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2 **Title:** Effectiveness of a network Open House model to recruit trainees to post-baccalaureate STEM programs

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51  
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54

## 55 Abstract

56 Post-baccalaureate (post-bac) programs can be instrumental in strengthening science training and expanding  
57 STEM career opportunities for junior trainees. Many of these sponsored programs are designed to increase  
58 research exposure for underrepresented minorities, including African American, Hispanic, Native American, and  
59 first-generation college students, among others. Recruiting trainees to post-bac programs can be challenging for  
60 reasons including a lack of awareness about available programs. To address this gap, an Open House event  
61 was created with the goal of raising awareness and generating interest among potential students for future post-  
62 bac programs. Students were recruited from partnering Minority Serving Institutions (MSIs) to attend a two-day  
63 event at a Primarily Undergraduate Institution (PUI) and a Research-Intensive (R1) institution. During the visit,  
64 students toured both campuses, learned about various post-bac programs and research opportunities, and  
65 interacted with faculty, current graduate students, and a former post-bac scholar. Transportation, lodging, and  
66 meals were provided. Participants completed voluntary pre- and post-surveys. Results indicated that attendees,  
67 the majority of whom were underrepresented minorities in STEM, left with a stronger understanding of post-bac  
68 programs and how these experiences could support their future careers in STEM and that students' attendance  
69 at the event made it more likely they would apply to available post-bac programs. Mentor and MSI faculty survey  
70 responses highlighted their strong support for participating in future recruitment events. These findings  
71 demonstrate that in-person Open House events, built on collaborative partnerships across institutions, are an  
72 effective strategy for increasing awareness and encouraging participation in post-bac training programs—  
73 particularly among underrepresented student populations.

## 74

## 75 Introduction

76 Starting a career in science depends on extensive hands-on experience. For many, laboratory research  
77 experience begins in their high school or undergraduate education, but for others, obligations outside the  
78 classroom prevent them from experiencing bench research firsthand. This challenge is often observed with  
79 students who identify as underrepresented minorities in science or who have come through a community college  
80 system (1, 2), and it can limit individuals belonging to these groups from obtaining the lab research experience  
81 necessary for graduate programs or employment in science, technology, engineering, and mathematics (STEM)  
82 careers. For example, graduate schools look for meaningful research experience in their candidates. In many  
83 programs, matriculating graduate students are years past their undergraduate education (3), giving them time to  
84 obtain relevant research experience that they might not have had the opportunity to pursue while working towards  
85 their bachelor's degree. Developing opportunities for students to gain experience after their undergraduate  
86 training is central to recruiting a diverse, balanced population to the STEM workforce, but many of those who  
87 would benefit most from these opportunities may be unaware of their existence or benefits underscoring the  
88 need for targeted outreach and accessible pathways into research training.

89 Post-baccalaureate (post-bac) programs are one to two-year funded, research-intensive training experiences  
90 designed to prepare trainees for graduate school and STEM careers. For example, the National Institutes of  
91 Health (NIH) Postbaccalaureate Research Education Program (PREP) program was established in 2000 to  
92 support post-bac trainees at a variety of research institutions across the country (4). This program evolved new  
93 strategies to promote readiness for STEM graduate school (5, 6) and has been incredibly successful. Of recent  
94 PREP scholars, 65-97% enter graduate school programs, and Ph.D. completion rates are > 65% above the rates  
95 reported for underrepresented groups in the life sciences (6-8). The American Cancer Society (ACS) and  
96 National Science Foundation (NSF) also developed post-bac programs with similar structural models (9, 10)  
97 reflecting a critical role these programs play in supporting research training for individuals historically  
98 underrepresented in science. While a funded research experience outside of schooling promises more  
99 opportunity to recruit a breadth of students from a wide demographic, but a persistent challenge faced by post-  
100 bac programs is how to reach trainees who may not be familiar with the benefits of these programs or who do  
101 not have access to established pathways leading to a successful STEM career.

102 An Open House event invites candidate trainees on site to introduce a program and present opportunities  
103 available to them. Although traditionally associated with K-12 or undergraduate recruitment, these events are  
104 inherently flexible and can be effectively adapted to support recruitment at the later stages of the educational  
105 pathway. by design and can be impactful well past the traditional K-12 use of such events. Targeted, personal  
106 Open House-like events can be helpful in recruiting individuals from specific demographics, like those who  
107 identify as female and African Americans (11). Students considering various undergraduate programs also have  
108 identified Open House events as an effective recruiting tool (12). Universities note that Open House events are  
109

111 a chance to present a positive image to visitors (13). Open Houses are a chance for real human connection,  
112 which can showcase the advantages of an educational program to groups of people missed through other  
113 advertising campaigns.

