Examining the Balance of Internship Supply and Demand: 1999 Association of Psychology Postdoctoral and Internship Centers’ Match Implications

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Over the past several years, students, academic program faculty, and internship training directors have become increasingly concerned about the inequity between the demand for predoctoral internship slots and the limited supply of those placements. This article presents data from the 1999 Association of Psychology Postdoctoral and Internship Centers' (APPIC) Match, along with the results of 2 studies conducted by the authors. Results indicate that the number of internship positions available in the U.S. and Canada may be nearly balanced with the number of first-time internship applicants and that the current imbalance may result, in large part, from a carryover of unplaced applicants from previous selection processes. Furthermore, approximately 3% of unmatched applicants are able to find internship positions subsequent to the conclusion of the matching process, although many of these positions are in non-American Psychological Association-accredited and non-APPIC-member programs. Implications of these findings for the profession and for student applicants are discussed.

Almost all applied psychologists have experienced applying to, and subsequently attending, a predoctoral internship. Over the past several years, concerns have increased over a perceived shortage in the supply of predoctoral internship training opportunities relative to the number of applicants (Dixon & Thorn, 2000; Oehlert & Lopez, 1998). Although a number of studies...
have attempted to explore these issues, there have been fundamental difficulties in obtaining precise data. Thus, the true nature and scope of the imbalance has remained elusive.

One recent change that greatly facilitates the collection of accurate data was the introduction of a computerized process of matching students to internships. Specifically, in 1998, the Association of Psychology Postdoctoral and Internship Centers (APPIC) membership voted to implement such a process (Keilin, 1998), similar to systems already in use by medical residency programs and a number of other professions. This computerized matching system became known as the "APPIC Match," and was formally implemented during the 1998–99 internship selection process (for internships beginning in the fall of 1999). As a result, APPIC is able to provide the profession with a far more accurate picture of the number of students applying for internship, the number of available positions, and the number of placed and unplaced applicants.

An additional benefit of the computerized matching system was that because all participants were required to register, APPIC for the first time had access to contact information for all internship applicants. This information allowed APPIC to track applicants who withdrew from the APPIC Match or who did not find an internship position through the APPIC Match, providing a much better understanding of the experiences of these students. Thus, in addition to providing sites and interns with a better selection process (Keilin, 1998), the APPIC Match has greatly enhanced our ability to understand placement and training trends with regard to predoctoral internships in professional psychology.

This article provides a new look at the internship supply and demand issue using data from four sources: (a) statistics from the 1999 APPIC Match, (b) results from a survey that we developed and conducted of applicants who went unmatched during the matching process, (c) results from a second survey that we also developed and conducted of those applicants who decided to withdraw from the APPIC Match, and (d) results from other post-1999 APPIC Match surveys of internship training directors, directors of clinical training (DCTs), and matched and unmatched applicants (see Keilin, 2000). On the basis of the data from these sources, recommendations are offered to the profession regarding future directions for examining and addressing supply and demand issues related to internship selection and training.

Table 1
Summary of Participating Applicants in the 1999 APPIC Match

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>% of total</th>
<th>No. matched</th>
<th>% matched</th>
</tr>
</thead>
<tbody>
<tr>
<td>All participating applicants</td>
<td>2,923</td>
<td>100.0</td>
<td>2,413</td>
<td>82.6</td>
</tr>
<tr>
<td>Specialty</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical psychology</td>
<td>2,232</td>
<td>76.4</td>
<td>1,862</td>
<td>83.4</td>
</tr>
<tr>
<td>Counseling psychology</td>
<td>505</td>
<td>17.3</td>
<td>404</td>
<td>80.0</td>
</tr>
<tr>
<td>School psychology</td>
<td>134</td>
<td>4.6</td>
<td>111</td>
<td>82.8</td>
</tr>
<tr>
<td>Combined</td>
<td>52</td>
<td>1.8</td>
<td>36</td>
<td>69.2</td>
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<tr>
<td>Degree sought*</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PhD</td>
<td>1,877</td>
<td>64.2</td>
<td>1,590</td>
<td>84.7</td>
</tr>
<tr>
<td>PsyD</td>
<td>1,021</td>
<td>34.9</td>
<td>808</td>
<td>79.1</td>
</tr>
<tr>
<td>EdD</td>
<td>24</td>
<td>0.8</td>
<td>14</td>
<td>58.3</td>
</tr>
</tbody>
</table>

Note. APPIC = Association of Psychology Postdoctoral and Internship Centers.
*One applicant with missing data was omitted.

