

Perceptions of Job Candidates with Non-academic Work Experience in Psychological Science

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Introduction

This research report relays the findings of an investigation on hiring practices in the social sciences. It comes at a time of transition in higher education. The coronavirus pandemic has had a significant impact on the academic job market, with some reports suggesting that as many as three hundred colleges and universities have instituted hiring freezes (Wong 2020). Moreover, private sector and government opportunities have increasingly recruited graduates, many who wish to pursue careers in psychology (Clair et al. 2017). For these reasons, junior researchers may increasingly be faced with a decision about whether to extend graduate or postdoctoral positions or investigate employment opportunities outside of the academy (Kelsky 2020). In this climate, it becomes important to understand the way in which obtaining non-academic work experience (either in the public or private sector) is perceived in the field. This is relevant for candidates who are forced to pursue such nontraditional career options for financial or practical reasons but are eager to eventually obtain a tenure-track position at a college or university. It may also be relevant for members of hiring committees, who in the coming years may face a greater influx of candidates with nontraditional work experience. Thus, an investigation of these practices has the potential to benefit early-career researchers themselves, by allowing them to make more informed career decisions, as well as the field as a whole, by fostering a conversation about whether the current norms regarding traditional and nontraditional career trajectories are optimal or should be reexamined.

We conducted a survey of behavioral scientists at all career stages in order to better understand current perceptions of non-academic work experience, and whether people are satisfied with those perceptions or wish to see them revised. Overall, we find that people at all seniority levels believe that candidates with non-academic work experience are viewed negatively by hiring committees, and that it would improve the field for hiring committees to become more accepting of such candidates. However, data from people who themselves had served on hiring committees suggests such candidates may not be viewed quite as negatively as some may fear.

Results highlights are described below; for a full breakdown of the results see the Appendix (p. 8); all materials, script, data, and analyses can be found at our OSF page (<https://osf.io/7ut6r/>).

Methods

The survey was a short online questionnaire distributed to students and professionals in the sciences. Participants answered a series of questions regarding their personal perceptions of job

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candidates with work experience outside academia, their perceptions of how hiring committees see these candidates, and perceptions of how hiring these candidates would impact the field.

Participants

Participants provided informed consent in a manner approved by the Institutional Review Board at the University of Pennsylvania. Participants were recruited online through various outlets. Participants were students and professionals who varied in career stage and industry (see Table 1). The survey was distributed to the Society of Personality and Social Psychology (SPSP) electronic mailing listserv, with the assistance of SPSP staff. SPSP is a primary professional organization for academic research in social and personality psychology. Additionally, the survey was distributed on Twitter by both the authors and through a snowball sampling technique (the advertisement requested people to share and distribute the survey). Participants were not compensated for their participation.

Overall, 385 participants completed our survey. Because our focus was on perceptions of hiring practices in the behavioral sciences and particularly in psychology, we excluded participants who indicated they belonged to a discipline could not be plausibly construed as belonging to this discipline (i.e., chemistry, engineering and technology, geography, and mathematics, $n = 10$). The remainder ($n = 375$) were included for analysis. Re-analyzing the results with these excluded participants, or with only the people who explicitly stated they were in the field of psychology, results in no substantive changes to the reported results. A full breakdown of participants' career stage and primary discipline (total $n = 375$) is available in Tables 1 and 2. In addition, we found that 169 (45.4%) had experience serving on hiring committees. Demographic variables such as race, age, and gender were not collected.

Measures

The survey was collected via Qualtrics online software. The full survey, with items and response options, is available via our OSF page (<https://osf.io/7ut6r/>).

Hiring practices questionnaire

The hiring practices questionnaire was a short self-report questionnaire made up of 9 items (7 Likert-type, 2 free text response). Items asked participants a variety of questions about their perceptions of non-academic work experience and its impact on hiring decisions and academic science. We deliberately did not specify the type of non-academic work experience in this survey since our aim was to obtain a general understanding of current perceptions of such candidates in the field, all things equal. Instead, we said: "We refer to work experience outside academia as 'recent non-academic employment', which broadly refers to any such experience, for instance in private industry or government."

The Likert-type items ask: "Compared to a candidate with no such experience, in your opinion how would a candidate with recent non-academic employment be perceived by academic hiring committees?" (1 Much more negatively - 5 Much more positively); "In your opinion, how do academic search committees view candidates with recent non-academic employment?" (1 Very unfavorably - 5 Very favorably); "If you were on a hiring committee, how would you evaluate recent non-academic employment in candidates?" (1 Very negatively - 5 Very positively); "In general, how willing do you think hiring committees would be to consider hiring a tenure-track job applicant with recent non-academic employment?" (1 Not at all - 5 Completely); "If you were on a hiring committee, how willing would you be to consider hiring a tenure-track job applicant with recent non-academic employment?" (1 Not at all - 5 Completely); "Which of the following best reflects your views about how accepting hiring committees should be toward candidates with recent non-academic employment?" (1 Less accepting - 3 More accepting); "Suppose hiring committees became more accepting of hiring applicants with recent non-academic employment. What effect would this have on the field of psychology, and why?" (1 Worsen it - 3 Improve it).

The first free response item was meant to elaborate on the Likert-type item “Suppose hiring committees became more accepting of hiring applicants with recent non-academic employment. What effect would this have on the field of psychology, and why?”, and asked, “Regarding the question above, why do you believe such hiring practices will worsen, have no effect on, or improve the field of psychology? Please explain your response to the item above”. The second asked, “What reasons do you think hiring committees have for their current stance regarding candidates with recent non-academic employment?”. Free response data is not analyzed here and is available at our OSF page.

Professional experience questionnaire

Participants responded to 4 items regarding their professional experience, describing their career stage (e.g., Doctoral student, Full professor), if they had served on an academic hiring committee, their highest level of training (e.g., BA, Post-doctoral training), and their scientific field.

Protocol

Participants accessed the survey through an internet browser and completed an informed consent form. Participants who consented to participation continued on to the survey. The survey took an estimated 2 minutes to complete. On a single page, participants completed both the hiring practices and professional experience questionnaires. Participants were then thanked for their participation and invited to submit any comments or questions.