114  
115 In this study, an Open House event was developed to introduce the benefits of post-bac programs, with an  
116 emphasis on reaching students from groups underrepresented in the biological sciences (14) with little previous  
117 research experience. Faculty and students from Research-Intensive Institutions (R1s), Primarily Undergraduate  
118 Institutions (PUIs), and Minority-Serving Institutions (MSIs) who form collaborative research networks are  
119 effective in undergraduate biology training (15), and personalized referrals are among the most effective  
120 strategies for recruiting students from underrepresented minority groups to STEM graduate school (11). In  
121 consideration of these factors, an event was crafted that leveraged the strengths of faculty partnerships across  
122 a network of MSI, PUI, and R1 institutions. The effort created an experience that reached a cohort of students  
123 from underrepresented minority groups in science and presented post-bac programs as a viable steppingstone  
124 for a STEM career.

125  
126 **Materials and Methods**

127 *Open House Event and Student Survey Formats*

128 Recruitment for the Open House was performed through advertising and word of mouth. The advertising flyers,  
129 which were tailored to be institution-specific, were created in Canva (Canva, Sydney, Australia; [www.canva.com](http://www.canva.com))  
130 and contained a QR code linked to a Google Form (Google; Mountain View, CA; [www.google.com](http://www.google.com)) for  
131 registration. Students were selected on a first come, first served basis. Partnering MSIs were given first access  
132 to registration, followed by students at the hosting institutions. While 30 students could have been  
133 accommodated, 17 students were recruited to the event, with 15 attending on both days. Students and faculty  
134 from their home institutions were responsible for arranging travel to Indianapolis, IN. Hotels were reserved  
135 through Butler University, the primary hosting institution. Butler University's Provost's Office funded all events.  
136 These funds covered the hotel costs, food, pens, programs, folders for attendees, and mileage reimbursements.  
137 MSIs covered the cost of transportation rental to bring their cohorts, as needed.

138  
139 **Day 1.** Students and faculty arrived at Butler University, a PUI in Indianapolis, IN. Prior to scheduled events (**Fig**  
140 **S1**), students completed an anonymous pre-survey (**Supplemental Information 1**), approved by a Butler  
141 University IRB (*Approval date: Sept. 18, 2023*) and administered by Qualtrics (Qualtrics; Provo, UT), taking  
142 approximately 10-15 minutes to complete. This survey requested information regarding the participant's  
143 demographics, science experiences, and familiarity with and interest in post-bac programs. Seventeen students  
144 initiated the pre-survey, but only 15 students completed it. Respondents were not required to complete all the  
145 questions; thus, there is some variation in the number of responses per question. Following survey completion,  
146 students then learned of the opportunities for post-bacs and those with science graduate degrees (e.g., M.S.,  
147 Ph.D.), research opportunities at local PUIs, and resources available at Butler University. A tour of the Butler  
148 University campus was made available for those interested. Visiting students and faculty then were taken to  
149 dinner with faculty interested in hosting post-bacs and with graduate students from the Indiana University School  
150 of Medicine (IUSM), an R1 institution. Visiting faculty and students stayed at a local hotel sponsored by the  
151 program.

152  
153 **Day 2.** Students and faculty visited Indiana University School of Medicine; Indianapolis, IN (**Fig S1**). They were  
154 given an overview of an established post-bac program (<https://iprep.iupui.edu/index.html>) and research at  
155 Indiana University and interacted with a graduate student panel assembled by the local chapter of the Society  
156 for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS). Tours of the Centers  
157 of Electron Microscopy and Proteome Analysis facilities were given. A sponsored lunch was provided with Indiana  
158 University School of Medicine faculty members and graduate students. Visiting students were prompted to  
159 complete a Qualtrics exit survey consisting of the similar questions regarding post-bac programs (**Supplemental**  
160 **Information 2**). A total of 13 students completed this exit survey, approved by the Butler University IRB (*Approval*  
161 *date: Sept. 18, 2023*). As with the pre-survey, respondents were not required to answer all questions, again  
162 leading to some variation in response numbers per question.

