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## Advising Physiology Students: Perceptions from the Programs

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**Advising Physiology Students: Perceptions from the Programs**Anne R. Crececius<sup>1</sup> and Patrick L. Crosswhite<sup>2</sup><sup>1</sup>Department of Health and Sport Science, University of Dayton, Dayton, OH<sup>2</sup>Department of Human Physiology, Gonzaga University, Spokane, WA**Abstract**

Academic advising outcomes can be linked to both student success and retention. Yet, relatively little is known specifically related to advising in physiology programs. Professional organizations dedicated to academic advising in general, and more specifically advising future health professional students exist; yet, whether current physiology programs utilize these resources remains unknown, as does a number of other demographic information about advising in physiology programs. Here we present data gathered from a sample of physiology educators to inform what current advising practices of physiology students are. Forty-five respondents from a variety of institutions and programs provided information on advising structures, resources utilized, student populations, and concerns. While programs may differ, many of the concerns regarding advising physiology students are the same.

**Snapshot of Your Paper**

Here we present data gathered from a sample of physiology educators to inform what current advising practices of physiology students are including structures, resources utilized, student populations and concerns of advisors.

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## 31 **Introduction**

32           Student success and persistence can be an assumed goal of all higher educational institutions,  
33 particularly in today's competitive marketplace (2). Student services, including academic advising can be  
34 valuable components of an undergraduate experience that not only help recruit students, but support  
35 students in being successful, in a variety of assessment metrics. Academic advising is an important part  
36 of student services, however can be difficult to define, even by professional organizations such as the  
37 NACADA, the Global Community for Academic Advising (12). The definition of academic advising  
38 may differ by institution based given the unique values, missions and program goals. Further, the line  
39 between advising and mentoring may be explicit in some cases and in others, quite blurred. Student  
40 needs vary on a continuum from those that are non-academic (e.g. administrative and finances) to those  
41 that are academic in nature (e.g. course selection). At the same time, student needs vary from those that  
42 are transactional (e.g. simply getting a new ID, course registration codes) to those that are highly complex  
43 (e.g. a lack of belonging, career discernment) (7). Academic advising and those who do the advising may  
44 be faced with a range of inquiries along the continuum. Correspondingly, while many definitions are  
45 available, we provide the following broad context for the present work: academic advising takes place in  
46 "situations in which an institutional representative gives insight or direction to a college student about an  
47 academic, social, or personal matter" (10).

48           The status of undergraduate physiology and physiology-related programs has been one of  
49 emerging interest (6) with a series of articles being written about issues that pertain to these programs (18,  
50 19). The Physiology Majors Interest Group (P-MIG) is a grass-roots organization that has formed to help  
51 develop programmatic guidelines and serve those engaged in undergraduate physiology or physiology-  
52 related programs. Unsurprisingly, for a discipline that lacks program-level curricular guidelines, there is  
53 a similar lack of published data particular to academic advising within these programs. However, given  
54 that the interests of many physiology majors are future health profession education (e.g. medicine, dental,  
55 physician assistant, physical therapy, etc.) (16, 17), it is of note that there is in fact a professional  
56 organization that focuses on advising for health professions. The National Association of Advisors for

57 Health Professions (NAAHP), established in 1974 has a mission to be “a representative voice with health  
58 professions schools and their professional associations, undergraduate institutions, and other health  
59 professions organizations.” And to “assist[s] advisors in fostering the intellectual, personal, and  
60 humanistic development of students as they prepare for careers in health professions.” However, NAAHP  
61 serves students in a variety of disciplines and its membership may not be representative of the same  
62 groups served by the P-MIG community.

63         The P-MIG community represents a range of institution types and physiology or physiology-  
64 related programs (11) and thus we set out to collect a number of demographic characteristics regarding  
65 advising models and advisors for each program as well as resources and training that may be available.  
66 As advising is student-centered, we were also interested in understanding the aspirations of the students  
67 our community is advising and what their career goals are. Lastly, we sought to collect data on the  
68 advisor’s perceptions of their advising work. The goal of this descriptive data set is to better understand  
69 the current advising environment of physiology majors and begin a conversation about best practices for  
70 advising in our P-MIG community.

