

 GRAD AND PROFESSIONAL SCHOOLS

Exploring Institutional Rationales for Holistic Review in Graduate Admissions

Joseph H. Paris and Jake D. Winfield

Holistic review is widely practiced in graduate admissions. However, despite its prevalence, there is a need to understand how practitioners approach holistic graduate admissions, how its practice relates to institutional priorities, and its potential implications for equitable access to graduate education. This exploratory mixed method study captures the perspectives of graduate enrollment management (GEM) professionals on the (a) consideration of applicants' personal attributes for evaluating their potential for graduate degree completion, and (b) alignment between applicants' personal attributes with strategic institutional priorities. Applicants' professionalism and integrity were reported most important when evaluating applicants' potential for graduate degree completion. Applicants' multicultural competency was reported most important for the institutional priority of increasing graduate student diversity. Participants' overarching perception of holistic review was that it provides important flexibility during the application evaluation process. Implications for practice are discussed including the need for institutions to (a) make the consideration of applicants' personal attributes transparent to applicants by defining the attributes and aligning required application materials to these attributes and (b) create internal methodologies to ensure reliable and consistent evaluation of applications.

Holistic review refers to the consideration of a variety of cognitive and non-cognitive qualities of admissions applicants (Bastedo 2021; Bastedo, *et al.* 2018). Holistic review is typically used to expand the predictive po-

tential derived from variables historically considered in graduate admissions: undergraduate grade point average (GPA) and standardized test scores such as the Graduate Record Examination (GRE) and Graduate Management

Admission Test (GMAT; Kent and McCarthy 2016; Michel, *et al.* 2019).

Traditionally, graduate admissions models have emphasized quantitative measures of applicants' prior academic achievement and ability as evidenced by their undergraduate GPA and standardized test scores (Kent and McCarthy 2016; Michel, *et al.* 2019). However, research suggests that quantitative measures such as standardized test scores may not reliably and accurately predict success in graduate school and may disadvantage underrepresented student populations (Bleske-Rechek and Browne 2014; Kent and McCarthy 2016; Miller and Stassun 2014). In response, researchers and practitioners have called for the use of holistic review to evaluate a broader range of criteria in the admissions process including, but not limited to, applicants' non-cognitive attributes (*e.g.*, Kyllonen 2005; Kyllonen, Walters and Kaufman 2011; Michel, *et al.* 2019; Sedlacek 2005, 2017).

Many higher education institutions claim to use a holistic approach to graduate admissions (Haviland, *et al.* 2023; Kent and McCarthy 2016), but holistic review practices are ill-defined across the field of higher education. Kent and McCarthy (2016) suggest there is a need for a "clearer understanding of what constitutes a truly 'holistic' graduate admissions process for master's and doctoral programs" (iv). This increased understanding is necessary as there is uncertainty about how practitioners approach holistic graduate admissions, how its practice relates to institutional priorities, and its potential implications for equitable access to graduate education. This opacity limits understanding of the benefits or challenges of holistic review and developing graduate enrollment management (GEM)¹ best practices.

Prior studies of holistic review in graduate admissions have primarily focused on program-specific contexts and institutional objectives such as enhancing student diversity (*e.g.*, Aibana, *et al.* 2019; Grabowski 2018) and promoting more equitable access to gradu-

ate education in the health sciences (*e.g.*, DeWitty 2018; Scott and Zerwic 2015; Wise 2017) and STEM fields (*e.g.*, Miller and Posselt 2018, 2020; Posselt, *et al.* 2017; Wilson, *et al.* 2019). Okahana, Augustine, and Zhou (2018) explored the admission attributes considered most important for improving master's program success (*i.e.*, program fit, degree completion, professional success) and identified the materials admissions officers use to evaluate those attributes. Through the analysis of focus group and survey data, Okahana, *et al.* (2018) found that critical thinking and analytical thinking were reported as very important admission attributes for determining applicants' potential for master's degree completion in both research-focused and professional-focused programs. Although Okahana, *et al.*'s (2018) findings provide important insights into how admissions officers view holistic review practices and how they consider applicants' personal attributes to improve program success, there remains a limited understanding of how the practice of holistic review may relate to institutional objectives and priorities, at both the master's and doctoral levels.

Current Study

This exploratory mixed method study captures the perspectives of GEM professionals on the (a) consideration of applicants' personal attributes for evaluating their potential for graduate degree completion, and (b) alignment between applicants' personal attributes with strategic institutional priorities. The current study expands on Okahana, *et al.*'s (2018) findings by investigating how holistic review practices relate to institutions' mission and strategic priorities such as increasing student diversity and quality. Additionally, this study explored holistic review practices in the context of both master's and doctoral program admissions whereas Okahana, *et al.* exclusively examined the master's level.

The following research questions were posited:

- How does the consideration of applicants' personal attributes relate to the evaluation of applicants' potential for master's and doctoral degree completion?
- How does the consideration of applicants' personal attributes align with institutional

¹ GEM refers to a comprehensive approach to the methods by which an institution recruits, admits, supports, retains, and graduates post-baccalaureate students (Connor, *et al.* 2015). GEM includes codependent functions working congruently to strategically manage graduate student enrollment levels and the graduate student experience (Connor, *et al.* 2015).

strategic priorities of mission attainment, enrollment headcount growth and/or tuition revenue generation, enhancing student diversity, and increasing student quality?

- How do GEM professionals describe the rationale for holistic review in graduate admissions?

Methodology

The current study employed an exploratory pragmatic approach to data collection and analysis (Remler and Ryzin 2015) to understand holistic review from the perspectives of GEM professionals. Pragmatic approaches are ideal for exploring socially situated phenomena, particularly in different institutional environments (Creswell and Plano Clark 2017; Remler and Ryzin 2015). After institutional review board approval, a survey was administered to capture the perceptions of GEM professionals. The survey results informed the development of semi-structured interview questions and identified respondents who agreed to participate in a follow-up interview.