163  
164 *Mentor/Co-Mentor and MSI Faculty Post-Open House Surveys*

165 An anonymized survey was distributed to prospective faculty mentors from Butler University, DePauw University,  
166 Marian University, IUSM, and science faculty at partner MSIs. The survey assessed their motivations for and

167 interest in supporting post-baccalaureate training programs. Faculty from PUIs and R1 universities were asked  
168 about their experience mentoring students from historically underrepresented backgrounds. MSI faculty were  
169 asked about how post-bac training programs aligned with their professional goals, the challenges of balancing  
170 recruitment efforts with other responsibilities, and the potential impact of these programs on their students. The  
171 surveys were approved by the Butler University IRB (*Approval date: December 19, 2024*) and administered via  
172 Qualtrics (Provo, UT). Completion time was approximately 5–10 minutes.  
173

#### 174 **Data Analysis**

175 Anonymized pre- and post-event student survey data were aggregated separately and analyzed for statistical  
176 significance in GraphPad Prism version 10.4.2 for MacOS (GraphPad Software, Boston, Massachusetts USA).  
177 Figure 1A and B data were analyzed using a two-tailed Mann Whitney U test to compare pre- and post-survey  
178 Likert score means converted to a 1–5 scale. Figure 1C data were analyzed using a Wilcoxon signed-rank test  
179 with the neutral response (3.0 = *neither agree nor disagree*) at the middle of the 1–5 Likert scale set as the  
180 theoretical median value. Figures 2 and 3 data were converted to percentages of respondents and graphed.  
181 Figures were made using Prism and Adobe® Illustrator® (Adobe, San Jose, CA). Qualtrics data for all survey  
182 questions are included in **Supplemental Information 1–4**.  
183

#### 184 **Results**

185 The goal this project was to develop an event that could recruit applicants from a range of backgrounds to post  
186 baccalaureate programs. To this end, an Open House was created to advertise a potential post-bac program to  
187 students in Indiana and the Chicago area. Partnerships were first established between three Indianapolis area  
188 PUIs and a centrally located R1 institution. Additionally, partnerships were formed with four MSIs in the Northern  
189 Indiana/Chicago area. Faculty at these MSIs interact regularly with a diverse undergraduate student body. Each  
190 MSI had a faculty contact who facilitated event advertising and chaperoned students during the travel to/from  
191 and attendance at the Open House. A full schedule of talks and social events was planned (**Fig S1**) and held at  
192 Butler University and Indiana University School of Medicine. Students learned about scientific research and  
193 professional opportunities for those entering post-bac programs and STEM careers. Discussion forums and  
194 meals were included, which allowed visiting students to discuss post-bac programs and graduate school with R1  
195 graduate students from SACNAS and with faculty from PUI and R1 institutions.  
196

197 Voluntary, anonymous pre- and post-surveys were administered at the beginning and ending of the Open House.  
198 The pre-survey solicited demographic information from the students attending the event (**Supplementary**  
199 **Information 1**). Information was collected regarding age, year in school, sexuality, gender, disability, military  
200 service, education, science exposure, career goals, and the attendees' knowledge of the concept of and  
201 opportunities available in post-bac programs. All results are provided for those who responded (**Supplementary**  
202 **Information 1**). Of note, 14 of 15 (93%) total pre-survey respondents identified as an underrepresented  
203 racial/ethnic minority, including 7 identifying as Black/African American (47%), 7 identifying as  
204 Hispanic/Latinx/a/o/e (47%), or 1 identifying as Indigenous/American Indian or Alaskan Native (7%).  
205 Respondents were able to select multiple races/ethnicities, explaining why the number of students from  
206 minoritized groups totals more than 14. Additionally, 3 respondents (20%) indicated they had a disability  
207 according to the NIH/NSF definition (16, 17). Only 2 respondents (13%) reported having a family member in the  
208 household with a 4-year degree or higher. While all 15 respondents reported pursuit of a bachelor's degree in  
209 science, less than half (6 respondents) could identify a science role model. A similar number (6 respondents)  
210 reported that they did not pursue independent research in their undergraduate education, either because it was  
211 not available or because they chose not to participate. The responses indicated that limited time due to work or  
212 personal obligations (9 respondents) and access to knowledge regarding research activities (7 respondents)  
213 were both significant factors in deciding whether to pursue undergraduate research. In sum, the students  
214 recruited to this Open House were members of groups typically underrepresented in science with limited  
215 exposure to science research.  
216

217 Analysis of pre- and post-survey data indicated that the attending students learned about and had a positive  
218 impression of the post-bac program. Responses showed that students gained a statistically significant  
219 improvement in their understanding of post-bac training programs and what they entail after attending the Open  
220 House (**Fig 1A**;  $U(N_{Pre}=15, N_{Post}=13) = 26.5, p = 0.0003$ ). Students also expressed a strong interest in pursuing  
221 a post-bac opportunity (**Fig 1B**). Although the pre- to post-survey gains were not statistically significant for this  
222 question [ $(U(N_{Pre}=15, N_{Post}=13) = 71, p = 0.194)$ ], this is likely due to both small sample sizes and the high number

