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Shauna Lo
University of Massachusetts Boston, shauna.lo@umb.edu

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While it is often believed that Asian American professionals have achieved equal status to—or surpassed—Whites in career success, a study by Helen Yu reported that nearly 75% of Asian Americans who were denied a promotion felt it was because of their race or ethnicity.¹

The term “glass ceiling” refers to a discriminatory, but invisible barrier that prevents certain groups such as women and people of color from reaching upper-level positions in organizations. Commonly used in the 1970s and 1980s, terms such as “concrete ceiling” or “firewall” have been suggested since then to describe barriers that are neither breakable, invisible, nor unidirectional.²

There have been varied methods used to examine the presence of “glass ceilings.” For this report, the Institute for Asian American Studies (IAAS) accessed U.S. Equal Employment Opportunity Commission (EEOC) EEO-1 data from 2018 to find out if Asian Americans (as well as Whites, Blacks and Hispanics) are underrepresented in executive and managerial positions in Massachusetts businesses. The EEOC requires regular reporting by employers on the composition of their workforces. Private companies with 100 or more employees or federal contractors with 50 or more employees must file an EEO-1 report that includes information on the sex and race/ethnicity of their employees.³

The methodology IAAS used was developed by the organization, Ascend in their study on the glass ceiling in the San Francisco Bay Area technology sector.⁴ Ascend created two indices to examine the representation of Asian American and other groups of color in senior and first or


³ Please see the note at the end of this report for details about the data.

middle level positions. They are the **Executive Parity Index (EPI)** (the ratio of the percentage of executives to the percentage of entry-level professionals) and the **Management Parity Index (MPI)** (the ratio of the percentage of managers to the percentage of entry-level professionals) where "executives" refers to executive and senior-level officials and managers; “managers” are first or middle level officials and managers; and “entry-level professionals” refers to professionals in non-managerial positions.

Instead of looking at the representation of Asian Americans in various job categories relative to their population numbers, **these parity indexes look at the percentage of Asian Americans in management positions relative to the percentage in entry-level professional positions.** This is because although Asian Americans may be well-represented in entry-level positions, they may not be moving up the workplace ladder to higher level positions. We believe these indexes give a more accurate picture of the presence of glass ceilings for Asian Americans.

For this exploratory analysis, data for all industry sectors combined is presented first followed by data for selected industry classifications: Professional, Scientific, & Technical Services; Health Care & Social Assistance; and Manufacturing & Information.

**All industry sectors combined**

In private industry as a whole, Chart 1 shows that Whites number 1.17 on the Executive Parity Index, while all groups of color number below .6. A value of 1.0 would indicate proportional parity—members of a group hold executive-level positions at an equal rate as they do entry-level professional positions. The 1.17 EPI number indicates that Whites are above parity, or overrepresented, in executive-level positions by 17%, while **Asian Americans, with an EPI number of .42, are underrepresented in executive-level positions relative to their rate in entry-level professional positions by 58% (1.0-.42=.58).** A breakdown by race and gender reveals that both White women and White men are above parity for executive-level positions (Chart 2). Asian American women fare better than Asian American men, who, with an EPI number of .37, are underrepresented by 63%.

All three groups of color show a marked improvement in representation on the Management Parity Index, which measures the rate of first or middle level managers relative to entry-level professionals (Chart 3). However, **Asian Americans are the most underrepresented in first and middle level management positions of all four groups. Asian American men are even more underrepresented than Asian American women (Chart 4).**
Table 1. Employees by Job Category and Race/Ethnicity for All Industry Sectors in MA, 2018

<table>
<thead>
<tr>
<th>All sectors</th>
<th>Executives</th>
<th>First and Middle Managers</th>
<th>Entry-level Professionals</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>29,402</td>
<td>146,983</td>
<td>354,604</td>
</tr>
<tr>
<td>Black</td>
<td>600</td>
<td>6,735</td>
<td>23,263</td>
</tr>
<tr>
<td>Hispanic</td>
<td>819</td>
<td>8,018</td>
<td>20,189</td>
</tr>
<tr>
<td>Asian</td>
<td>1,785</td>
<td>14,457</td>
<td>59,708</td>
</tr>
</tbody>
</table>

Note: The red line at 1.0 indicates parity, that is, the rate at which members of the group hold management positions is equal to the rate at which they hold entry-level professional positions. Executive Parity Index refers to executive/senior level positions, Management Parity Index refers to first/middle level management positions.
Professional, Scientific, & Technical Services

All groups of color are severely underrepresented in executive positions in professional, scientific and technical services (Chart 5). Asian Americans, while making up 18.2% of entry-level professionals in these fields, comprise only 8.5% of executive positions (Table 2). They are, however, fairly well represented as managers in this sector, being only 15% below parity. Asian American men in particular are close to parity on the Management Parity Index in this sector (Chart 7).

Note: The red line at 1.0 indicates parity, that is, the rate at which members of the group hold management positions is equal to the rate at which they hold entry-level professional positions. Executive Parity Index refers to executive/senior level positions, Management Parity Index refers to first/middle level management positions.