71

## 72 **Methods**

### 73 **Survey Development**

74         The survey was developed collaboratively by the authors using the Google Forms software  
75 platform and consisted of approximately 25 questions. All survey questions are provided in Table 1. The  
76 authors discussed the goals of the survey and developed questions to gain insight into current practices for  
77 advising physiology students. A variety of question formats were utilized including multiple-choice,  
78 multiple-selection, and open-ended questions. The goal for open-ended or multiple-selection questions  
79 was to allow participants to include information the authors had not considered at the time of survey  
80 development.

81

### 82 **Target Audience**

83           The target audience was working professionals who advise physiology students. The authors did  
84 not limit the survey to only faculty teaching physiology. Instead feedback was sought from faculty and  
85 any professional academic or career advisor who regularly engages with physiology students. The authors  
86 also did not limit survey participation to 4-year undergraduate institutions and instead sought participation  
87 from individuals who are employed at a variety of higher education institutions including 2-year colleges,  
88 undergraduate and graduate programs.

### 89 **Survey Administration**

90           To reach individuals engaged with physiology students, the survey was distributed by e-mail  
91 messages sent out from the P-MIG Listserv (consisting of approximately 250 active subscribers) and the  
92 American Physiological Society Teaching of Physiology Section community discussion board. An initial  
93 request was sent in February 2019 and a reminder email was sent in March. The survey closed on March  
94 31<sup>st</sup>. There were no incentives for participants completion of the survey. There was no funding provided  
95 for this survey and data analysis. Finally, the Institutional Review Board at the University of Dayton  
96 determined the research activity was exempt per the Office for Human Research Protection guidelines.

### 97 **Data Analyses**

98           The major goals of the analyses were to determine the current practices for advising physiology  
99 students, if P-MIG could play a future role for supporting those who advise students, and if there was  
100 interest in holding a dedicated advising session at the 2019 P-MIG meeting in Minneapolis, MN.

101 Additionally, the authors sought to identify the biggest challenges facing those who advise physiology  
102 students. Results for some of the questions are shown in figure format, and open-ended questions are  
103 provided in table format. Percentages were tabulated where appropriate. For multiple- or open-ended  
104 questions, responses were evaluated on an individual basis response and were collapsed into a broader  
105 category. No parametric tests were applied to the questions.

106

### 107 **Results**

#### 108 **Who Participated in the Survey?**

109           Forty-five individuals from thirty-one institutions participated in the survey. Not all respondents  
110 answered every question, therefore the number of respondents to each question varied. Thirty-five  
111 respondents (78%) were faculty with a primary appointment in teaching or research, five respondents  
112 (11%) listed academic advising as their primary appointment, and the remaining 11% of respondents  
113 listed administrative duties as their primary appointment (Fig 1A). Nineteen respondents (42%) claimed  
114 to be in a Physiology department (Human Physiology, Integrative Physiology, etc), while ten respondents  
115 (22%) were in a Biology department, and seven respondents (16%) listed Exercise Science or  
116 Kinesiology as their department. The remaining 20% of respondents listed a variety of other departments  
117 (Fig 1B).

#### 118 **How is Advising Accomplished at your Institution?**

119           Of the 45 respondents, 78% (35 individuals) reported they advise students while an additional  
120 five individuals (11%) reported they might advise students, and five individuals (11%) reported they did  
121 not advise students. Regardless of whether the respondent listed they do not or might advise students,  
122 their responses were still included in data analysis. When asked how advising fits into their job  
123 description, 13 (29%) respondents said advising was their primary job description compared to 27 (60%)  
124 listed advising as service to their institution, while 13 (29%) said advising was considered part of their  
125 teaching expectations (Fig 2A). In terms of experience, 23 respondents, or nearly 58%, reported having  
126 10 years or more experience advising, 4 respondents (10%) had 5-9 years experience, and thirteen (33%)  
127 reported having 4 years or less of experience.

128           In regard to how their institutions approach advising, 19 respondents (42%) reported having a  
129 dedicated Pre-Health Advising office on their campus while 26 respondents (58%) reported there was not  
130 a dedicated Pre-Health Advising office available on campus (Fig 2B). When asked for how many students  
131 they currently are responsible for advising, 13 respondents (31%) advise 20 students or less, seven  
132 respondents (17%) advise 21-50 students, and 12 respondents (29%) advise 51 or more students. Ten  
133 respondents (24%) reported they currently do not advise students (Fig 2C).