223 of students “agreeing” with the statement despite not being very familiar with post-bac programs in the pre-  
224 survey. Nevertheless, more students “strongly agreed” they were interested in pursuing a post-bac program in  
225 the post-survey ( $\text{Mean}_{\text{Pre}} = 4.07$ ;  $\text{Mean}_{\text{Post}} = 4.23$ ). The 12 post-survey responses to the question of whether the  
226 event made students more likely to apply to a post-baccalaureate program were uniformly positive. Post-event  
227 agreement ratings (median = 5, *strongly agree*) were significantly higher than a theoretical neutral median of 3  
228 (*neither agree nor disagree*),  $W = 78$ ,  $p = 0.0005$  (two-tailed, exact;  $n = 12$ ). All ranks were positive, indicating  
229 that participation in the Open House was consistently associated with increased agreement that students would  
230 apply to the post-baccalaureate program (**Fig. 1C**). The most positive experiences came from hearing about the  
231 benefits of a post-bac program (9 responses), an overview of a model post-bac program (9 responses), and the  
232 graduate student panel (10 responses). Anecdotally, student survey responders commented that “they definitely  
233 sold me on (the location)...and all the programs offered,” that “the event was really informative,” and that the  
234 event “was really fun and insightful. I found out more about post bac programs and the benefits.” While some  
235 students commented in the pre-survey that they were worried about the “location away from home”, “being at a  
236 predominantly white institution”, and being unsure whether completing the post-bac program “would lead to  
237 something”, none of these concerns appeared in post-survey responses. Thus, the Open House may have been  
238 successful in addressing students’ concerns. In fact, one respondent in the post-survey stated that “being away  
239 from home and finding a new place to live and having to start out my own with this change is daunting but I’m  
240 sure I’m capable of doing it.” In sum, the network-based Open House event delivered a positive experience and  
241 was successful in informing students about the benefits of a post-bac program to pursuing future careers in  
242 STEM.

243 PUI, R1, and MSI faculty mentors also were surveyed to assess their motivations for participating in post-bac  
244 programs. Faculty at PUIs and R1 institutions reported multiple reasons for recruiting post-bac students,  
245 including the opportunity to provide training, contribute to the scientific community, and gain personal fulfillment  
246 (**Fig 2A**). Notably, half of the survey respondents (6 of 12) are currently mentoring students from groups  
247 historically underrepresented in STEM (**Fig 2B**). Respondents also expressed sustained interest in participating  
248 in post-bac training programs (**Fig 2C**). One faculty member highlighted that some students may “realize too late  
249 that they should have done lab research in their senior year and faculty may not be willing to work with students  
250 during that short time” (**Supplementary Information 3**). Post-bac programs were seen as a valuable solution to  
251 bridge this gap. Overall, potential faculty mentors found the recruitment of post-bac students to be a rewarding  
252 experience and expressed a strong desire to remain engaged in such programs.

253 Survey responses from MSI faculty closely mirrored those of PUI and R1 faculty. Their primary motivation for  
254 participating in the recruiting event was to offer students additional training opportunities in STEM (**Fig 3A**), and  
255 many felt these efforts aligned with their own professional goals (**Fig 3B**), despite heavy teaching responsibilities  
256 and limited time (**Fig 3C**). Six faculty members commented that mentoring or recruiting students from groups  
257 underrepresented in STEM aligns with both their university’s mission and their personal values (**Supplementary**  
258 **Information 4**). Notably, one faculty member remarked they “would be just as interested in this type of program  
259 regardless of the student demographic,” indicating that some MSI participants view post-bac programs as  
260 beneficial for all students pursuing STEM careers. Faculty also expressed optimism that these programs would  
261 boost students’ confidence, interest, and knowledge about STEM pathways (**Fig. 3D**), among other benefits.  
262 Like their PUI and R1 counterparts (**Fig 2C**), MSI faculty expressed continued interest in supporting and  
263 recruiting for post-bac programs (**Fig 3E**). Overall, MSI faculty were enthusiastic about post-bac initiatives and  
264 saw them as valuable opportunities for their students’ academic and professional development.

