graduates with majors in fields other than education. Admitted fellows are offered a full-tuition grant along with a \$5,000 stipend and must complete a 15-month curriculum culminating in a Master of Science (MS) degree in education. In return, once fellows graduate, they must teach for at least two years in a public school in the Syracuse area.

We sent approximately 6,000 potential BFP applicants one of two different forms of email: an official letter from Syracuse University including the university seal that was signed by the Dean of the School of Education and an email formatted as an informational flyer that included photos. Individuals also received one of two different message framings: a challenge frame appealing to those who want to pursue a challenging new endeavor, and a career frame appealing to those who may be looking for stable and long-term career prospects. Each email had a link to the BFP website, which included details on the program and a link to the application. We sent both an introductory email for the BFP and a follow-up email about six weeks later.

Our findings suggest that the emails in the form of an official letter are 15 to 17 percent more likely to be opened than emails that resemble a flyer. This is true for both the introductory email and the reminder email. The letter was also more effective at getting recipients to click on the link to the BFP website, but only for the reminder email. The official letter reminder email increased the likelihood of clicking by over 80 percent, relative to the flyer. The findings also demonstrate that messages that emphasized the long-term career opportunity of teaching were more successful at pushing recipients to open the follow-up message than those that highlighted the challenge of a career in teaching.

Literature Review

While there is little research on the use of email marketing in the public sector, it is a well-studied practice in the private sector. Hartemo (2016) reports that email marketing returns about four times as much sales revenue per dollar invested as direct mail marketing, and Aufreiter et al. (2014) show that email is 40 times more effective in new customer acquisition than advertising on Facebook and Twitter. Email marketing campaigns are also frequently and effectively used in political campaigns for small contribution fundraising (Gaynor & Gimpel, 2020) and political mobilization for lobbying (Turnbull-Dugarte et al, 2021).

While these studies suggest that emails can be a cost-effective tool, the low opening rate of bulk email is a significant barrier preventing recipients from receiving any intended message (Kong et al, 2021, 2022). According to the Data and Marketing Association (DMA, 2020), only 1 percent of customers respond to a sales email. Across 13 field experiments with email-based political campaigns, Nickerson (2007) found email opening rates vary between 5 and 20 percent, while Han (2016) showed that only 3 percent of the email recipients responded to emails in a political lobbying experiment.

E-recruitment, specifically communicating job and educational opportunities to potential candidates, has not been a focus of public sector recruitment research. The extant literature mostly focuses on structural issues in recruitment, such as the time burden of the recruitment process, complexity, inequality, job specificity,

and administrative burden (Linos, 2020; Hunt et al, 2020; Laird, 2017; Cal-ICMA, 2018; Clark et al, 2020; Partnership for Public Service, 2020) or with person-organization fit issues, such as the role of public service motivation, job fit, and reward fit (Asseburg et al, 2020; Ashraf et al, 2016; Kim, 2012; Christensen & Wright, 2011; Moynihan & Pandey, 2007). One recent study examined the use of digital communications in public sector programs focused on recruitment. Sanders & Kirkman (2019) tested the effectiveness of text messages in increasing attendance for recruitment events organized to help welfare participants find employment in the UK. They found that these texts increased attendance at employment fairs by as much as 22 percent. However, e-recruitment in the public sector might have less success due to the low opening rate.

The success of any email marketing campaign is determined, in part, by the open and click rate. Salience refers to any factor that attracts a decision-maker's attention automatically and involuntarily (Bordalo, Gennaioli, & Shleifer, 2022). Research has shown that changing the appearance of official or marketing communications can increase their salience and improve response rates. For instance, Castelo et al. (2015) improved the uptake of online services for license plate sticker renewals in Canada by over 40 percent by changing the color and text on the envelopes and the mailed form encouraging people to renew online.

In addition to the appearance of communications, the message framing of the communications also matters. Linos (2018), investigated a program designed to recruit racially diverse police candidates in Chattanooga, TN. There is an extensive literature showing that public sector workers are intrinsically motivated, meaning that they find relatively more value in work with opportunities to help community members than those who work in the private sector (Moynihan & Pandey 2008; Pandey & Stazyk 2008; Perry & Wise 1990). Linos tested if a recruitment campaign for diverse police candidates that highlights and frames public service motivation was more successful than a campaign highlighting the possibility of a challenging career and long-term career security. More specifically, she designed a color recruitment flyer with a photo of a police officer, which included public sector motivation messaging, e.g., "you can make a difference," as a comparison for messaging emphasizing a challenging career and career security. The career challenge and security messages more than doubled the likelihood that a diverse, underrepresented individual applied for a position in the police force relative to those who received the public sector motivation message. Similarly, Ashraf et al. (2016) found that career advancement framing in posters, again relative to public sector motivation, improved the candidate pool in a public health recruitment program in Zambia.

Methods

This study was designed to determine which of two email formats is more salient for potential BFP applicants, an official letter or a flyer. The letter and flyer emails contained identical information. The letter appeared more official, including a signature from the Dean of the School of Education and the use of the Syracuse University heritage logo at the beginning of the letter and the primary logo at the end. The flyer, on the other hand, was more colorful and included photographs and Syracuse University's primary logo at the beginning and the heritage logo at the end. The flyer was designed to reflect Syracuse University's marketing emails, utilizing the same color scheme, font, and inclusion of photos. See Figures A1 and A2 in Appendix A for illustrations of the two emails. Both emails were personalized addressing recipients by their first name. Each form of email included identical information on BFP benefits and the commitment to teaching, as well as a link that would connect the recipient to a program website with additional information and a button that would bring up an application. Linos (2018) shows that both challenge and career framing in the messages are equally effective. Not wanting to choose one over the other, we used both frames randomly assigning half of the respondents to receive a challenge frame ("Are you up for the challenge?"). The other half of the messages had a career frame ("Are you looking for a long-term career?"). While the Linos study suggests that both forms of message are equally successful, our research design will allow us to test that hypothesis in a different context.

