The Role of Post-baccalaureate Programs in the Dental Education Pipeline

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Introduction

• The lack of dentists from underrepresented minority (URM) or socioeconomically disadvantaged (SED) backgrounds contributes to oral health disparities in the United States (US)
• Historically, post-baccalaureate (post-bac) programs have focused on increasing the share of URM/SED students pursuing health professions careers

Research Aim

Examine changing trends in post-bac and academic enrichment programs available to pre-dental students and assess contributions to oral health workforce diversity

Methods

A list of post-bac programs for pre-health, pre-medical, and pre-dental student in the US was compiled through a web search

Data Collection

Three primary modes of data collection:
1. Online survey sent to program administrators (sent to 91 programs at 77 institutions between January-April 2020)
2. Extracting data from program websites
3. Follow-up phone calls to program staff (when needed)

Results

Figure 1. Program Category Breakdown

<table>
<thead>
<tr>
<th>Program Type</th>
<th>CC (N=33)</th>
<th>URM/SED (N=8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>44.1%</td>
<td>41.2%</td>
</tr>
<tr>
<td>Public Institution</td>
<td>55.9%</td>
<td>58.8%</td>
</tr>
<tr>
<td>Private Institution</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Program Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-dental</td>
<td>41.2%</td>
<td>41.2%</td>
</tr>
<tr>
<td>Pre-health</td>
<td>33.3%</td>
<td>33.3%</td>
</tr>
<tr>
<td>Pre-fellow</td>
<td>16.7%</td>
<td>16.7%</td>
</tr>
</tbody>
</table>

Figure 2. Program founding’s by decade

- Since 2010, at least 17 new pre-health/dental post-bac programs have been initiated, none of which focus exclusively on URM/SED students (Figure 2)
- URM/SED focused programs are more established, more likely public institutions (83%), and more likely to be specifically pre-dental

Figure 3. Degrees Awarded by Program

- URM/SED programs are more likely to require an interview (83%), US citizenship (67%), community service, work, or other extracurricular activities (50%), and a slightly lower GPA cutoff than ARE/CC programs

Academics and Outcomes

• ARE programs most likely to offer a Master’s degree (60%), CC programs a certificate (47%), and URM/SED no degree (67%) (Figure 3)
• URM/SED programs have the shortest mean duration (10.8 months), and lowest mean tuition ($13K)
• URM/SED programs produce a higher median number of applicants per program lifetime (n=65), but a slightly lower mean admit rate (70%) than ARE/CC programs

Discussion

• Pre-dental students participating in rapid growth, high-cost, often degree-granting pre-health education far outnumber those attending URM/SED programs.
• ARE and CC programs may be crowding out visibility of those students that need post-bac programs most.
• More research is needed on whether post-bac completers are admitted to dental school and their URM/SED status to be definitive about the relative contributions of each program to workforce diversity.

Limitations

• Findings may not be generalizable to the full landscape of pre-dental post-bac programs from this convenience sample, and item non-response was highly variable
• Data regarding the class demographics dental school matriculation was not available, so success specifically in sending URM/SED students to dental school is unknown, as is the percent of dental school matriculants that attend these types of programs.

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Key References