Statistics From the 1999 APPIC Match

Internship applicants. A total of 3,135 applicants registered for the APPIC Match (i.e., completed a registration form and paid a $70 fee). Subsequently, 212 applicants withdrew from the APPIC Match (either formally, n = 91, or by not submitting a rank-ordered list of preferred internship sites, n = 121), resulting in a total of 2,923 participating applicants. Table 1 provides a breakdown of the participating applicants by area of specialty and degree sought.

A total of 2,413 of the 2,923 participating applicants (82.6%) were matched to an internship site on APPIC match day (the day on which the results of the APPIC Match were distributed to applicants and sites), leaving 510 applicants unmatched. Table 1 provides the matching rates for each specialty area and degree sought. For the purposes of the APPIC Match, specialty areas within doctoral psychology programs were defined as clinical, counseling, school, and combined (e.g., clinical–school, counseling–clinical). A chi-square analysis revealed significant differences in match rates among specialty areas, $\chi^2(3, N = 2,923) = 9.87, p = .02$, with subsequent analyses (using an alpha level of .01 to reduce the possibility of Type I error) indicating that applicants from clinical psychology matched at a greater rate than did applicants from combined programs. Another chi-square analysis revealed that PhD candidates matched at a significantly higher rate than did PsyD candidates, $\chi^2(1, N = 2,898) = 14.38, p < .001$ (EdD candidates were eliminated from this analysis because of their low representation in the overall sample).

Internship sites. A total of 591 internship sites participated in the APPIC Match (including 553 APPIC members), offering a total of 2,631 full- and part-time positions. The APPIC Match filled 2,413 of these positions (91.7%) and 218 remained unfilled. It should be noted that the APPIC Match generally leaves some positions unfilled, even when participating applicants outnumber the available positions. Several factors contribute to this phenomenon: (a) Some sites may not receive sufficient applications, (b) some sites may not rank enough applicants, and (c) some sites may
have been less attractive to applicants, resulting in applicants not ranking the site or not ranking it highly enough. Additional statistics from the 1999 APPIC Match may be found in Keilin (2000).

Surveys of Unmatched and Withdrawn Applicants

One of the benefits of the APPIC Match is that it has provided the profession with far more precise data regarding the number of matched and unmatched internship applicants. However, these data only provide a snapshot of the supply and demand situation as it stands at the conclusion of match day. The data do not indicate how many of the 510 unmatched applicants subsequently found internship placements, nor do they clarify why 212 applicants withdrew from the APPIC Match. Therefore, we conducted two surveys to learn more about what happened to these unmatched and withdrawn applicants.

Study of unmatched applicants. Beginning in late May of 1999, a survey was sent to the 510 applicants who submitted a ranking list but were unmatched as of match day. The purpose of this survey was to determine whether or not these applicants had found an internship placement subsequent to match day. This survey was conducted primarily by e-mail, although the postal service was used for applicants who did not have e-mail addresses. A total of 318 (62.4%) applicants responded to this survey. For nonrespondents, we subsequently attempted to contact their DCTs by e-mail and telephone to administer a much briefer version of the survey (we asked DCTs only whether or not the applicant was placed and, if so, the name, location, and American Psychological Association [APA]-accreditation status of the internship site). We received responses from the DCTs of an additional 150 (29.4%) applicants, yielding a total response rate of 91.8% for this survey.

