Strategies for Equity-Based **Holistic Review**

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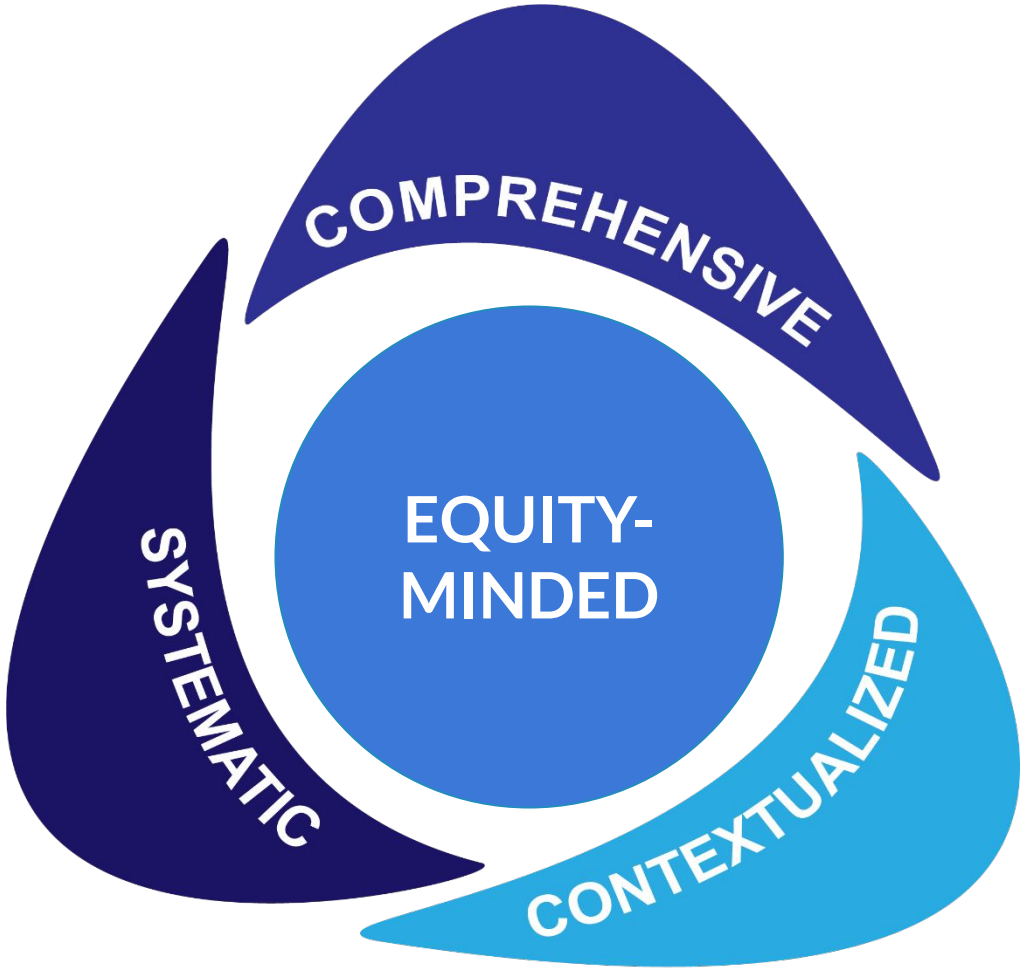
A Framework for Holistic Review

Equity-minded holistic review is needed from the start of the process.



