Are Asian Indian Scientists and Engineers in Academia Faced With a Glass Ceiling?

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Scholarly studies on glass ceiling show that there are invisible barriers that prevent people of color and women to rise into management positions. These barriers often include low human capital, structural/institutional discrimination, poor assimilation, presence of an old boy network, and low social capital. These documented reasons for glass ceiling among Asian Indians in academia, however, are incomplete in explaining the lower representation of these individuals in management positions. Using 36 in-depth interviews with Asian Indian faculty members employed in 18 United States research universities, this study investigates glass ceiling among this group in academia. Several of our participants noted that Asian Indians are perceived as less outgoing and confident in their manners, which can further inhibit their chances of being in leadership positions. While two-third of the participants mention that they were unlikely to be faced with a glass ceiling, they considered themselves as lacking in traits such as assertiveness, extraversion, individualism, and confidence that Western models of leadership consider vital in a leader. Asian Indian faculty members have internalized these differences and are opting out of leadership positions.

Glass ceiling continues to be a challenge for women and minorities in the workforce. According to the United States Department of Labor, the term glass ceiling can be defined as “those artificial barriers based on attitudinal or organizational bias that prevents qualified individuals from advancing upward in their organization into management level positions” (United States Department of Labor, 1991, p.1). Asians as a group have been subject to the glass ceiling, and there is ample research to suggest they face discrimination and challenges in academic and industrial settings (Chen, Rao, & Ren, 2013; Tan, 2008; Varma, 2004; Woo, 2000). Various expressions such as “broken ladder,” “bamboo ceiling,” and “silicon ceiling” have been used to characterize the challenges Asians face in upward mobility within an organization. Asians have come a long way from the time they came to the United States as manual laborers, a century-and-half ago, to the current day Asians who are referred to as “model minorities.” Academic achievement and socioeconomic status of current day Asians, when compared with blacks and Hispanics, has earned them the title. Recent research has criticized the model minority status glorified by several scholars (Ng, Lee, & Pak, 2007; Varma, 2004). In addition, studies show that this group faces challenges of income disparity and upward
mobility in their jobs owing to their “outsider” perception.

While the model-minority status is challenged, Asians continue to grow in number in academic settings. The percentage of Asians or Pacific Islanders in Science and Engineering (S&E) academic workforce grew from 4% in 1973 to 16% in 2010 - with much higher representation in engineering (31%) and computer sciences (37%; National Science Board, 2014). With the increasing percentages of Asian academics in the United States, the National Science Foundation does not classify Asians as an underrepresented minority group (Sabharwal & Corley, 2008). Over time, Asians have formed a critical mass in S&E fields in both academic and non-academic settings. Among Asians, scientists and engineers from India form the largest majority. In 2010, India accounted for 19% of the foreign-born S&E highest degree holders; China was the second leading country with 8% (National Science Board, 2014). Given the increasing presence of Asian Indians in United States academia, a question of importance is: Do Asian Indians continue to face a glass ceiling in academia?

According to data from the Survey of Doctorate Recipients conducted by the National Science Foundation (2015), Asians (both foreign and native born) comprise 9% of dean or department head or chair positions in 4-year institutions, while they comprise 5.7% of very senior positions that include university president, chancellor, or provost. Varma (2006) interviewed 120 Asian Indian scientists and engineers working in academic and non-academic sectors in the United States about their work-related experiences. She found that though Asian Indians have made inroads in high-paying S&E jobs, they are amiss in top level positions that enable them to participate in top decision-making positions in academia, industry, and national laboratories. Asian Indian scientists and engineers encounter the “silicon ceiling” - blocked mobility to reach administrative or management positions. When they do penetrate the silicon ceiling and become presidents and chief executive officers, they tend to be in charge of companies they founded or co-founded themselves.

Using in-depth interviews with Asian Indian scientists and engineers employed in 18 United States research universities, this study investigated the state of Asian Indians in leadership positions. While much has been written about glass ceiling among Asians in general, there are limited studies that use in-depth qualitative data to analyze the ceiling faced by foreign-born Asian Indian faculty members in the United States. There is thus a need for a deeper and richer data analysis on the subject of glass ceilings faced by Asian Indians in higher education. While the study focuses on Asian Indians in STEM fields in higher education, we draw from literature on Asians in general, as studies on Asian Indian migrant faculty members is limited.

