

Ethnic Diversity in IS: What Are Current Ph.D. Students Saying?

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Abstract - Much attention has been focused on creating diversity in research in the Information Systems (IS) discipline (DeSanctis, 1993; King, 1993; Benbasat and Weber, 1996; Robey, 1996). However, ethnic diversity among the IS faculty has not been a primary research focus. African-, Hispanic- and Native-Americans represent only 4.9% of the more than 24,000 business school professors and only 2.8% of the more than 2,000 Information Systems professors. Many universities attribute this nominal minority representation to the difficulty in finding qualified, tenurable faculty members from these ethnic groups.

We replicate the research of Hammond (1995) using the survey and commenter features of a group support system, GroupSystems. In particular, we explore cultural issues that may contribute to the small number of African- and Hispanic-Americans who pursue doctoral degrees in information systems/technology (IS/IT). Our results confirmed some of the cultural differences found in earlier research-such as social isolation and lack of minority faculty mentors. Our results also identified family responsibilities and the need to give back to ethnic communities as important cultural issues affecting minorities' IS/IT doctoral students.

Keywords: Diversity, minorities, information systems/technology, group support systems, careers, academia

ISRL Categories: BD05, BA0202, HA0301, IA

INTRODUCTION

Thomas and Wetlaufer (1995), *Computerworld* (January 2000), and *CIO* (January 15, 2000) offered insights regarding the lack of ethnic diversity in IT and other functional domains in corporate environments. In their discussion with 10 African-American and Hispanic executives, Thomas and Wetlaufer (1995) concluded that the participants in their study are rare. That is, the ten high profile executives were described as a "group seldom heard from or even acknowledged to exist in the media". This, however, is not unreasonable given that executives of "color" (see *Breaking Through* by Thomas at www.hbsp.harvard.edu) comprise less than 2% of the executive positions in Fortune 1000 companies.

African-Americans hold less than 3% of the CIO positions in the U.S. *CIO* (January 15, 2000) asked the question: "what is wrong with this picture – given that African-Americans make up 12.9% of the population; and "what are the barriers that still exist in corporate America decades after the Civil Rights Act of 1964?" (p 76). Like the work of Thomas and Wetlaufer (1995), *CIO* examined ethnic diversity in the workplace by identifying obstacles that tend to hinder minority progress in the corporate ranks. The African-American CIOs and Hispanic executives interviewed by *CIO* offered three suggestions to enable change in the corporate ranks:

- 1) Form group/professional networks, such as Black Data Processors and Society of Hispanic Professional Engineers;

- 2) Establish mentoring relationships; this may mean minorities having white mentors given the lack of “color” at influential levels within the corporate structure; and
- 3) Adopt diversity measures; this translates into linking diversity to recruitment, retention and compensation (Thomas and Wetlaufer, 1995).

Similar challenges have been experienced in academia. For instance, in an examination of gender and ethnic diversity within the health education professoriate, Crase and Hamrick (1996) observed that the ratio of male to female professors remained constant over a 10-year period. They stated that “the minority doctoral pool continues to be disappointing and a dismal reality” (p 109). Likewise, in his study of under-represented minorities in the medical profession, Tekian (1997) concluded that not only do we need more physicians who are African-American, Hispanic and Native American, but we also need more minorities in faculty, medical research and health care administration positions. As such, he indicated that these ethnic groups better comprehend minority issues which has a cultural impact on health care delivery, progress and learning.

Gooden, et al. (1994) sought to address the shortage of minority faculty via fellowship programs. Gooden, et al. (1994) pointed out that traditional means of attracting minority candidates are often employed; however, they determined that more proactive and creative strategies are needed to increase diversity among those in academia. Later writings (Winbush, 1994; Humphreys, 2000) have confirmed the work of Gooden, et al. (1994), Tekian (1997) and Crase and Hamrick (1996) and support the continual need for diversity in the academic profession. From these authors, we have learned about the plethora of diversity plans implemented at leading academic institutions. Despite the efforts of the Madison Plan 2008 (Humphreys, 2000; www.diversityweb.org) and The West Virginia Graduate College’s Minority Faculty Fellowship (Gooden, et al., 1994), accountability

(Thomas and Wethlaufer, 1995) and culture are critical, if admissions, retention and graduation rates are to improve. Although “diversity in research has been both the reality and the accepted norm by many in the Information Systems (IS) discipline” (Benbasat and Weber, 1996), the discipline has not produced any research that explores the lack of diversity among the IS faculty. Yet, minorities, defined as African-, Hispanic- and Native-Americans, represent only 2.8% of the more than 2,000 IS faculty community (The International Association for Management Education Data, 1999; Survey of Earned Doctorates 1998, National Opinion Research Center). This minimal representation of minority faculty negatively impacts the profession and contributes to the overall under-representation of minorities among IT professionals in corporate environments. Further, it denies role models to all students while restricting the diversity of IS research (Hammond, 1995). The above statements by minority doctoral students speak to these scenarios.