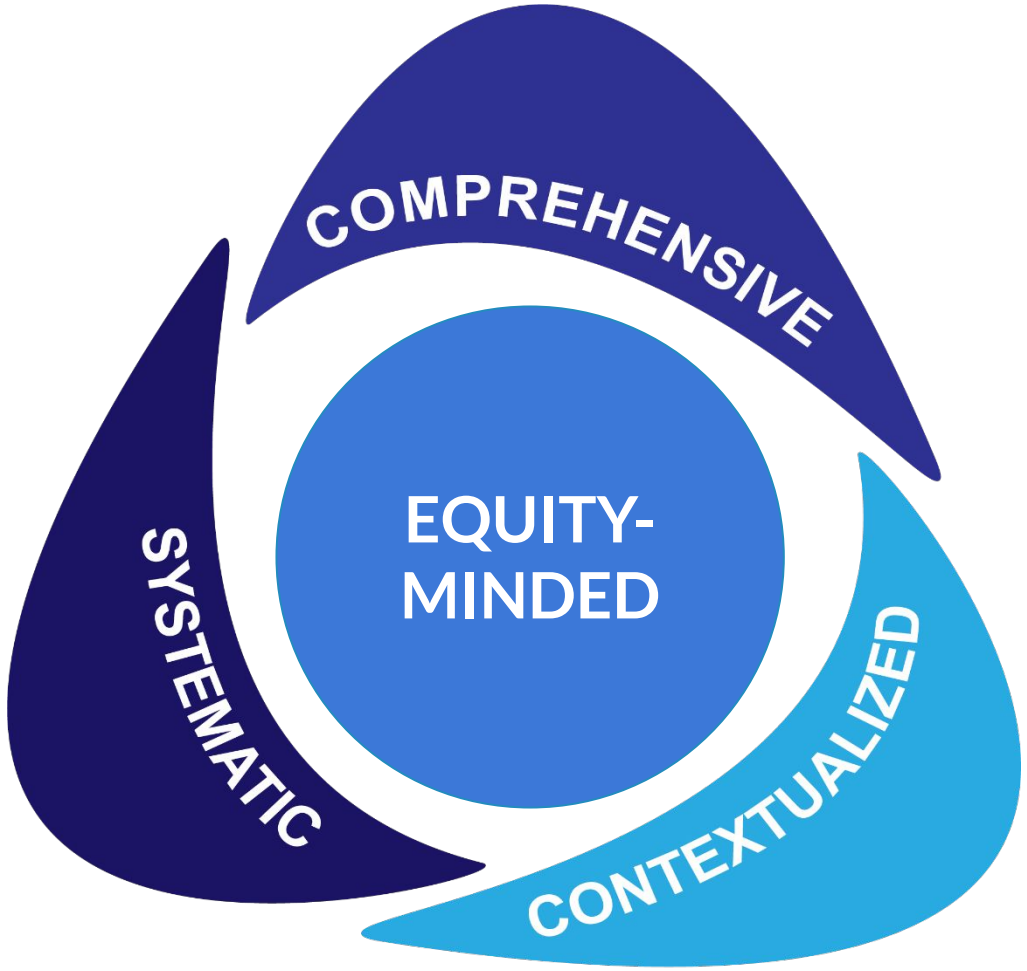
A Framework for Holistic Review

Comprehensive
Numerous, diverse criteria related to achievements, competencies, and potential

Contextualized
Assessment of metrics, achievements, and alignment with your program mission.

Systematic
Review to ensure efficiency, minimize bias, and improve transparency and accountability

Equity-minded
Attuned to equity implications of what we do and how we think in admissions



Current Research Evidence on Holistic Review

Syverson, Franks, Hiss (2018): Test-optional policy at 28 institutions

"...adoption of a well-executed test-optional [undergraduate] admission policy can lead to an increase in overall applications as well as an increase in the representation of URM students" and low-income students, with similar degree completion rates.

Grabowski (2017): Effects of holistic review in medical admissions

"Using mission-driven, holistic admissions criteria comprised of applicant attributes and experiences in addition to academic metrics resulted in a more diverse interview pool than using academic metrics alone."

Bastedo et al. (2018): Admissions officers' views of holistic review

"...admissions officers with a 'whole context' view of holistic review were disproportionately likely to admit a low socioeconomic-status applicant."

Why is Holistic Review Important in 2020?

- COVID is exposing variation [and inequities] that have always been there and is disproportionately adding new barriers to minoritized students
- It reveals the importance of contextualization & individualized review. Students have:
  - Varied access to standardized testing
  - Varied grading schemes being used (eg, letter, pass/fail)
  - Varied access to technology that affects student performance
  - Varied access to research opportunities
- Holistic review can correct for selection tendencies that reproduce inequities in our departments and disciplines.
  - Recognizes excellence doesn't inhere in a single metric or student profile.
  - Want to start undoing institutionalized racism? Consider the admissions process.
  - Reduces reliance on criteria with racial, gender, socioeconomic variation.