Of the 468 responses gathered from applicants and DCTs, 303 (64.7%) revealed that the applicant had received an internship placement subsequent to match day. 135 (28.8%) indicated that the applicant had not found an internship and had decided not to go on internship during 1999–2000, and 28 (6.0%) indicated that the applicant was still looking for an internship. In addition, 2 respondents (0.4%) endorsed “other.” Of the 303 applicants who found an internship, 83 (27.4%) were placed at an APA-accredited site, 208 (68.6%) were placed at a non-APA-accredited site, and 12 (4.0%) were unsure or did not respond to this item. Extrapolating these placement rates to the entire population of 510 unmatched students, we estimate that a total of 330 (64.7% of 510) unmatched applicants received an internship placement after match day, whereas the remaining 180 did not.

The remainder of this section describes data obtained from only the subgroup of 318 applicants who responded to the longer version of the survey. When asked to identify which factor(s) they believed contributed to their remaining unmatched on match day, the most often-cited factors were as follows: an imbalance between the number of internship applicants and the number of available positions (n = 161, 50.6%), the applicant applied to a limited geographical area (n = 133, 41.8%), the applicant applied to too few internship sites (n = 132, 41.5%), the applicant applied to too many highly competitive sites (n = 112, 35.2%), and random factors or “bad luck” (n = 78, 24.5%).

Of the 187 applicants within this subgroup who found an internship, 93 (49.7%) were placed at an APPIC-member site, 63 (33.7%) were placed at a non-APPIC-member site, and 31 (16.6%) were unsure or did not respond. These applicants learned about their future internship site through the APPIC Clearinghouse (n = 60, 32.1%), through the Clearinghouse maintained by the Association of Counseling Center Training Agencies (ACCTA; n = 14, 7.5%), through their DCT (n = 42, 22.5%), through another person (n = 22, 11.8%), through their own investigative efforts (n = 23, 12.3%), through another method (n = 17, 9.1%), or did not respond (n = 9, 4.8%). Furthermore, these successfully placed applicants reported securing their internship an average of 28.8 days (SD = 31.8, Mdn = 16, range = 0–129) after match day, with 40.1% placed within the 7-day period following match day.

Of interest is that unmatched applicants from university-based doctoral programs found internships at a significantly lower rate than did students from free-standing doctoral programs (47.5% vs. 76.7%), χ²(1, N = 269) = 20.34, p < .0001. However, unmatched applicants from university-based programs who did subsequently find internships were significantly more likely to be placed at APA-accredited sites (36.5% vs. 19.7%), χ²(1, N = 146) = 4.82, p < .03, after match day. No statistically significant differences were found in the post-match day placement rates between applicants from APA-accredited (58.2%) and nonaccredited (62.0%) doctoral programs or between applicants from clinical psychology (59.8%) and counseling psychology (48.4%) programs.

Of the 131 applicants within this subgroup who were not placed subsequent to match day, 117 (89.3%) plan to apply for internship again in a future year (with 110 planning to do so next year), 8 (6.1%) indicated that they will not apply again in the future, and 6 (4.6%) did not respond to this item.

Study of withdrawn applicants. Shortly after match day, 1999, a brief survey was sent by e-mail and regular mail to the 212 internship applicants who either formally withdrew from the APPIC Match or did not submit a rank-ordered list of internship sites. This brief, two-question survey was designed to ascertain the reason for applicants’ withdrawal as well as their current status. Responses were received from 169 applicants, for an overall response rate of 79.7%.

One subgroup, totaling 66 of the 169 respondents (39.1%), apparently wanted an internship placement as of match day but had not obtained one as of that day. Of these applicants, 41 reported that they were still looking for an internship, 10 reported having found an internship after match day, 14 had decided to wait until next year to apply again, and 1 indicated that he or she had given up and would not reapply in the future. Possible reasons that the applicants in this subgroup withdrew from the APPIC Match include the following: (a) They were rejected from all sites to which they applied or (b) they were not rejected from all sites but decided that any remaining sites were no longer acceptable to them.

