

## Appendix II

### Analysis/Coding Structure

- 1 (1) /Partnerships (nature of student/NIH/university relationship)
- 2 (1 1) /Partnerships/Formal US
- 3 (1 1 1) /Partnerships/Formal US/Johns Hopkins
- 4 (1 1 2) /Partnerships/Formal US/George Washington
- 5 (1 1 3) /Partnerships/Formal US/U Penn
- 6 (1 1 4) /Partnerships/Formal US/NYU
- 7 (1 1 5) /Partnerships/Formal US/Boston U
- 8 (1 1 6) /Partnerships/Formal US/U of MD Biophysics
- 9 (1 1 7) /Partnerships/Formal US/U of MD Speech Hearing
- 10 (1 1 8) /Partnerships/Formal US/Oxford
- 11 (1 1 9) /Partnerships/Formal US/Cambridge
- 12 (1 1 10) /Partnerships/Formal US/Karolinska
- 13 (1 1 11) /Partnerships/Formal US/UNC Cell Motility
- 14 (1 1 12) /Partnerships/Formal US/Georgetown
- 15 (1 1 13) /Partnerships/Formal US/Molecular Path
- 16 (1 1 14) /Partnerships/Formal US/Other
- 17 (1 2) /Partnerships/Formal International
- 18 (1 3) /Partnerships/Individual US University
- 19 (1 4) /Partnerships/Individual International University
  
- 20 (2) /Mentors
- 21 (2 1) /Mentors/How Established
- 22 (2 1 1) /Mentors/How Established/Rotations
- 23 (2 1 2) /Mentors/How Established/Prior to GPP
- 24 (2 1 2 1) /Mentors/How Established/Prior to GPP/Postbac IRTA
- 25 (2 1 2 2) /Mentors/How Established/Prior to GPP/Work relationship
- 26 (2 1 3) /Mentors/How Established/At start of GPP
- 27 (2 1 3 1) /Mentors/How Established/At start of GPP/Pre-established pair
- 28 (2 1 3 2) /Mentors/How Established/At start of GPP/Created new pair
- 29 (2 2) /Mentors/Number
- 30 (2 2 2) /Mentors/Number/Two
- 31 (2 2 2 1) /Mentors/Number/Two/Pre-established
- 32 (2 2 2 2) /Mentors/Number/Two/Created new
- 33 (2 2 2 3) /Mentors/Number/Two/Two at NIH
- 34 (2 2 3) /Mentors/Number/Multiple
- 35 (2 2 4) /Mentors/Number/Single
  
- 36 (3) /Benefits to Research at NIH
- 37 (3 1) /Benefits to Research at NIH/High Technology
- 38 (3 2) /Benefits to Research at NIH/Money for supplies
- 39 (3 3) /Benefits to Research at NIH/Help from other labs
- 40 (3 4) /Benefits to Research at NIH/Higher risk experiments
- 41 (3 5) /Benefits to Research at NIH/Access to many talented NIH PIs
- 42 (3 6) /Benefits to Research at NIH/Access to outside scientists
- 43 (3 6 1) /Benefits to Research at NIH/Access to outside scientists/Seminars
- 44 (3 6 2) /Benefits to Research at NIH/Access to outside scientists/Visitors to lab