Non-Cognitive Competencies

Non-Cognitive Competencies

- Social and emotional skills that we use to navigate life
- Measurable!
- Decades of psychology research (developmental, social, and industrial-organizational)
  - Predict academic/job performance
  - Few, if any, group differences by gender and race
  - Orthogonal to cognitive measures (e.g., GPA, SAT/GRE)

Self Management

Optimism
Trustworthiness
Achievement Orientation
Conscientiousness
Adaptability
Emotional Self-Control
Initiative

Self Awareness

Self-Confidence
Accurate Self-Assessment
Emotional Awareness

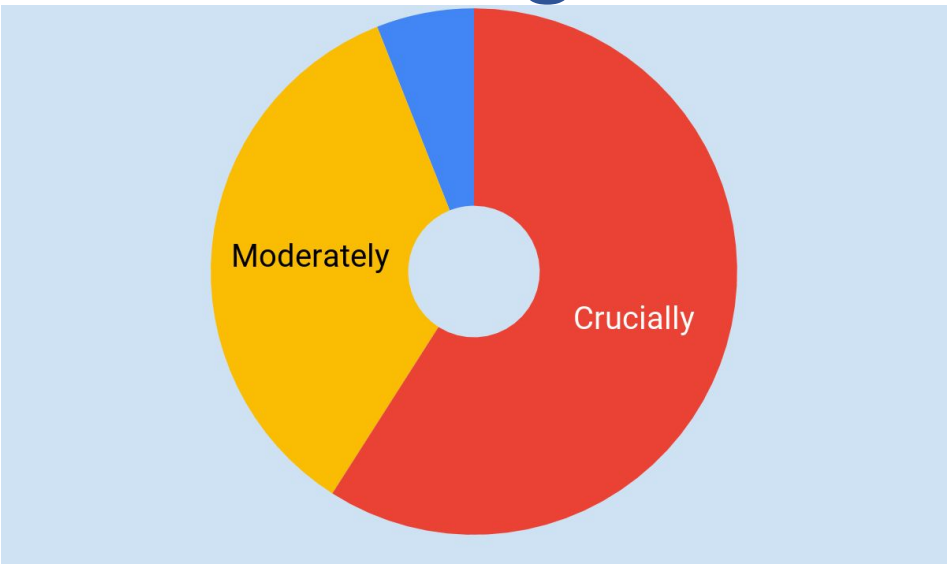
Relationship Management

Teamwork and Collaboration
Communication
Building Bonds
Conflict Management
Influence
Change Catalyst
Inspirational Leadership
Developing Others

Social Awareness

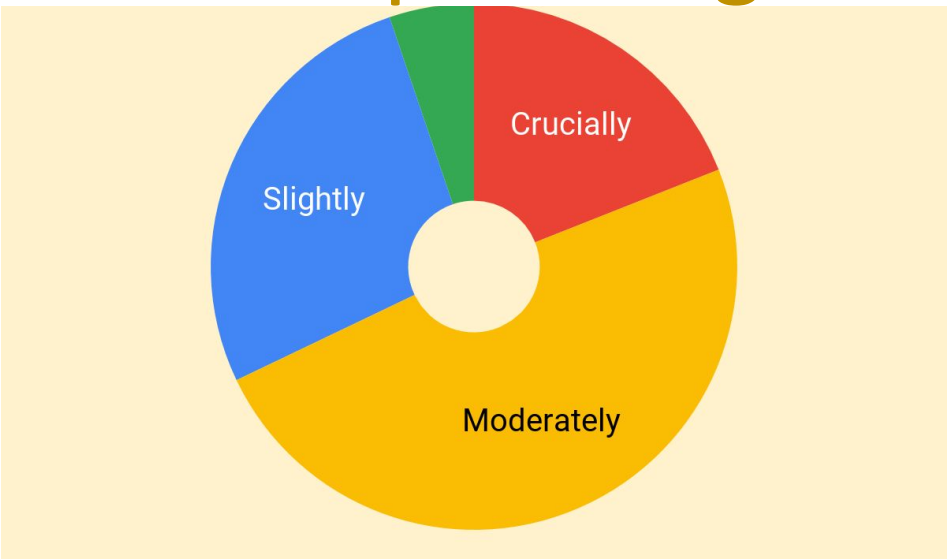
Cultural Awareness
Organizational Awareness
Empathy
Service Orientation