Table 1: Participants by career stage

	n	%
Doctoral student	85	22.7
MA/MS student	12	3.2
Post-doctoral researcher	40	10.7
Tenure-track assistant professor	83	22.1
Associate professor	60	16.0
Full professor	59	15.7
Employee in government	1	0.3
Employee in the private sector	8	2.1
Other	27	7.2
	375	100.0

Table 2: Participants by primary discipline

	n	%
Biology	9	2.4
Business	30	8.0
Communications	6	1.6
Economics	3	0.8
Engineering and technology	1	0.3
Linguistics	1	0.3
Medicine and health	7	1.9
Political science	1	0.3
Psychology	314	83.7
Social Work	1	0.3
Sociology	2	0.5
	375	100.0

Results

We examined each of the questions listed above for means and differences according to professional seniority. Overall, a similar pattern emerged across all questions; here we focus on two representative questions: “In your opinion, how do academic search committees view candidates with recent non-academic employment?” (1 Very unfavorably - 5 Very favorably) and “Suppose hiring committees became more accepting of hiring applicants with recent non-academic employment. What effect would this have on the field of psychology, and why?” (1 Worsen it - 3 Improve it). A full breakdown of every question is available in the Appendix.

We first examined how favorably people believed hiring committees viewed candidates with recent non-academic employment. On average, the perception was 2.39 on a 5-point scale ($SD = .76$): significantly below the scale midpoint, one-sample $t(338) = -14.51$, $p < .001$, $d = 0.79$ (see Figure 1A). Next, we tested whether this perception differed according to people's level of career seniority. A one-way ANOVA showed a significant effect of seniority on perceptions of favorability, $F(4, 334) = 9.01$, $p < .001$. As can be seen in Figure 1b, favorability perceptions increased linearly with seniority ($B = 0.16$, $SE = 0.03$, $t(337) = 6.00$, $p < 0.001$), with full professors attributing the most favorable perceptions to candidates with recent non-academic employment ($M = 2.76$, $SD = 0.70$), and graduate students attributing the least ($M = 2.08$, $SD = 0.74$). But even though full professors attributed the most favorable perceptions to such candidates, even their attributions were significantly below the scale midpoint, $t(58) = -2.59$, $p = 0.012$, $d = 0.34$. In other words, regardless of their seniority level, participants believe candidates with non-academic work experience are viewed unfavorably.

Next we looked at perceptions of how greater acceptance of people with non-academic employment would impact the field. As above, we first examined the average perception then inspected the effect broken down by level of professional seniority. We found that, on average, participants believed a more accepting attitude toward candidates with recent non-academic experience would improve the field, $M = 2.59$ out of 3, $SD = 0.56$ (Figure 2A), and this was significantly greater than the scale midpoint, $t(338) = -13.19$, $p < .001$, $d = 0.72$. This varied by seniority $F(4, 334) = 8.19$, $p < .001$, with graduate students saying it would have the greatest improvement, $M = 2.81$, $SD = 0.39$, and full professors the least, $M = 2.37$, $SD = 0.61$. However, even full professors were, on average, bullish about the impact of such a policy change, as indicated by the fact that they were significantly above the scale midpoint, $t(58) = 4.67$, $p < .001$, $d = 0.61$ (Figure 2B). (We note that there were some other response items in which full professors were more neutral in their responses, see Appendix).

Overall, then, it appears everyone, regardless of seniority, believes that candidates with non-academic work experience are perceived negatively by the field, and that the field would be improved by hiring committees adopting more accepting attitudes toward such candidates.