To create an applicant pool, we compiled an email list of 7,635 persons from diverse, underrepresented backgrounds from eight different sources (blocks), including a list of Syracuse University seniors and recent alumni, an NGO in Syracuse that works with disadvantaged students studying in higher education institutions, and other local programs targeting diverse, underrepresented students interested in higher education. We were granted permission to use their email address and first and last names for the individuals. We do not

have any other demographic information for the complete set of respondents in the applicant pool, although we do have racial/ethnic information for a subset of 2,006 of the email recipients.

We used a balanced 2X2 factorial design (letter/flyer format X challenge/career message). To ensure balance, we randomized within the eight different recruitment lists (by block) randomly assigning one-fifth of the respondents to each of the letter mode with a career message, the letter mode with a challenge message, a flyer with a challenge message, and the flyer with a career message. The last fifth was assigned to a control group that did not receive messages; therefore, for the purposes of this study, we excluded them.² Three of the four treatment arms had 1,527 individuals. The fourth had 1,526 (N=6,107). We lost 318 cases due to incorrect email addresses or closed accounts, which we learned of when the emails bounced back. We sent the emails to the list of potential applicants on November 18, 2021, at 10:00 am ET (n=5,811). The subject line on the emails was “Baldanza Fellowship Program.”

We also submitted a reminder email at 11:00 am ET on January 03, 2022 (n=5,789).³ This reminder duplicated the original email but had a short paragraph before the message from the Associate Director of Admissions and Recruitment reminding them of the program and the deadline (see Figures A3 and A4 in the Appendix A for illustrations of the reminder emails). We sent the reminder emails on this date to give a recipient sufficient time to complete the application by the January 15th deadline. Figure A5 in Appendix A shows the timeline and steps of the RCT in detail.

The primary goal of the email campaign was to drive potential applicants to a link embedded in the emails that brought them to the BFP website with more detailed information and a button that allowed them to apply for the BFP. However, in order for one to click the embedded link, they had to first open the email, which, as explained earlier, is often deleted without being read. Many email services, such as Outlook or Google, have a preview panel that lets the reader see a portion of the email (which often includes the subject line) but does not include images from the email to protect recipients from potential viruses or phishing scams. We used the email service provider Mailchimp to coordinate our email delivery and track outcomes. To determine open rates for an email campaign, Mailchimp loads a tiny, transparent image into each campaign, and counts how often the image is downloaded among the delivered campaigns. The image is invisible to the recipient.⁴ Thus, many recipients will see the format of the email without downloading the images and therefore, not be counted as an “open.” It is only when the recipient requests that the images be downloaded, that Mailchimp (and in turn the research team) counts the email as being opened. Thus, the form of the email (official letter or flyer) can influence the decision to download all images, i.e., open the email. Again, we use opening the email message as another important outcome in this study (Kumar & Salo, 2018; Bilos et al, 2016; Bonfrer & Dreze, 2009).⁵ See Appendix B for detailed descriptions of the email opening outcome with illustrations.

To estimate the impact of the email format, we estimate the following linear probability model:

$$(1) \quad y_i = \beta_0 + \beta_1 L_i + \mathbf{S}_i \gamma + \varepsilon_i.$$

We investigate two binary outcomes (y). The first is set to one if the respondent opened the email, zero otherwise. The second is set to one if the respondent clicked a link in the email directing them to the program website, zero otherwise. $\mathbf{S}$ is a vector of dummies to control for the blocks within which each individual was randomized as advocated by Glennerster & Takavarasha (2013). We report two models. In the first model, we set $L = 1$ if the individual received a letter rather than a flyer, which tells us the average treatment effect for a letter relative to the flyer. In Model 2, we asked if the challenge message was different from the career message regardless of email form. More specifically, we estimate the following model which is only different from model 1 in that we use a dummy for a challenge frame (CH).

$$(2) \quad y_i = \delta_0 + \delta_1 Ch_i + \mathbf{S}_i \theta + \varepsilon_i.$$

We also report results for the first email message and the reminder email separately. We cluster all standard errors at the block level for all models.

Balance Tests

In order for this field experiment to provide unbiased estimates of the intent to treat, it is important that we have balance between those assigned to the letter and those assigned to the flyer groups. Unfortunately, we do not have demographic information for most of the individuals in the study. However, we do have an email address for all of the study subjects. We parsed all of the email addresses we had by host name. Of the 6,107 email addresses, 45 percent ($n=2,752$) were gmail.com addresses, which was the modal host name in the study. Given that we targeted both Syracuse University seniors and alumni, the next largest group, nearly 26 percent ($n=1,587$), had a syr.edu address followed by 14.7 percent who had a yahoo email address ($n=899$). Of the 869 remaining addresses, there were over 40 different email host names, none of which constituted more than 2.5 percent of the sample, and the frequency of most of the host names was in the single digits. Therefore, we combine all of the remaining email addresses into one group called “other” giving us four different email groups. If randomization was successful, we expect to see an even distribution of host names across the letter and flyer groups.