Procedures

Because the current study was exploratory, a fifteen-item survey instrument adapted from Okahana, *et al.* (2018) was administered to GEM professionals to collect data on holistic review practices. Questions were selected about the reported importance of applicants' personal attributes in graduate admissions. The survey included five-point Likert scales that asked respondents to rate the importance of the personal attributes for master's and doctoral degree completion and the level of alignment between applicants' personal attributes and institutional priorities. Given the exploratory nature of the research questions, Likert scale items were used because they helped the researchers quickly understand the extent to which respondents agreed with different statements about applicant qualities to explore during interviews. The survey also asked respondents to indicate the GEM model employed at their institution (*e.g.*, centralized, decentralized, collaborative [*i.e.*, hybrid]). See Appendix A for the survey instrument.

Participants were recruited between June and October 2020 through an open-call disseminated to members of NAGAP, The Association for Graduate Enrollment Management, via e-newsletters and direct email. Forty-six respondents completed the survey. Two respondents were removed from the sample, as they did not meet the inclusion criteria². The remaining 44 respondents included GEM professionals who are active members of NAGAP and work in GEM or a related field at a non-profit, Integrated Postsecondary Education Data System (IPEDS)-submitting institution that offers at least one graduate degree. Given the decentralized nature of graduate admissions (Connor, *et al.* 2015, Balayan, *et al.* 2022), some respondents were responsible for institutional-level graduate admissions whereas others were responsible for academic school, college, or program-level graduate admissions.

At the end of the survey, respondents indicated their willingness to participate in a 30-minute follow-up interview. Thirty-three survey respondents indicated their willingness to participate in an interview. Fifteen respondents were selected to ensure institutional diversity and invited to schedule an interview, ten of whom participated in interviews.

Prior to conducting the interviews, the survey data were used to develop interview questions to elicit perspectives on institutional-level and academic program-level graduate admissions holistic review practices. Interviews lasted 30–45 minutes in length and were conducted by Paris via Zoom between July and October 2020 and were transcribed before analysis.

Quantitative Data Analysis

The first step to analyze the data was to develop descriptive statistics from the survey results and collect institutional characteristics from IPEDS. The IPEDS data collected included respondents' institutional control, geographic region, and Basic Carnegie Classification. Next, the means of responses to the Likert scale

² One respondent worked at a proprietary institution that does not report to IPEDS and therefore was removed from the data. One respondent worked at an institution with a Carnegie Classification of Baccalaureate Colleges: Diverse Fields and therefore was removed from the study.

survey items were calculated to create an indicator of reported importance of personal attributes for evaluating applicants' potential for degree completion. A similar indicator for the reported alignment between the evaluation of applicants' personal attributes and institutional priorities was created. The values for each personal attribute were compared to identify the attributes participants reported to be of most importance when evaluating applicants' potential for degree completion (RQ1) and most aligned with institutional strategic priorities (RQ2). Secondary analyses included comparing these indicators by the GEM model and characteristics of respondents' institutions.

Qualitative Data Analysis

Each interview transcript was read, and data were organized into the following *a priori* categories: (a) applicant qualities, (b) internal tensions, (c) limitations of graduate admissions criteria, (d) COVID-19, and (e) admissions processes. Then, the data within these categories were analyzed using thematic analysis (Guest, MacQueen and Namey 2014), considering these responses and the literature on the use of non-cognitive variables in admissions. This process ended with the development of overarching themes.

Positionality and Reliability

At the time the current study was conducted, Paris was a graduate enrollment management professional at a large public research university. His perspectives on holistic review in graduate admissions were shaped by more than a decade of graduate admissions experience. Winfield was a graduate student who studied college access for undergraduates but did not have professional admissions experience.

To ensure the reliability of the qualitative data analysis, the researchers engaged in continuous discussions about the interview data and how participants' perspectives relate to graduate admissions practices. Following each discussion, the emergent themes were refined to arrive at an understanding of participants' views on holistic review practices in the graduate admissions context.

Limitations

Readers should be aware of several limitations to the current study. The researchers imposed the notion that the evaluation of even a limited range of applicants' personal attributes constitutes a holistic review process. The researchers acknowledge that holistic review may incorporate the evaluation of additional aspects of applicants' personal background, characteristics, and prior achievements. Further, survey respondents were not offered operational definitions of applicants' personal attributes and institutional priorities. Therefore, if definitions of these variables were unclear to respondents, this could lead to observable inconsistencies in the reported importance of considering applicants' personal attributes when evaluating admissions applications.

The survey was administered to members of a single professional association which limited the size and representativeness of the sample. Therefore, readers are cautioned not to generalize the findings of the study given its exploratory nature and relatively homogenous sample.

Findings

The survey respondents for the current study predominantly worked at private institutions (63.4 percent) and doctoral universities (72.7 percent). These institutional characteristics and small sample size limit the generalizability of the current study, as they are not representative of institutions with graduate programs nationally. See Table 1 (on page 43) for additional descriptive statistics.

Quantitative Findings

The researchers examined which personal attributes participants reported to be most important when evaluating graduate admission applicants' potential for master's and doctoral degree completion. Table 2 (on page 43) presents the means and standard deviations for the personal attributes GEM professionals associated with potential for degree completion. Professionalism ($\bar{x}=3.68$, $SD=0.53$ [master's]; $\bar{x}=3.88$, $SD=0.33$ [doctoral]) and integrity ($\bar{x}=3.82$, $SD=0.45$ [master's], $\bar{x}=3.82$, $SD=0.47$ [doctoral]) had the greatest mean values and the least variability which suggests that participants consistently considered these attributes to be most im-

portant when evaluating master's and doctoral applicants' potential for degree completion.