Previous research on glass ceiling for Asian scientists and engineers has recognized the presence of structural obstacles in career progression. These structural barriers can include racial prejudice, language deficiencies, the presence of an old boys’ network, lack of management training and mentoring, inadequate access to informal networks of communication, and inadequate negotiation skills (Takei & Sakamoto, 2008; Tan, 2008; Varma, 2004). The number of foreign-born in the United States workforce is ever increasing; however, with growing population and diversity come overlapping identities and allegiances. Shinagawa (2005) found that Asians are becoming more affected by the perceptions of themselves held by each other and others. Asians place a great deal of emphasis on education due to their “immigrant ethos”; thus, they measure their social and economic success based on their attainment of higher education (Shinagawa, 2005; Varma, 2004). The ceiling among Asians is attributed to a perception widely held among majority group members that Asians lack leadership qualities and are risk-averse. While this might be factual in some cases, over generalizations and stereotypes like these can hurt the image of the Asians as a group. Several theories have been explored to explain glass ceiling in the workforce, the most common being assimilation theory, self-efficacy, and self-determination theories. However, limited research has utilized these theories to study the issue of glass ceiling among Asian Indian engineering and science faculty members in the United States. We believe that these theories might provide us a lens with which we
can examine the upward mobility of this group of faculty members.

**Assimilation Theory**

Assimilation is the process by which minorities integrate into the dominant mainstream group by adopting the dominant culture's lifestyle, such as dress, food, and hobbies. During this process, minorities adopt the overriding culture of the dominant group, and in some forms of assimilation this process is a two-way exchange (Alba & Nee, 1997; Gordon, 1964). Gordon (1964) described assimilation as a seven-step process that includes acculturation, structural assimilation, marital assimilation, identificational assimilation, attitude reception assimilation, behavior reception assimilation, and civic assimilation. For the purposes of this study, we focused on acculturation and structural assimilation. The other five dimensions delve into in-depth cultural exchange and are unable to explain the challenges Indian scientists and engineers face in upward mobility.

Lack of acculturation contributes to the glass ceiling among Asian immigrants (Kim, Ahn, & Lam, 2009; Woo, 2000). Acculturation is a phenomenon whereby a minority group adopts the cultural pattern of its host society—this process extends beyond extrinsic cultural traits, such as English language proficiency and Western dress, and can encompass intrinsic traits such as cultural attitudes and important cultural characteristics (Schwartz, Unger, Zamboanga, & Szapocznik, 2010). Examples of American cultural attitudes and important cultural characteristics include competition, confidence, strong interpersonal skills, and sense of humor. The innate nature of acculturation speaks to the relationship between migration, culture, and survival. Structural assimilation is the “entrance of the minority group into the social cliques, clubs, and institutions of the core society at the primary group level” (Alba & Nee, 1997, p. 830). By this stage, outsiders have accepted the cultural norms of their society; however, their host society might still treat them as outsiders. Once an outsider is accepted by the host society, they start benefiting from the social networks in this stage. After this step, other forms of assimilation naturally follow.

According to this theory, Asian Indian faculty members must possess professional skills, high education levels, English proficiency, and high levels of cultural and structural assimilation to break through the ceiling. Asian Indians are among the most educated groups in America, and because they often hail from regions in which English is one of the official languages, their language proficiency is stronger than the other foreign-born groups. Asian Indians also exceed the national average for higher education degrees – in 2013, 76% of Indian immigrants ages 25 and above had a bachelor’s and higher degree compared to 30% native-born (Zong & Batalova, 2015). While Asian Indians appear to be acculturated in United States society, lack of structural assimilation prevents them from being part of professional networks, which further restricts their mobility into upper management positions. Asian Indians are usually boxed into certain occupational niches, once they have met the linguistic and educational standards, but the stereotype that Asians lack leadership traits and are too technical still persists (Varma, 2010). However, assimilation theory is unlikely to take into account differences in personality and motivations that prevents an individual from reaching leadership positions.

**Self-Efficacy and Self-Determination Theories**

Considerable evidence has shown that self-efficacy plays an important role in career decision-making and upward mobility (Michie & Nelson, 2006). Self-efficacy refers to perceived capabilities for learning or performing actions at designated levels (Bandura, 1997). It can influence the choices people make and the course of action they pursue. Individuals tend to select tasks and activities in which they feel competent and avoid those in which they lack confidence. Self-efficacy has powerful influence on individuals’ motivation, achievement, and self-regulation (Bandura, 1997). It is likely that the perceptions and expectations that Western society has formed around Asians, specifically Indian faculty members in academia, has greatly influenced and shaped the way they view themselves (self-perception). According to Libaers (2014), foreign-born scientists migrate to the United States to get access to research facilities, work on cutting-edge research, and build a
scientific community in the process improving their academic careers and standard of living.