## 265 **Discussion**

266 Post-baccalaureate recruitment of underrepresented minorities can be challenging due to a lack of science  
267 exposure and personalized interactions. To improve outreach to underserved populations in science, an open  
268 house event was established to advertise post-bac programs to students from MSIs and surrounding universities,  
269 providing attendees first-hand interactions with faculty, staff, students, and facilities they would encounter in such  
270 programs. Students visited the campuses of a PUI and an R1 institution, heard about post-bac programs and  
271 graduate school, and had a chance to socialize with faculty and students. Pre- and post-surveys indicated that  
272 many of the students who visited represented underserved minorities in science and that the Open House both  
273 informed and left a positive impact on their impressions of post-bac programs. Faculty surveys indicated  
274 generalized support for such programs, noting their value to students’ development in STEM and a way for  
275

278 faculty to promote their academic mission. Hence, direct, personalized events leveraging the strengths of  
279 multiple institutions is a viable strategy to encourage trainees to pursue post-bac opportunities.  
280

281 MSI partnership to enhance science outreach and development is a well-established strategy. Personal referrals  
282 are an effective means to recruit students to graduate programs (11). Furthermore, MSI partnerships have aided  
283 in recruitment of underrepresented minorities in sciences into a physical sciences graduate program (18), and  
284 encouraged participation in STEM research with the National Oceanic and Atmospheric Administration (NOAA)  
285 (19). National programs like the Leadership Alliance, comprised of 32 institutions ranging from Ivy League  
286 schools and R1s to MSIs, have been collaboratively mentoring underrepresented minority students from  
287 undergraduate through graduate training for 30 years (20). Similarly, this Open House event relied heavily on  
288 MSI faculty to recruit students through word of mouth and flyer distribution. MSI faculty members also  
289 accompanied their students to the two-day event and saw value in the program for their students. Personalized  
290 mentorship is known to enhance a student's STEM experience and decision to enter STEM careers (21). Thus,  
291 personalized experiences, like invitations from faculty at their own institutions to an Open House event, in  
292 addition to the direct exposure to the post-bac program environment attendees receive at the Open House, are  
293 expected to increase the likelihood that students will apply to post-bac programs.  
294

295 Improvements will further refine the effectiveness of the Open House. First, while MSI student participants  
296 expressed many positive sentiments regarding their experience at the event, informal conversations with student  
297 and faculty attendees indicated that they would like additional time to explore the local area, including housing  
298 options and neighborhood information, as well as a more comprehensive overview of research departments and  
299 areas, while also ensuring research talks are as accessible as possible to a wide range of students. This added  
300 time must be balanced with the limited availability of participating faculty. Second, scheduling the Open House  
301 at a time that was mutually convenient for all institutions, each with their own unique academic calendars, while  
302 also avoiding local hotel event conflicts, was challenging. Continued communication and advance planning, as  
303 well as pairing the in-person event with virtual "office hours" and other campus visits by post-bac program faculty  
304 and student representatives should minimize these challenges in the future. Third, although advertising with the  
305 partnered MSIs was effective for recruiting Open House attendees, less effort was placed on recruiting students  
306 in the area. Local students represent an additional, potentially high yield population for a post-bac program, as  
307 they would not need extensive travel to attend the Open House, and many would likely identify as an underserved  
308 minority in science. Thus, recruiting local students to post-bac programs may be extremely fruitful, as they may  
309 be comfortable committing to a program in which they know the area, universities, and faculty members involved.  
310 More effort should be made to advertise such Open House events to all students, near and far. Fourth, many  
311 students who attended the Open House event had already made career choices. Many students were interested  
312 in clinical professions, with less than half citing research as their career goal (**Supplemental Information 1**).  
313 Student mindset can change, but it may be advantageous to target college students who are undecided or  
314 leaning toward a non-clinical STEM career, as these students will be the strongest candidates for post-bac  
315 programs. Continued personalized invitations to such students from MSI, PUI, and R1 faculty, along with  
316 providing additional STEM-career focused information to candidates, will likely be most effective in achieving this  
317 goal (11). As designed, the Open House format permits flexibility for hosts to reconfigure and emphasize  
318 strengths of their geographical area, research programs, and partners to recruit their desired post-bac cohort.  
319