Next, the researchers examined which personal attributes participants believed were most aligned with institutional priorities, as shown in Table 3 (on page 44). Concern for others had the greatest mean score ($\bar{x}=3.71$) and smallest standard deviation ($SD=0.55$) for *alignment with institutional mission*. For the institutional priority of *increasing graduate student diversity*, applicants' multicultural competency had the greatest mean score ($\bar{x}=3.82$) and the smallest standard deviation ($SD=0.45$). For the institutional priority of *increasing student quality*, knowledge of the profession/discipline had the greatest mean score ($\bar{x}=3.56$, $SD=0.84$). However, there was observable inconsistency (as approximated by a comparatively large standard deviation) in the rating of this attribute, which leads to inconclusive results.

To determine if differences existed in responses between those who worked at public and private institutions, the means and standard deviations of the holistic review scores for each type of institutional control were compared. Minimal differences between types of institutional control were found. Similarly, there were no meaningful differences when comparing means and standard deviations for responses by Carnegie Classification and GEM model. This indicates that, in the sample, holistic ad-

TABLE 1 ► Descriptive Statistics on the Institutions Represented by Survey Respondents ($n=44$)

	Frequency	%
Institutional Control		
Public	16	36.4
Private	28	63.6
Institutional Geographic Region		
Midwest	17	38.6
Northeast	14	31.8
South	8	18.2
West	5	11.4
Carnegie Classification		
Doctoral Universities	32	72.7
Master's Colleges and Universities	4	9.1
Special Focus Four-Year	8	18.2
GEM Model		
Centralized	2	4.5
Decentralized	26	59.1
Collaborative	16	36.4

TABLE 2 ► Reported Importance of Personal Attributes for Evaluating Degree Completion Potential ($n=44$)

Personal Attribute	Graduate Degree Completion			
	Master's		Doctoral	
	Mean	SD ¹	Mean	SD ¹
Concern for Others	3.46	0.82	3.56	0.66
Creativity	2.95	0.64	3.18	0.64
Curiosity	3.43	0.59	3.61	0.56
Dependability	3.64	0.58	3.76	0.50
Integrity	3.82	0.45	3.82	0.47
Knowledge of the Profession/Discipline	3.45	0.75	3.82	0.58
Leadership	3.25	0.74	3.62	0.55
Multicultural Competency	3.14	0.83	3.42	0.79
Persistence	3.76	0.68	3.76	0.44
Professionalism	3.68	0.53	3.88	0.33

¹ SD = Standard Deviation

missions practices are largely operationalized in similar ways across institutional control types, GEM models, and Carnegie Classifications.

TABLE 3 ► Reported Importance of Personal Attributes Alignment with Institutional Priorities ($n=44$)

Personal Attribute	Institutional Priority					
	Mission Alignment		Graduate Student Diversity		Graduate Student Quality	
	Mean	SD ¹	Mean	SD ¹	Mean	SD ¹
Concern for Others	3.71	0.55	3.74	0.55	3.23	0.96
Creativity	3.17	0.86	3.22	0.79	3.02	0.88
Curiosity	3.65	0.57	3.49	0.56	3.46	0.81
Dependability	3.19	1.03	3.29	0.80	3.29	0.96
Integrity	3.67	0.68	3.61	0.76	3.50	0.88
Knowledge of the Profession/Discipline	3.56	0.73	3.22	0.92	3.56	0.84
Leadership	3.62	0.58	3.49	0.79	3.44	0.90
Multicultural Competency	3.49	0.71	3.82	0.45	3.29	1.01
Persistence	3.21	0.77	3.49	0.73	3.39	0.89
Professionalism	3.60	0.66	3.43	0.77	3.51	0.81

¹ SD = Standard Deviation**TABLE 4** ► Holistic Review Scores by Institutional Control, Carnegie Classification, and GEM Model ($n=44$)

	Degree Completion		Institutional Priorities	
	Mean	SD ¹	Mean	SD ¹
Institutional Control				
Private	3.48	0.29	3.39	0.47
Public	3.51	0.46	3.51	0.33
Carnegie Classification				
Doctoral Universities	3.53	0.36	3.45	0.40
Master's Colleges and Universities	3.43	0.27	3.30	0.81
Special Focus Four-Year	3.40	0.39	3.45	0.33
GEM Model				
Centralized	3.58	0.11	3.67	0.19
Decentralized	3.51	0.41	3.44	0.50
Collaborative	3.45	0.29	3.40	0.29

¹ SD = Standard Deviation

Qualitative Findings

Table 5 (on page 45) includes participants' pseudonyms and their respective job titles. As the data were analyzed, one central theme emerged that reflects interviewees' perceptions of holistic review: *additional flexibility in GEM*. This flexibility was consistent across GEM models and manifested in three ways: (a) flexibility to

adapt to evolving standardized test score requirements, (b) flexibility to consider applicants' experiences, and (c) flexibility for graduate admission practices to reflect the institutional mission.