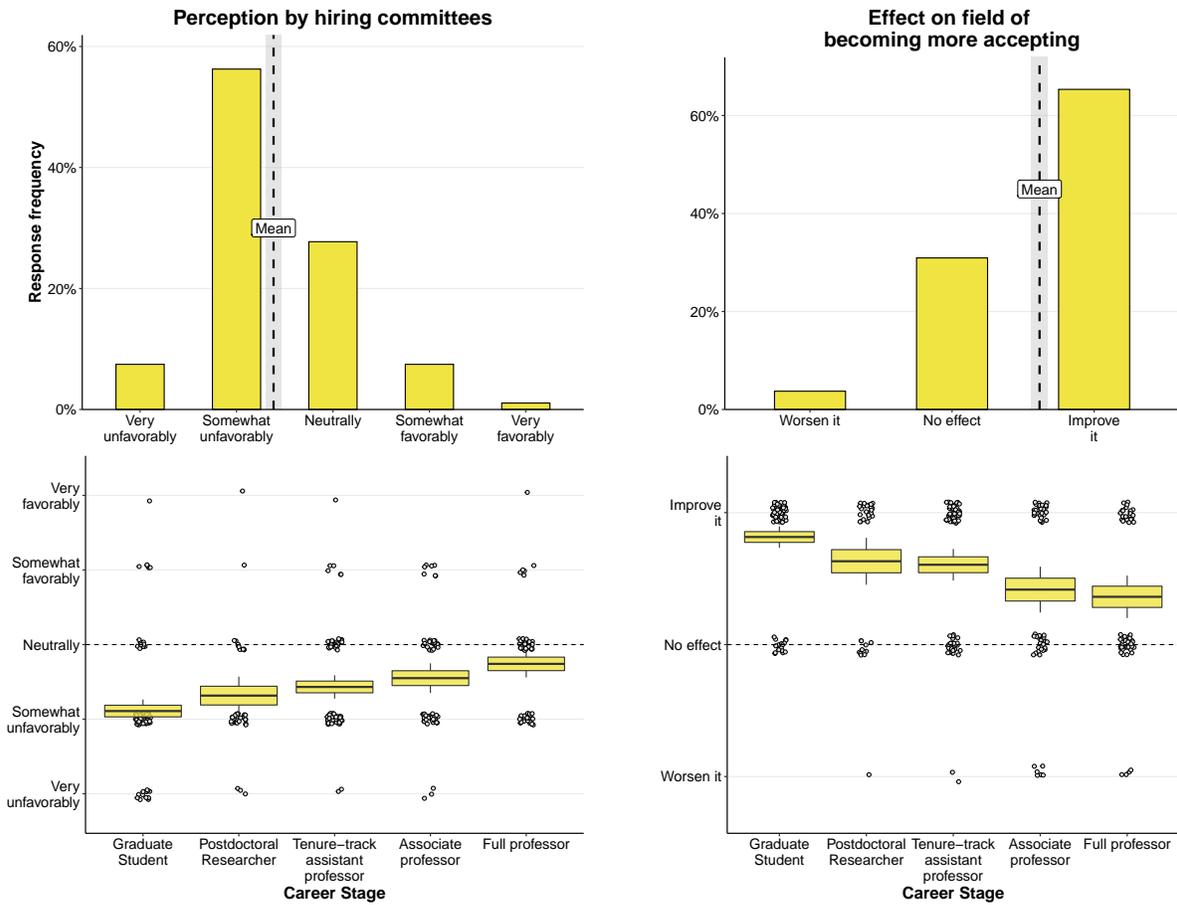


Figure 1. Response frequencies and means of how candidates with non-academic work experience are perceived (“In your opinion, how do academic search committees view candidates with recent non-academic employment?”; 1 Very unfavorably - 5 Very favorably), and what effect a more accepting attitude of them would have on the field (“Suppose hiring committees became more accepting of hiring applicants with recent non-academic employment. What effect would this have on the field of psychology, and why?”; 1 Worsen it - 3 Improve it). The top two panels represent the overall distribution of responses. Dotted line represents sample mean; shaded area 95% confidence interval. The bottom two panels represent responses by career stage. Box centers represent group mean; box edges SEM; whiskers 95% confidence intervals. Dots reflect jittered individual responses. Regardless of seniority, people believe such candidates are viewed negatively, and greater acceptance of them would improve the field.

Hiring Committee Experience

As an exploratory analysis, we examined people’s responses according to whether they indicated they had experience serving on a hiring committee in the past. The results showed that people with previous hiring committee experience attributed more favorable perceptions to candidates with non-academic employment than those without it, $t(325) = -3.94, p < .001, d = -0.42$. Indeed, the degree of favorability indicated by people with such experience was higher than that attributed by early-career researchers such as graduate students ($t(204) = -5.09, p < .001, d = -0.66$) and postdoctoral researchers ($t(60) = -2.04, p = 0.046, d = -0.36$), as shown by comparing the mean rating of people at those career stages to that of those with hiring experience. This suggests that candidates, though they are viewed negatively, may not be viewed as negatively as some early career scholars think.

In addition, we examined the effect that people with hiring committee experience thought a more accepting attitude would have on the field. Results showed that people without hiring committee experience attributed a greater positive in the field as a result of this change than those who had such experience, $t(304) = 3.69, p < .001, d = 0.40$. Nevertheless, even those with hiring committee experience thought the field would be improved, as evidenced by the fact that their mean response was significantly higher than the scale midpoint, $t(158) = 9.68, p < .001, d = 0.77$.



Figure 2. Views on perceptions of candidates with non-academic work experience, broken down by whether the respondent had or had not previously served on a hiring committee. Questions were “In your opinion, how do academic search committees view candidates with recent non-academic employment?” (1 Very unfavorably - 5 Very favorably), and “Suppose hiring committees became more accepting of hiring applicants with recent non-academic employment. What effect would this have on the field of psychology, and why?” (1 Worsen it - 3 Improve it). Box centers represent group mean; box edges SEM; whiskers 95% confidence intervals. Dots reflect jittered individual responses.

Discussion

Three main observations emerge from these findings. First, social scientists believe that candidates with non-academic work experience are viewed negatively, and that being more accepting of them would improve the field. Second, this belief is attenuated by seniority, but even full professors believe it to some extent. Third, people those who have served on hiring committees are more positive about such candidates than those who haven't.

These results have the potential to inform a conversation regarding hiring practices at a critical juncture in higher education. As early career researchers face a difficult job market, they may be faced with a decision about whether to continue at an academic institution or to move to public or private industry. And hiring committees candidates may soon be faced with an influx of candidates who have taken nontraditional career trajectories. Thus more transparent norms could provide useful information to people on both sides of the hiring process.

For candidates themselves, the fact that current perceptions of non-academic work experience are somewhat negative may be a useful signal to anyone considering venturing beyond the walls of the academy. Even people who have served on hiring committees do not indicate such candidates are viewed positively. So those committed to pursuing the academic track may want to consider all their options before accepting a job offer at, say, a tech startup. At the same time, the fact that those with hiring committee experience are more positive than early career researchers think may come as some relief to those under the impression that such candidates are dismissed out of hand. Assuming these reports are accurate, hiring committees' views toward such candidates may be worse than they hope but better than they fear.

For hiring committees, the main takeaway is that scholars in the field currently support adopting a more accepting attitude toward such candidates. This may only intensify if increasingly qualified applicants are forced by circumstance to step away from academia during pandemic-related contractions in the academic job market. This finding could serve as a starting point point for a conversation regarding whether current attitudes toward such candidates are appropriate, or whether an adjustment of norms surrounding these candidates is warranted.

If such a shift is determined to be desirable, there are several things hiring committees might do to promote a more inclusive policy toward academics with nontraditional career trajectories. On a practical level, hiring committees may simply come to an internal agreement that recent work experience outside of academia should not count negatively impact evaluations. More broadly, if hiring committees are interested in working to actively encourage candidates with nontraditional career trajectories to apply, they may include language to that effect in their hiring notices. Such language may have the powerful double-effect of encouraging such candidates to apply, and alerting researchers that a decision to pursue a non-academic opportunity now may not be counted against them down the road.

To the extent that candidates with non-academic work experience are perceived negatively, there may be many perfectly justifiable reasons why such perceptions exist. For example, candidates who have been out of the "research game" for a number of years could well be expected to be rusty in their research chops and therefore less likely to get a productive lab quickly up and running. And candidates with non-academic experience might rightly be questioned about their commitment to the long process of producing original research. There may also be practical concerns of considering how such hires will be supported by college administration beyond department faculty. That is, while members of hiring committees themselves may not view such candidates negatively, they may have justifiable concerns about how other members of the university administration may view them.