A second subgroup of 59 applicants (34.9%) reported withdrawing from the APPIC Match because they decided to delay their internship until the following year. Of these applicants, 49 reported making this decision themselves, whereas 10 were required to withdraw by their academic department.

A third subgroup of 44 applicants (26.0%) withdrew from the APPIC Match because they found an internship placement (at a
Results From Participant Surveys

Shortly after match day, APPIC conducted surveys of applicants, internship training directors, and DCTs regarding their experiences and perceptions about the 1999 APPIC Match. Although the complete results of these surveys are reported elsewhere (see Keilin, 2000), several findings are relevant to the present study.

1. A total of 7.9% of applicants surveyed indicated that they had participated in a previous selection process.
2. A total of 87.8% of applicants surveyed who were from APA-accredited programs were matched, and 77.5% of applicants from nonaccredited programs were matched; this difference did not reach statistical significance ($p = .07$).
3. No significant differences were found in the match rates between applicants from university-affiliated doctoral programs (87.8% matched) as compared with free-standing professional schools (83.8% matched).
4. Significant differences ($p < .001$) were found in match rates based on APA-accreditation status of internship sites, with accredited sites having filled 97.3% of available positions through the APPIC Match, and with nonaccredited sites having filled only 71.4% of their positions.
5. A total of 29.3% of applicants reported that they had applied only to internship sites within a single geographic area, defined for the study as all sites being located within 200 miles (322 km) of each other. These applicants also reported applying to significantly ($p < .001$) fewer slots ($M = 9.4$) than did applicants who were not as geographically restricted ($M = 15.8$) and were matched at a significantly lower rate (79.6% vs. 90.0%), $p < .01$.

Summary of 1999 APPIC Match Results

In this section, we attempt to answer some basic questions regarding the nature of internship supply and demand for the 1998–99 selection process. However, we must note two limitations of this analysis. First, not all doctoral students and internship sites used the APPIC Match. Thus, an unknown number of applicants and internship positions are not accounted for in this study. Second, as noted above, we extrapolated some of our survey results to make estimates about the larger population of applicants and sites. Although the return rates from our surveys were quite high, these estimates should nevertheless be interpreted cautiously.
the supply and demand picture has changed considerably over the past few years, with fewer students now remaining unplaced.

One of the more important findings from these studies is that as of the 1999 APPIC Match, the supply of internship slots and the number of first-time internship applicants are nearly balanced. The estimated number of students who remained unplaced (263) is similar to the estimated number of students who reapplied after being rejected from previous selection processes (242). Thus, in 1999, the nature of the internship supply and demand imbalance may be a direct result of the year-to-year carryover of unplaced applicants from previous years. The profession’s current challenge is to find a way to address this accumulation of unplaced applicants because doing so may very well mean that the internship imbalance might become a thing of the past.

One of the fears of many applicants, DCTs, and internship training directors is that the internship supply and demand imbalance would result in an ever-increasing backlog of unplaced applicants because of a “bottleneck” effect (Constantine, Keilin, Litwinowicz, & Romamus, 1997; Oehlert & Lopez, 1998). Our data indicate that although a backlog of unplaced applicants clearly does exist, it does not appear to be increasing. In fact, it appears that the number of unplaced applicants who will be carried over into the 2000 APPIC Match will be quite similar to the number who entered the 1999 APPIC Match.

There are some preliminary indications that the supply side of the internship imbalance may improve for the 2000 APPIC Match. The 1999–2000 APPIC directory (Hall, Hsu, & Hercey, 1999), which provides information about APPIC-member internship programs for the 2000 APPIC Match, lists an additional 142 funded and unfunded full-time internship positions as compared with the previous year’s directory (Hall & Hercey, 1998); however, the number of available half-time slots listed has decreased by 21. Slightly more than half (73) of these 142 new full-time positions are located in APA-accredited programs. This overall increase in full-time slots is particularly interesting, given that the number of agencies listed in the directory has remained virtually unchanged (a decrease of one site, from 564 to 563). However, the Veterans Administration Medical Centers’ recent decision to convert a small number of predoctoral internship positions to postdoctoral residency slots may seriously impact this trend. Thus, the impact of these changes on the internship imbalance in future years remains to be seen.