Table 1 reports balance tests for the host names by treatment status (letter vs. flyer) using all of the respondents we randomized. We used a t-test to determine if there is a statistically significant difference in the distribution of the host names across the message modalities and report the p-value for that test.

Table 1: Balance Test of Full Sample by Treatment Status (Letter vs. Flyer)

Email	Letter	Flyer	t-test of no difference (p-value)
@gmail.com	0.443	0.458	0.253
@syr.edu	0.259	0.261	0.832
@yahoo.com	0.151	0.143	0.409
Other email	0.147	0.138	0.291
Sample size (n)	3054	3053	

Of the 6,107 that were randomly assigned, 318 bounced back either in the initial or the follow-up email blast. Table 2 shows results from a balance test from the analytic sample (the set of people who had an email address that did not bounce back). Tables 1 and 2 suggest that randomization was successful for the letter and flyer treatments.

Table 2: Balance Test of Analytic Sample by Treatment Status (Letter vs. Flyer)

Email	Letter	Flyer	t-test of no difference (p-value)
@gmail.com	0.463	0.477	0.276
@syr.edu	0.272	0.275	0.805
@yahoo.com	0.124	0.117	0.366
Other email	0.141	0.132	0.296
Sample size (n)	2897	2892	

We also ran balance tests by racial/ethnicity for the 2,006 respondents for whom we have a race/ethnicity measure from the full sample and the 1,968 in the analytic sample. Among the analytic sample, our results suggest balance in all groups with the exception of the White group; However, for this group, we only had 12 respondents. We report the complete set of results from these tests in appendix C.

As an additional test, we planned to use the predictrace algorithm in R to predict a race and gender for cases missing those variables and then test the balance for these variables as well. Because we had some actual data to assess the accuracy of the predictions of race made by the algorithm, we learned that algorithm was only correct about 45 percent of the time. We chose not to report results from this algorithm based on the high error rate.

Results

Table 3 provides estimated effects on email opening for the first recruitment email sent in November and a reminder email sent in January. The first column shows that 26.9 percent of recipients who received the flyer email opened the first email. Letter recipients were 4.1 percentage points more likely to open the email, a statistically significant 15.2 percent increase.

Table 3: Estimated Effects on Email Opening

	First Email Invitation (November)		Reminder Email (January)	
	Model 1	Model 2	Model 1	Model 2
Letter	0.041** (0.008)		0.047** (0.020)	
Challenge		-0.008 (0.007)		-0.021** (0.007)
N	5,810		5,789	
Mean open rate for (comparison group)	0.269 (flyer)	0.292 (career)	0.279 (flyer)	0.313 (career)

Notes: ** $p < 0.01$, * $p < 0.05$; clustered standard errors in parentheses; All models contain controls for blocks.

In Model 2, we compare the challenge message frame to the career message frame. Around 29 percent of those who received the career message opened the email. There was no statistically significant difference for those who received the challenge frame.

We find similar results for the email format for the reminder message. In this case, the letter messages were 4.7 percentage points more likely to be opened, a 17 percent increase. Interestingly, the challenge message (Model 2), was 2.1 percentage points less likely to be opened than career message, a 6.7 percent decrease.

In Table 4, we report estimated effects on clicking the link for additional information on the BFP. For the first email sent in November, we do not see statistically significant differences by format. About 3 percent of respondents clicked on the link for the flyer, and we observe no difference for those who received the letter. We also see no difference in the click rate for those who received the challenge message compared to those who received the career message. However, we do observe a difference in clicking on the link in the reminder email. About 2.5 percent of recipients of the reminder email who received a flyer clicked on the link. Those who received a letter were 2.1 percentage points more likely to click on the link, an 84 percent increase.

Table 4: Estimated Effects on Clicking Link for More Information

	First Email Invitation (November)		Reminder Email (January)	
	Model 1	Model 2	Model 1	Model 2
Letter	0.004 (0.005)		0.021** (0.005)	
Challenge		-0.001 (0.002)		0.001 (0.002)
N	5,810		5,789	
Mean click rate for (comparison group)	0.028 (flyer)	0.031 (career)	0.025 (flyer)	0.034 (career)

Notes: ** $p < 0.01$, * $p < 0.05$; clustered standard errors in parentheses; All models contain controls for blocks.

In Model 2, we find that 3.4 percent of those who received the career message clicked on the link. We see no difference in response for those who received the challenge message.

Block Descriptions

The study subjects from different blocks vary in terms of their association with Syracuse University and stage of their career search process. Thus, one might ask if most of the opening and clicking is occurring in particular blocks. Table 5 provides open and click rates by block group. From the table one observes that there is variation in opening and click rates by block. In the last column, we report if the list primarily included seniors in college. This information suggests that the greatest responses in terms of opening and clicks do come from college seniors who are likely considering future career options.