Foreign-born faculty members are shown to be more productive than their Caucasian peers – they produce more articles and are more successful in patenting and grant seeking activities (Corley & Sabharwal, 2007; Sabharwal, 2011a; 2011b). This is true of Asian Indians as well – they know their strength is in research, and they may be unlikely to break out of the mold they have been placed in. Linked to the self-efficacy theory is the self-determination theory (SDT). It is a macro theory of human motivation and personality, concerning people’s inherent growth tendencies and their innate psychological needs (Gagné & Deci, 2005; Ryan & Deci, 2000).

SDT is concerned with the motivation behind the choices that people make without any external influence and interference. It distinguishes between intentions (intrinsic motivation) and incentives (extrinsic motivation). Those who are unmotivated have fewer incentives to participate in whatever activity is being asked of them. SDT in combination with the self-efficacy theory might help explain why there are fewer Asian Indian faculty members in leadership roles. It is likely that they are dispassionate to pursue leadership positions because they derive inherent satisfaction doing what they excel in (research) and are unmotivated by any of the incentives offered by leadership, which are usually extrinsic in nature (recognition, pay raise, and power). However, self-efficacy and self-determination theories are unlikely to take environmental factors into consideration that create structural obstacles for Asians to move into leadership positions.

**Western Leadership Models**

The critics of aforementioned theories suggest that existing leadership models are predominantly pro-White and male. Qualities that make a good leader are typically associated with Western models of leadership that emphasize aggressiveness, assertiveness, acting like a leader, self-reliance, self-confidence, being forceful in negotiations, independence, dominance, and ambition (Eagly & Karau, 2002). These traits are specific to the Western philosophy of leadership, and so is the term “leader.”

In individualistic societies like the United States and the United Kingdom, a leader is one who takes charge and “leads” the organization towards its mission and goals. While in a collective society such as China, India, Korea, or Malaysia, leadership is aligned with group values and endeavors (Jogulu & Wood, 2008; Steers, Sanchez-Runde, & Nardon, 2012). Thus the Western models of leadership formed the basis of most research that exists today.

Asian cultural values clash with the values of Western leadership, which is why foreign-born Caucasians are more likely to be promoted than American-born Asians (Woo, 2000). Asian values emphasize deference to authority, loyalty, modesty, harmony, collective decision-making, and risk avoidance, which are very different from Western values that emphasize competition, risk taking, confidence, conflict, and an individualistic mindset (Cheng et al., 2014; King & Wei, 2014). As a result of internalizing these cultural values, Asian Indian faculty members may view themselves as less qualified for leadership or management roles than their white peers. Thus, a stereotype about a race/ethnic group can be reinforced by the members of the same group, a phenomenon called internalized racism or internalized oppression, which “occurs when socially stigmatized groups (e.g., Black males) accept and recycle negative messages regarding their aptitude, abilities, and societal place, which results in self-devaluation and the invalidation of others within the group” (Harper, 2006, p. 338).

Members of Asian immigrants over time have internalized the perceptions held by the majority group by believing in their own inferior leadership skills. This concept was used by Lipsky (1987) to explain the lack of Blacks in leadership positions. Paradoxically, as the model minority stereotype persists for Asians, they continue to be underrepresented in leadership positions (Woo, 2000). The perception that Asians lack the requisite skills of being in leadership roles is widespread in all sectors of the society. While immigration research has focused on challenges of structural assimilation and acculturation, less attention has been paid to how these groups inculcate ideologies of the dominant group and internalize perceptions, biases, and stereotypes that perpetuate overtime (Pyke & Johnson, 2003).
Table 1
Pseudonym and Demographic Characteristics of Participants

<table>
<thead>
<tr>
<th>Participant Pseudonym</th>
<th>Job title</th>
<th>Gender</th>
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<tbody>
<tr>
<td>Nikhil</td>
<td>Assistant Professor</td>
<td>Male</td>
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<tr>
<td>Parvati</td>
<td>Assistant Professor</td>
<td>Female</td>
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<tr>
<td>Pradeep</td>
<td>Assistant Professor</td>
<td>Male</td>
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<tr>
<td>Pranav</td>
<td>Assistant Professor</td>
<td>Male</td>
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<tr>
<td>Sahil</td>
<td>Assistant Professor</td>
<td>Male</td>
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<tr>
<td>Sandeep</td>
<td>Assistant Professor</td>
<td>Male</td>
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<tr>
<td>Sudhir</td>
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<td>Male</td>
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<tr>
<td>Yash</td>
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<tr>
<td>Aditya</td>
<td>Associate Professor</td>
<td>Male</td>
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<tr>
<td>Akhil</td>
<td>Associate Professor</td>
<td>Male</td>
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<tr>
<td>Armaan</td>
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<td>Male</td>
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<tr>
<td>Bipin</td>
<td>Associate Professor</td>
<td>Male</td>
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<tr>
<td>Devraj</td>
<td>Associate Professor</td>
<td>Male</td>
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<tr>
<td>Lakshmi</td>
<td>Associate Professor</td>
<td>Female</td>
</tr>
<tr>
<td>Sharma</td>
<td>Associate Professor</td>
<td>Male</td>
</tr>
<tr>
<td>Suresh</td>
<td>Associate Professor</td>
<td>Male</td>
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To summarize, assimilation theory is used to examine and explain how the cultural and structural assimilation of Asian Indians affected their career and life paths. Self-efficacy and self-determination theories are used to explain the ways in which self-perception and self-motivation of Asian Indians impact their upward mobility. Through these theories, we seek to examine and explain how Asian Indian faculty members perceived themselves and their opportunities for advancement in academia.