Addressing the shortage of minority IS faculty is important because faculty “diversity offers another, more nebulous but equally powerful opportunity for the academic community to rejuvenate itself. As minority candidates with different life experiences bring their unique perspectives to research and teaching,” (Elliott, 1994, p. 9; Crase and Hamrick, 1996), the IS discipline will experience “new channels of research, challenges to existing paradigms, and related intellectual benefits” (Elliott, 1994, p. 9).

Therefore, we examine the cultural issues impacting minority IS doctoral students to determine what challenges they confront during the doctoral process. Our study lends itself to diversity between groups (minority versus majority cultures) *rather than in a mixed group context*.

We discuss our research methodology and findings. This is followed by a discussion of the issues, and the limitations of this study that should be viewed as opportunities for further research.

CONCEPTUAL FRAMEWORK

To gain some understanding of minorities' experiences, Hammond (1995) investigated these issues in a study of 10 African-American accounting doctoral students. Using semi-structured interviews and a traditional face-to-face setting, she sought to uncover the challenges that confront minority doctoral students that would typically not be experienced by majority candidates. She concluded that several "elements" or barriers were commonly cited as reasons for incongruity in social norms between minority and majority accounting doctoral students. These included limited financial support, educational differences, mentorship (lack thereof), cultural differences and politics. Though her study stresses salient points regarding minority experiences in Western (US) culture, she did not use GSS technologies which can enable participants to engage in anonymous idea generation and simultaneous topic discussion (Briggs, et al., 1997).

Based on Hammond (1995) and using the electronic meeting features of a groupware application, this research examines the doctoral experiences of 10 minority (African-American and Hispanic-American) IS/IT students. Given the findings of Hammond (1995) and Crase and Hamrick (1996), we hypothesize that minority IS doctoral students face undesirable financial, political and cultural issues in pursuit of their doctoral degrees.

RESEARCH METHODOLOGY

We used GroupSystems, a groupware application, to replicate Hammond's (1995) work and determine if the barriers uncovered by her and others still hold as we embark on the new century. We used a group of African-American and Hispanic-American IS doctoral students to conduct an electronic meeting session rather than a traditional face-to-face meeting. Additionally, we applied data analyses methods as prescribed by Currall, et al. (1999) and Massey and Clapper (1995) to analyze the qualitative data collected by GroupSystems.

Prior to the 1997 International Conference on Information Systems (ICIS), the KPMG Peat Marwick Foundation randomly selected ten members of the PhD Project IS Doctoral Student Association to participate in this study. Each student was, subsequently, contacted via electronic mail to confirm his/her willingness to participate in the study and discuss personal experiences in each respective IS Ph.D. program. Eight weeks prior to the 1997 ICIS, a reminder was electronically distributed to each student. Two weeks prior to this, a time and location were emailed to each participant. Though students knew *a priori* the topic of discussion, the use of an aided medium (<http://www.groupsystems.com>) was not disclosed until the data gathering session was held.

Because we asked some rather sensitive questions of the students participating in our study, the significance of groupware technologies cannot be overlooked. To this extent, our data indicated that students were more comfortable with this method of data collection in comparison to face-to-face focus groups. Several stated that they would be apprehensive about discussing these questions without the technology for fear that "things would get back to Ph.D. committee members (faculty)". The most consequential feature of the technology, based on students' feedback, was anonymity, and some offered the following:

"Anonymity may encourage some people to express more ideas."

"You do not have the occasional person shouting someone down, or saying that their idea is dumb."

"...anonymity allowed us to speak more freely than some of us would be face-to-face."

All participants had prior experience with traditional face-to-face interviews and/or focus group sessions. While only four of the 10 students had used other groupware (NetMeeting, LotusNotes, etc.) applications prior to our session, none were GoupSystems users.