Table 5: Outcome Measures by Block Group

Block	First Email Open	First Email Click	Reminder Email Open	Reminder Email Click	Sample Size	Email List Primarily of Seniors
1	0.386	0.012	0.335	0.020	254	No
2	0.129	0.018	0.107	0.009	225	No
3	0.500	0.105	0.395	0.158	38	Yes
4	0.196	0.025	0.189	0.019	942	No
5	0.304	0.042	0.295	0.060	332	Yes
6	0.143	0.010	0.133	0.014	210	No
7	0.400	0.133	0.433	0.133	30	Yes
8	0.319	0.034	0.350	0.039	3,758	No
Total	0.289	0.031	0.303	0.035	5,789	

Discussion and Conclusion

Email, a cost-effective marketing tool in the private sector, may be beneficial in public sector marketing. This study considers and tests which form of email communication is more salient for recruiting future teachers from diverse, underrepresented backgrounds to an education master's program: a formal letter from the dean of the School of Education or an informational flyer with images. Our results suggest the formal letter is much more effective.

The overall rate of email opening in the study sample was around 28.9 percent for the first email and 30.3 percent for the reminder. The click rate for the embedded link was 3.1 percent for the first email and 3.5 percent for the reminder. This compares favorably to the e-commerce industry which has a 21.3 percent open rate and a 2.6 percent click rate (Mailchimp, 2019). Across 13 field experiments on email based political campaigns - many of which are with university students, Nickerson (2007) reported an email opening rate between 5 percent and 20 percent. In this field experiment, we emailed students from the region, many of whom had an existing affiliation with the university, which likely improved open rates. However, our findings provide some evidence that public sector mass emailing should be at least as effective as its use in the e-commerce industry or political campaigns.

For our email designs, we personalized the messages and used important message framing found to work in Linos (2018). Our study suggests four additional findings. First, if one is going to use mass emails as a recruitment tool, a more formal or official email with appropriate logos and even signatures from persons of authority are likely to generate greater responses than a flyer. Second, we show the importance of reminders in the context of email-based recruitment. We saw substantially higher response rates on the reminder email for clicking than the initial email blast. There are three possible explanations for this difference. It is plausible that there is a repetition effect. Recipients may not have opened the email the first time being unfamiliar with the new Baldanza program. At the receipt of the reminder email, even if they did not consciously recall the name, they may be more willing to learn more about the BFP. Also, the reminder email was distributed after the winter break. Students, particularly recent alumni and college seniors, may have had time to think about their future plans over the holiday and become more willing to investigate this option once they returned. Finally, and closely related, the reminder may have helped them overcome any tendency to procrastinate given the closer proximity between the email delivery date, their graduation date, and the application deadline. Future research might shed light on the importance of these three alternatives and potential interactions between them.

Third, unlike Linos (2018), we do see some evidence that the career-oriented message may have been more effective, at least for the follow-up email, at driving recipients to open the email. Our final additional finding, perhaps unsurprisingly, shows that seniors in college will be more responsive to graduate opportunities than those who have already graduated.

The study does have several limitations. Because we did not have a complete set of demographic variables on study subjects, we can provide few tests that randomization achieved balance across treatment groups. We used the email host names and found balance on this measure. Clearly, our results are dependent on random assignment to treatment. The evidence we have suggests that we do have balance, but it is limited.

One might also worry that our measure of “opening an email” has measurement error, and it is impossible to know if that error is classic. We believe that our definition of opening for the majority, and perhaps, the vast majority of respondents, occurs when they download the images from the email. However, there are so many email platforms and security settings, that it is difficult to understand exactly what opening an email means for everyone. Again, our interpretation of the salience of the message depends on respondents seeing a preview of the message and being more likely to download images when they receive the letter version.

Finally, these emails targeted diverse, underrepresented individuals from one particular region of the country to a specific teacher development program at a private university. It is difficult to measure the external validity of this study both in terms of the region of the country as well as if it is appropriate for the majority of students. Responses may differ for other programs and other targeted outreach.

Notes

1. Diversity in the teaching workforce has a positive impact on student learning outcomes and disciplinary behaviors not only among students from minority groups but, more broadly, across students regardless of race/ethnicity. Bartanen & Grissom (2023) find that when schools with a high proportion of Black students have a Black school principal, the hiring and retention of Black teachers increases. This increased matching between teacher-student race/ethnicity improves students’ learning in math. Using Tennessee’s STAR randomized experiment data, Dee (2004) shows that when students and teachers are of the same race, math and reading scores improve for both Black and White students. Egalite et al. (2015) extends Dee’s finding for other races and finds similar improvements for reading and math scores. Gershenson et al. (2022) show that when students are paired with teachers from the same race, college attendance increases and dropping out of high school declines. Shirrell et al. (2023) find that racial/ethnic matching between teachers and students decreases the likelihood of disciplinary suspension for Black and Latinx students.
2. The experiment was also designed to measure the number of applications received for the program. We, therefore, included a control group to determine if there was a treatment effect of any of the treatments on applications. In the first year, only five individuals applied for the Baldanza program, which did not have the power necessary to determine if there was an application effect of the messaging.
3. The sample size was slightly smaller for the reminder email due to several inactive emails on the list we learned about after submitting the first email.
4. If the recipient has images turned off, Mailchimp will not register it as “opened.”
5. We cannot observe the likelihood of previewing the message for each respondent; our software only allowed us to know if the recipient opened the email and Mailchimp was able to register that the tiny image they include in each campaign was downloaded.