Method

The purpose of this qualitative study was to explore the lived experiences of Asian Indian faculty who work in S&E and contribute to the research machinery of this nation. These faculty members were employed at institutions of higher education across the United States and were selected from a pool of 108 institutions classified by the Carnegie Classification as research universities with very high research activity. A total of 18 institutions were identified based on ranking, geographic spread, and the presence of highest Indian population. According to the 2010 census of the United States, the top six states in the United States where Asian-Indians are concentrated (United States Census refers to this group as Asian Indians) are California, New York, New Jersey, Texas, Illinois, and Florida.

We then examined the curriculum vitae of faculty members in S&E programs at the selected sites to include only participants who received a BS degree from India. The names of the institutions are concealed to comply with the Institutional Review Board's (IRB) requirements for anonymity of participants. All participants in this study received a PhD from a United States institution in science or engineering with a minimum of five years of experience in academia. Tables 1 and 2 list all the participants with their pseudonyms, rank and gender. A semi-structured interview guide was used to conduct 36 in-depth face-to-face and on the phone interviews, which lasted from one to two hours. The interviews were recorded and transcribed for analysis. The sample size is considered a good number for a qualitative study based on interviews (Creswell, 2013). Thus, in a phenomenological study like this, Creswell (2013) recommends conducting at least 20-30 in-depth interviews, however, these numbers may need to be larger to achieve saturation.

The two questions that we used for this study were: a) There is data that shows that India-born scientists and engineers are less likely to be in leadership positions (chair or
A phenomenological approach was employed to study the issue of glass ceiling among Asian Indian faculty members employed in United States academic institutions. According to Creswell (2013, p. 57), a phenomenological study “describes the meaning for several individuals of their lived experiences of a concept or a phenomenon.” This approach is usually used when participants have a common experience; in this study, all the participants came to the United States for acquiring higher education and have stayed in the United States to work in institutions of higher education. Information is usually collected on how they experience a phenomenon, for example, the concept of glass ceiling in this study. In particular, this study used transcendental phenomenology, which “consists of identifying a phenomenon to study, bracketing out one’s experiences, and collecting data from several persons who have experienced the phenomenon” (Creswell, 2013, p. 60). The information collected from the participants is reduced to statements and further reduced to themes. First, we developed a textural description of the phenomenon of glass ceiling (what is being experienced), and then a structural description of how they experienced the phenomenon is described. Textural and structural description in combination provides the

<table>
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<tr>
<th>Participant Pseudonym</th>
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<th>Gender</th>
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<tbody>
<tr>
<td>Aarav</td>
<td>Professor</td>
<td>Male</td>
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<tr>
<td>Ajay</td>
<td>Professor</td>
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<td>Amod</td>
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<td>Deepak</td>
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<td>Ganesh</td>
<td>Professor</td>
<td>Male</td>
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<tr>
<td>Gautam</td>
<td>Professor</td>
<td>Male</td>
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<tr>
<td>Harish</td>
<td>Professor</td>
<td>Male</td>
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<tr>
<td>Hemanth</td>
<td>Professor</td>
<td>Male</td>
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<tr>
<td>Kamal</td>
<td>Professor</td>
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<td>Karan</td>
<td>Professor</td>
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<td>Krishna</td>
<td>Professor</td>
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<tr>
<td>Maneesh</td>
<td>Professor</td>
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<tr>
<td>Prakash</td>
<td>Professor</td>
<td>Male</td>
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<tr>
<td>Raj</td>
<td>Professor</td>
<td>Male</td>
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<tr>
<td>Rajiv</td>
<td>Professor</td>
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<tr>
<td>Rishi</td>
<td>Professor</td>
<td>Male</td>
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<tr>
<td>Shiva</td>
<td>Professor</td>
<td>Male</td>
</tr>
<tr>
<td>Vikram</td>
<td>Professor</td>
<td>Male</td>
</tr>
<tr>
<td>Mohan</td>
<td>Vice President/Professor</td>
<td>Male</td>
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Three-fourths (75%) of the participants were employed at public institutions in the United States, were overwhelmingly male, and were working in various engineering departments: aerospace, civil, computer, electrical, environmental or mechanical. Less than one-fifth of the respondents worked in biology, chemistry, and physics departments. More than half of the participants were full professors, one-fifth were associate professors, and a quarter were assistant professors. On average, these faculty members had been in the United States for 23 years with over 15 years in academia.