#### 134 **Advising the Physiology Student**

135 Participants were asked to estimate how many of their students were pursuing clinical careers  
136 (medicine, physical therapy, physician assistant, etc) compared to entry level employment after  
137 graduation. Thirty-five respondents (83%) estimated that at least 50% of their physiology students are  
138 pursuing a clinical career after graduation. This mirrors the response when asked how many of their  
139 students are specifically pursuing entry-level employment after graduation, where 39 respondents (92%)  
140 estimated less than half of their students were pursuing entry-level employment.

141 Respondents were provided with a variety of advising related issues and asked how often they are  
142 discussed during their meetings with students (Table 2). The issues more commonly discussed included:  
143 the student's current academic progress (73% of the time), the student's progress towards graduation  
144 (58% of the time), helping students focus their career or life goals (56% of the time), and scheduling or  
145 registration procedures (44% of the time). The issues least commonly discussed included: obtaining  
146 financial aid, withdrawing or transferring from school, and obtaining employment.

147 Participants were also asked about what resources they use to help advise students. A majority of  
148 respondents reported using resources available at their institution compared to outside resources. Thirty-  
149 seven respondents (90%) reported utilizing institutional resources and 35 respondents (85%) reported  
150 using fellow colleagues as resources. This is in comparison to only 19 respondents (46%) using resources  
151 from professional advising organizations, or only 15 respondents (37%) using application websites  
152 (CASPA, AAMC, etc) and their reports as resources, or 17 respondents (42%) using general advising  
153 websites.

154 Participants were asked what challenges they often encounter when advising a physiology  
155 student. Seventeen respondents (47%) reported that students do not take an active role in advising. Fifteen  
156 respondents (42%) reported they lack access to training or resources to properly advise students. This  
157 compares to only 13 respondents (36%) listing they have too little time to advise students or that they  
158 have too many advisees (10 respondents, 28%). When asked if they enjoyed advising students, 15 (38%)  
159 and 16 (41%) respondents said they "strongly agreed" or "agreed," respectively. Furthermore, 14 (36%)  
160 respondents "strongly agreed" that they make a positive impact on students, while 21 (54%) respondents

161 “agreed.” When asked how well physiology students are advised compared to non-physiology students at  
162 their institution, 27 respondents (69%) “agreed or strongly agreed” physiology students are advised well  
163 compared to only 16 respondents (41%) agreeing that all students at their institution are advised well.  
164

## 165 **Discussion**

166 The current report highlights demographics and perceptions of advising in physiology and  
167 physiology-related programs in the P-MIG community. As anticipated, a diversity of models exist; yet  
168 many programs share similar concerns and are advising students with similar interests. Here, we provide  
169 a discussion of these data in the context of what is known more broadly regarding health professions  
170 advising as well as academic advising in general. In addition, we aim to inform of resources that are  
171 available to advisors as well as what some upcoming challenges may be for physiology majors and their  
172 advisors.

173 The respondents to the current advising survey broadly reflect the general P-MIG membership in  
174 terms of the diversity of departments in both nomenclature and size (20). As discussed previously, more  
175 programs identify as “physiology programs” than are simply those programs that are a BS or BA in  
176 Physiology and we welcome these programs to the P-MIG community. The number of non-physiology  
177 named departments may also reflect that nearly three-fourths of the departments have multiple majors in  
178 them, including non-physiology majors. Regarding size, the programs with < 50 students were  
179 approximately equal to those programs with >501 students. The vast majority of respondents  
180 (approximately 80%) state that the majority (50% or greater) of students in these programs are pursuing  
181 health professions and a similar majority (70%) report few students (30% or less) seek entry-level  
182 employment. Thus, findings of the NAAHP membership survey (4), most recently published in 2017  
183 (representing responses from 382/1470 advisor members) can provide additional context for some of our  
184 physiology-specific findings. Importantly, many of the resources provided by NAAHP are relevant to  
185 readers. For example, prior literature from NAAHP and discussions at related conferences have  
186 addressed both divergent and shared concerns of advisors at small schools (13) and those are larger



187 institutions (15). Given the diversity of respondents, both in institution type as well as role in advising,  
188 rather than parse into small categories, we aimed to take a broad perspective towards the current state of  
189 advising at all institutions that responded to the survey.