But our research raises the possibility that there may be some slack in the line that is not fully accounted for by these explanations. Candidates may have overly negative perceptions of how obtaining non-academic work experience would be viewed by hiring committees. And hiring committees may have overly negative views of what a more accepting attitude might have on their department and the field as a whole. If it turns out to be the case that some portion of the current norms regarding such candidates is the result of misperception rather than reality, then a better understanding, and more honest conversation, about the facts on the ground may have positive effects for everyone involved.

Limitations and Future Directions

There are several limitations to our data collection approach. Many of these were helpfully pointed out by our participants themselves. For example, one participant said, “I think that the nature of the non-academic employment is a major moderator. My feelings about an applicant who had worked at The Innocence Project would be very different than an applicant who worked at Facebook.” Indeed, we did not specify the type, nature, length, or recency of “recent non-academic employment,” opting instead to assess people’s perceptions of such candidates, *ceteris paribus*. This is important, as non-academic work experience spans options such as user experience research on shopping websites to private research scientist positions intended to conduct publishable scientific research. We hope that future research can further specify the specific conditions that might qualify these observations. Another participant wrote:

I think race and gender data are important to collect in the future. I’d imagine how positive outside employment is seen is graded by the relative “advantage” of the candidate, but also the respondent. I could see outside employment as being seen as “the candidate doesn’t know what they’re doing” from a minority candidate, whereas it may seem as “adding to their diverse experiences and expertise” for an advantaged one. As far as the respondent, as a Black woman myself, any diversity in academia is welcome at this point! My experience as a minority in academia is definitely shading my opinion, as I see diversity as a definite positive because I constantly notice how homogeneous it is. Anything to provide different perspectives, please, even if the difference is just in employment! I’ll take whatever I can get.

This comment drives to several issues central to this project. Candidates from under-represented minorities may be more likely to pursue nontraditional career trajectories for a variety of reasons. For example, they may be less likely to have the financial support from family to tide them over during a low-paying postdoctoral research job, and so are more likely to pursue higher paying opportunities after finishing their graduate studies, potentially at the cost of an academic job. Such candidates may also consider diverse experiences and perspectives a welcome addition to a seemingly homogeneous field. Finally, it may very well be that race and gender moderates perceptions of candidates with non-academic work experience. We did not collect information on such aspects of people’s identity in this survey; thus, the interactions that emerge at the intersection of candidate identity and career experience will be a crucial area for future research.

Conclusion

In sum, this research serves as an initial step in understanding how candidates with non-academic work experience are perceived by academic hiring committees. As such, it has the potential to inform early-career researchers’ decisions, and, perhaps, a more nuanced conversation about how current norms affect the field as a whole. By fostering a better alignment between perception and reality, this has the potential to benefit people on both sides of the hiring process.

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Appendix

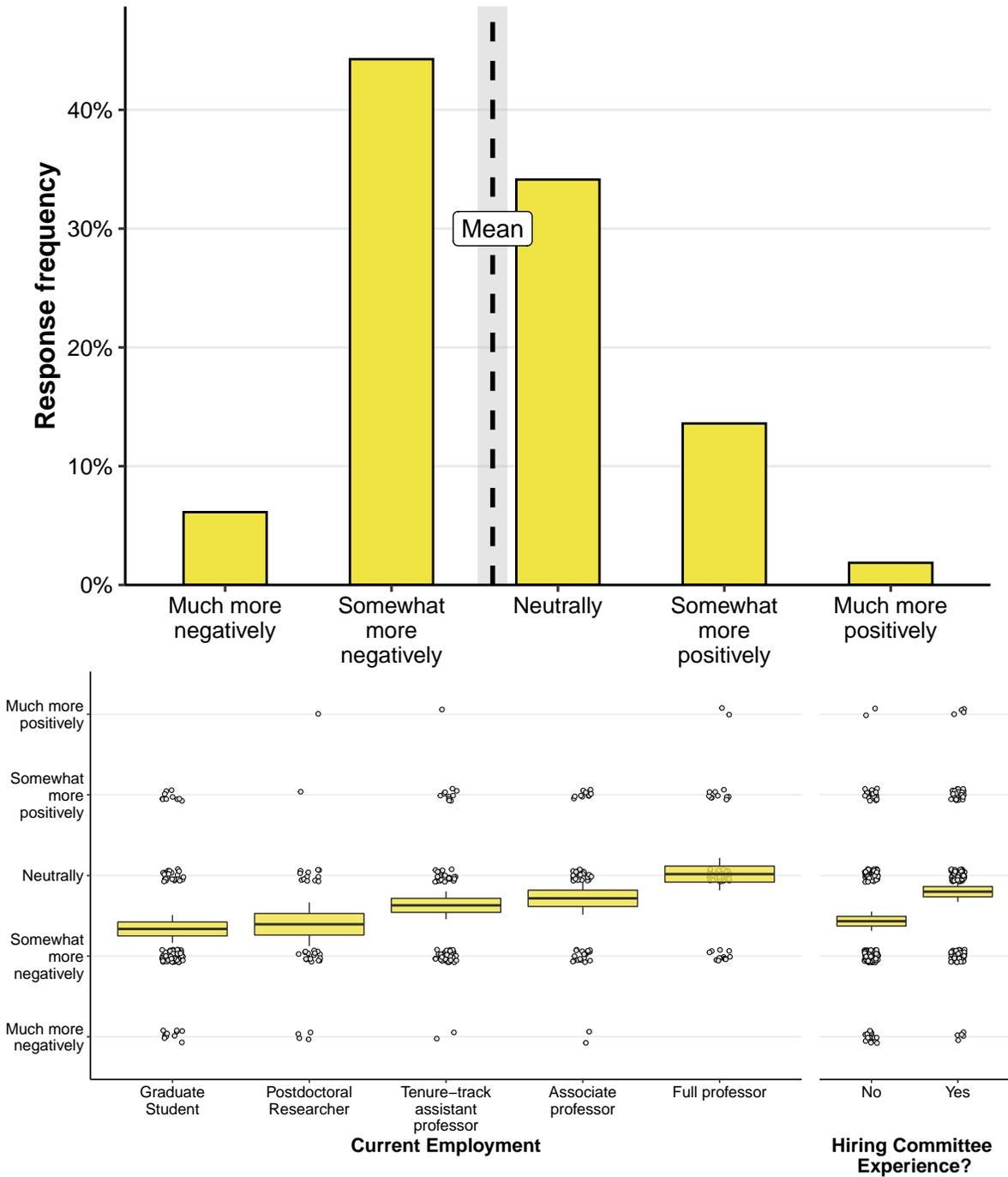


Figure 1. Compared to a candidate with no such experience, in your opinion how would a candidate with recent non-academic employment be perceived by academic hiring committees?