A phenomenological approach was employed to study the issue of glass ceiling among Asian Indian scientists and engineers are faced with a glass ceiling? If yes, how? If not, why not? And b) Do you prefer to move to a management position? If yes, why? If no, why not? Based on their responses, the interviewer probed for more information and specific details.

The information collected from the participants is reduced to statements and further reduced to themes. First, we developed a textural description of the phenomenon of glass ceiling (what is being experienced), and then a structural description of how they experienced the phenomenon is described. Textural and structural description in combination provides the
entire essence of the experience of the participants (Creswell, 2013).

Internal Validity

In order to increase the credibility and reliability of the study, two coders were hired (a senior undergraduate student and a graduate student). The coders were trained on the process, and a pilot was conducted on five randomly selected transcripts. The coders came up with themes and subthemes, which we discussed prior to coding. Once agreement was achieved, both coders independently coded the 36 in-depth interviews. A negotiated agreement approach was adopted for assessing inter-coder reliability. This is an approach wherein “two or more researchers code a transcript, compare coding, and then discuss their disagreements in an effort to reconcile them and arrive at a final version in which as many discrepancies as possible have been resolved” (Campbell et al., 2013, p. 305). We extensively reviewed the coding and analysis given our expertise in the area of foreign-born faculty in S&E. Furthermore, the interviewers are of Indian origin, which further increased the credibility of the data. We practiced reflexive analysis, which is a technique that involves chronicling immediate reactions, observations, and biases after conducting an interview. We also made brief notes about each interview immediately after finishing each one, which further helped improve the credibility of the findings.

Results

Do Asian Indian Faculty Members Face a Glass Ceiling?

When asked if Asian Indian faculty were faced with a glass ceiling, majority of the participants responded in the negative, while one-third of them were affirmative. The participants provided various reasons for their responses. Of those who believed there was a glass ceiling, a large majority were tenured faculty members in more senior roles of associate or full professor. Of those who responded in the negative to a glass ceiling, about one-third were assistant professors and the remaining were either associate or full professors. We noted that senior professors were more likely than junior faculty members to indicate a glass ceiling. This was probably because untenured faculty members were unlikely to think of administrative positions; instead, their main goal was to focus on their research and teaching to attain tenure. It was the tenured and senior faculty members who were likely to aspire to be in administrative positions and to face challenges to move up the ladder.

Participants who responded “no” to a glass ceiling provided several reasons, which were combined into four categories: a) presence of critical mass, which consisted of comments that showed presence of sufficient number of Asian Indians with respect to their population in the United States so that moving to administrative positions has become somewhat self-sustaining, b) disinterest in administrative positions that included statements suggesting that Asian Indians were disinterested in climbing to the administrative ladder because they were more interested in scientific research and technical development than in personnel issues, c) lacking administrative traits that consisted of remarks pertaining to skills such as communication, planning, organizing and staffing—which were considered essential for success in administration; and d) non-western socialization that included references to cultural upbringing in India and lack of exposure to Western social and cultural details. Although there were 24 potential responses to this question, many of the respondents attributed more than one reason for their response, which amounted to an aggregate of 58 comments.

Presence of Critical Mass. More than a quarter of the responses suggested that the existence of the glass ceiling was not due to a large mass of Asian Indians in the S&E fields. Several participants indicated that they found no ceiling in department chair head positions due to sheer numbers; in fact, one of them noted that when he was selected as the department chair, “there were three people that were candidates. Two of them were Indians, and one was from Scotland.” Asians and particularly those of Indian origin were often seen in chair and department head positions. Krishna, a male professor, explained, “In computer science, we have an Indian origin person who is the chair…I don’t believe there is [a glass ceiling] in the electrical or computer science area...there is not...because there are so many Indians.” Similarly, both Sandeep and Ankur, an assistant and full
professor in the engineering department, pointed out that several departments in the school of engineering were led by Indians; the center that Sandeep worked for was headed by an Indian as well. Given the influx of Asian Indians in science and engineering programs in the United States, this group is not considered as a minority anymore. They have begun to form a critical mass in certain departments, especially computer science and electrical engineering programs.