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Appendix A: Images of Emails and Timeline

Figure A1: Letter with Challenge Framing

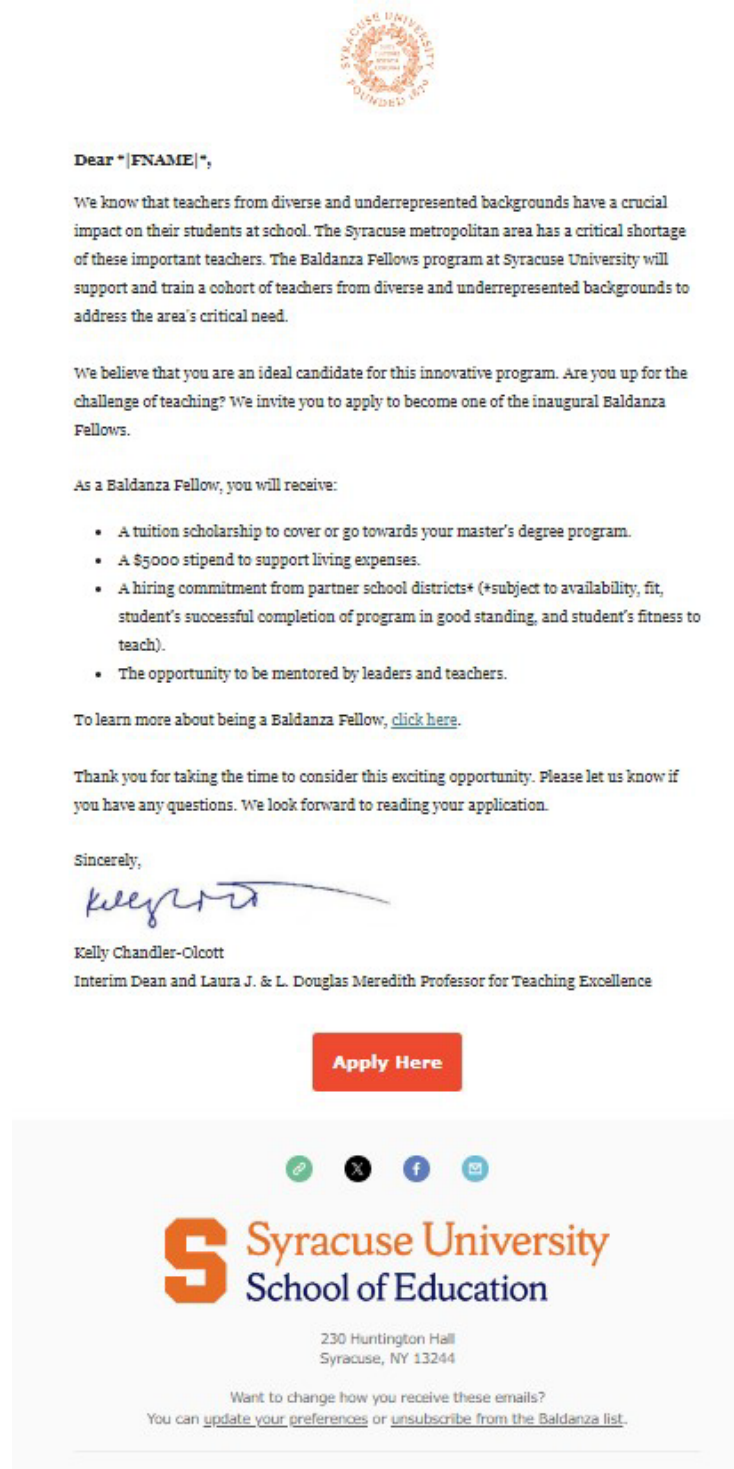


Figure A2: Flyer with Career Framing



Dear *|FNAME|*,

We know that teachers from diverse and underrepresented backgrounds have a crucial impact on their students at school. The Syracuse metropolitan area has a critical shortage of these important teachers. The Baldanza Fellows program at Syracuse University will support and train a cohort of teachers from diverse and underrepresented backgrounds to address the area's critical need.

**We believe you are an ideal candidate for this innovative program.
We invite you to apply to become one of the inaugural Baldanza Fellows!**

**Looking for
a
long-term
career?**



As a Baldanza Fellow, you will receive:

- A tuition scholarship to cover or go towards your master's degree program.
- A \$5000 stipend to support living expenses.
- A hiring commitment from partner school districts* (*subject to availability, fit, student's successful completion of program in good standing, and student's fitness to teach).
- The opportunity to be mentored by leaders and teachers.

To learn more about being a Baldanza Fellow, [click here](#)

Thank you for taking the time to consider this exciting opportunity. Please let us know if you have any questions. We look forward to seeing your application!

Apply Now!





230 Huntington Hall
Syracuse, NY 13244

Want to change how you receive these emails?
You can [update your preferences](#) or [unsubscribe from the Baldanza list](#).

Figure A3: Reminder Letter with Career Framing



Figure A4: Reminder Challenge Flyer



Application Deadline: January 15th

Dear *[FNAME]*,

We know that teachers from diverse and underrepresented backgrounds have a crucial impact on their students at school. The Syracuse metropolitan area has a critical shortage of these important teachers. The Baldanza Fellows program at Syracuse University will support and train a cohort of teachers from diverse and underrepresented backgrounds to address the area's critical need.

**We believe you are an ideal candidate for this innovative program.
We invite you to apply to become one of the inaugural Baldanza Fellows!**

**Are you up
for the
challenge?**



As a Baldanza Fellow, you will receive:

- A tuition scholarship to cover or go towards your master's degree program.
- A \$5000 stipend to support living expenses.
- A hiring commitment from partner school districts* (*subject to availability, fit, student's successful completion of program in good standing, and student's fitness to teach).
- The opportunity to be mentored by leaders and teachers.