Participants' overarching perception of holistic review was that it provides flexibility during the application evaluation process. Participants described that

TABLE 5 ► Interview Participants Pseudonyms and Institutional Characteristics

Pseudonym	Title	Institutional Control	Carnegie Classification	GEM Model
Cindy	Director of Graduate Admissions	Private	Master's Colleges and Universities	Collaborative
Dorothy	Graduate Admissions Counselor	Private	Doctoral Universities	Decentralized
Francis	Assistant Vice Provost for Graduate Enrollment	Private	Doctoral Universities	Decentralized
Grace	Director of Graduate Admissions	Private	Doctoral Universities	Collaborative
Lauren	Assistant Director of Graduate Admissions	Private	Doctoral Universities	Collaborative
Mark	Director of Graduate Admissions	Private	Doctoral Universities	Decentralized
Nancy	Director of Graduate Admissions	Private	Doctoral Universities	Decentralized
Rebecca	Director of Graduate Admissions	Public	Doctoral Universities	Collaborative
Sarah	Assistant Director of Graduate Admissions	Public	Doctoral Universities	Collaborative
Tom	Director of Graduate Admissions	Private	Doctoral Universities	Decentralized

using a holistic approach to the evaluation of admissions applicants helped them make more accurate predictions about applicants' likelihood of success and contribution to their intended graduate program, while also helping to fulfill institutional priorities. Participants' perceptions suggest that holistic review helps institutions avoid denying admission to applicants whose potential is demonstrated through their personal attributes and admitting applicants whose goals are misaligned with that of their intended program.

Standardized Testing — “The Great (Un)equalizer”

Several participants suggested that there is an inherent tension between predicting applicants' potential for success and the reliance on standardized test scores as a predictor, particularly among underrepresented students. Francis recognized the importance of predicting applicants' potential for success and the limitations of test scores in making this prediction.

How do you discern a student's aptitude? Their overall makeup. Their ability to really thrive and move forward

in a rigorous academic program. That's where we get into some of the issues with test scores...Tests are the great unequalizer.

While many participants described how deprioritizing test scores through holistic admissions promoted student diversity, there were other benefits as well. For example, Lauren noted that “holistic review may not supersede basic academic qualifications [such as test scores], but it can increase opportunities.” Rebecca noted that “qualities like grit, perseverance, motivation, and passion are important and those characteristics could make up for a deficiency in GPA or a test score.” Thus, holistic review promotes the consideration of applicants' personal characteristics that an institution has decided are associated with success outcomes.

Tests of English language proficiency were also a commonly discussed by participants. Some participants described how English language proficiency was important for the attainment of their program's goals. For example, Tom's program involves a field placement and over time the program learned that “students who don't

have a high level of English proficiency are not successful in their field placement” because students need to communicate with people or work in immigrant communities where English is not the dominant language. However, Tom and Rebecca noted institutional processes that provided flexibility for students slightly below minimum expectations including a careful review of sub-scores, a waiver from an academic dean, or successful completion of an intensive English language program. This flexibility recognizes the specific competencies necessary for success, instead of a strict cut-score approach that may be used as part of other admissions paradigms.

Participants who worked in admissions for programs that led to a professional credential, like physician assistant studies, often viewed tests as more valuable than those in other programs. Several of these participants shared that the consideration of standardized test scores was important for ensuring that admitted applicants could successfully complete a professional certification exam, such as a board exam. To Nancy, “[s]uccess is not only graduating from the program but successfully completing the board [exam]...That said, other goals of our program are having well-rounded professionals who are lifelong learners and are going to continue to advance the profession.” That is, admissions test scores may provide some indicator of future success on certification or licensure exams but are not to be used in isolation.

Tom described how standardized test scores are considered at his institution using a multistep process: “Faculty don’t see the GRE at all during the first round of review. Scores are only considered later in the process for the final candidates. The committee reviews GRE scores only when they are ‘on the fence about someone.’” Although this example demonstrates how standardized test scores can be utilized as part of a holistic review process, it suggests the variability in the criteria employed across the applicant pool. In other words, test scores are considered for some applicants, but not for others. Variability in the graduate admissions process may present a lack of transparency regarding how applications are evaluated, what criteria are considered, and how applicants can best position themselves for optimal admissions outcomes.

Considering Applicants’ Experiences

One frequently-mentioned benefit of holistic review was the flexibility to consider applicants’ characteristics and backgrounds including their life circumstances, past experiences, and future goals and their alignment with institutional values. Most commonly, participants described how a holistic review process allows them to evaluate candidates who are vastly different from one another. Sarah, typical of participants, noted that:

I cannot look at an application from a 21-year-old student coming straight in from undergraduate [studies] and evaluate them the same as another applicant who has a three-page resume that’s been working for 20 years...Now is 2.97 [GPA] a red flag? Yes, but we look at it as [a GPA earned] 20 years ago, [and now] we look at a beautiful resume. We look at all of this, all the things that this student has done. We look at their writing sample which is great. We look at their goal statement which aligns with the program perfectly. Why wouldn’t we let that student have a chance for a degree?

Sarah’s perspectives illustrate how professional experiences are considered when an applicant’s undergraduate GPA does not meet admissions requirements. Cindy, for example, described how one applicant had a low undergraduate GPA but over fifteen years of professional experience. Cindy asked, “Are we really going to deny him [admission] because of 16 years ago?” Additionally, Cindy’s example suggests that an applicant’s recent experiences are more indicative of their potential for success than their academic performance many years earlier.

Other participants noted that considering applicants’ previous experiences can be helpful for better understanding their potential for success in their profession and intended graduate program. Mark described the admissions process at his professional school in which applicants’ professional experiences reflect their “reliability” rather than domain-specific knowledge. However, the consideration of professional experience was not uniform among all participants. For example, Nancy noted that the graduate admissions process at her institution valued specific types of professional experiences.

Specifically, Nancy explained that “professional experience through healthcare work” was the only type of work experience valued in the admissions process at her institution.

Participants also described how holistic review provided the flexibility to consider the relationship between applicants’ academic and non-academic experiences. For example, Dorothy’s institution considered undergraduate grades and coursework as well as applicants’ applied experiences outside of the classroom such as volunteerism, student leadership positions, internships, or field experiences.