- 45 (3 7) /Benefits to Research at NIH/NIH PIs open to collaboration  
46 (3 8) /Benefits to Research at NIH/Independence  
47 (3 9) /Benefits to Research at NIH/Responsibility  
48 (3 10) /Benefits to Research at NIH/Travel to meetings  
49 (3 11) /Benefits to Research at NIH/Resources  
50 (3 12) /Benefits to Research at NIH/Prestige of NIH name  
51 (3 13) /Benefits to Research at NIH/DC Location  
52 (3 14) /Benefits to Research at NIH/Excellent mentors  
53 (3 15) /Benefits to Research at NIH/Breadth of experiences  
54 (3 16) /Benefits to Research at NIH/Clinically relevant research  
55 (3 17) /Benefits to Research at NIH/Rapid rate of research  
56 (3 18) /Benefits to Research at NIH/NIH Library  
57 (3 19) /Benefits to Research at NIH/Focused on getting work done  
58 (3 20) /Benefits to Research at NIH/Interest Group Listserves  
59 (3 21) /Benefits to Research at NIH/Networking  
60 (3 22) /Benefits to Research at NIH/Classes and Workshops at NIH  
61 (3 23) /Benefits to Research at NIH/International quality of people  
62 (3 24) /Benefits to Research at NIH/Interdisciplinary  
63 (3 25) /Benefits to Research at NIH/Being at the Center of Science  
64 (3 26) /Benefits to Research at NIH/Training by advanced people  
65 (3 27) /Benefits to Research at NIH/Exciting - quality of the research
- 66 (4) /Challenges to research at NIH  
67 (4 1) /Challenges to research at NIH/Treated like postdoc  
68 (4 1 1) /Challenges to research at NIH/Treated like postdoc/Not enough guidance  
69 (4 1 2) /Challenges to research at NIH/Treated like postdoc/Expectations too high  
70 (4 1 3) /Challenges to research at NIH/Treated like postdoc/Grad student needs different  
71 (4 2) /Challenges to research at NIH/Missing breadth of university - chemistry  
72 (4 3) /Challenges to research at NIH/Don't understand demands on student  
73 (4 4) /Challenges to research at NIH/Travel to university  
74 (4 4 1) /Challenges to research at NIH/Travel to university/Time difficulty  
75 (4 5) /Challenges to research at NIH/Cost of living in DC  
76 (4 6) /Challenges to research at NIH/Missing academic~student environment  
77 (4 7) /Challenges to research at NIH/Administrative help hard to find  
78 (4 8) /Challenges to research at NIH/Bureaucracy  
79 (4 9) /Challenges to research at NIH/Must be assertive  
80 (4 10) /Challenges to research at NIH/Mentoring limited~too busy  
81 (4 11) /Challenges to research at NIH/Meeting course requirements  
82 (4 12) /Challenges to research at NIH/Too many options to choose from  
83 (4 13) /Challenges to research at NIH/High Expectations  
84 (4 14) /Challenges to research at NIH/Intimidating feeling  
85 (4 15) /Challenges to research at NIH/International student issues  
86 (4 16) /Challenges to research at NIH/NIH not like rest of the world  
87 (4 17) /Challenges to research at NIH/Competitive environment  
88 (4 18) /Challenges to research at NIH/Poor communication within~between labs
- 89 (5) /Benefits outweigh challenges  
90 (5 1) /Benefits outweigh challenges/Yes  
91 (5 2) /Benefits outweigh challenges/No

- 92 (6) /Formal GPP
- 93 (6 1) /Formal GPP/Benefits to being at both
- 94 (6 1 1) /Formal GPP/Benefits to being at both/Broader scientific exposure
- 95 (6 1 2) /Formal GPP/Benefits to being at both/Stimulate new collaborations for men
- 96 (6 1 3) /Formal GPP/Benefits to being at both/Bring new ideas to labs
- 97 (6 1 4) /Formal GPP/Benefits to being at both/Fosters collaborative research
- 98 (6 1 5) /Formal GPP/Benefits to being at both/Classes at university
- 99 (6 1 6) /Formal GPP/Benefits to being at both/International Perspective
- 100 (6 1 7) /Formal GPP/Benefits to being at both/Interdisciplinary view
- 101 (6 1 8) /Formal GPP/Benefits to being at both/See both university and NIH environment
- 102 (6 1 9) /Formal GPP/Benefits to being at both/Independence
- 103 (6 2) /Formal GPP/Challenges to being at both
- 104 (6 2 1) /Formal GPP/Challenges to being at both/Hard to get time in both places
- 105 (6 2 2) /Formal GPP/Challenges to being at both/Cost of living in two places
- 106 (6 2 3) /Formal GPP/Challenges to being at both/Poor communication between GPP and Univ
- 107 (6 2 4) /Formal GPP/Challenges to being at both/Administrative coordination
- 108 (6 2 5) /Formal GPP/Challenges to being at both/Planning ahead
- 109 (6 2 6) /Formal GPP/Challenges to being at both/Agreement between PIs
- 110 (6 2 7) /Formal GPP/Challenges to being at both/Social challenges
- 111 (6 2 8) /Formal GPP/Challenges to being at both/Commuting time
- 112 (6 2 9) /Formal GPP/Challenges to being at both/Discussions among all involved
- 113 (7) /Multiple Mentors
- 114 (7 1) /Multiple Mentors/Benefits
- 115 (7 1 1) /Multiple Mentors/Benefits/Learning how to collaborate
- 116 (7 1 2) /Multiple Mentors/Benefits/Broader perspectives
- 117 (7 1 3) /Multiple Mentors/Benefits/2 styles of mentoring side by side
- 118 (7 1 4) /Multiple Mentors/Benefits/Bigger professional network
- 119 (7 1 5) /Multiple Mentors/Benefits/Professional skills working with others
- 120 (7 1 6) /Multiple Mentors/Benefits/Learn from problems
- 121 (7 1 7) /Multiple Mentors/Benefits/Choose between ideas
- 122 (7 2) /Multiple Mentors/Challenges
- 123 (7 2 1) /Multiple Mentors/Challenges/Overcome
- 124 (7 2 2) /Multiple Mentors/Challenges/Ongoing
- 125 (7 2 3) /Multiple Mentors/Challenges/Communication
- 126 (7 2 4) /Multiple Mentors/Challenges/In theory but not experienced
- 127 (7 2 5) /Multiple Mentors/Challenges/None yet
- 128 (7 2 6) /Multiple Mentors/Challenges/Meeting both mentors interests
- 129 (7 2 7) /Multiple Mentors/Challenges/Would not have attempted it
- 130 (8) /Mentoring
- 131 (8 1) /Mentoring/High quality
- 132 (8 2) /Mentoring/Low Quality
- 133 (8 2 1) /Mentoring/Low Quality/NIH Mentor
- 134 (8 2 2) /Mentoring/Low Quality/University Mentor
- 135 (8 3) /Mentoring/Just enough
- 136 (8 4) /Mentoring/Too little
- 137 (8 4 1) /Mentoring/Too little/NIH Mentor
- 138 (8 4 2) /Mentoring/Too little/University Mentor
- 139 (8 5) /Mentoring/Too much