Self Management

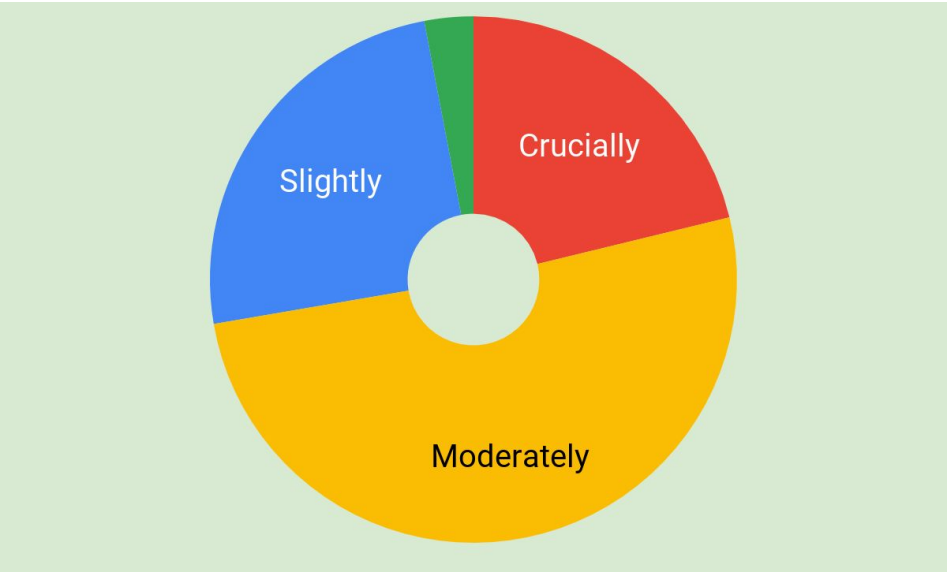


Self Awareness

Relationship Management



Social Awareness



Professional Performance and Non-Cognitive Competencies

	Didactic	Clinical
Cognitive	Yes	No
Non-Cognitive	Maybe	Yes

"Cognitive ability and knowledge are *threshold* aspects of professional work <u>necessary but not sufficient</u> for outstanding professional performance"

Self-management competencies correlate with clinical grade:

Achievement Orientation
Adaptability
Initiative
Emotional Self-Control
Trustworthiness
Conscientiousness
Optimism

Victoroff & Boyatzis (2013)

Options for Assessing Non-Cognitive Competencies

Exchange personal statement for several short answer items (e.g., ~150 words each):

- Tailor application to a rubric
- Most immediately feasible
- Levels the playing field

Structured interviews of short list

For either of these options, consider the following prompts:

- If we called your faculty mentors, what would they say you are really good at?
- What are you most proud of accomplishing?
- Describe an academic challenge you faced, how you handled the situation, and what you learned from it.
- What will be the biggest challenge for you in graduate school?
- Why graduate school?

Stassun et al. (2011)

Rubrics

Rubrics' Benefits

Structure & Equity	Assess all applicants on the same several factors
Specificity	Mitigate implicit bias by focusing on predefined factors
Reliability	Raters have similar ratings; limit power of single factors
Efficiency	Review is expedited, reducing faculty load
Synergies	Connect to recruitment, application prompts
Alignment	Helps reinforces a program's values, mission
Accountability	Defense against charges of unfairness

R1 Physics PhD Program on Efficiency of Rubrics

"…people just said it went faster for them with a rubric, because they knew what they were looking for, and knew they were being consistent. It was important that the range of values assigned to rubric criteria was small and each value had a clear definition."