To learn more about being a Baldanza Fellow, [click here](#)

Thank you for taking the time to consider this exciting opportunity. Please let us know if you have any questions. We look forward to seeing your application!

Apply Now!

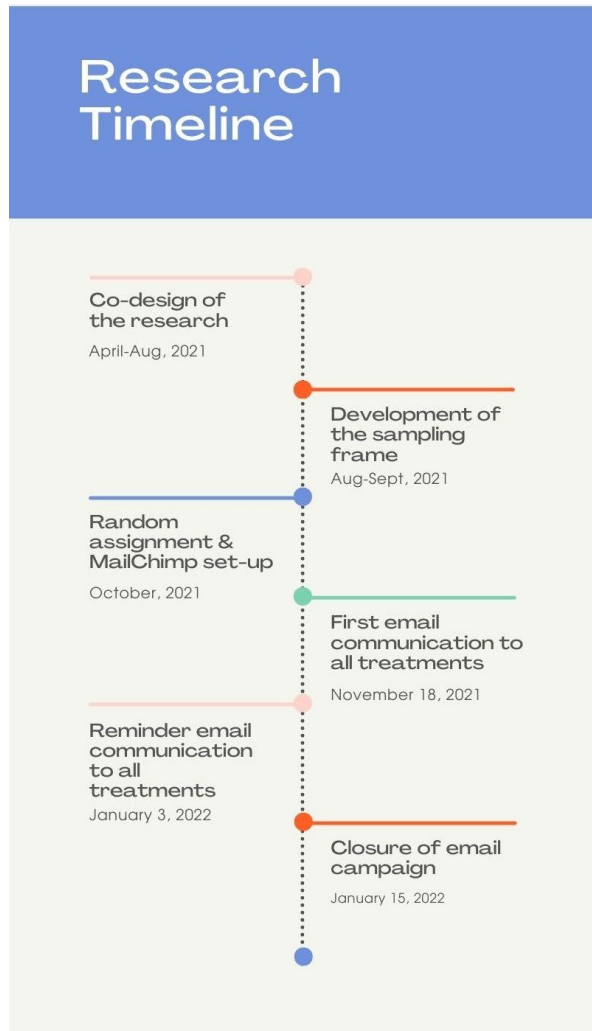




230 Huntington Hall
Syracuse, NY 13244

Want to change how you receive these emails?
You can [update your preferences](#) or [unsubscribe from the Baldanza list](#).

Figure A5



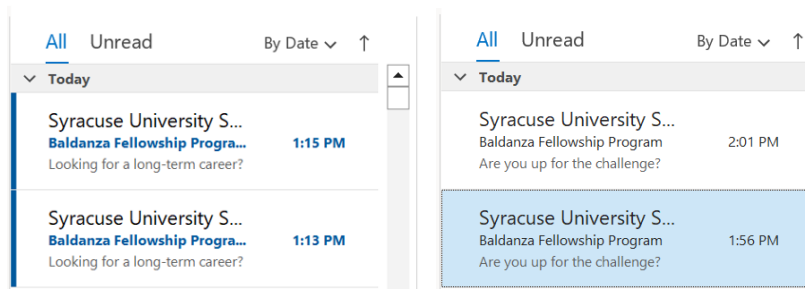
Appendix B: Counting Email Openings

Before submitting any emails, we created a generic email address to use as the source of the email, which had a syr.edu suffix. Given its origin domain, these emails were not filtered into a spam folder for Syracuse University students.

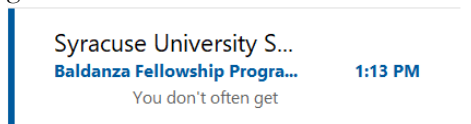
It is important to keep in mind that individuals can change their settings on their software so that it is nearly impossible to know universally what will happen to our emails. However, in our testing of email addresses with different host names (i.e., outside of Syracuse University), our email was not filtered into a spam folder for Gmail addresses. However, it did end up in the junk mailbox for a Hotmail address.

The interface with which the individual observes the email in their inbox can differ as well. In our testing, the emails appear in the recipient's inbox as follows:

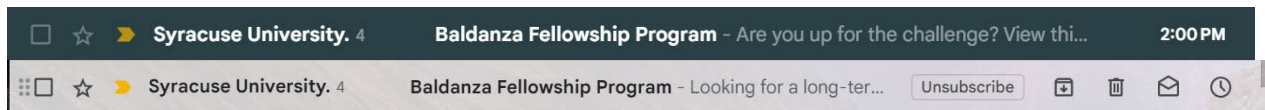
1. Outlook: there is no difference between the letter or the flyer before opening the email. The only difference is in the preview text for challenge vs. career framing.



However, for an email address that has not received a message from the syr.edu host in the past, the inbox does not show the preview text either. Instead, software provides a message that the individual doesn't often get emails from this address.