- 140 (9) /Differences by being in GPP
- 141 (9 1) /Differences by being in GPP/Greater independence
- 142 (9 2) /Differences by being in GPP/Better positioned with NIH name
- 143 (9 3) /Differences by being in GPP/Prepared for fast pace of research
- 144 (9 4) /Differences by being in GPP/Better exposure to current technology
- 145 (9 5) /Differences by being in GPP/International perspective
- 146 (9 6) /Differences by being in GPP/Concern with no courses~rotations
- 147 (9 7) /Differences by being in GPP/Like doing PhD and postdoc together
- 148 (9 8) /Differences by being in GPP/More professional contacts
- 149 (9 9) /Differences by being in GPP/Less knowledge of grant writing
- 150 (9 10) /Differences by being in GPP/Broader background
- 151 (9 11) /Differences by being in GPP/Collaboration skills
- 152 (9 12) /Differences by being in GPP/More publications~productivity
- 153 (9 13) /Differences by being in GPP/Spoiled by NIH, not ready for real w
- 154 (9 14) /Differences by being in GPP/Better scientific training
- 155 (9 15) /Differences by being in GPP/Better writer
- 156 (9 16) /Differences by being in GPP/Professional skills
- 157 (9 17) /Differences by being in GPP/Less teaching experience
- 158 (9 18) /Differences by being in GPP/Not really different
- 159 (9 19) /Differences by being in GPP/Better oral skills
  
- 160 (10) /Next Career Step
- 161 (10 4) /Next Career Step/Research job
- 162 (10 5) /Next Career Step/Teaching - primary role
- 163 (10 6) /Next Career Step/Policy fellowship
- 164 (10 7) /Next Career Step/Time off for personal reasons
- 165 (10 8) /Next Career Step/Leaving science
- 166 (10 9) /Next Career Step/Other
- 167 (10 10) /Next Career Step/Postdoc
- 168 (10 10 1) /Next Career Step/Postdoc/Postdoc at NIH
- 169 (10 10 1 1) /Next Career Step/Postdoc/Postdoc at NIH/Different lab
- 170 (10 10 1 2) /Next Career Step/Postdoc/Postdoc at NIH/Same lab
- 171 (10 10 1 2 1) /Next Career Step/Postdoc/Postdoc at NIH/Same lab/Year or less - cleanup
- 172 (10 10 1 2 2) /Next Career Step/Postdoc/Postdoc at NIH/Same lab/Extended postdoc
- 173 (10 10 2) /Next Career Step/Postdoc/Postdoc at university
- 174 (10 10 3) /Next Career Step/Postdoc/Postdoc in industry
  
- 175 (11) /Long term career plans
- 176 (11 1) /Long term career plans/Academic PI
- 177 (11 2) /Long term career plans/NIH PI
- 178 (11 3) /Long term career plans/Industry PI or team member
- 179 (11 4) /Long term career plans/Non-PI scientist
- 180 (11 5) /Long term career plans/Teaching - primary role
- 181 (11 6) /Long term career plans/Government policy, regulation, admin
- 182 (11 7) /Long term career plans/Scientific consulting
- 183 (11 8) /Long term career plans/Science and law
- 184 (11 9) /Long term career plans/Changes in career plans
- 185 (11 9 1) /Long term career plans/Changes in career plans/No change
- 186 (11 9 2) /Long term career plans/Changes in career plans/Away from PI