190         The profile of advising services reflects a majority (~80%) of institutions have specific pre-health  
191 advising, either via dedicated office or dedicated advisors. However, only 11% of respondents reported  
192 that advising was their job title. This likely reflects the method of distribution of the survey as well as the  
193 P-MIG membership (1) but is important to point out and differs from the NAAHP respondents where the  
194 majority of respondents are in the “staff/professional advisor” role. While we did not correlate size of  
195 program with advisor role (as research or teaching faculty, professional advisor or other), we anticipate  
196 our findings would be similar to those from NAAHP that larger institutions more commonly utilize  
197 professional advisors while smaller institutions utilize more faculty in advising roles. It is likely that our  
198 minimal response from professional advisors also contributes to the modest advising loads reported here.  
199 Only 20% of respondents reported meeting with 101 or more advisees. This is well-below the NACADA  
200 reported median caseload of ~300 students (14); yet as NAAHP points out, pre-health advising is unique  
201 versus general academic advising (5) and thus may merit a lower ratio.

202         A range of topics are discussed with advisees based on the current findings and these topics more  
203 often fall on the moderate complexity level and are highly academic (e.g. career goals, graduation  
204 requirements, and coping with academic issues) rather than on the transactional level (e.g.  
205 adding/dropping courses, changing majors) or less academic issues (e.g. coping with personal problems).  
206 Nearly 70% of our sample reported being an advisor for 5 or more years, yet this experience perhaps does  
207 not lead to expertise as 42% reported not having training or resources for advising effectively. The need  
208 to be effective in advising work is underscored by the common (~30%) response that there is too little  
209 time, too many advisees, and that good advising is not recognized institutionally. The range of advising  
210 activities also speaks to a common discussion of “advising” vs “mentoring”. We must acknowledge that  
211 in our survey, we did not provide a cogent definition of “advising”. Thus, it was up to respondents to

212 consider whether their work was considered “advising”. For clarity, we try to distinguish “academic  
213 advising” where possible to try to avoid confusion.

214         Thus, what resources are available for advisors, whether professionals or faculty, and how is P-  
215 MIG working to support quality advising of physiology students? First, general resources for advising  
216 from NACADA and EAB are valuable, particularly at the institutional level and if centralized approaches  
217 are utilized. For physiology programs, the particular resources and content provided by NAAHP is likely  
218 more relevant. One of the primary resources that NAAHP provides is centralized access to the many  
219 different advisor portals for the various health professions based upon the centralized application systems  
220 (Table 3). Membership in NAAHP determines one’s level of access to application portals and associated  
221 organizations that can provide helpful information on tracking applicants, nationwide data on applicants,  
222 and program information such as prerequisites. Membership also affords specific toolboxes for new  
223 advisors as well as resources directed at common health profession advising topics such as letter writing,  
224 fact sheets by profession, and other print and online resources. Much of the information provided by  
225 NAAHP can be found elsewhere online but it may require additional efforts on the part of advisors that  
226 report a lack of time already.

227         The recognition of advising as a growing profession should necessitate that advisors (faculty or  
228 professionals) should seek out relevant research and reports published in advising-specific journals, as  
229 well as a continued interest in and support for systematic analysis of advising. Much like curricula and  
230 courses are designed utilizing best practices, so should our advising work. A role of P-MIG aims to  
231 further refine some of the resources and information provided by NAAHP as well as address those  
232 students who do not seek health professions as a career or need other options. It is apparent that there are  
233 more students interested in health professions than there are seats. For example, in allopathic medicine, in  
234 2019 there were 53,371 applicants and only 21,869 matriculants, an acceptance rate of ~41%. Despite  
235 growth in the number of programs or program size, limitations in clinical sites will ultimately cap the  
236 training opportunities of some of the more popular health professions (e.g. medicine, physician assistant,  
237 physical therapy). Thus, P-MIG will help to inform advisors, and therefore students on the various

238 opportunities that a physiology program prepares them for, based upon the broadly applicable  
239 professional skills developed (8).