For all participants, the consideration of applicants’ backgrounds did not include their racial or ethnic identities. Rebecca described that even though her institution aims to increase the number of underrepresented minority graduate students enrolled, “race is not visible” as part of the admissions process. These color-evasive practices (Annamma, Jackson and Morrison 2017) may become more commonplace following the 2023 U.S. Supreme Court rulings (*Students for Fair Admissions, Inc. v. President and Fellows of Harvard College* 2023; *Students for Fair Admissions, Inc. v. University of North Carolina, et al.* 2023) that ended affirmative action in admissions, even in holistic admissions paradigms.

Centrality of Mission— “Mission Drives Everything”

To participants, holistic review is essential for evaluating how applicants’ attributes align with their institution’s mission and strategic priorities. This provides the flexibility necessary to align admissions criteria with the mission of the program and institution. In doing so, students may be more successful, and the institution itself may better fulfill its mission. The authors found that institutional missions inform many parts of the admissions process, especially at religiously-affiliated institutions. For example, Francis noted that at his Catholic institution “the mission drives everything—so we look to the mission for how we recruit students, how we admit students, and hopefully that’s going to drive who’s going to be successful in the program.” Many participants noted that personal statement prompts in-

cluded aspects of their institution’s mission, especially commitments to social justice. For example, Lauren noted that she needs “to see at least in a personal statement that someone recognizes the ideas” central to the philosophy of the program to help ensure their future success. This recognition of key values helps ensure that admitted students are prepared for coursework and later embody the institutional mission in their careers and lives.

Other respondents noted an indirect connection between graduate admissions practices and mission. For example, one participant who worked at a land grant university noted that their institution’s mission is to “prepare people for the workforce needs” of the state and that they “don’t know if that mission aligns always with graduate education.” Sarah noted that, at times, graduate admissions practices and an institution’s mission can be in conflict—institutions may be tasked “to create as big and wide a net as possible” and doing so may require admissions to “maintain quality, while also increasing numbers,” potentially by utilizing more flexible admissions practices. Therefore, while mission can guide admissions processes, it must be used carefully and how mission is operationalized should be open to examination.

Impact of COVID-19

Participants described the impact of the COVID-19 pandemic on graduate admissions practices. For example, participants described how holistic review helped them account for new complexities in the admissions process such as pass/fail undergraduate course grades and the absence of graduate admissions test scores due to the unavailability of test administrations. For example, Grace shared how her institution introduced a COVID-19 impact statement as an option component of the admissions application:

COVID was an impetus for moving away from tests and instead we ask students to include an explanatory statement that’s an addendum to their personal statement that gives them an opportunity to just share where they’re at; a COVID-19 impact statement.

To participants, holistic review afforded them the flexibility necessary to better understand how the impact of COVID-19 manifests in the lives and academic experiences of graduate admissions applicants.

Discussion

The findings of the current study illustrate how the consideration of applicants' personal attributes, a component of holistic review, is related to the evaluation of applicants' potential for graduate degree completion while also providing GEM professionals with flexibility to identify promising applicants and achieve institutional goals. In the quantitative analysis of survey responses, professionalism and integrity were reported most important when evaluating applicants' potential for graduate degree completion. Semi-structured interview data expanded upon this finding, particularly for professionalism. Interviewees described how applicants' professionalism could be demonstrated by professional experiences in a particular domain and how work experiences highlight an applicants' reliability, a personal attribute they deemed critical to success in graduate education. Most participants in both components of the current study worked in graduate programs that lead to professional licensure, so these characteristics may be less valued in other types of graduate programs.

The current study also illuminated the potential alignment between the consideration of applicants' personal attributes and an institution's strategic priorities. First, in the quantitative survey, applicants' concern for others was most closely aligned with participants' institutional mission. The qualitative data suggests that this may be because institutions with missions that prioritize social justice, religion, or service use holistic review practices to explicitly consider specific components of an application that allow them to assess these dispositions. Recruiting and admitting students who explicitly demonstrate specific personal attributes may also help achieve other institutional goals such as promoting lifelong learning and preparing state residents for workforce needs, the fulfillment of which requires applicants with qualities difficult to measure exclusively using standardized test scores and undergraduate GPA.

Second, the survey data showed that multicultural competency was most closely aligned with an institutional priority to increase student diversity. Interviewees frequently described how applicants' race or ethnicity were not explicitly considered in the admissions process. Taken together, these findings suggest that holistic review has the potential to provide admissions officers with richer insights about applicants' disposition toward studying and working within multicultural environments, information that cannot be derived from applicants' race or ethnicity alone. Third, applicants' knowledge of their profession and academic discipline was most aligned with the institutional objective of increasing student quality. However, some respondents described how increasing student quality and access, driven by an institution's mission, could conflict with one another, potentially limiting the tools available to GEM professionals to craft admissions processes.

One key area of divergence between the quantitative and qualitative data was about the use of standardized test scores, as the quantitative survey did not ask respondents how test scores were specifically used at their institution. Among the interviewees, there were a variety of perspectives. Some viewed standardized admissions test scores as inequitable tools that could be largely replaced with other criteria considered using holistic approaches, while others viewed test scores as key indicators for potential success, particularly on future certification exams. We attribute these divergent perspectives on the utility of standardized test scores to differences in graduate admissions practices across fields and disciplines.

Implications for Practice

The findings of the current study highlight the personal attributes that current GEM professionals associate with graduate degree completion and their institution's strategic priorities. Based on these findings, GEM professionals and institutions should engage in three holistic admissions practices. First, practitioners should clearly identify the personal attributes of current and prospective students they associate with graduate program and student success. GEM professionals and institutions are

encouraged to frequently evaluate the success indicators they identified to inform the modification or discontinuation of particular admissions practices. Additionally, institutions must make these attributes transparent to applicants by clearly defining them and explicitly aligning these attributes to required application materials. Institutions and graduate programs should also create internal methodologies to ensure reliable and consistent evaluation of applicants' personal attributes.