Disinterest in Administrative Positions. Several respondents indicated that there was no glass ceiling as it is an individual’s personal choice in seeking a leadership position. In other words, Asian Indian faculty members are self-selecting, or even self-omitting, from leadership positions. Several participants noted that to be in leadership positions required a certain level of motivation and an innate desire, and as such “it has never really interested” these faculty members. Others believed that leadership positions required extra work; Asian Indian faculty members felt that being in leadership positions could impact their productivity and take time away from their research. Amod, a full professor, summed it up: “Sometimes it is a disaster because it takes up too much time… you see Indians like to do their technical work and don’t want to spend too much time doing other things.” While there are few prominent examples of Asian Indians as university presidents or chancellors, these are far and few (e.g., Dr. Pradeep Khosla, Chancellor, University of California San Diego; Dr. Subra Suresh, President of Carnegie Mellon University; Satish K. Tripathi, President at the State University of New York at Buffalo; Kumble Subbaswamy, Chancellor of the University of Massachusetts, Amherst). Most of the participants in our study self-selected out of administrative roles due to time commitment, rather than systematic institutional discrimination.

Lack of Administrative Traits. Close to one-fifth of the responses indicated that promotion to administrative positions was a factor unrelated to race, ethnicity or nationality, but individual personality traits. Vikram and Karan, both full professors, did not believe that one’s propensity to be in administrative positions was a factor of race or being Indian. It is about “confidence,” “good communication skills,” and “humor,” as pointed out by Vikram:

It has less to do with being from a different country and probably more to do with having those skills that are needed at the administration level. We never learn to develop the communication skills and never learn to work with a sense of humor that is pervasive in this culture.

Raj, a full professor, indicated: “To be a dean, a chancellor, you have to have a certain type of personality trait.” Several participants discussed the good communication and leadership skills that were needed to be an administrator, which Asian Indian faculty members’ lack. Furthermore, Asian Indian cultures are less likely to promote outgoingness, and being forthcoming can be considered rude. Other characteristics required for leadership positions were an outgoing personality, self-confidence, and extraversion – all traits that are often deficient in Asian Indian communities and cultures.

Non-Western Socialization. According to some participants, early socialization practices played an important role when considering administrative positions. The notion was that Asian Indian culture emphasized different traits than Western cultures. There were certain characteristics, like respect for elders, humility, and the value of one’s wellbeing, which Asian Indian cultures emphasize, while Western cultures often emphasize characteristics such as individualism, confidence, assertiveness, and competitive. All of the respondents in the study received a bachelor’s degree from India, which meant most had spent 22-23 years in their home country and had different cultural backgrounds and upbringing that shaped their experiences. Nikhil, an assistant professor, highlighted the lack of socialization (in early years) among Asian Indian faculty members as a reason why they are unlikely to be in leadership positions. He explained:

You are meeting with a sponsor or client or something or you are having lunch and… they bring up football for some reason. When you talk about it, it is very different from other conversations we exchange. It is just a matter of connecting… it is very difficult to relate to the experience, to relate to an alumni who is probably the same age as I am, but has been to school here. There is
some kind of connection, the ways they talk...the ways they sense.
The narrative as pointed out by Nikhil, indicated that not attending high school and undergraduate in the United States can be one the barriers in the socialization process of Asian Indian faculty members. Individual preferences, likes and dislikes are shaped early in life, since all participants in our study received an undergraduate degree from an Indian institution, their experiences were different from native-born faculty – sometimes serving as a disadvantage in social interactions.

Presence of a Glass Ceiling

Of those who responded “yes” to a glass ceiling, the responses were combined into two categories: a) poor fit as Administrators – this category consisted of statements which showed that Asian Indians are viewed as having poor administrative skills owing to their personality and cultural differences; and b) ceiling at highest levels or in industry – respondents in this category mention that the ceiling is prevalent in industry versus in academic settings or at the very highest levels in academia such as president or a chancellor. Although 12 participants responded “yes” to a glass ceiling, it is important to note that several respondents often discussed multiple subthemes in a single response. Therefore, there are an aggregate of 19 comments. The percentage was calculated by dividing the total amount of comments by the frequency of the subtheme.

Poor Fit as Administrators. More than three-fourths of the responses attributed glass ceiling to the perception that Asian Indian faculty members are an unlikely fit in administrative positions. Ganesh, full professor, was very clear about the presence of a glass ceiling, but did not know “whether it is coming from us or coming from outside.” Overall, respondents indicated that Asian Indian faculty members were deficient in interpersonal and leadership skills such as communicating, connecting with others, and socializing. Shiva, a full professor, also indicated that it was important to have leaders who would represent the majority student body. He further noted that most students coming to college “are local white Americans. So you want the same type of people standing there. It is a tendency.” Several of those who perceived a glass ceiling said that it was important to “fit in” and feel a sense of “belongingness.”