Impacts of Rubrics

- Ohio State Physics
  - Fixed GRE weight
  - 40% of 2018 cohort was UREM
- University of Chicago Physics
  - Admission of women increased from single digits historically to 30%.
- RIT Astrophysics
  - 50% of admissions offers are to women
  - REU translation: 2/3 of offers are to women, 1/3 to UREM students
- Michigan Applied Physics
  - Fended off legal challenge to decision

Developing a Rubric: Identify Dimensions of Admissibility

Dimensions can be broad to allow:

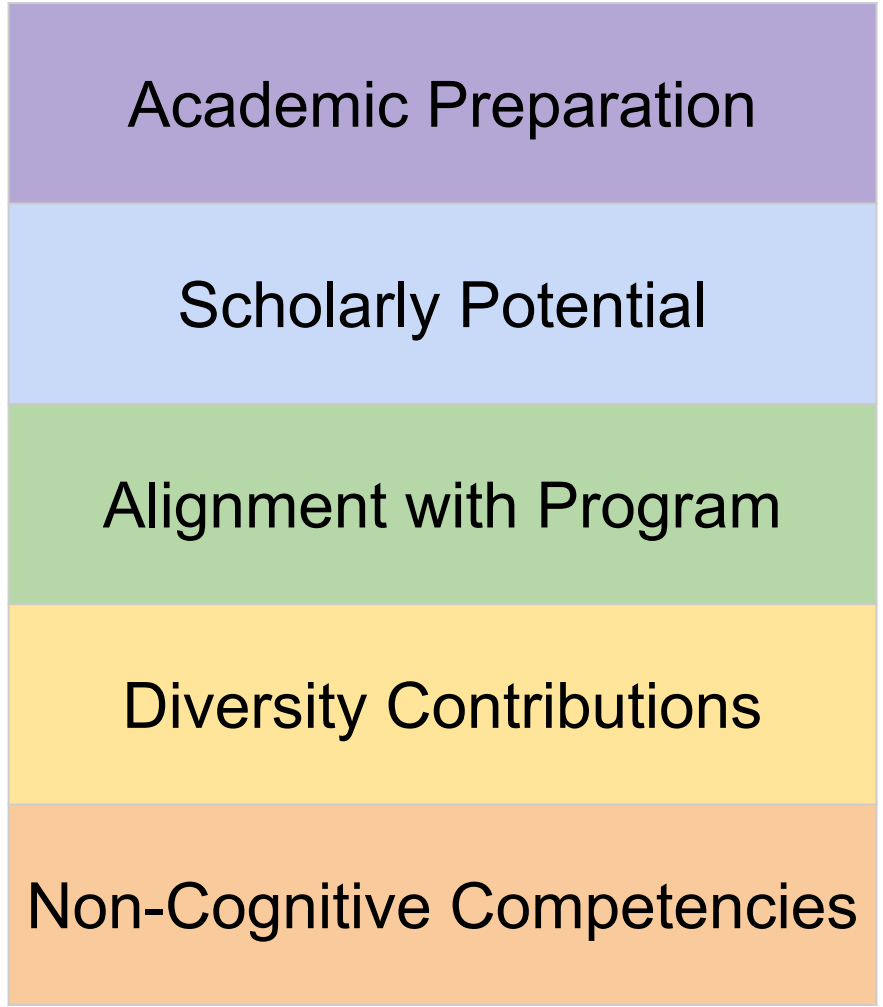
- Multiple ways applicants might fulfill them
- More individual interpretation by reviewers

Dimensions can be narrow to allow:

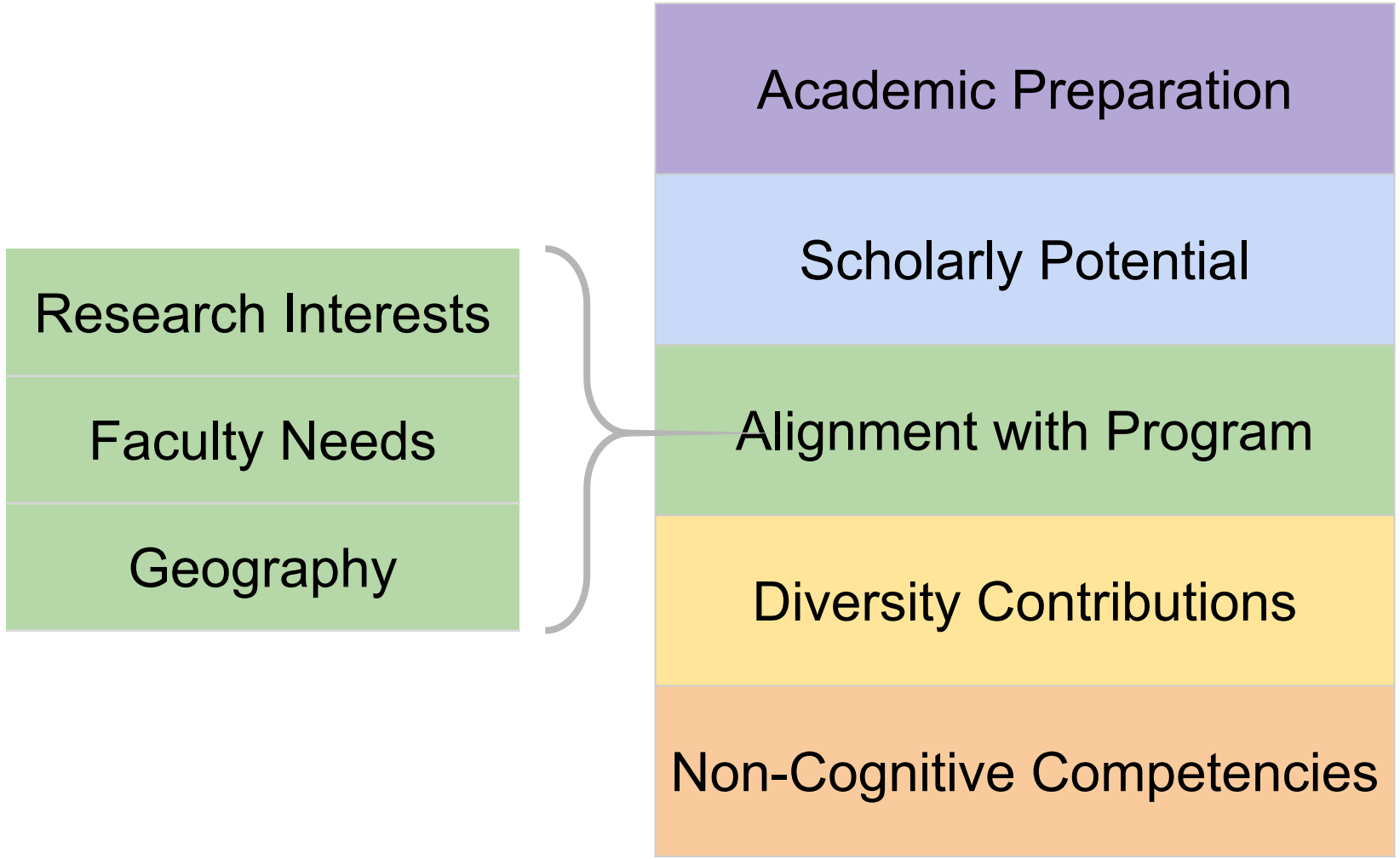
- Specific requirements
- More objective interpretation by reviewers

Suggestions

- Link these to your program mission.
- If GRE scores are available, fold them into the *academic preparation* category. However:
  - Focus groups suggest that “optional” is read by women students as “required” and male students as “optional"
  - Consider hiding from reviewers any scores submitted (as well as whether or not scores were submitted).



Developing a Rubric: Identify Dimensions of Admissibility



Developing a Rubric: Operationalize Dimensions

What do *High*, *Medium*, and *Low* mean?

- Goal: roughly one third of applicants in each category
- Concrete definitions will lead to more consistent judgments
- Conjunctions can be helpful
  - *High* = A and B and C; *Med* = B and (A or C); *Low* = A or B or C or None

Suggestions

- Create space for comments to justify assessments.
- Allow for noting unique situations that merit special consideration
- If items have different weightings, fix the weight ahead of review.