## 320 Conclusion

321 Overall, this work provides evidence that having in-person Open House events is an effective way to inform  
322 students, and particularly those from groups underrepresented in STEM, about post-bac programs. Post-bac  
323 programs continue to gain traction because of their strengths in preparing students for graduate school. These  
324 training opportunities are promising avenues to recruit talent from all walks of life into STEM careers. Virtual  
325 "office" hours and flyer advertising on university boards or email are affordable and can be effective for the  
326 student knowledgeable about the next steps in a STEM career. However, to recruit students unaware of the  
327 possibilities in a science career, a more active recruitment process involving experiential learning, such as an  
328 Open House event, may aid in identifying talent outside of the normal cohort and may be effective regardless of  
329 whether students have had prior research experience. This Open House model, which capitalized on the synergy  
330 of a network of partner institutions (MSIs, PUIs, and R1s), is one method for successfully identifying post-bac  
331 candidates from underrepresented groups and sharing with them the benefits of participating in a post-bac  
332 program as an integral step in their STEM career progression. Future studies could measure the degree of  
333 increased collaboration and movement of students between MSI, PUI, and R1 campuses as a result of the

334 network model. This strategy can be modified to present the strengths of any university, training program, or  
335 geographical area. Thus, STEM training programs may consider hosting similar events to increase the diversity  
336 of their applicant cohort.

337

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351

352

### 353 Figure Legends

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355

356 **Figure 1. Effectiveness of an Open House event in educating and promoting post-baccalaureate**  
357 **programs.** (A, B) Pre- and post-event survey responses regarding (A) student familiarity with post-  
358 baccalaureate training programs and (B) student interest in participating in a post-baccalaureate training program  
359 (N = 15 pre; N = 13 post). (C) Post-survey responses regarding the impact of the Open House event on the  
360 likelihood of their future application to a post-baccalaureate training program (N = 12). See *Results* text for  
361 statistical analysis.

362

363

364 **Figure 2. Motivation of PUI and R1 faculty to participate in a post-baccalaureate training program and**  
365 **their experience training underrepresented students.** Post-event survey results assessing prospective  
366 mentors from participating PUI and R1 institutions for (A) their motivations for helping to recruit students to post-  
367 baccalaureate training programs, whether they (B) are currently mentoring trainees from underrepresented  
368 minority groups, and (C) their level of interest in participating in a post-baccalaureate training program (N = 12).  
369 (A, C) Response options included the following: (A) Giving back to my scientific discipline, "Scientific discipline;"  
370 giving back to my local and state community, "Local and state;" providing more training opportunities for students,  
371 "Training opportunities;" feeling of obligation to help others as I was helped, "Help others;" workforce recruitment  
372 for my lab; "Workforce recruitment;" feeling of obligation to help my colleagues, "Help colleagues." (D) "Too busy,  
373 no interest, "Too busy;" busy, but will join if needed, "Will join;" If the opportunity arises/indifferent, "Indifferent;"  
374 very interested and actively looking for additional opportunities, "Very interested."

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377 **Figure 3. Motivations and challenges for MSI faculty in recruiting students to post-baccalaureate**  
378 **programs.** Post-event survey results assessing STEM faculty from MSI partner institutions for (A) their  
379 motivations for helping to recruit students to post-baccalaureate training programs, (B) how well mentoring or  
380 recruiting underrepresented students in STEM aligns with their professional goals, (C) the challenges they face  
381 in balancing recruitment efforts with their other responsibilities, (D) the impacts they hope participation in post-  
382 baccalaureate programs will have on their students, and (E) their level of interest in participating in a post-  
383 baccalaureate training program in the future (N = 8). (A, C, D) Response options included the following: (A)  
384 Giving back to my scientific discipline, "Scientific discipline;" giving back to my local and state community, "Local  
385 and state;" providing more training opportunities for students, "Training opportunities;" feeling of obligation to  
386 help others as I was helped, "Help others;" workforce recruitment for my lab; "Workforce recruitment;" feeling of  
387 obligation to help my colleagues, "Help colleagues." (C) Lack of time, "Time;" limited resources/funding,  
388 "Resources;" High teaching load, "Teaching;" research obligations, "Research;" family/personal commitments,  
389 "Commitments." (D) Increased knowledge of research careers in STEM, "Knowledge;" increased interest in  
research careers in STEM, "Interest;" increased confidence in their scientific skills, "Confidence;" improved  
opportunities for jobs or graduate school, "Opportunities;" increased writing and speaking skills, "Presentation  
skills;" increased critical thinking skills, "Thinking skills."

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**Figure S1.** Open House Agenda

**Supplemental Information 1.** Open House Pre-Survey Results

**Supplemental Information 2.** Open House Post-Survey Results.

**Supplemental Information 3.** PUI/RI Mentor Survey Results.

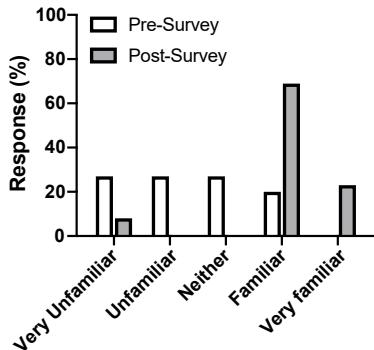
**Supplemental Information 4.** MSI Faculty Survey Results.