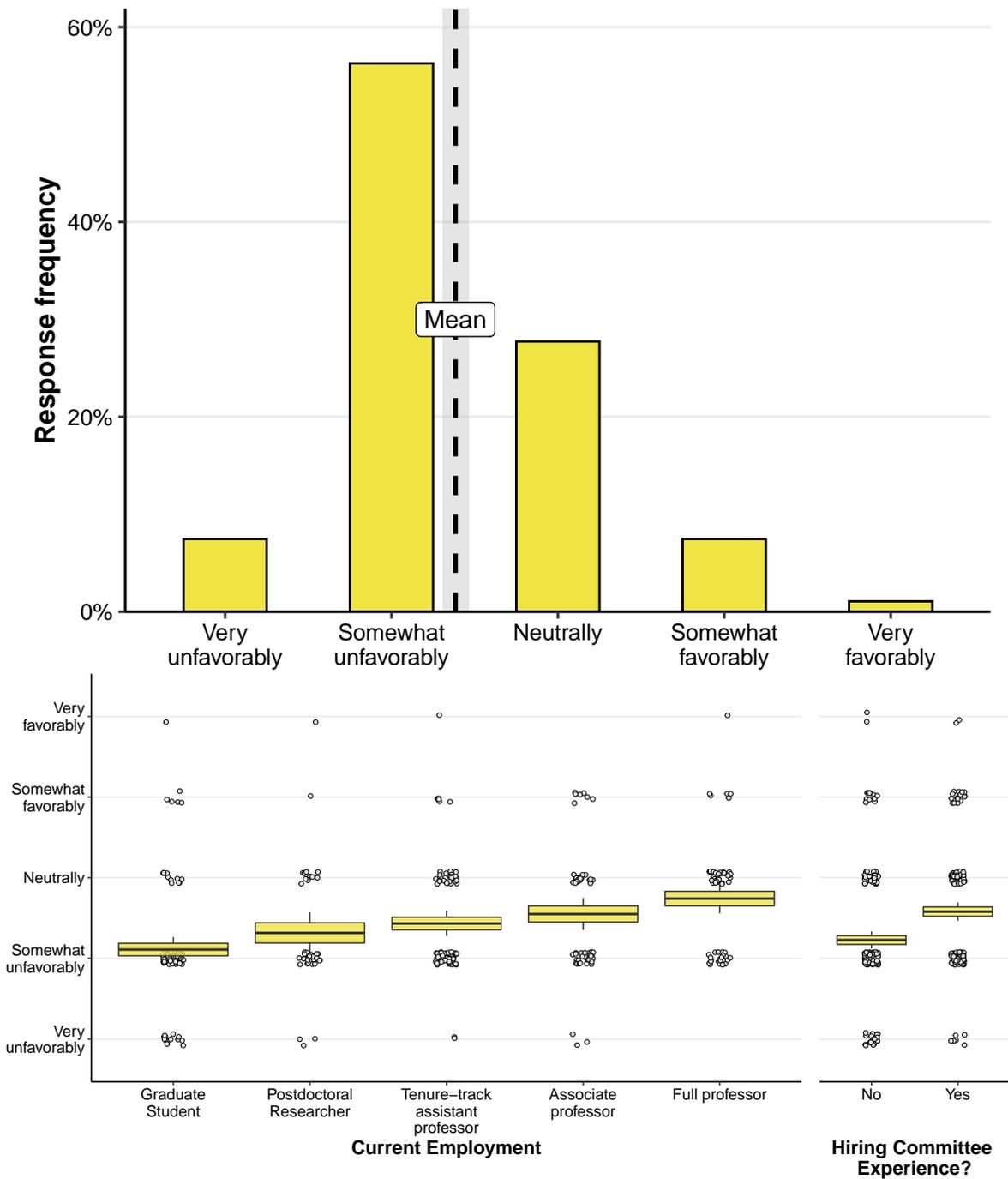


Figure 2. In your opinion, how do academic search committees view candidates with recent non-academic employment?