The average age of the group was 38.6 with the most senior person being 57, and two participants were 33. Six African-Americans and four Hispanic-Americans participated in the study. No Native-American representation was provided for our research – as at the time of this study the KPMG Peat Marwick Foundation had identified only one (1) Native-American IS doctoral student. While the average matriculation in the various doctoral programs was slightly over three years, one student reportedly had been enrolled 7.5 years. Moreover, the group had a significant amount of industry experience (Avg. = 7.05 years) with positions as programmers, consultants, and analysts, to name a few. The gender distribution was evenly split with 50% males and females, respectively.

Survey items from Hammond (1995) were adopted and/or modified for this study (see Appendix A), and all items were distributed to participants via GroupSystems. While the Survey Tool and Topic Commenter functions were used, participants submitted responses and ideas anonymously via keyboards. Each student was randomly assigned to an individual workstation.

After all technical and content issues from the group were addressed, participants began to provide responses to the survey and brainstorm on elements they felt contributed to the problem (cultural differences among minority IS doctoral students in comparison to a common set of norms). When all of the participants completed the survey questions, they were able to view the responses of other participants at their individual workstations. Then, using the Topic Commenter function, participants electronically responded to the survey responses of others. At the conclusion of the session, participants were debriefed. The entire session lasted roughly three hours.

It should also be noted that our data were collected one year after the KPMG Peat Marwick Foundation founded the charter of the PhD Project IS Doctoral Association. Hammond's (1995) data were collected prior to the establishment of the KPMG initiative. To date, in addition to the IS student organization,

associations have been chartered in accounting, management, finance, and marketing.

Content Analysis Procedure

From the data collected via GroupSystems, our task was to normalize the language used by students. To do so, we followed a similar scheme as outlined in Massey and Clapper (1995) and Currall, et al. (1999). We generated a Coding Dictionary using the data provided by the participants rather than permitting the GroupSystems users to generate this code. The following steps were used to develop the code shown in Appendix B:

- 1) The Survey and Topic Commenter data were separated and analyzed as such. The Survey module represented "individual" elements, and the Topic Commenter responses were used to uncover shared elements among the group.
- 2) Twelve categories of elements resulted from the Survey data while only ten classes were uncovered among the Commenter data.
- 3) As prescribed by Massey and Clapper (1995), several elements were omitted and/or combined based on their infrequent use (mentioned only once or twice) by the participants.
- 4) Shown in Appendix B, a refined list indicating the resulting Code Dictionary with the seven categories that were used for the coding of our data. Our classifications include (a) Influencing Factors; (b) Research Interests; (c) Ethnic/Racial Differences to the Broader Culture; (d) Presence and Backgrounds of Mentors; (e) Faculty Feedback; (f) Barriers Impacting Progress; and (g) Needs to Reduce/Eliminate These Cultural Issues. Interestingly, financial issues failed to emerge as a critical element in the experiences of minority IS doctoral students and was therefore eliminated from our original coding dictionary.

- 5) Three coders were identified, and each coded the data independently. Each coder was given the task of coding the data as recorded by the GSS to determine the reliability of the above classifications. Based on five iterative coding sessions, the reliability was determined by coder agreement. Among the seven categories and three coders, the interrater reliability was 55% while the disagreement rate was 45%. Within the 45% disagreement, however, 70% agreement was found in the coding of at least two coders, and the refined “Coding Dictionary” with seven constructs (indicated by A....G) emerged as shown in Appendix B.
- 6) The refined Coding Dictionary was used to determine interrater reliability and to perform content analysis. The details of these procedures and analysis are discussed below.

Our analysis was guided by the work of Currall, et al. (1999) who indicated that the purpose of content analysis “is to guide the conversion of qualitative data into quantified variables...” (p. 16). Thus, we sought to categorize students’ comments, as captured by the GroupSystems application, to provide mutually exclusive and exhaustive element groupings. This would enable the coders to classify all comments by applying a more rigorous

methodology than simple percentage agreement to interpret our data.

As in the case of Currall, et al. (1999), we used a three-dimensional structure to code the students’ comments that includes:

- a) Individuals. These are the actual students themselves and totaled 10 from various IS doctoral programs.
- b) Topics. These are the overall element categories (influencing factors, research interests, ethnic/racial differences, presence of mentors, faculty feedback, barriers and mechanisms to reduce/eliminate barriers) as listed in the Coding Dictionary (Appendix B).
- c) Verbal Contributions. These contributions capture coders’ judgments about which sub-element or sub-category a comment would represent. Currall, et al. (1999) labeled this the individual contribution. While we have 7 overall elements, each can be defined by its unique sub-elements. For example, (A) Influencing Factors In Deciding to Pursue a Ph.D. is captured by (A1) Teaching, (A2) Research, (A3) Love of IS/IT, (A4) Pursuit of Higher Aspirations. Examples of student verbal commentary to the survey items and topic commenter, as recorded by GroupSystems, are provided in Appendix C.