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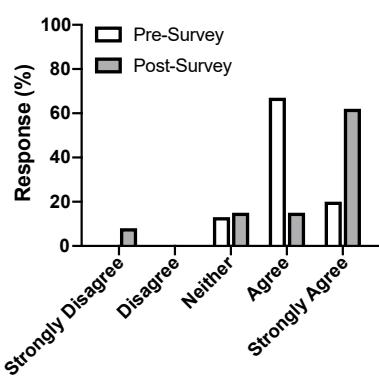
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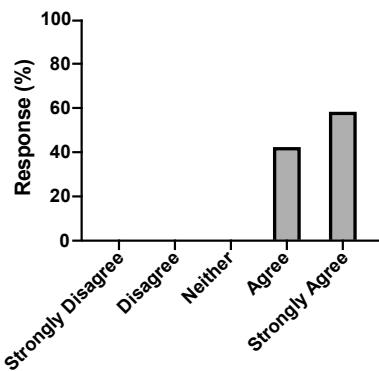
**A** How familiar are you with the idea of post-baccalaureate training programs?



**B** I am very interested in participating in a post-baccalaureate training program.

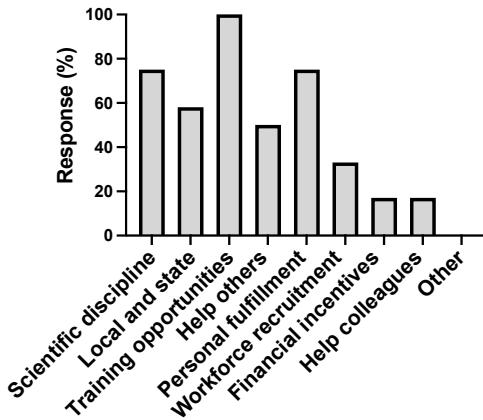


**C** My experience at the Mentor-FIRST Open House made it more likely that I will apply to a post-baccalaureate program.

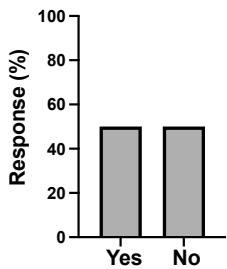


## Figure 2

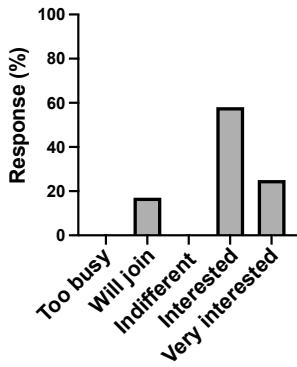
**A** What motivations do you have in helping recruit students at your university to apply for a post-baccalaureate training program?