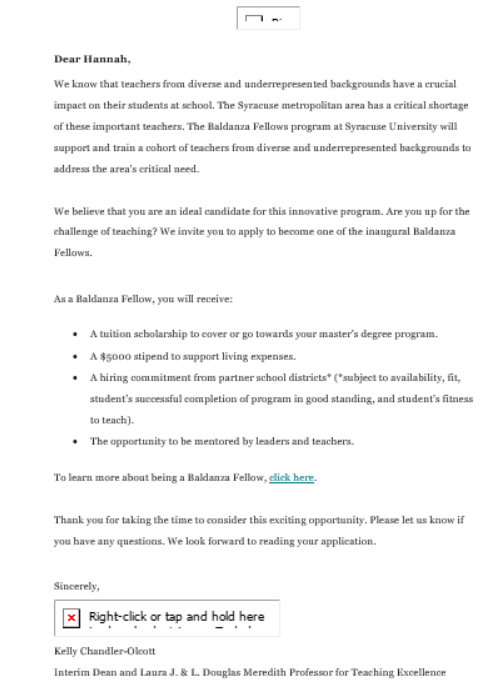


2. Gmail: there is no difference between the letter or the flyer before opening the email except for the preview text.

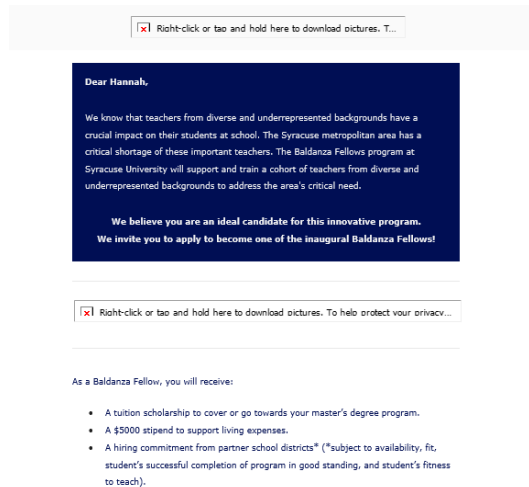


Once the email is opened by the user, it looks as follows in Outlook:

1. Letter:



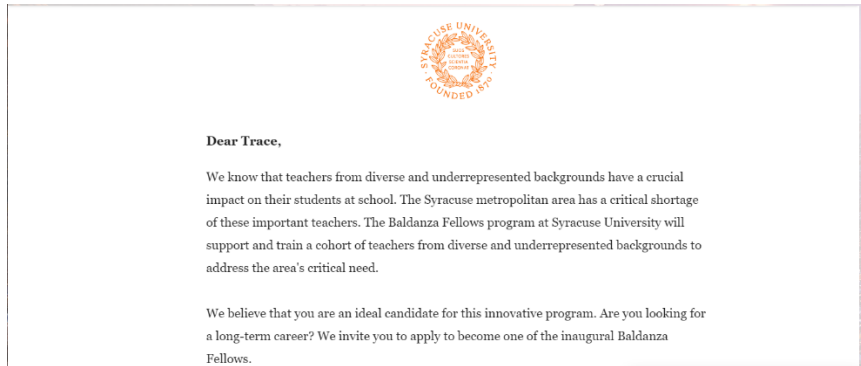
2. Flyer



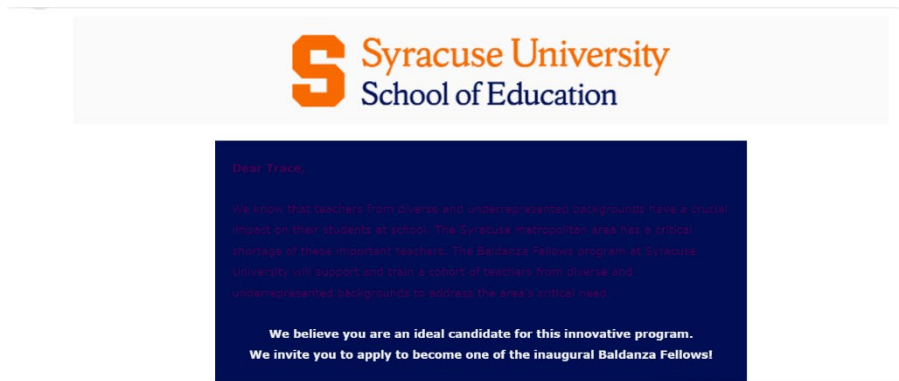
To manage our email account, we used the email software management system Mailchimp. To determine open rates for the email campaign, Mailchimp loads a tiny, transparent image into each campaign, and counts how often the image is downloaded among the delivered campaigns. The image is invisible to the recipient. However, this open rate tracking relies on an image being downloaded. If the recipient has images turned off, Mailchimp will not register it as “opened.” Once the recipient actually downloads the images in the message, it will be counted as “opened” by Mailchimp. This is the definition we use for the outcome “opened.” In the illustrations above, the emails have not been downloaded, and we would not count this email as having been opened even though people have a pretty extensive preview of it. Having seen the preview, recipients can choose to download the images, at which point Mailchimp registers the email as having been opened, and we would have counted the email as opened.

In Gmail, the start of the email looks like the following:

1. Letter



2. Flyer



In Gmail, the default setting is to automatically download images. However, you can go into settings and change it to turn off auto image loading. For Outlook and Hotmail, the flyer is in white font, but in Gmail the first bit of text in the flyer is barely visible in orange.

Appendix C

We do not have completed race/ethnicity information for the entire sample, but we do have it for 2,006 individuals in the original pool. While this information is incomplete, we can check for balance among this group as well. Admittedly, this is a selected sample, but offers a second balance test for both the full and analytic sample. (The analytic sample does not include the race/ethnicity variable values from the email addresses that bounced back). Note that these results can be interpreted as tests of randomization only if we assume that the race/ethnicity variable is missing completely at random across treatment groups, which is a strong assumption.