Second, if standardized test scores are considered as part of the admissions process, there should be a clear understanding of the value these scores contribute to understanding applicants' potential for success. This norm setting around standardized tests would certainly vary between graduate programs, and therefore, it is important to establish a common vision for these assessments—especially when new GEM professionals join an admissions team. The uses of test scores should also be communicated to students—particularly if tests are used for specific reasons or parts of the admissions process such as determining financial support awards. A transparent admissions process may support institutions and graduate programs to attain the objective of increasing the diversity of the applicant pool or student body by

reducing barriers and the hidden curriculum (Margolis 2001) of the graduate admissions process. Finally, these findings suggest that the importance of the institutional mission as part of holistic admissions varies by institution. However, all graduate programs, institutional leaders, and GEM professionals should engage in ongoing conversations about how admissions practices reflect the institution's mission and position it to fulfill its mission.

Conclusion

The current study sought to craft a deeper understanding of graduate admissions holistic review practices in the United States and how these practices relate to institutional priorities. Central to the findings is that holistic review is a flexible tool to evaluate applicants to identify their potential for success. However, holistic review is not practiced in a standardized way across institutions. As such, GEM professionals and scholars need to engage in scholarly and applied efforts to work toward a comprehensive definition of holistic review and understanding of its implications for policy and practice. A deeper understanding of holistic review processes is important for the development of best practices to support a more equitable future in higher education.

Appendix: Survey Instrument

- | | |
|--|--|
| <p>1. In what type of Graduate Enrollment Management office do you work?</p> <ul style="list-style-type: none"> a. Centralized, institution-wide office b. Academic school or college within an institution c. Academic program or department within an academic school or college d. Other (please specify) <hr/> <hr/> <hr/> <hr/> | <p>2. What office evaluates graduate admissions applications on your campus?</p> <ul style="list-style-type: none"> a. Centralized, institution-wide office (<i>e.g.</i>, Graduate Admissions, Graduate School) b. Academic school or college within an institution c. Academic program or department within an academic school or college d. Other (please specify) <hr/> <hr/> <hr/> <hr/> |
|--|--|

3. What office makes graduate admissions decisions (*e.g.*, admit, deny) on your campus?
 - a. Centralized, institution-wide office (*e.g.*, Graduate Admissions, Graduate School)
 - b. Academic school or college within an institution
 - c. Academic program or department within an academic school or college
 - d. Other (please specify) _____

4. If response to Question 1 is “academic school or college within an institution,” please select the field of study that best describes your academic school or college.
 - a. Arts and Humanities
 - b. Biological and Agricultural Sciences
 - c. Business
 - d. Education
 - e. Engineering
 - f. Health and Medical Sciences
 - g. Mathematics and Computer Sciences
 - h. Physical and Earth Sciences
 - i. Public Administration and Services
 - j. Social and Behavioral Sciences
 - k. Other (please specify) _____

5. If response to Question 1 is “Academic program or department within an academic school or college,” please select the field of study that best describes your academic program or department.
 - a. Arts and Humanities
 - b. Biological and Agricultural Sciences
 - c. Business
 - d. Education
 - e. Engineering
 - f. Health and Medical Sciences
 - g. Mathematics and Computer Sciences
 - h. Physical and Earth Sciences
 - i. Public Administration and Services
 - j. Social and Behavioral Sciences
 - k. Other (please specify) _____

6. When evaluating potential for master’s degree completion, how important are the following attributes of applicants? (Use Table 6 [on page 51].)
7. When evaluating potential for doctoral degree completion, how important are the following attributes of applicants? (Use Table 6 [on page 51].)
8. When evaluating the following admission attributes of master’s applicants, which of the following do you consider? Check all that applies to each of the attributes. (Use Table 7 [on page 52].)
9. If response to Question 8 includes “Other Application Materials,” please describe the material(s) used to evaluate the indicated admission attribute(s) of master’s applicants:

10. When evaluating the following admission attributes of doctoral applicants, which of the following do you consider? Check all that applies to each of the attributes. (Use Table 7 [on page 52].)
11. If response to Question 10 includes “Other Application Materials,” please describe the material(s) used to evaluate the indicated admission attribute(s) of doctoral applicants:

12. To what extent are the following personal attributes of graduate admissions applicants aligned with the mission of your institution? (Use Table 8 [on page 53].)
13. To what extent are the personal attributes of applicants considered in graduate admissions aligned with your institution’s/academic program’s (*based on response to Question #1*) goals of enrollment head-count growth and/or tuition revenue generation? (Use Table 8 [on page 53].)

TABLE 6 ► Applicant Attributes¹

Attribute	Not Important	Slightly Important	Moderately Important	Very Important	Not Applicable
Past Academic Performance	☐	☐	☐	☐	☐
Past Research Experience	☐	☐	☐	☐	☐
Past Work Experience	☐	☐	☐	☐	☐
Undergraduate Institution Quality/Reputation	☐	☐	☐	☐	☐
Critical Thinking Ability	☐	☐	☐	☐	☐
Analytical Thinking Ability	☐	☐	☐	☐	☐
Written Communication Skills	☐	☐	☐	☐	☐
Oral Communication Skills	☐	☐	☐	☐	☐
Collegiality, Collaboration, Cooperation	☐	☐	☐	☐	☐
Concern for Others	☐	☐	☐	☐	☐
Social Orientation	☐	☐	☐	☐	☐
Curiosity	☐	☐	☐	☐	☐
Creativity	☐	☐	☐	☐	☐
Multicultural Competency	☐	☐	☐	☐	☐
Knowledge of the Discipline/Profession	☐	☐	☐	☐	☐
Time Management	☐	☐	☐	☐	☐
Ability to Work Under Stress	☐	☐	☐	☐	☐
Professionalism	☐	☐	☐	☐	☐
Persistence	☐	☐	☐	☐	☐
Dependability	☐	☐	☐	☐	☐
Integrity	☐	☐	☐	☐	☐
Leadership	☐	☐	☐	☐	☐

¹ Randomize rows for each instance this table is used.