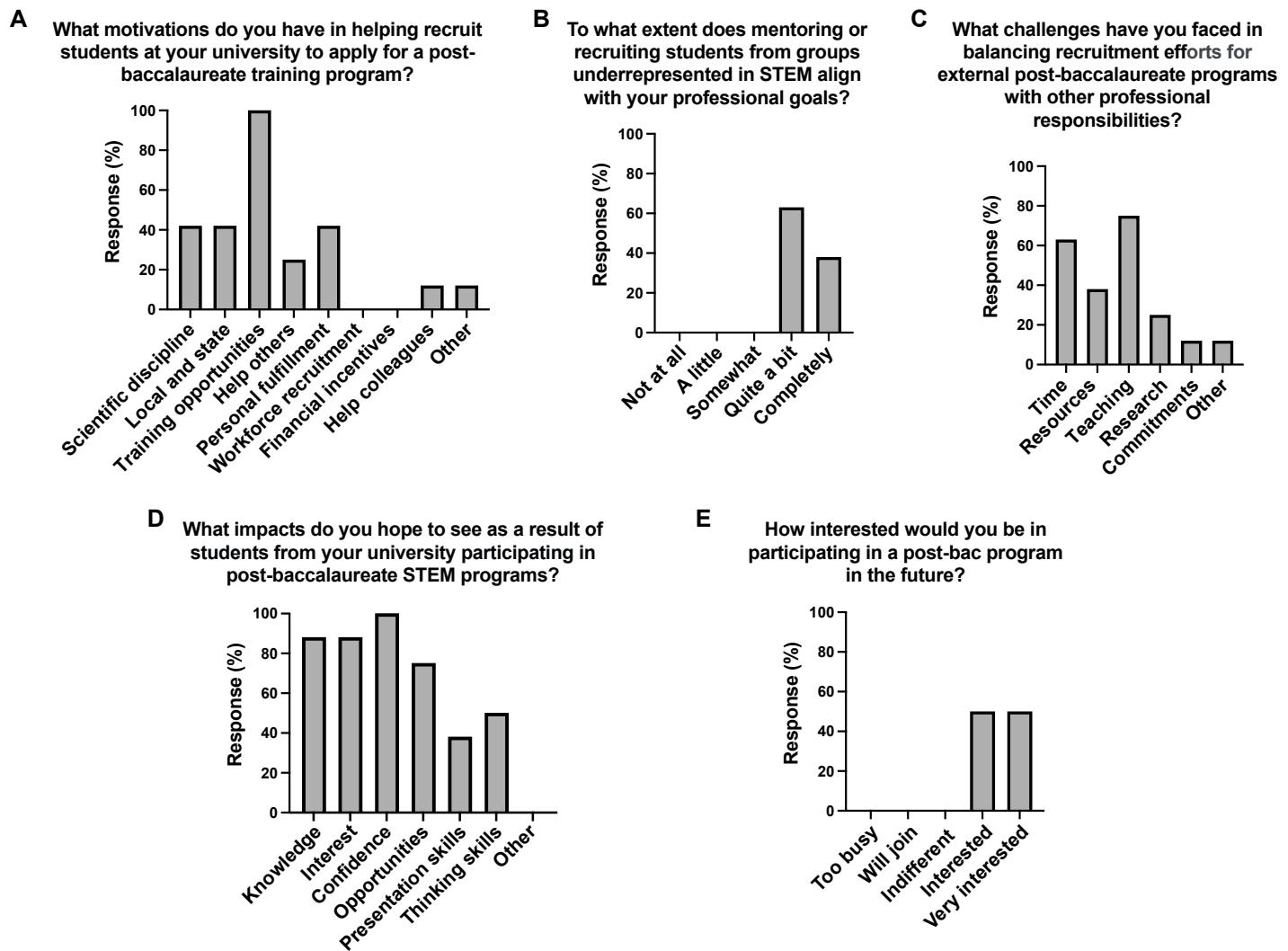


**B** Do you currently have trainees in your laboratory that are considered underrepresented minorities in STEM by the NSF?



**C** What is your motivation in participating in a post-baccalaureate training program?





## Figure S1. Post-Baccalaureate Open House Agenda

### Day 1: Primary Undergraduate Institution (PUI)

<u>Time</u>	<u>Activity</u>
12:00p – 1:00p	Lunch, pre-survey taking
1:00p – 1:10p	Welcome and introductions, PUI
1:10p – 1:25p	What to do with a science degree: A brief overview of graduate school and careers in STEM
1:25p – 1:35p	Undergraduate vs. Graduate School and how Post-bac programs can bridge the gap
1:35p – 1:55p	Life as a post-bac, previous post-bac turned graduate student
1:55p – 2:05p	Break
2:05p – 2:20p	Overview of a post-bac program: goals, design, student timeline
2:20p – 2:35p	Example 1: PUI faculty research
2:35p – 2:50p	Example 2: PUI faculty research
2:50p – 3:00p	Break
3:00p – 3:30p	Butler Campus tour - Labs/science area
3:30p – 4:00p	Diversity resources
4:00p – 6:00p	Break, check in to hotel
6:00p – 8:00p	Dinner and Networking Reception

\*All PUI, MSI, RI, faculty & students invited

### Day 2: R1 Research Institution (R1)

<u>Time</u>	<u>Activity</u>
8:30a – 9:00a	Coffee and baked goods
9:00a – 9:10a	Welcome and introductions, IUSM
9:10a – 9:40a	Getting from here to there: Benefits to a post-bac program and life as a post-bac in Indianapolis (faculty post-bac expert)
9:40a – 10:10a	Graduate Student Panel, Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS): Trainee life in Indianapolis and benefits to post-bac program
10:10a – 10:25a	Break
10:25a – 10:40a	Example 1: R1 faculty research
10:40a – 10:55a	Example 2: R1 faculty research
10:55a – 11:05a	Break
11:05a – 12:00p	R1 Campus tour – Centers for Electron Microscopy and Proteomics
12:00p – 1:00p	Thank you, Lunch, survey