Holistic Review

Item	Subitem	High	Medium	Low
Alignment with program	Research Interests	Research interests align with multiple faculty in multiple subfields	Research interests align with multiple faculty in one subfield	Limited alignment between student's interests and faculty expertise
	Faculty Needs	Someone wants to hire as RA now and/or there is a direct match with faculty expertise	General alignment, but interests do not directly support a specific faculty member's work	Faculty aligned with applicant's interests are not seeking students, or no alignment
	Geography	Clear & sincere non-academic reasons for our location	Desire for location is focused on academics	Importance of location unclear

Rubrics: Comprehensive, Contextualized, & Systematic

Category	High	Medium	Low	Notes
Academic Preparation	A- or better in all core STEM courses AND B or better in non-STEM courses; received at least one academic honor	B or better in all core STEM courses; Concerning grades have a reasonable explanation	Lower than a B in 2 or more core STEM courses; Grades of C or lower do not have a reasonable explanation	
Scholarly potential	Clear commitment to and enthusiasm for research AND experience at least equal to a senior thesis	Clear commitment to and enthusiasm for research, BUT experience less than a senior thesis	Signals that a PhD is more of a next step than a clear passion.	
Diversity, Equity, Inclusion Contributions	Has been an active advocate for diversity, equity, and/or inclusion	Some evidence of engagement with diversity, equity, and/or inclusion	Limited evidence of engagement with diversity, equity, and/or inclusion	
Alignment with Program	Research interests align with multiple faculty AND stated career goals align with program training	Research interests align with one faculty member AND stated career goals align with program training	Limited alignment with faculty research interests OR limited evidence of alignment between career goals and program training	
Realistic Self-Appraisal	Clearly delineates strengths and weaknesses **AND** clear evidence of effort on self development	Basic statements about strengths and weaknesses **AND** does seek positive and negative feedback	Over or understates abilities; indications that self-assessment or learning from experiences are limited	
Preference for long-term goals	Clearly communicates long-range goals beyond the PhD **AND** has a record of engaging in long-term endeavors	Clearly communicates long-range goals beyond the PhD **OR** Has a record of engaging in long-term endeavors	Goals are short range (e.g., specific coursework); limited history of engagement in long-term projects	

Rubric for Assessing Non-Cognitive Competencies via Interviews

FISK-VANDERBILT Master's-to-Ph.D. BRIDGE PROGRAM

Attribute	Score: High	Medium	Low
Positive Self-Concept	Expresses confidence they can complete challenging goals, makes positive statements about abilities	Shows confidence and independence but may be unsure about adequacy or skills	Is unsure they can complete the program, exhibits low self-esteem
Realistic Self-Appraisal	Can clearly and realistically delineate strengths and weaknesses, works on self development	Has trouble identifying strengths and weakness but appreciates/seeks both positive and negative feedback	Over or understates abilities, does little to no self-assessment, does not appear to have learned from experiences
Preference for Long vs. Short Term Goals	Clearly communicates long-range goals beyond the PhD	Primary goal is PhD completion	Is vague about long-term goals, or goals are short term such as coursework
Support Person Availability	Can define a professional support network including mentors	Expresses support from one individual, or family or community	Expresses little or no support from family or institution for goals
Leadership/Community Involvement	Demonstrates involvement and leadership ability in either academics, family, community, religious group, or athletics	Demonstrates involvement in groups in academia or extramural but has not shown leadership	Not involved in institutional or community group, no demonstrated leadership
Knowledge in a Field/Non-Traditional Learning	Has engaged in, and learned from, experiences outside the classroom, i.e. performed independent research, extramural activities, self-taught skills	Shows some evidence of non-traditional learning experience	Has not engaged in or indicated learning from experiences outside the classroom
Perseverance	Can describe a time they failed or encountered an obstacle and successfully coped.	Can identify a time they hit an obstacle but has trouble defining how they overcame the challenge.	Has little experience with failure/obstacles. Cannot provide an example or describe response

Modified from Sedlacek

Implementing Rubrics

- Norming: Committee members independently rate the same two applications, then discuss their scores, focusing on differences.
- Have each application reviewed by 2 people; Discuss if there is significant divergence in the ratings; Bring in 3rd reviewer if needed.
- Plan how to evaluate unexpected cases; revise rubric annually.
- Adoption is more likely when users
  - Understand how it can benefit them and their program
  - Participate in its development as a group
  - Feel competent in using it
- Caveats:
  - Not a silver bullet or fool proof
  - Beware symbolic adoption

Next Steps/ Homework

1. Finish drafting the rubric.
2. Identify a few applications from last year's admissions cycle.
3. Rate each application using your rubric, independently.
4. Come together as a committee to discuss.
   a. How consistent are ratings across reviewers?
   b. How well do these definitions work for you?
5. Make modifications as necessary.