Table C1: Balance Test of Reported Race/Ethnicity for Full and Analytic Sample by Treatment Status (Letter vs. Flyer)

	Full sample			Analytic sample		
	Letter	Flyer	t-test (p-value)	Letter	Flyer	t-test (p-value)
American Indian	0.009	0.015	0.207	0.009	0.015	0.209
Asian	0.401	0.380	0.330	0.401	0.382	0.378
Black	0.250	0.243	0.715	0.247	0.241	0.771
Hispanic	0.092	0.116	0.076	0.092	0.114	0.103
White	0.003	0.009	0.079	0.003	0.009	0.079
Multiple races	0.245	0.237	0.672	0.248	0.238	0.615
Sample size for race/ethnicity	1009	997		989	979	
Missing race/ethnicity	0.670	0.673	0.834	0.659	0.661	0.818
Sample size for missing	3,054	3,053		2,897	2,892	

For the full sample, we see balance with the exception of Hispanic and White variables. If one uses the analytic sample as our basis for randomization, we seem to have balance for every variable except the White, which has very few observations ($n=12$) given that the requested lists were supposed to be diverse, underrepresented students. We also have balance by missingness, i.e., the observations that did not have a reported race/ethnicity are balanced across the letter and flyer treatments.

We also report treatment effects on opening and clicking for the Black ($n=480$), Asian ($n=773$), Hispanic ($n=204$), and multiple race ($n=478$) respondents in this appendix. We do not report for White ($n=12$) and American Indian ($n=24$) given the small sample sizes. Again, it is important to emphasize this is a sub-sample and was not collected randomly potentially leading to sample-selection biases. Given the small sample sizes, estimates for specific racial groups are a bit noisy. Perhaps the most suggestive results are the relatively large estimated effects of the letter format on opening and click rates among Hispanic recipients.

Table C2: Estimates for Email Opening by Race/Ethnicity

Black

	First Email Invitation (November)		Reminder Email (January)	
	Model 1	Model 2	Model 1	Model 2
Letter	0.082 (0.038)		0.011 (0.033)	
Challenge		0.051* (0.020)		0.021 (0.022)
N	480		480	
Mean open rate for (comparison group)	0.195 (flyer)	0.213 (career)	0.208 (flyer)	0.202 (career)

Asian

	First Email Invitation (November)		Reminder Email (January)	
	Model 1	Model 2	Model 1	Model 2
Letter	-0.020 (0.013)		-0.016 (0.021)	
Challenge		0.026 (0.027)		-0.011 (0.031)
N	773		771	
Mean open rate for (comparison group)	0.198 (flyer)	0.176 (career)	0.173 (flyer)	0.174 (career)

Hispanic

	First Email Invitation (November)		Reminder Email (January)	
	Model 1	Model 2	Model 1	Model 2
Letter	0.151 (0.086)		0.131** (0.037)	
Challenge		-0.022 (0.036)		0.046 (0.040)
N	204		203	
Mean open rate for (comparison group)	0.204 (flyer)	0.276 (career)	0.214 (flyer)	0.245 (career)

Multiple

	First Email Invitation (November)		Reminder Email (January)	
	Model 1	Model 2	Model 1	Model 2
Letter	0.034 (0.022)		-0.030* (0.011)	
Challenge		-0.039 (0.034)		-0.070 (0.058)
N	478		478	
Mean open rate for (comparison group)	0.240 (flyer)	0.280 (career)	0.270 (flyer)	0.288 (career)

Notes: ** p<0.01, * p<0.05; clustered standard errors in parentheses; All models contain controls for blocks.

Table C3: Estimates for Clicking Link for More Information by Race/Ethnicity

Black

	First Email Invitation (November)		Reminder Email (January)	
	Model 1	Model 2	Model 1	Model 2
Letter	0.023* (0.007)		0.034 (0.023)	
Challenge		0.011 (0.026)		0.006 (0.009)
N	480		480	
Mean open rate for (comparison group)	0.025 (flyer)	0.032 (career)	0.017 (flyer)	0.032 (career)

Asian

	First Email Invitation (November)		Reminder Email (January)	
	Model 1	Model 2	Model 1	Model 2
Letter	-0.015* (0.005)		0.019 (0.011)	

Challenge		0.013* (0.004)		0.005 (0.005)
N	773		771	
Mean open rate for (comparison group)	0.024 (flyer)	0.011 (career)	0.011 (flyer)	0.019 (career)

Hispanic

	First Email Invitation (November)		Reminder Email (January)	
	Model 1	Model 2	Model 1	Model 2
Letter	0.003 (0.041)		0.048* (0.022)	
Challenge		0.020 (0.018)		-0.003 (0.016)
N	204		203	
Mean open rate for (comparison group)	0.035 (flyer)	0.020 (career)	0.009 (flyer)	0.031 (career)

Multiple

	First Email Invitation (November)		Reminder Email (January)	
	Model 1	Model 2	Model 1	Model 2
Letter	-0.023 (0.009)		0.024 (0.011)	
Challenge		-0.020 (0.011)		-0.008 (0.015)
N	478		478	
Mean open rate for (comparison group)	0.043 (flyer)	0.042 (career)	0.021 (flyer)	0.038 (career)

Notes: ** p<0.01, * p<0.05; clustered standard errors in parentheses; All models contain controls for blocks.