240         As the demand for student services increases and demographic shifts put student retention at even  
241 more of a premium (2) additional topics are likely to emerge in the discussion of advising. Students  
242 transferring from 2-year institutions may support declines in enrollment at 4-year schools and/or more  
243 students are opting to take courses at 2-year colleges to reduce cost or as part of high school post-  
244 secondary programs. The transfer of credits can be complex and advisors will need to be familiar with  
245 the related processes of transfer and application of credits. In addition, there may be a need to adjust  
246 curricular plans, when possible to best serve students and avoid loss of credits and/or time during the  
247 transfer process (9). In addition, mental health issues are on the rise (3) in undergraduate populations and  
248 this can cause minor and sometimes major disruptions in academic progress. Appropriate training in  
249 handling students in crisis and those who have experienced trauma will likely need to be mandatory to  
250 provide best practice advising. Several online resources are available, and it is important that advisors  
251 identify their institution-specific crisis resources and procedures.

252         Overall, the present findings indicate that those who advise physiology students are reflective of  
253 those who advise students in general. Workload and capacity are of concern, yet the vast majority (80%)  
254 of advisors enjoy the work. Just as the face-to-face advising appointment is often most valuable in  
255 addressing the needs of a student, P-MIG is dedicated to continuing to provide face-face opportunities for  
256 those engaged in advising physiology students to discuss relevant issues, novel approaches, and best  
257 practices at our annual meeting. The community of practice P-MIG provides supports those who support  
258 our students.

259

## 260 **Acknowledgements**

261 We would like to thank the survey respondents and the other members of the P-MIG leadership.

262

263 This paper is published as part of a special collection/special issue from P-MIG, a grass-roots  
264 organization that has formed to help develop programmatic guidelines and serve those engaged in  
265 undergraduate physiology or physiology-related programs. To find out more about this collective, or get  
266 involved, please visit our website (<https://www.physiologymajors.org/>) and consider joining our listserv.

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## References

1. **Anderson LC, Rogers J, Stanescu CI, VanRyn VS, and Wehrwein EA.** Physiology Educators Find Community in the Physiology Majors Interest Group. *Adv Physiol Educ* 2020.
2. **Anft M.** Student Needs Have Changed. Advising Must Change, Too. In: *The Chronicle of Higher Education* 2018.
3. **Auerbach RP, Mortier P, Bruffaerts R, Alonso J, Benjet C, Cuijpers P, Demyttenaere K, Ebert DD, Green JG, and Hasking P.** WHO World Mental Health Surveys International College Student Project: prevalence and distribution of mental disorders. *Journal of abnormal psychology* 127: 623, 2018.
4. **Bennet V, Brown J, Chanatry J, Fisher G, Hart J, Johnson J, Sauerwein K, and Stanfield C.** The NAAHP Research Report - Examining Changes in Advisor, Institution and Student Demographics from 2005 to 2016. *The Advisor* September: 35-51, 2017.
5. **Brookins E.** Best Practices for Academic Institutions and Health Professions Advisors; Roll-out, Reception, Reflections, Recommendations. *The Advisor* September: 11-13, 2015.
6. **Carroll RG, Silverthorn DU, and Wehrwein EA.** Undergraduate and Medical School Physiology Education in the United States. *Physiology (Bethesda)* 32: 262-263, 2017.
7. **EAB.** Next-Generation Advising: Elevating Practice for Degree Completion and Career Success. Educational Advisory Board. <https://eab.com/research/academic-affairs/study/next-generation-advising/>.
8. **French MB, Choate J, Zubek J, Bryner RB, Johnson KMS, and Luttrell MJ.** Professional skills for physiology majors: Defining and refining. *Adv Physiol Educ* 2020.
9. **GAO.** Higher education: students need more information to help reduce challenges in transferring college credits 2017.
10. **Kuhn TL.** Historical foundations of academic advising. In: *Academic advising: A comprehensive handbook* edited by Gordon VN, Habley WR, and Grites TJ. John Wiley & Sons, 2008.
11. **NAAHP.** About NAAHP, INC and Contact Information <https://www.naahp.org/naahpwwsite/about-naahp>. [December 3, 2019].
12. **NACADA.** Definitions of academic advising <https://nacada.ksu.edu/Resources/Clearinghouse/View-Articles/Definitions-of-academic-advising.aspx>. [December 3, 2019].
13. **Reichard-Brown JL, Kreke P, Swarner D, and Weinreb C.** Pre-Health Advising in Smaller Institutions: Comments from the NEAHP Meeting which May Lead to Further National Discourse. *The Advisor* March: 45-47, 2016.