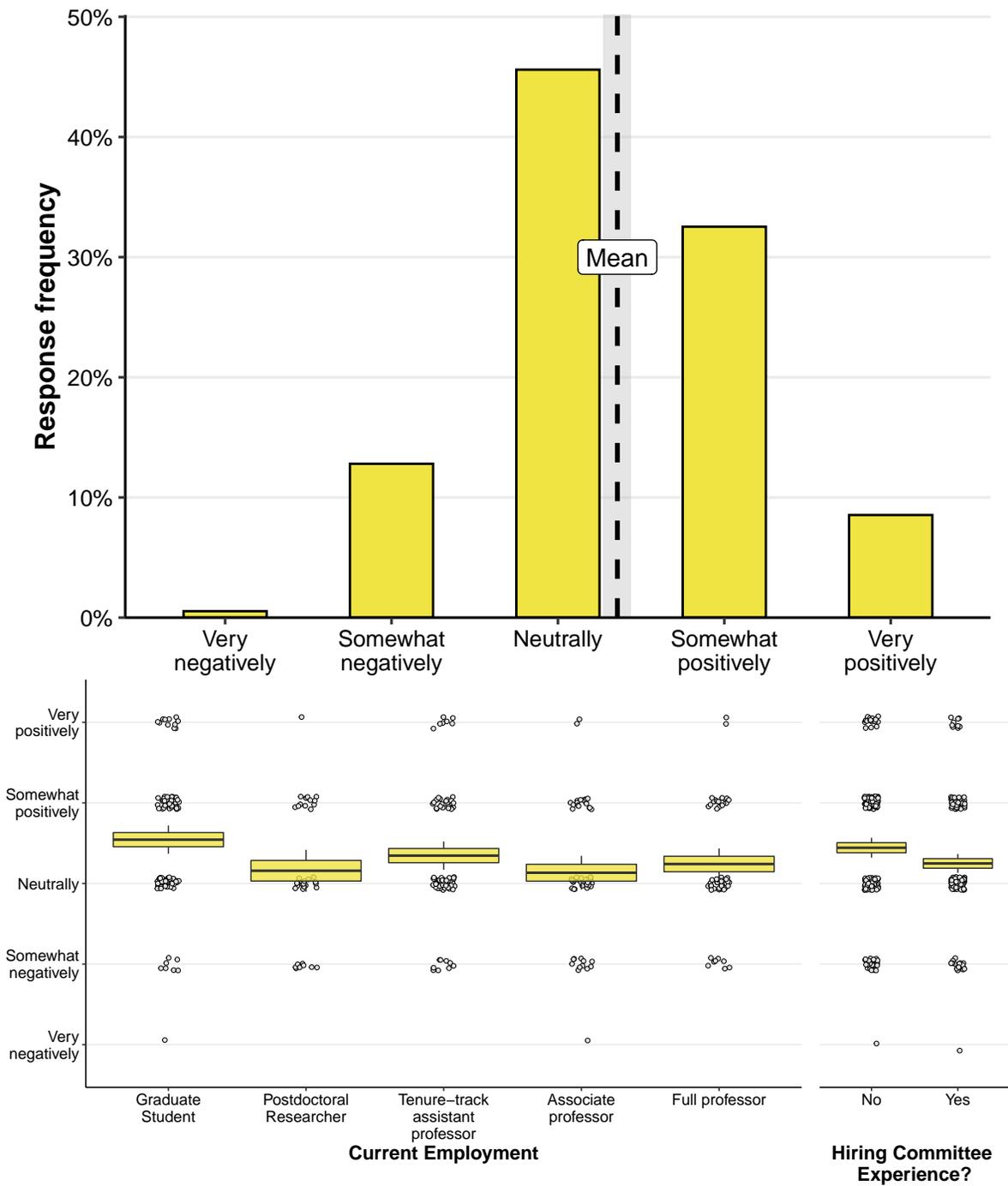


Figure 3. If you were on a hiring committee, how would you evaluate recent non-academic employment in candidates?

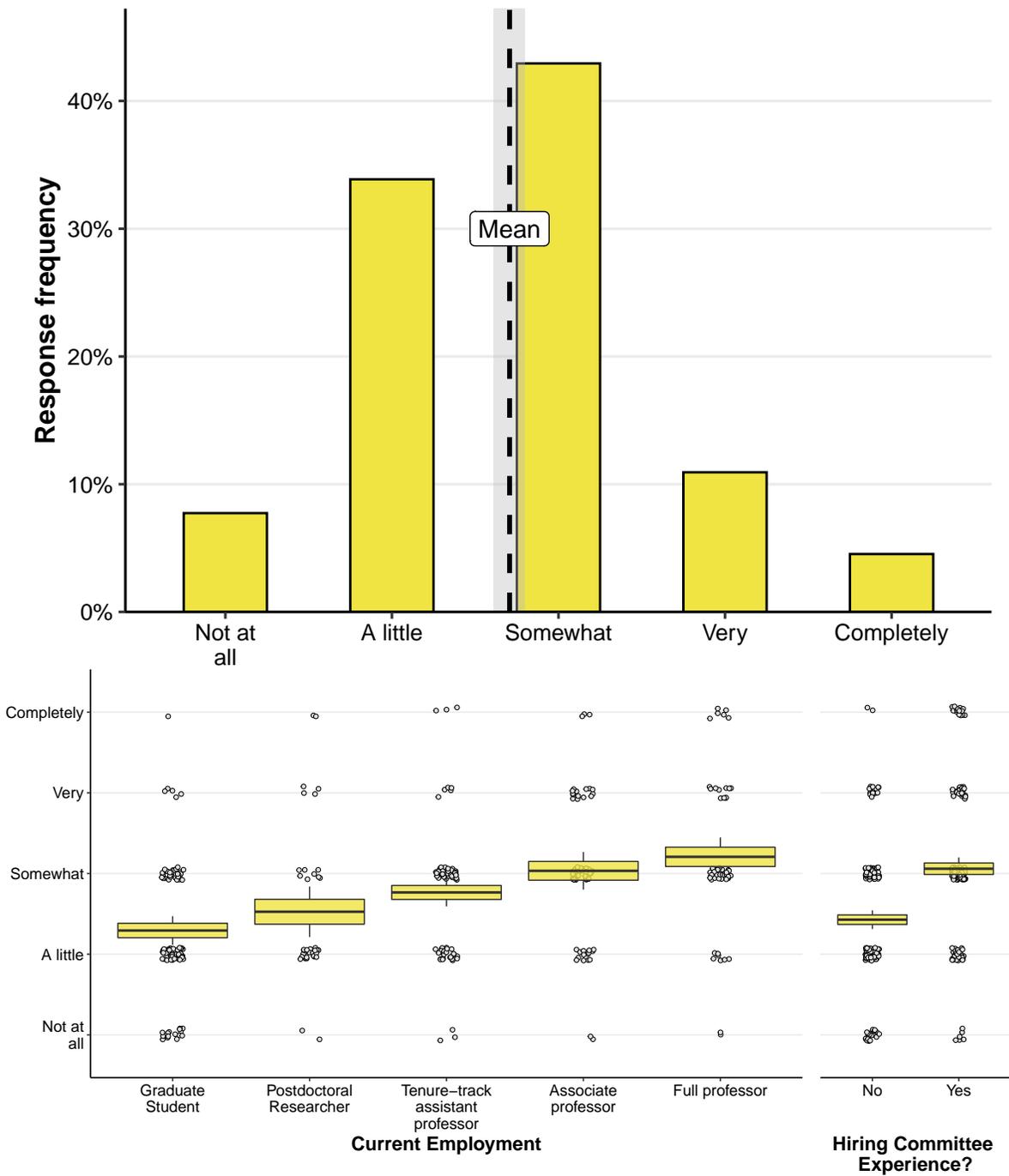


Figure 4. In general, how willing do you think hiring committees would be to consider hiring a tenure-track job applicant with recent non-academic employment?