Figure 1: Sample Coding Table

	Verbal Contribution Element: (A) Influencing Factors				Verbal Contribution Element: (B) Research Interests			Verbal Contribution Element: (C) Ethic/Racial Differences			
	A 1	A 2	A 3	A 4	B 1	B 2	B 3	C 1	C 2	C 3	C 4
Content Coders											
01											
02											
03											

The above table was used to determine the verbal counts within each of the cells. From the resultant counts, we calculated Scott’s π using the formula: $\pi = P_o - P_e / (1 - P_e)$

Because we lacked any *a priori* expectations of the marginal proportions, we needed to account for the possibility of chance agreement among coders. Thus, Scott's π is used to analyze our data versus the commonly used Kappa K. Further, though we established the coding elements (categories), verbal contributions (student comments) were free to vary and "fall" into any cell within our coding table. π is not influenced by the frequency by which categories are used. Additional justification for Scott's π can be found in Currall, et al. (1999).

Results From Three Coders

Three coders were used to categorize the student verbal contributions. All coders were independent and had no experience with group support systems or the field of IS. Following the framework of Currall, et al. (1999), we calculated the interrater reliability results between Coders 1 and 2 (0.82); Coders 2 and 3 (0.58); and Coders 1 and 3 (0.79). The average Scott's π was 0.73.

Given the typical 0 to 1.0 scale of reliability, our results indicate a significant degree of agreement among the coders. This would strongly suggest that our dictionary captures those factors impacting the experiences of minority IS/IT doctoral students.

DISCUSSION

We initially hypothesized that minority IS/IT doctoral students are confronted with financial limitations, politics and cultural differences. Based on the number of iterations used to refine our Coding Dictionary, financial limitations failed to emerge as a critical element in this study. This is not to suggest that minority students do not face financial constraints. Though numerous resources (loans, scholarships, fellowships, assistantships, etc.) are available to minority students, each student in our study indicated that they used many, if not most, of the options accessible to fund their Ph.D. matriculations. Among these financial options were part-time and full-time employment external to their universities. Moreover, our data indicate that the KPMG

Foundation and its sponsors of the PhD Project have offered substantial information regarding funding sources for minority students - which was not an available resource when Hammond (1995) conducted her study. This current pool of funding, however, was viewed as "special, minority" and even "Affirmative Action" assistance. For the students in this study, this created labeling that resulted in the appearance of differential treatment.

Cultural differences have a major impact on today's IS/IT minority doctoral students. While monetary constraints, as barriers in the Ph.D. process, have been reduced, institutional deterrents abound. Students emphasized "minimal faculty support, social isolation and the need for minority mentors" as challenges that they still face during the process. While these cultural differences have been addressed in previous research findings, family responsibilities and the need to give back to ethnic communities also emerged in this study. Each of the participants in this study wanted to "give back" to their communities because of the lack of minority role models at every educational level (primary, secondary and university. After all 13 questions were answered, students were able to view the ideas of all members at their individual workstations.)

Moreover, the largest concern of the students was the scarcity of minority IS faculty for mentorship at their home institutions. Though KPMG has established The PhD Project IS Student Association which brings minority students and faculty together at an annual conference, students want to interact with minority faculty on a more consistent basis. This largely is a "pipeline" problem. While this can suggest that there is an inconsequential number of minority IS/IT professors in the field, students felt that minority faculty may limit their interactions with minority students due to tenure pressures and/or undesirable political consequences.

Overall, the results of our data indicate that minority students continue to confront a number of barriers during their doctoral

programs. For Hispanic-American students, language obstacles consistently emerged as cultural issues - thereby making verbal communication as one put it "another something to overcome". To lessen these and other challenges, students suggested that current faculty obtain some form of "ethnic diversity" training. Some suggested that more minorities should consider careers in academia to ensure that adequate mentorship is in place. Lastly, African-, Hispanic- and Native- Americans must educate themselves about the Ph.D. process, not the outcome, prior to enrollment. Earning the terminal degree is a more intensive and extensive process than an MBA program. This means learning about faculty and their research interests, programs of social support and the "politics" impacting completion of the Ph.D. program.