- 303 14. **Robbins R.** Advisor Load. NACADA Clearinghouse, 2013.
- 304 15. **Snoyer J, Verrier D, and Loughlin W.** Advising, Management and Leadership  
305 Challenges Faces Pre-Health Advising Programs at Universities with Large Applicant Pools. *The*  
306 *Advisor* September: 55-59, 2014.
- 307 16. **Steele KJ, VanRyn VS, Stanescu CI, Rogers J, and Wehrwein EA.** Student career  
308 aspirations, employment paths, and perceptions on career preparation in undergraduate  
309 physiology degree programs. *Adv Physiol Educ* 2020.
- 310 17. **Steury MD, Poteracki JM, Kelly KL, and Wehrwein EA.** Perspectives of physiology  
311 as a discipline from senior-level millennial-generation students. *Adv Physiol Educ* 39: 240-241,  
312 2015.
- 313 18. **VanRyn VS, Poteracki JM, and Wehrwein EA.** Physiology undergraduate degree  
314 requirements in the US. *Advances in physiology education* 41: 572-577, 2017.
- 315 19. **Wehrwein EA.** Setting national guidelines for physiology undergraduate degree  
316 programs. *Adv Physiol Educ* 42: 1-4, 2018.
- 317 20. **Wehrwein EA, Stanescu CI, Anderson L, Crecelius AR, Halliwill JR and Rogers J.**  
318 The case for coordinating efforts to establish program-level curricular guidelines and strengthen  
319 physiology undergraduate degree programs. *Adv Physiol Educ* 2020.  
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322 Figure Legends

323

324 **Figure 1: Who Participated in the Survey?** Graphical representation of two questions from the advising  
325 survey. A) What is your primary job description? B) What is your department?

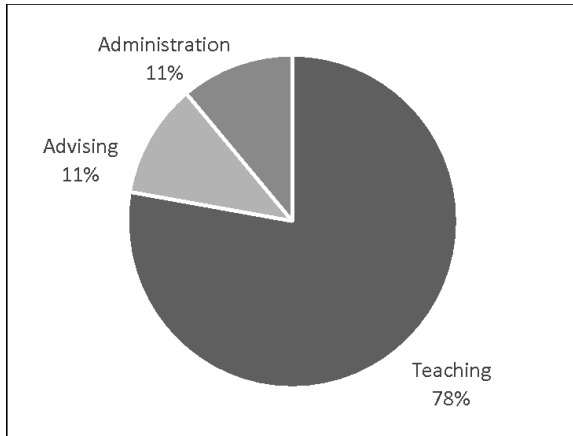
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327 **Figure 2: How is advising accomplished at your institution?** Graphical representation of three  
328 questions from the advising survey. A) Where does advising fit in your workload? B) Is there a dedicated  
329 Pre-Health Advising office at your institution? C) How many students are you assigned to formally  
330 advise?

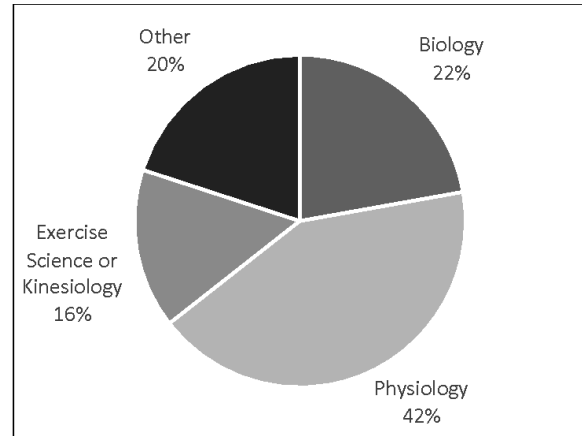
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Figure 1



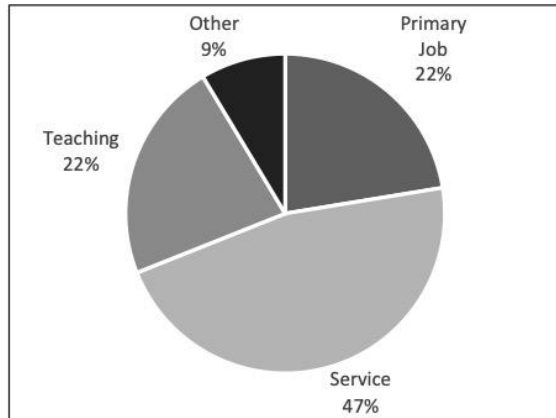
**A) What is your primary job description?**