Placement After APPIC Match Day

We found that approximately two thirds of unplaced applicants were able to successfully secure an internship placement after match day. This finding provides significant hope for those students who may experience the disappointment of not being placed in the APPIC Match. It is also a reminder that the profession cannot rely solely on the statistics produced by the APPIC Match to determine the true nature of internship supply and demand because significant placement activity continues well after match day.

It appears that both unplaced applicants and their DCTs used a variety of methods in attempting to find unfilled positions after match day. Although the Clearinghouses maintained by APPIC and ACCTA played an important role in this regard, only about 40% of applicants who were placed after match day learned about their eventual internship placement through those listings. It seems likely that, as a response to the internship shortage, many applicants and DCTs have become increasingly active in both finding and developing internship opportunities, a process that encompasses activities beyond simply looking to positions listed in the Clearinghouses.

In particular, free-standing doctoral programs appear to be doing a much better job at securing post-match day positions for their unmatched students, as compared with university-based programs. It is possible that free-standing programs may be better connected to local communities, providing greater opportunities to place their unmatched students. However, it is also possible that these programs may simply be more willing to place their students in nonaccredited internship positions. This “quantity versus quality” dilemma is one that many unplaced applicants and DCTs are currently facing: Does one compromise on the quality of the internship experience as a way of coping with the supply and demand imbalance?

Internship Quality

Although it is encouraging to learn that two thirds of unplaced applicants eventually secured a position, we must also examine the quality of internship programs that are found by these students. Two measures of internship quality are accreditation by the APA and membership in APPIC. Some state psychology boards consider APA-accreditation status and APPIC membership criteria in determining whether an applicant’s internship program meets their standards for licensure. In addition, hiring decisions can be influenced by these factors.

Of course, the lack of APA accreditation or APPIC membership does not necessarily mean that an internship program is not of high caliber. Nevertheless, applicants who attend internships at APA-accredited or APPIC-member sites know that their program has been reviewed by an outside body and has met a minimum standard of quality.

The 1998–1999 APPIC directory (Hall & Hercey, 1998) indicated that 79.6% of full- and half-time positions were in APA-accredited programs (2,073 out of 2,604). Even considering that 38 non-APPIC-member sites participated in the APPIC Match, it is clear that students who were successfully placed by the APPIC Match had an excellent chance of matching to an APA-accredited or APPIC-member program. Unfortunately, it appears that unplaced applicants who sought internship positions after the APPIC Match had far fewer of these programs available to them.

Although our profession may be making progress in solving the internship quantity “crisis,” we may need to increase our attention to the quality of internship programs that students accept as a result of being unmatched. It appears that non-APA-accredited and non-APPIC-member programs end up serving as the training sites for the majority of these unmatched internship applicants. As a result, some of these applicants may be jeopardizing the quality of their internship training experiences as well as their future credentialing and employment opportunities.
Academic Program Characteristics

Specialty. Although no differences were found in placement rates among clinical, counseling, and school psychology programs, students from clinical psychology programs were found to match at a significantly higher rate than did those from combined psychology programs. The relatively small number of students from combined programs indicates that this difference should be interpreted cautiously, and additional investigation is warranted. One possible explanation for this difference is that although the strength of these combined programs may be in their breadth, their students may be seen by internship sites as a poorer "fit" within the specialized nature of the internship experience.

Degree. The finding that PhD students placed at a significantly higher rate than did PsyD students is somewhat surprising, considering the applied nature of most PsyD programs suggests that these students might be highly attractive to an internship setting. However, it is quite possible that some internship sites may operate under the belief that a typical PsyD program does not offer the same quality of training as does a PhD program. An additional factor may relate to the perceived lack of fit between students from PsyD programs and internship sites that embrace a scientist-practitioner model. Alternatively, other unknown variables may be accounting for this difference. Clearly, additional research is warranted.