The KPMG Foundation's The PhD Program, founded in 1994, has been successful in enabling minority students to learn about the process of earning a Ph.D. While the program provides opportunities for prospective minority Ph.D. students to interact with current minority and majority faculty prior to enrollment, the foundation's student associations (in IS, marketing, finance, management and accounting) continue to provide the much needed support to students once they have enrolled in their doctoral programs.

As a result of The PhD Project, the number of new minority students entering IS doctoral programs during the last five years (1996-2000) was 10, 12, 14, 8, and 5 respectively. The number of new minority faculty entering the market during this period was 3, 3, 7, 4 and 15 (expected to finish in 2000), respectively. Although significant progress is occurring as a result of the foundation, we must emphasize that this is only one source of assistance. It is limited in its funding from current sponsors and its day-to-day contact with faculty influencing the culture of current doctoral programs.

Despite the KPMG Peat Marwick Foundation's efforts, academic institutions should be aware of and implement a learning process for

diversity competency. According to Cox and Beale (1997), this is a three-phase approach including: awareness, understanding and action. Awareness calls for the academic community to recognize that diversity does have a significant impact on organizational behavior. Further, to obtain understanding, those who are a part of the organization (academic) must become knowledgeable. That is, majority faculty must be educated about ethnic diversity and the concerns of minority students and faculty. Lastly, these steps must be followed by action to engender change.

LIMITATIONS

Our study explored the factors impacting minority IS/IT doctoral students as they attempt to complete the Ph.D. process. We used only 10 students to gather our data, and our sample was limited to those enrolled in IS/IT doctoral programs. Future research can be inclusive of a larger sample across disciplines as well as replicate the work of Hammond (1995) to determine what changes have occurred in the accounting field. Further, an investigation of the value added by groupware would lead to some understanding of whether technology fosters more idea generation than traditional face-to-face techniques.

Finally, our work fails to compare the experiences of minority and majority, international versus U.S. national or African-American and African students. Similar content analyses of such comparative data offer opportunity for future research.

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Appendix A: Survey Instrument
(Items 2-10 were adopted and/or modified from Hammond, 1995)

1. Demographic Data
 - a) Your Age
 - b) Ethnic Group (African, Hispanic or Native American)
 - c) Number of Years Enrollment in Your Doctoral Program
 - d) Prior Work Experience with IS Organizations
2. How did you decide to pursue a Ph.D. in Information Systems?
3. How are you financing your Ph.D. program (e.g., loans, scholarships/grants, teaching/research assistantship, parental support, self/spouse support)?
4. How old were you when you started your Ph.D. program?
5. Prior to the PhD Project Information Systems Doctoral Student Association/ICIS Conference in 1996, had you met a minority information systems Ph.D.? If so, did you meet this(these) person(s) prior to your decision to pursue your Ph.D.?
6. Is your primary interest teaching, research or consulting? Do you have plans to re(enter) a corporate IS environment after completing your Ph.D.?
7. What are your primary research interests?
8. Are you interested in doing research on uniquely under-represented minority (African, Hispanic or Native American) issues? Explain.
9. Do you feel that your experience in your Ph.D. program is different from that of white students because of your race? Explain.
10. Have you had any mentors in your pursuit? If so, what are the ethnic backgrounds and areas of expertise of your mentors (assuming these mentors are in academe)?
11. Describe how accepted you feel in your Ph.D. program by other doctoral students and faculty.
12. Describe your ability to select your desired research topic(s).
13. Discuss the feedback you have received from faculty concerning your progress in your pursuit.
14. What barriers, if any, do you believe have impacted your progress in your Ph.D. program?
15. What are your suggestions in reducing and/or eliminating the barriers that were mentioned in Question #14?
16. Provide any comments that you feel are important when discussing under-represented minorities and their pursuit of Ph.D.s in Information Systems?
17. Have you ever used groupware prior to this meeting? If so, in what setting?
18. Comment on using the GroupSystems today for this research.
19. Have you ever participated in a traditional focus group session?
20. If you answered "yes" to item #19, compare your experiences today (using groupware) to that of a traditional face-to-face session.