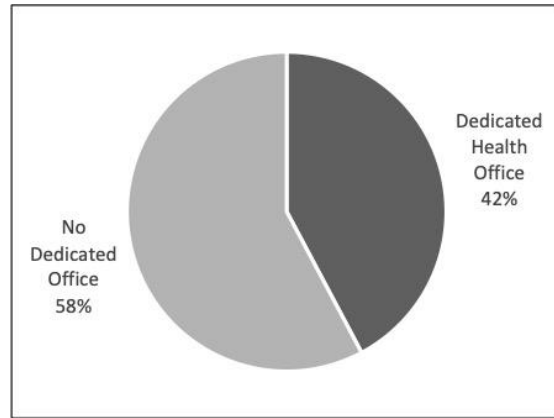
**B) What is your department?**



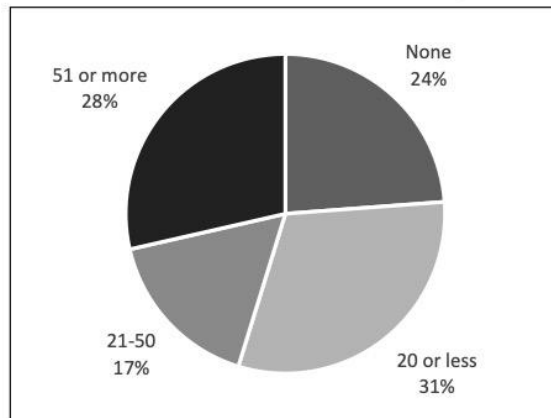
Figure 2



**A) Where does advising fit in your workload?**



**B) Is there a dedicated Pre-Health Advising office at your institution?**



**C) How many students are you assigned to formally advise?**

**Table 1: A complete list of all questions administered in the survey.** The survey was created using Google Forms software and sent out via email to potential respondents.

1. What is your job title?
2. What is your institution?
3. What is your department?
4. How many physiology majors are in your department?
5. Are there non-physiology majors in your department?
6. If yes, how many are not physiology majors?
7. How many of your physiology majors are targeting clinical careers in health?
8. How many of your physiology majors are targeting entry-level employment after graduation?
9. Is there a dedicated Pre-Health Advising office at your institution?
10. Do you advise students?
11. If you do not advise students, what is the reason?
12. If you do advise, what type of students do you work with?
13. How long have you been an advisor?
14. How many students are you assigned to formally advise?
15. How many students do you meet face-to-face for formal advising in an academic year?
16. How many students do you mentor?
17. Where does advising fit in your workload?
18. How often do you discuss the following issues when advising? <ul style="list-style-type: none"> <li>● student's academic progress</li> <li>● scheduling or registration procedures</li> <li>● dropping/adding a course</li> <li>● selecting or changing majors</li> <li>● meeting graduation requirements</li> <li>● improving student habits</li> <li>● obtaining tutoring services</li> <li>● focusing life or career goals</li> <li>● identifying current skills, abilities, or interests</li> <li>● finding internship or work opportunities</li> <li>● coping with academic difficulties</li> <li>● obtaining financial aid</li> <li>● obtaining employment</li> <li>● continuing education after graduation</li> <li>● withdrawing or transferring from school</li> <li>● dealing with personal issues</li> </ul>
19. What issues do you regularly encounter as an advisor? <ul style="list-style-type: none"> <li>● I have too many students to advise</li> <li>● I have too little time to advise</li> <li>● students do not want, or value, advising</li> <li>● students do not take an active role in advising</li> <li>● good advising is not recognized by my department or institution</li> <li>● lack access to training or resources for effective advising</li> </ul>
20. What resources do you use in your advising? <ul style="list-style-type: none"> <li>● colleagues</li> <li>● institutional resources</li> <li>● professional organizations of health professions</li> <li>● application sites and reports</li> </ul>

<ul style="list-style-type: none"><li>● advising organizations</li><li>● general websites</li><li>● other institution's websites</li></ul>
21. If you advise, please respond to the following based on your experience. <ul style="list-style-type: none"><li>● I have the necessary knowledge and skills to advise well</li><li>● I have sufficient time to advise well</li><li>● I make a positive difference as an advisor</li><li>● I enjoy advising</li><li>● In general, students in my department are advised well</li><li>● In general, students at my institution are advised well</li></ul>
22. Do you think there is a role for P-MIG in academic or career advising? What resources could be of help?
23. Are there resources you use in advising that you would be willing to share?
24. Would you be interested in an Advising Session at the next P-MIG meeting in Minneapolis, MN (June 2019)?
25. Please leave any other comments

**Table 2: Advising the Physiology Student.** Listed below are the most and least commonly discussed topics discussed when advisors meet with their physiology students and the most commonly listed challenges to advising physiology students.