This norming process is a great way to orient a new admissions committee to the process and, potentially, update your rubric each year.

Holistic Review in Context

- Holistic review is just one part of improving selection.
- Without discipline, it can reproduce the status quo.
  - More likely with a homogeneous group of reviewers. Identities matter to how we make sense of the same information in front of us.
- It is useful for identifying talent in many underrepresented groups.

Students from liberal arts colleges and less selective universities

Non-traditionally aged students

Students switching fields

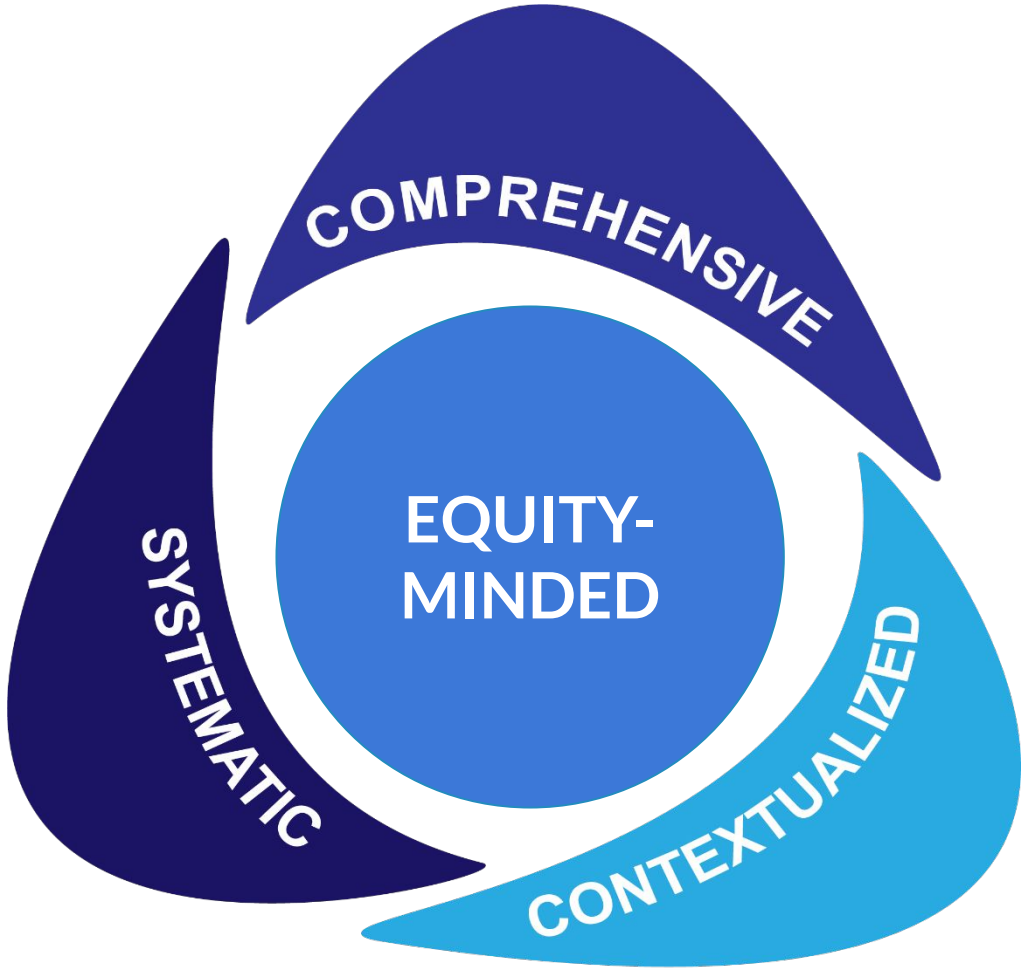
Lower SES and/or first-generation college students

People of color

Women of all backgrounds

What we hope you have learned

- The importance of embedding equity considerations in all aspects of admissions.
- Awareness of non-cognitive competencies and possible ways to assess them.
- Rubrics are a good, first step toward holistic review.
- The importance of having discussions like the ones in your breakout to surface cultural assumptions and begin to change them.



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