* * *

Appendix B: Coding Dictionary

A. Influencing Factors In Deciding to Pursue a Ph.D.

- A1. Teaching As Primary Interest
- A2. Research As Primary Interest
- A3. Love of IS/IT
- A4. Pursuit of Higher Aspirations (e.g., More Knowledge/Education, Service to Minority Youth, Opportunities Beyond Corporate America)

B. Research Interests

- B1. Minority Issues
- B2. “Stay Away” From Minority Topics
- B3. Free to Choose From Current IS Topics (e.g., Computer-Based Communications, E-Commerce, Social Impacts)

C. Ethnic/Racial Differences from the Broader Culture

- C1. Have to Work Harder and Better Than Others
- C2. Enrolled and Accepted into Program Due to Affirmative Action
- C3. Feelings of Isolation
- C4. “Special-Minority” Funding to Minority Students

D. Presence and Backgrounds of Mentors

- D1. Minority IS or Non-IS Faculty
- D2. White IS Faculty
- D3. White Non-IS Faculty
- D4. Corporate Contacts

E. Faculty Feedback

- E1. Supportive Environment
- E2. Little (Not a Voluntary Faculty Process) Feedback Due to Race
- E3. Little (Not a Voluntary Faculty Process) Feedback Due to Gender

F. Barriers Impacting Progress in the Program

- F1. Financial Limitations
- F2. Politics
- F3. Family and Personal Issues
- F4. Lack of Prior Knowledge of How the PhD Process Works
- F5. Cultural Concerns (Language, Lack of Supportive Environment, etc.)

G. Mechanisms to Reduce/Eliminate Barriers

- G1. Better Preparation at All Educational Levels
- G2. Reshape Thinking of “Majority” & Minority Faculty and Minority Students
- G3. Increased Minority Mentorship

* * *

Appendix C: Sample of Student Verbal Contributions as Captured by GroupSystems through Survey Questions

How did you decide to pursue a Ph.D. in Information Systems?

- Wanted to teach; wanted to serve as a role model for inner city youth in technical discipline; wanted challenge of new career (IS Student)
- My desire to teach and research in this area. I would like to teach at a predominantly African-American university or at a university located in a rural area. (IS Student)
- One of my professors suggested (that I) do a Ph.D. while I was pursuing a Masters. His reasoning was that I had a lot of teaching experience. I love research, too. (IS Student)

Do you feel that your experience in your Ph.D. program is different from that of white students because of your race? Explain.

- Yes, I feel as though I have to work 10 times harder and be 20 times better than my white colleagues. I've even had to prove myself worthy of my scholarships by striving to publish earlier than most in my program. I've had classmates ask if I were in the program simply because I am a black female. (IS Student)
- Yes and No. All Ph.D. programs are unique. I have an advantage because of my Computer Science background. I do not feel that race was a major impact on experience. (IS Student)
- Yes. Sometimes I felt like I have to be three times better than white students to demonstrate my abilities. Also, if I do well people assume that I am a product of Affirmative Action and not a product of my own effort. (IS Student)

Have you had any mentors in your pursuit?

- I met my first African-American mentor at The PhD Project in 1996. This person is in IS.
- White, mathematician professor
- White, accounting professor

Sample of Verbal Replies from the Topic Commenter

How did you decide to pursue a Ph.D. in Information Systems?

- I think many of us are unaware of the opportunities in academia. We don't have a lot of PhD role models in our homes, churches, neighborhoods, etc. We need to explain to kids that getting a PhD is more than just being in school and broke for 4 years.... (IS Student -Comment A)
- We also need to be able to see the future of our toil; it is too easy to move back to industry to make bigger \$\$\$.. (IS Student - Comment B - Response to Comment A)
- But...do you have the same flexibility to pursue your interests in industry like you have in academia??? And what about those summer "breaks"!! (IS Student - Response to Comment B)

Do you feel that your experience in your Ph.D. program is different from that of white students because of your race? Explain.

- ...must be great as it is fun. There are few places in the US where color blindness is a reality. (IS Student - Comment A)
- I disagree. ... is fun but racism has not eluded it. (IS Student - Comment B-Response to Comment A)
- I've never been to... but I'm also skeptical that there's anyplace that's "colorblind". (IS Student - Comment B)

Appendix C - Continued

Have you had any mentors in your pursuit?

- The lack of mentors may be attributed to the lack of faculty of color and students of color. Until we get more students into the pipeline, this problem will persist. Additionally, we need faculty who are already out there to be supportive and encouraging. (IS Student - Comment A)
- I find that mentors are looking for a like mind, usually regardless of color. They want common interest and world views on certain topics, an open mind, and a willingness to learn. (IS Student - Comment B - Response to Comment A)
- I agree that some mentors are looking for like minds, however, I had a experience with an over zealous white male professor who wanted to use my ethnicity to help him garner grants for his research! (IS Student - Comment C - Response to B)

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