<p><b>More commonly discussed issues during advising meetings with physiology students:</b></p> <ul style="list-style-type: none"><li>● Student's current academic progress (73%)</li><li>● Student's progress toward graduation (58%)</li><li>● Helping students focus career or life goals (56%)</li><li>● Scheduling or registration procedures (44%)</li></ul>
<p><b>Least commonly discussed issues during advising meetings with physiology students:</b></p> <ul style="list-style-type: none"><li>● Obtaining financial aid</li><li>● Withdrawing or transferring from school</li><li>● Obtaining employment</li></ul>
<p><b>Most common challenges to advising physiology students:</b></p> <ul style="list-style-type: none"><li>● Students do not take an active role in advising (47%)</li><li>● I lack access to training or resources to properly advise students (42%)</li><li>● I have too little time to advise students or I have too many advisees (28%)</li></ul>

**Table 3: Health Profession Organizations.** Common health profession associations and application services. Information is collated by the National Association of Advisors for Health Professions ([www.naahp.org](http://www.naahp.org)).

<b>Health Profession</b>	<b>Professional Association</b>	<b>Application Service</b>
Medicine – Allopathic	AAMC Association of American Medical Colleges <a href="https://www.aamc.org/">https://www.aamc.org/</a>	AMCAS American Medical College Application Service <a href="http://www.aamc.org/amcas">http://www.aamc.org/amcas</a>
Medicine – Osteopathic	AACOM American Assoc. of Colleges of Osteopathic Medicine <a href="https://www.aacom.org/">https://www.aacom.org/</a>	AACOMAS American Assoc. of Colleges of Osteopathic Medicine Application Service <a href="https://aacomas.liaisoncas.com">https://aacomas.liaisoncas.com</a>
Physician Assistant	PAEA Physician Assistant Education Association <a href="https://paeonline.org/">https://paeonline.org/</a>	CASPA Central Application Service for Physician Assistants <a href="https://caspa.liaisoncas.com">https://caspa.liaisoncas.com</a>
Physical Therapy	APTA American Physical Therapy Association <a href="https://www.apta.org/">https://www.apta.org/</a>	PTCAS Physical Therapist Centralized Application Service <a href="http://www.ptcas.org/home.aspx">http://www.ptcas.org/home.aspx</a>
Occupational Therapy	AOTA American Occupational Therapy Association <a href="https://www.aota.org/">https://www.aota.org/</a>	OTCAS Occupational Therapy Centralized Application Service <a href="https://otcas.liaisoncas.com">https://otcas.liaisoncas.com</a>
Athletic Training	NATA National Athletic Trainers Association <a href="https://www.nata.org/">https://www.nata.org/</a>	ATCAS Athletic Training Centralized Application System <a href="https://atcas.liaisoncas.com">https://atcas.liaisoncas.com</a>
Nursing	AACN American Association of Colleges of Nursing <a href="https://www.aacnnursing.org/">https://www.aacnnursing.org/</a>	NursingCAS Nursing’s Centralized Application Service <a href="https://nursingcas.liaisoncas.com">https://nursingcas.liaisoncas.com</a>
Optometry	ASCO Association of Schools and Colleges of Optometry <a href="https://optometriceducation.org/">https://optometriceducation.org/</a>	OptomCAS Optometry Centralized Application Service <a href="http://www.optomcas.org/">http://www.optomcas.org/</a>
Pharmacy	AACP American Association of Colleges of Pharmacy <a href="https://www.aacp.org/">https://www.aacp.org/</a>	PharmCAS Pharmacy College Application Service <a href="http://www.pharmcas.org/">http://www.pharmcas.org/</a>
Dentistry	ADEA American Dental Education Association <a href="https://www.adea.org/">https://www.adea.org/</a>	AADSAS Associated American Dental Schools Application Service <a href="https://aadsas.liaisoncas.com">https://aadsas.liaisoncas.com</a>