14. To what extent are the personal attributes of applicants considered in graduate admissions aligned with your institution's/academic program's (*based on response to Question #1*) goals of increasing student diversity? (Use Table 8 [on page 53].)
15. To what extent are the personal attributes of applicants considered in graduate admissions aligned with your institution's/academic program's (*based on response to Question #1*) goals of increasing student quality (*e.g.*, average undergraduate GPA and/or stan-

dardized test scores [GRE, GMAT])? (Use Table 8 [on page 53].)

16. Please indicate the name of your institution. (Note: This information will only be used so that your responses can be compared by selected institutional characteristics. The name of your institution will be kept confidential, and no direct reference will be made in final results.)

TABLE 7 ► Admission Attributes¹

Attribute	Academic Transcripts / GPA	Standardized Test Scores ²	Resume or CV	Personal Statements	Letters of Recommendation	Interviews	Other Application Materials
Past Academic Performance	☐	☐	☐	☐	☐	☐	☐
Past Research Experience	☐	☐	☐	☐	☐	☐	☐
Past Work Experience	☐	☐	☐	☐	☐	☐	☐
Undergraduate Institution Quality/Reputation	☐	☐	☐	☐	☐	☐	☐
Critical Thinking Ability	☐	☐	☐	☐	☐	☐	☐
Analytical Thinking Ability	☐	☐	☐	☐	☐	☐	☐
Written Communication Skills	☐	☐	☐	☐	☐	☐	☐
Oral Communication Skills	☐	☐	☐	☐	☐	☐	☐
Collegiality, Collaboration, Cooperation	☐	☐	☐	☐	☐	☐	☐
Concern for Others	☐	☐	☐	☐	☐	☐	☐
Social Orientation	☐	☐	☐	☐	☐	☐	☐
Curiosity	☐	☐	☐	☐	☐	☐	☐
Creativity	☐	☐	☐	☐	☐	☐	☐
Multicultural Competency	☐	☐	☐	☐	☐	☐	☐
Knowledge of the Discipline/Profession	☐	☐	☐	☐	☐	☐	☐
Time Management	☐	☐	☐	☐	☐	☐	☐
Ability to Work Under Stress	☐	☐	☐	☐	☐	☐	☐
Professionalism	☐	☐	☐	☐	☐	☐	☐
Persistence	☐	☐	☐	☐	☐	☐	☐
Dependability	☐	☐	☐	☐	☐	☐	☐
Integrity	☐	☐	☐	☐	☐	☐	☐

¹ Randomize rows for each instance this table is used.² e.g., GRE, GMAT

17. Would you participate in continued research on holistic review in graduate admissions? The researcher is committed to understanding holistic review practices in graduate admissions. Continued study would include participation in a 30-minute phone

interview. You are not committed to participate in continued research; however, providing your contact information will allow the researcher to alert you about opportunities for continued participation.

- a. Yes (there is no obligation)
- b. No

TABLE 8 ► Mission Alignment Attributes¹

Attribute	Not Aligned	Slightly Aligned	Moderately Aligned	Significantly Aligned	Not Applicable
Collegiality, Collaboration, Cooperation	○	○	○	○	○
Concern for Others	○	○	○	○	○
Social Orientation	○	○	○	○	○
Curiosity	○	○	○	○	○
Creativity	○	○	○	○	○
Multicultural Competency	○	○	○	○	○
Knowledge of the Discipline/Profession	○	○	○	○	○
Time Management	○	○	○	○	○
Ability to Work Under Stress	○	○	○	○	○
Professionalism	○	○	○	○	○
Persistence	○	○	○	○	○
Dependability	○	○	○	○	○
Integrity	○	○	○	○	○
Leadership	○	○	○	○	○

¹ Randomize rows for each instance this table is used.

References

- Aibana, O., J. L. Swails, R. J. Flores, and L. Love. 2019. Bridging the gap: Holistic review to increase diversity in graduate medical education. *Academic Medicine*. 94(8): 1137–1141.
- Annamma, S. A., D. D. Jackson, and D. Morrison. 2017. Conceptualizing color-evasiveness: Using dis/ability critical race theory to expand a color-blind racial ideology in education and society. *Race Ethnicity and Education*. 20(2): 147–162. Available at: <doi.org/10.1080/13613324.2016.1248837>.
- Balayan, A., C. Connor, and J. LaFave. 2022. The evolution of graduate enrollment management. *Strategic Enrollment Management Quarterly*. 9(4): 35–46.
- Bastedo, M. N. 2021. Holistic admissions as a global phenomenon. In *Higher Education in the Next Decade*, edited by H. Eggins, A. Smolentseva, and H. de Wit. Brill. Available at: <doi.org/10.1163/9789004462717_006>.
- Bastedo, M. N., N. A. Bowman, K. M. Glasener, and J. L. Kelly. 2018. What are we talking about when we talk about holistic review? Selective college admissions and its effects on low-SES students. *Journal of Higher Education*. 89(5): 782–805. Available at: <doi.org/10.1080/00221546.2018.1442633>.
- Bleske-Rechek, A., and K. Browne. 2014. Trends in GRE scores and graduate enrollments by gender and ethnicity. *Intelligence*. 46: 25–34.
- Connor, C., J. LaFave, and A. Balayan. 2015. *Integrated interdependence: The emergence of Graduate Enrollment Management (GEM)*. Overland Park, KS: NAGAP. Available at: <21265535.fs1.hubspotusercontent-na1.net/hubfs/21265535/135361-WhitePaper-FINAL.pdf>.
- Creswell, J. W., and V. L. Plano Clark. 2017. *Designing and Conducting Mixed Methods Research* (3rd edition). Thousand Oaks, CA: SAGE Publications.
- DeWitty, V. P. 2018. What is holistic admissions review, and why does it matter? *Journal of Nursing Education*. 57(4): 195–196. Available at: <doi.org/10.3928/01484834-20180322-01>.
- Grabowski, C. J. 2018. Impact of holistic review on student interview pool diversity. *Advances in Health Sciences Education*. 23: 487–498. Available at: <doi.org/10.1007/s10459-017-9807-9>.
- Guest, G., K. M. MacQueen, and E. E. Namey. 2014. Introduction to applied thematic analysis. *Applied Thematic Analysis*. 3(20): 1–21.