Accreditation status. Although applicants from non-APA-accredited programs generally consider themselves to be at a significant disadvantage in finding an internship, the differences that were found in placement rates between applicants from accredited and nonaccredited programs did not quite reach significance (Keilin, 2000). One would expect to find a significant difference in this regard, given that many APPIC-member programs clearly state in the APPIC directory (Hall & Hercey, 1998) that they prefer applicants from accredited programs. One explanation for the lack of a significant difference is the small number of applicants from nonaccredited programs (n = 40) in the original survey, which limited the power of the analysis (see Keilin, 2000). It is also possible that applicants from nonaccredited programs are able to obtain internship positions but have greater difficulty in securing an accredited program. Again, more research in this area is needed.

Recommendations

On the basis of the results from our studies, we would like to offer a number of recommendations for the future.

1. Although it appears that some progress has been made in addressing the internship supply and demand imbalance, continued efforts are crucial in this area. Specifically, more efforts need to be devoted to expanding existing internship programs, with a particular emphasis on new and emerging marketplace opportunities. In addition, the profession needs to continue to develop new, quality internship programs. This may entail more partnerships between graduate schools and community-based settings, as well as the formation of more training consortia. Increasing the number of internship slots, however, does not address the broader implications of the problem. For example, if we are able to satisfy internship demand, will we in turn be able to satisfy the demand for jobs? Supply and demand issues need to be examined broadly, across the entire spectrum of training and employment opportunities in psychology, rather than focusing exclusively on internship shortages.

2. Internship training directors, APPIC, APA, and DCTs must focus not only on increasing the supply of available internships, but also on ensuring and maintaining the quality of internship training. Efforts should include assisting new and developing internship programs in meeting the criteria for APA accreditation and APPIC membership.

3. Academic programs need to carefully consider issues of internship quality as they work to place their unmatched students. Although it might be tempting to relax internship placement criteria (e.g., allowing students to pursue non-APA-accredited and non-APPIC-member sites) to address the internship shortage, programs should carefully consider the ramifications of doing so. Students also need to be aware of the potential impact of accepting a position at a non-APA-accredited or non-APPIC-member site on their future credentialing processes and career opportunities.

4. DCTs are encouraged to provide applicants to their doctoral programs with information about both internship placement rates and the quality of internships obtained by their students. For example, the Council of University Directors of Clinical Psychology recently encouraged its members to provide doctoral program applicants with performance and outcome data (e.g., average numbers of years to complete the doctoral degree, success rates in placing students in quality internship programs) pertaining to the education of graduate students. Such data will allow future students to make more informed choices about doctoral programs.

5. Similarly, internship training directors are encouraged to provide better information to applicants about their selection procedures, the qualities that they are looking for in applicants, and data regarding the types of applicants that they have accepted in the past. This will allow internship applications to make better choices about the sites to which they apply and thus increase their chances for being successfully matched.

6. Students who apply to a relatively few number of internship sites, for geographic or other reasons, should be aware that their chances of success in the APPIC Match are significantly reduced. Furthermore, although they may have a reasonable chance of securing an internship subsequent to match day, finding an APA-accredited or APPIC-member site may be significantly more difficult.

7. Many unfilled internship positions are filled very soon after match day—many within the first week. Applicants who are not placed through the APPIC Match should be prepared to act quickly to maximize their chances of obtaining an internship position.

8. More research is needed on the success of students from combined psychology programs in finding internships. In particular, faculty from these programs may wish to explore how to make their students more competitive in the internship market.

9. Further research is needed in a number of areas. For example, we know very little about applicants and internship sites that do not participate in the APPIC Match. Specifically, how many applicants and positions exist outside the APPIC Match, and what is the quality of the training experiences at these nonparticipating sites? Additional research is also needed to determine the factors that predict applicant success in obtaining an internship placement.
References


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