Table 2. Employees by Job Category and Race/Ethnicity in Professional, Scientific, and Technical Service in MA, 2018

<table>
<thead>
<tr>
<th>P, S &amp; T</th>
<th>Executives</th>
<th>First and Middle Managers</th>
<th>Entry-level Professionals</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>6,957</td>
<td>27,340</td>
<td>65,781</td>
</tr>
<tr>
<td>Black</td>
<td>80</td>
<td>634</td>
<td>2,982</td>
</tr>
<tr>
<td>Hispanic</td>
<td>157</td>
<td>977</td>
<td>3,671</td>
</tr>
<tr>
<td>Asian</td>
<td>676</td>
<td>5,388</td>
<td>16,538</td>
</tr>
</tbody>
</table>

Note: North American Industry Classification System (NAICS) code 54. EEO-1 data is organized by NAICS codes.
Health Care & Social Assistance

In the health care and social assistance fields, Asian Americans make up 8.6% of entry-level professionals, yet only 2.8% are executives (Table 3). Asian Americans are well below Hispanics, Blacks and Whites in terms of representation in upper management (Chart 8).

As first and middle level managers, Asian Americans are the only group of the four that is below parity (Chart 9). When considering gender as well, Asian American men have the lowest representation as first and middle level managers (Chart 10).

<table>
<thead>
<tr>
<th>HC&amp;SA</th>
<th>Executives</th>
<th>First and Middle Managers</th>
<th>Entry-level Professionals</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>4,241</td>
<td>87.8%</td>
<td>22,705</td>
</tr>
<tr>
<td>Black</td>
<td>199</td>
<td>4.1%</td>
<td>2,344</td>
</tr>
<tr>
<td>Hispanic</td>
<td>212</td>
<td>4.4%</td>
<td>1,539</td>
</tr>
<tr>
<td>Asian</td>
<td>133</td>
<td>2.8%</td>
<td>1,040</td>
</tr>
</tbody>
</table>

* NAICS code 62.
Manufacturing & Information

This category was constructed by Ascend for the purpose of studying the San Francisco Bay Area technology workforce. While this “M&I sector” does cover hardware and software technology companies, it also includes many other types of businesses. For comparison purposes, IAAS also analyzed this constructed sector. In Massachusetts, Asian Americans fare considerably worse on the Executive Parity Index compared to that of the SF Bay Area: .39 versus .53. However, the gap between Whites and groups of color in Massachusetts is not as large as in the SF Bay Area.

In terms of first and middle level management, Asian Americans are the most underrepresented of the four groups in Massachusetts (Chart 12) as well as in the SF Bay Area. (The MPI is higher for Asian Americans in SF, at .69.) When accounting for gender, Asian American men again have the lowest MPI (Chart 13).

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**Chart 11**

Executive Parity Index (EPI) by Race
Manufacturing & Info, MA 2018

**Chart 12**

Management Parity Index (MPI) by Race
Manufacturing & Info, MA 2018

**Chart 13**

Management Parity Index (MPI) by Race and Gender
Manufacturing & Info, MA 2018

Note: The red line at 1.0 indicates parity, that is, the rate at which members of the group hold management positions is equal to the rate at which they hold entry-level professional positions. Executive Parity Index refers to executive/senior level positions, Management Parity Index refers to first/middle level management positions.

7 NAICS codes 31-33 & 51.
8 Ascend used 2015 EEOC data, so results are not directly comparable.
Conclusion

There are a variety of ways that researchers have used to measure glass ceilings for Asian Americans, including considering the CEOs of Fortune 500 or S&P 500 companies, the number of Asian Americans in management or leadership positions in both the private and public sectors, and salary equity. Here we use just one method to examine the underrepresentation of Asian Americans in management roles in large private companies. Overall, the data shows that Asian Americans are highly underrepresented in upper level management, and while they show improvement in first and middle level management roles, Asian Americans are behind the rates of Whites, Hispanic, and Blacks. In the three sectors we focused on, Asian Americans are well below parity in executive positions. As first and middle level managers, Asian Americans lag well behind the other three groups on the parity index in Health Care and Social Assistance and Manufacturing and Information. Asian Americans, however, do fairly well in reaching first and middle level management positions in the Professional, Scientific, and Technical Services sector. It is clear that the glass ceiling persists for Asian Americans in Massachusetts, and efforts to reduce employment disparities need to continue.

Further analysis of 2018 EEO-1 data as well as forthcoming datasets could be done. For example, changes in the Executive and Management Parity Indices over several years could be charted. More industry sectors could be analyzed although confidentiality protections may limit disaggregation of data by sector, race, ethnicity and/or gender. And aside from private industry, there are also employment statistics available on the EEOC website for employees in government, public schools, and local unions that could be explored.

Note on EEOC dataset used in this report: We used 2018 EEO-1 data (Job Patterns for Minorities and Women in Private Industry) as it was the latest available on the EEOC website. See www.eeoc.gov/statistics/employment. There are 7 racial/ethnicity categories; we present data for Asians, Whites, Blacks, and Hispanics. Note that racial categories do not include Hispanics. Descriptions of racial/ethnic categories, job categories and other details can be found in the 2021 EEO-1 instruction booklet.
The Institute for Asian American Studies (IAAS) at the University of Massachusetts Boston conducts community-based research on Asian American issues; provides data and analysis about Asian Americans to policymakers, service providers, educators and students, foundations, the media, and community groups; and contributes to the success of Asian American students and the enrichment of Asian American studies on campus.

100 Morrissey Boulevard
Boston, MA 02125-3393
www.umb.edu/iaas
asianaminst@umb.edu