Additionally, Maneesh, a full professor, observed that being an excellent researcher was insufficient to be a good leader. According to him, “to go up the ladder, you have to do other types of things. This is typically something first generation Indians do not possess.” Sudhir, a male assistant professor, discussed the opportunities or lack thereof that Asian Indians are exposed to from early on:

So leadership is more than an output...there are other things, like managing people...both in managing up and managing down. How will you deal with people below you? Above you? So these are things that need to be taught. It is not that some people are just born good leaders and others are not. It is about how much you are exposed to these things.

Professors Maneesh and Shiva noted that western societies promote a certain type of leadership skill that is often very different from Asian cultures. Furthermore, owing to this image, Asian Indian faculty members are less likely to be involved in administrative positions, and several participants acknowledged the challenges that come with these positions. Sudhir noted that leadership qualities are inculcated from early childhood in Western societies. According to him, building problem-solving skills, critical thinking, and self-empowerment are taught to young elementary school students in the West, while leadership is considered a trait that one is born with in Asian societies.

Ceiling at Highest Levels or in Industry. This category refers to the differences in academic and industry settings. Close to one-fifth of the respondents indicated that there was a ceiling present in the industry, and in academia, the ceiling was at the highest positions. Respondents mentioned that despite the presence of a large number of Indian scientists and engineers in industry and academia, very few reach the highest position such as deans, president, chancellor, or Provost in academia and CEO or vice-president in a company. Kamal emphasized the interpersonal relationships one needs to build in the industry, which makes it harder for Asian Indians to feel “assimilated.”
Preference of Moving into an Administrative Position

In the United States, an administrator is responsible for overseeing operations for the department (i.e., chairs), schools or colleges (i.e., deans), an entire unit or office (i.e., associate deans or vice presidents), and the whole university (i.e., provost or president or chancellor). In addition to managing university operations, an administrator also oversees work of other employees. If Asian Indian faculty members are interested in leadership roles, they should want to move into an administrative position. Consequently, we asked our participants if they preferred to be in administrative positions. We limited administrative position to department head, chair, or dean. Of the 36 participants, about one-third responded yes to moving into an administrative position, while about half responded “no” and the remainder were mixed in their responses. We did not ask four of the participants this question since they were already in administrative positions (chair, head, or director). The “mixed response” category comprised of participants who were unsure about moving into an administrative position as they were concerned about the time such positions required, as well as timing in their career and personal life. Those who wished to move into an administrative role expressed desire to be involved in the decision making process. These participants identified their desire to shape and influence the program they were working in.

Mohan, a high level administrator provided this response:

Management side meaning the entire organization, how funding mechanisms works. How you put together a business plan and explain how the impact of the research works. So I am naturally attracted in that direction...to think about it more from a global, big picture perspective as opposed to getting stuck in just one little research element of what I am doing.

Yash, an assistant professor, expressed desire to be in management positions. He stated, “Definitely I would want to because that would give me a chance to bring a change which I think is beneficial or break away from the existing way that things are working.” Those who did not want to move into a leadership role indicated that such positions took up too much time, were stressful, and distracted faculty members from their research; others simply opted out of leadership positions because they did not want to be involved or believed they lacked the personality and qualities that leadership requires (i.e., being extrovert). Respondents also recognized that administration and research required very different sets of skills. Kamal, a full professor, aptly stated the difference between an administrator and a researcher:

At the management level, it is all about allocation of resources and it is sort of managing the expectations of many independent faculty members, and research is really building the careers of the science you work on, as well as your own. And adjusting certain scientific problems. And that is just a different set of skills and I am better suited personally to doing the research part.

Parvati, a female assistant professor, could not see herself in management position, as she felt she lacked the personality to be in a leadership position. She wanted to focus on her research, and her response could be indicative of where she is currently in her career, an un-tenured faculty at a research university. This pattern was true for most Asian Indian faculty members who felt comfortable focusing on their research rather than moving into administrative roles.