- 187 (11 9 3) /Long term career plans/Changes in career plans/Away from bench science  
188 (11 9 4) /Long term career plans/Changes in career plans/Toward industry  
189 (11 9 5) /Long term career plans/Changes in career plans/Toward non-science  
190 (11 9 6) /Long term career plans/Changes in career plans/Other  
191 (11 10) /Long term career plans/Children  
192 (11 11) /Long term career plans/Family important  
193 (11 12) /Long term career plans/Lifestyle important  
194 (11 13) /Long term career plans/Other  
195 (11 14) /Long term career plans/Undecided
- 196 (12) /Skills not acquired at NIH  
197 (12 1) /Skills not acquired at NIH/Grant writing  
198 (12 2) /Skills not acquired at NIH/Manuscript writing  
199 (12 3) /Skills not acquired at NIH/Working with fewer resources  
200 (12 4) /Skills not acquired at NIH/Teaching
- 201 (13) /GPP Operations  
202 (13 1) /GPP Operations/Working well  
203 (13 1 1) /GPP Operations/Working well/Retreat  
204 (13 1 2) /GPP Operations/Working well/Symposium  
205 (13 1 3) /GPP Operations/Working well/GSC  
206 (13 1 4) /GPP Operations/Working well/Receptive to Student Ideas + needs  
207 (13 1 5) /GPP Operations/Working well/Overall working well  
208 (13 1 6) /GPP Operations/Working well/OX-CAM house  
209 (13 1 7) /GPP Operations/Working well/Student activities - general  
210 (13 1 8) /GPP Operations/Working well/GRAD-L  
211 (13 1 9) /GPP Operations/Working well/Communication with students  
212 (13 1 10) /GPP Operations/Working well/GPP Staff  
213 (13 1 11) /GPP Operations/Working well/Orientation  
214 (13 1 12) /GPP Operations/Working well/OX-CAM Colloquium  
215 (13 1 13) /GPP Operations/Working well/Program Directors  
216 (13 2) /GPP Operations/Needs improvement  
217 (13 2 1) /GPP Operations/Needs improvement/Communication between GPP and university  
218 (13 2 2) /GPP Operations/Needs improvement/Oversight of and help mentors  
219 (13 2 3) /GPP Operations/Needs improvement/Ease Bureaucracy  
220 (13 2 4) /GPP Operations/Needs improvement/Tuition payment  
221 (13 2 5) /GPP Operations/Needs improvement/Student connectivity  
222 (13 2 6) /GPP Operations/Needs improvement/Services for international students  
223 (13 2 7) /GPP Operations/Needs improvement/Temp housing  
224 (13 2 8) /GPP Operations/Needs improvement/More intro for individual students  
225 (13 2 9) /GPP Operations/Needs improvement/Admin support for UK + KI  
226 (13 2 10) /GPP Operations/Needs improvement/Handbook\_Policies  
227 (13 2 11) /GPP Operations/Needs improvement/Better way to do classes  
228 (13 2 12) /GPP Operations/Needs improvement/More help finding mentors  
229 (13 2 13) /GPP Operations/Needs improvement/Earlier notices of requirements  
230 (13 2 14) /GPP Operations/Needs improvement/Interview Day  
231 (13 2 15) /GPP Operations/Needs improvement/More student support activities  
232 (13 2 16) /GPP Operations/Needs improvement/Financial support issues  
233 (13 2 17) /GPP Operations/Needs improvement/Student involvement in program change  
234 (13 2 18) /GPP Operations/Needs improvement/GPP treatment of students

- 235 (14) /University Operations
- 236 (14 1) /University Operations/Working well
- 237 (14 2) /University Operations/Needs improvement
- 238 (14 2 1) /University Operations/Needs improvement/More engaged program director~leader
  
- 239 (15) /Would do PhD at NIH again
- 240 (15 1) /Would do PhD at NIH again/Yes
- 241 (15 1 1) /Would do PhD at NIH again/Yes/Caveats
- 242 (15 2) /Would do PhD at NIH again/No
  
- 243 (16) /Would recommend GPP to a friend
- 244 (16 1) /Would recommend GPP to a friend/Yes
- 245 (16 1 1) /Would recommend GPP to a friend/Yes/Caveats
- 246 (16 2) /Would recommend GPP to a friend/No
  
- 247 (17) /University Experience
- 248 (17 1) /University Experience/Score
- 249 (17 2) /University Experience/Positives
- 250 (17 3) /University Experience/Negatives
  
- 251 (18) /NIH Experience
- 252 (18 1) /NIH Experience/Score
- 253 (18 2) /NIH Experience/Positives
- 254 (18 3) /NIH Experience/Negatives