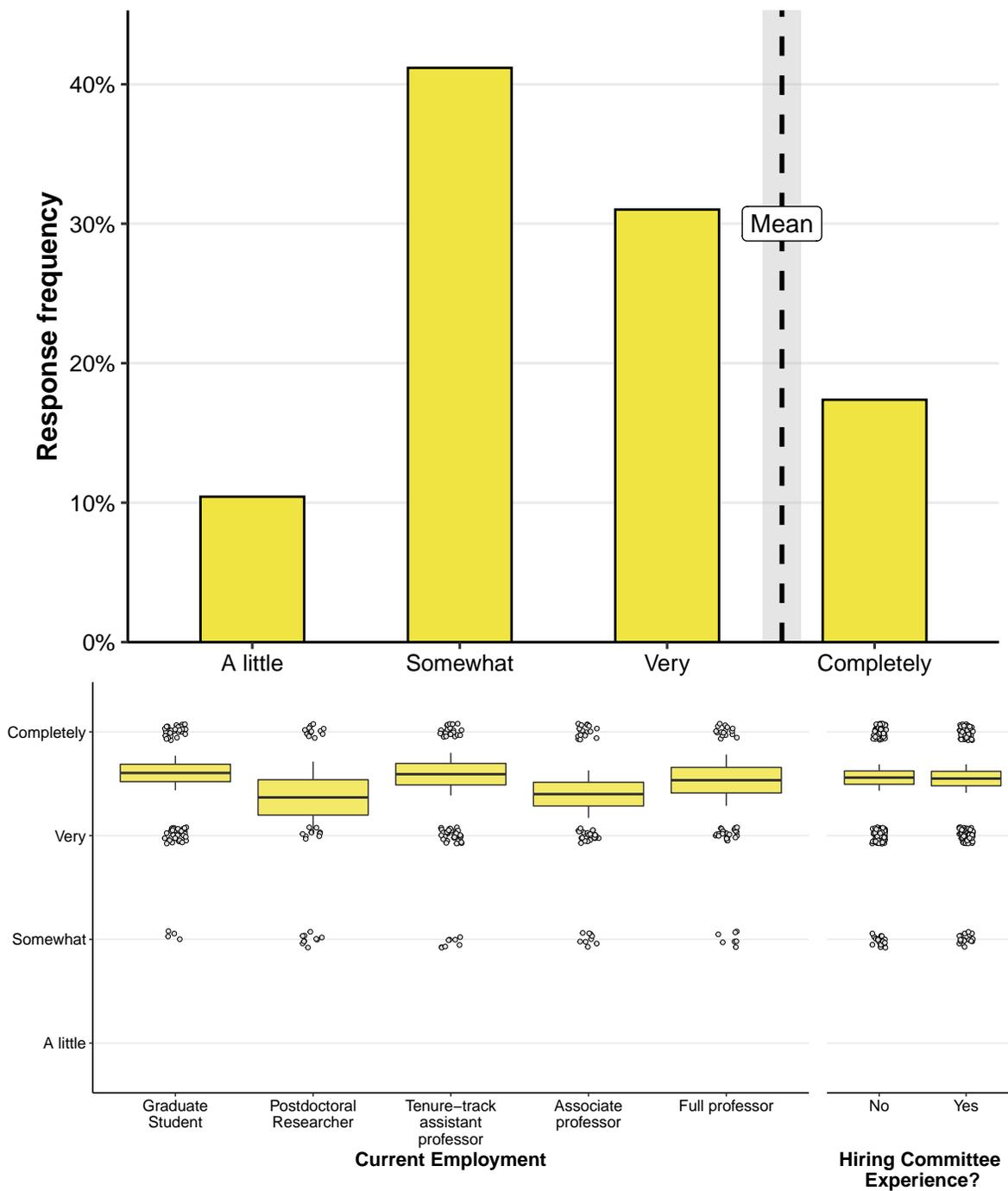


Figure 5. If you were on a hiring committee, how willing would you be to consider hiring a tenure-track job applicant with recent non-academic employment?