Discussion

Although Asians in the United States have achieved the status of “model minority,” studies reveal that they still face glass ceiling in the work place (Chen et al, 2013; Sabharwal, 2017; Tan, 2008; Varma, 2010; Woo, 2000). These studies show that while they have achieved high socioeconomic status, Asians continue to experience barriers to promotion. This qualitative study used a phenomenological approach to explore the lived experiences of Asian Indian faculty currently residing in the United States. Most of the participants came to the United States in pursuit of higher education and are currently employed in the S&E fields at research universities. The results of this study indicate that while 66.6% of the participants do not believe there is a glass ceiling, one-third chose not to move into an administrative position. So why do Asian Indian faculty have qualms about obtaining a leadership position?
Several faculty members who believed there was no glass ceiling were disinterested in administrative positions as they were unlikely to see the benefits of being in leadership positions – these faculty were more focused on research. The self-efficacy and self-determination theories thus supported the explanation of self-imposed ceiling faced by Asian Indians. Based on these theoretical frameworks, we can argue that Asian Indian faculty members select tasks they excel at (i.e., research) and avoid administrative positions, as they feel they lack the qualities of a successful leader. The findings indicate a strong preference for Western models of leadership that is deeply ingrained among this immigrant group. Although Asian Indians have high levels of human capital (education and English language proficiency), their low levels of socialization into the Western ways of life reduce their chances of being in leadership positions.

Several of our participants noted that Asian Indians are perceived as less outgoing and confident in their mannerisms, which can further inhibit their networking attempts. Asian Americans educated in the United States are also disadvantaged owing to their perceptions about being very technical and lacking managerial skills (Takei & Sakamoto, 2008). There is a strong resistance to Asian American managers because White managers are seen as more competent and more able to relate to white workers (Sakamoto et al., 2006). The difference in individual personality traits is a result of the varying leadership traits promoted in each culture. For example, extraversion, confidence, competitiveness, and risk taking are highly regarded in Western societies, whereas Indian cultures value humbleness, respect for elders, and the wellbeing of others. Perhaps Asian Indian faculty members have internalized these differences and are opting out of leadership positions. Extraversion as such has been widely related to leadership (Bass, 1985; Kirkpatrick & Locke, 1991). Kirkpatrick and Locke (1991) suggested: “Leaders are more likely than non-leaders to have a high level of energy and stamina and to be generally active, lively, and often restless” (p. 50). Respondents in this study recognized these traits as important for leadership, and further indicated that they lack these at an individual level. However, as pointed out earlier in the paper, leadership studies are heavily focused on Western models of leadership, and less attention has been paid to how migrant communities (in this case Asian Indians) internalize existing models and ideas about leadership. The results further reinforce the dominance of Western leadership models in academia.

On the other hand, one-third of the participants believed there was a glass ceiling of which more than three-fourths of the participants claimed that it was attributable to poor fit in administrative positions. Factors that contributed to the poor fit include individual personality traits, lack of exposure to Western cultures, and a perception of having poor administrative skills. These participants indicated that Asian Indians lack the interpersonal and leadership skills that are needed for being in management positions. In summary, if the U.S. is a colorblind meritocracy requiring high levels of education then why should cultural differences matter? The results of this study could suggest racial bias in academia, a space that often claims to celebrate cultural and racial diversity. To assume that the absence of characteristics such as individualism, confidence, assertiveness, and competition prevents Asian Indians from being leaders further reinforces the internalized oppression referenced earlier in the literature and excuses the dominant culture from thinking about “leadership” in a more inclusive approach. Such a narrow interpretation of “leadership” is a disservice to academia, because it prevents universities from recognizing intercultural manifestations of leadership, and adapting to leadership and learning in a more global context (Alban & Reeves, 2014).

Limitations and Future Research

While Asian Indians have achieved a critical mass in science and engineering fields, the management in these fields is still overwhelmingly white. Participants in this study noted that it is common for an Asian Indian faculty member to be promoted to department chair and perhaps to dean; however, Asian Indians as president, provost, or chancellor is uncommon. The ceiling among scientists and engineers is thus quite apparent at the highest positions in academia, and future studies can examine this in-depth. Since some respondents in the study also indicated a presence of glass ceiling in industry as opposed to academia, further investigation on this issue is warranted. However, it should be noted that administrative positions in
academia are fewer as compared with the industry. There is a due process in academia from assistant to associate and to full professor. In industry there is no such defined path, there are several managers, and thus several opportunities to be in leadership positions. Issues of glass ceiling among Asian Indians might thus be of concern in the industry. Future research can also interview the majority white group to compare and contrast the perceptions held by this group about Asian Indian faculty members in leadership positions. The study has its limitations. Given the specific group and limited sample size, it is difficult to generalize the findings to other groups of migrants in higher education. However, generalizability is not a goal of qualitative research. Ethnic groups within the larger Asian community in the United States are faced with very different challenges and prospects. The results of this study can help build on the idea of internalized racism for migrants in higher education. Furthermore, this study did not focus on Asian Indians already in high-ranking positions in academia. Future research can focus on scientists who are in senior administrative positions in academia to understand their challenges and struggles.

References