- Haviland, S., J. H. Paris, R. Gooch, and J. Sotelo. 2023. *What's Now and What's Next in Graduate Admissions Policies: Results from the ETS/NAGAP 2022 Admissions Survey*. Princeton, NJ: ETS.
- Kent, J. D. and M. T. McCarthy. 2016. *Holistic Review in Graduate Admissions: A Report from the Council of Graduate Schools*. Washington, D.C.: Council of Graduate Schools. Available at: <cgsnet.org/wp-content/uploads/2022/01/CGS_HolisticReview_final_web.pdf>.
- Kyllonen, P. C. 2005. *The Case for Noncognitive Assessments*. Princeton, NJ: ETS. Available at: <ets.org/Media/Research/pdf/RD_Connections3.pdf>.
- Kyllonen, P. C., A. M. Walters, and J. C. Kaufman. 2011. *The Role of Noncognitive Constructs and Other Background Variables in Graduate Education*. Princeton, NJ: ETS. Available at: <ets.org/research/policy_research_reports/publications/report/2011/ined.html>.
- Margolis, E. 2001. *The Hidden Curriculum in Higher Education*. London, U.K.: Psychology Press.
- Michel, R. S., V. Belur, B. Naemi, and H. J. Kell. 2019. *Graduate Admissions Practices: A Targeted Review of the Literature*. Princeton, NJ: ETS. Available at: <doi.org/10.1002/ets2.12271>.
- Miller, C., and J. Posselt. 2020. Equitable admissions in the time of COVID-19. *Physics*. 13: 199.
- Miller, C., and J. Posselt. 2018. Broadening participation in graduate education through holistic review. *Bulletin of the American Physical Society*. 63.
- Miller, C., and K. Stassun. 2014. A test that fails. *Nature*. 510(7504): 303–304. Available at: <doi.org/10.1038/nj7504-303a>.
- Okahana, H., R. M. Augustine, and E. Zhou. 2018. *Master's Admissions: Transparency, Guidance, and Training*. Washington, D.C.: Council of Graduate Schools.
- Posselt, J., K. A. Reyes, K. E. Slay, A. Kamimura, and K. B. Porter. 2017. Equity efforts as boundary work: How symbolic and social boundaries shape access and inclusion in graduate education. *Teachers College Record*. 119(10): 1–38.
- Remler, D. K., and G. G. Ryzin. 2015. *Research Methods in Practice: Strategies for Description and Causation*. Thousand Oaks, CA: SAGE Publications.
- Scott, L. D., and J. Zerwic. 2015. Holistic review in admissions: A strategy to diversify the nursing workforce. *Nursing Outlook*. 63(4): 488–495. Available at: <doi.org/10.1016/j.outlook.2015.01.001>.
- Sedlacek, W. E. 2004. *Beyond the Big Test: Noncognitive Assessment in Higher Education*. San Francisco: Jossey-Bass.
- . 2017. *Measuring Noncognitive Variables: Improving Admissions, Success and Retention for Underrepresented Students*. Sterling, VA: Stylus Publishing LLC.
- Students for Fair Admissions, Inc. v. President & Fellows of Harvard College; Students for Fair Admissions, Inc. v. University of N. Carolina, et al.* 2023. No. 20-1199, No. 21-707, 14 S. Ct. 2141.
- Wilson, M. A., M. A. Odem, T. Walters, A. L. DePass, and A. J. Bean. 2019. A model for holistic review in graduate admissions that decouples the GRE from race, ethnicity, and gender. *CBE—Life Sciences Education*. 18(1): 1–12. Available at: <doi.org/10.1187/cbe.18-06-0103>.
- Wise, D., J. Dominguez, Z. Kapasi, B. Williams-York, V. Moerchen, S. Brooks, and L. J. Ross. 2017. Defining underrepresented minorities and promoting holistic review admission strategies in physical therapist education. *Journal of Physical Therapy Education*. 31(4): 8–13. Available at: <dx.doi.org/10.1097/JTE.000000000000009>.

About the Authors



Joseph H. Paris

Joseph H. Paris is Dean of the School of Graduate and Professional Studies at Delaware Val-

ley University. As a scholar-practitioner, his research and practice focus on the intersections between college admissions criteria and selection methodolo-

gies, institutional finance, and access to postsecondary and graduate education.



Jake D. Winfield

Jake D. Winfield recently completed his Ph.D. in Policy and Organizational Studies at

Temple University's College of Education and Human Development. Prior to graduate studies, he taught high school math in Helena-West Helena, Arkan-

sas and Phoenix, Arizona. His research interests center the intersection of community-university relationships.