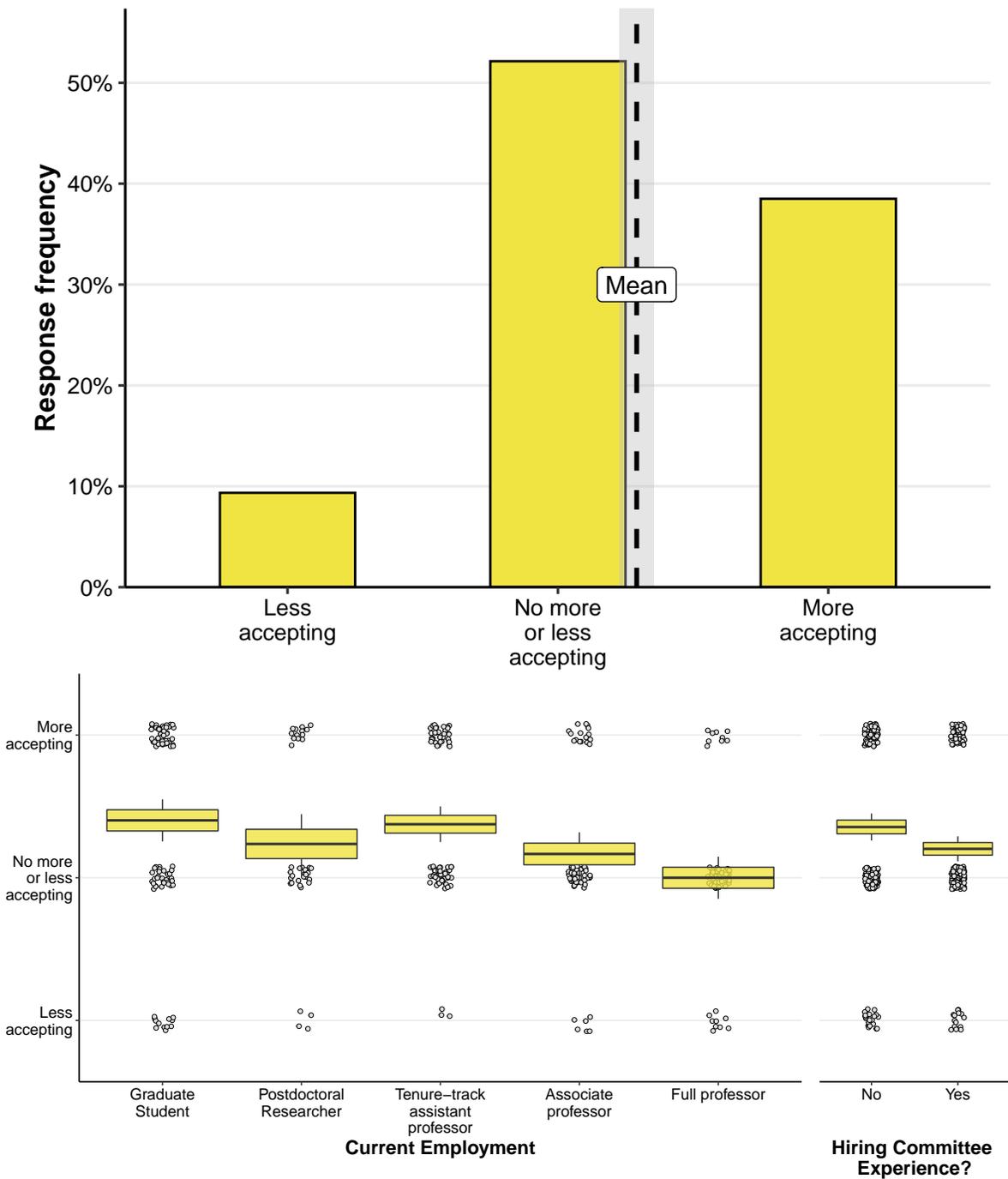


Figure 6. Which of the following best reflects your views about how accepting hiring committees should be toward candidates with recent non-academic employment?

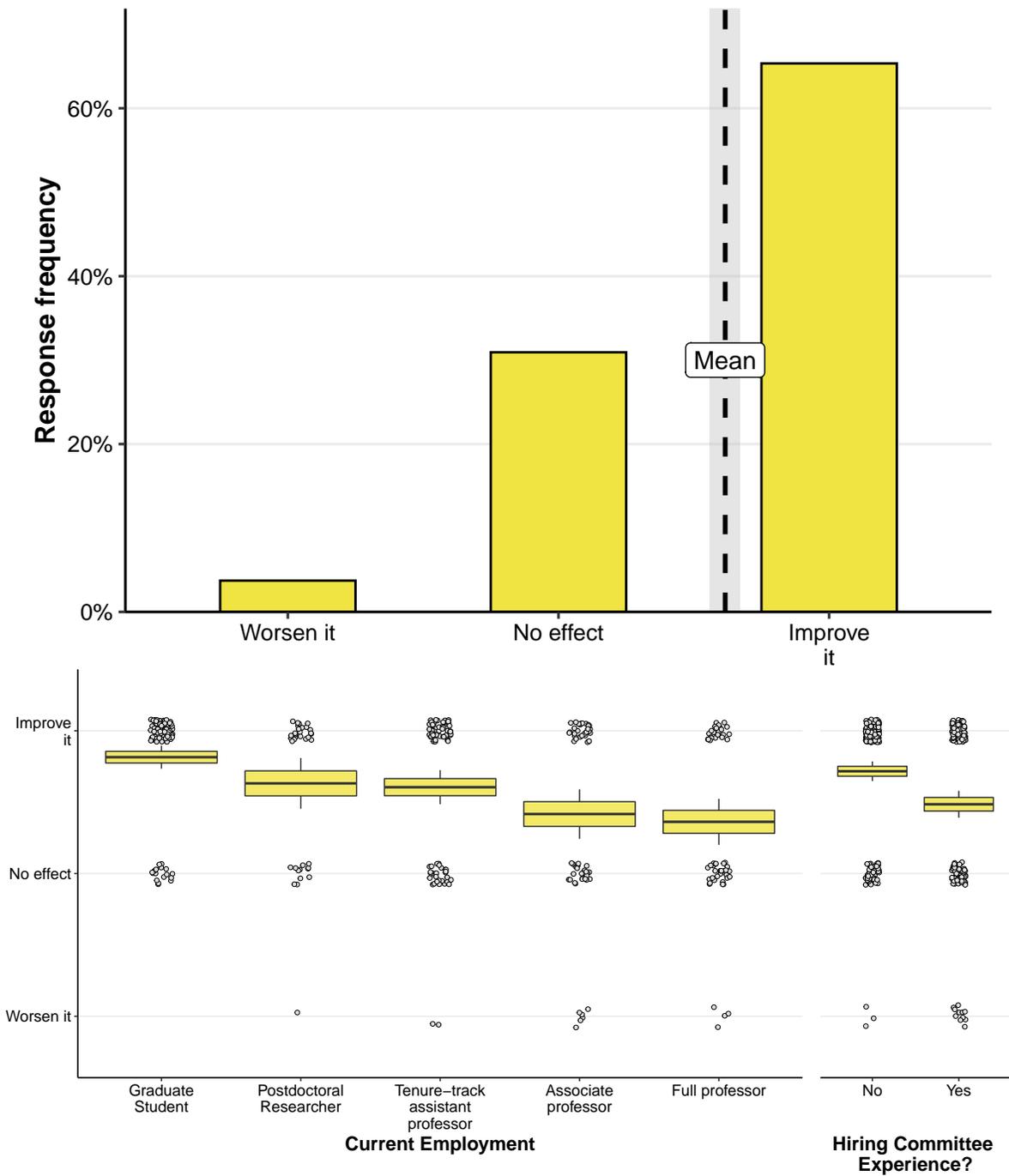


Figure 7. Suppose hiring committees became more accepting of hiring applicants with recent non-academic employment. What effect would this have on the field of psychology, and why?