Holistic Admissions Resource Guide

Tip for using this document: Much of this document is hyperlinked to other relevant or reference text. Please hold the "control" key down while clicking on text in order to be taken to the linked material.

Table of Contents

Section A: List of Holistic Article Selected Content, by discipline, with Jump-to Bookmarks

1. General Disciplines

Albert & Bielat (2010) - Holistic Admissions: alternative models for applicant assessment. Ⓑ

Andrews (2007) - The impact of legal challenges to affirmative action on educational choice. Ⓢ

Berkeley University of California (n.d.) - How Berkley Selects students. Ⓢ

Gilbert (2008) - Applications Quest: a case study on holistic diversity in admission. ⓈⓇ

Hazelrigg (2016) - Report highlights promise of holistic graduate admissions to increase diversity. ⒷⒹ

Hirschman (1997) - A review of federal law: Desegregation and affirmative action as it relates to admission and financial aid programs plus guidelines for attaining student diversity in colleges and universities. Ⓓ

Kent & McCarthy (2016) - Holistic Review in Graduate Admissions. ⓈⒷ

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

Kyllonen (2005) - The case for noncognitive assessments. Ⓢ

Penn Admissions (n.d.) - Holistic Review. Ⓢ

Rackham Graduate School (n.d.) - Holistic Review of Applications for admission to graduate degree programs. Ⓢ

UCLA Newsroom (2008) - Campus explains holistic review admissions process. Ⓢ

University of California (2013) - Beyond the numbers: comprehensive review. Ⓢ

University of Michigan (n.d.) - Selection Process. Ⓢ

Virginia Tech Graduate School (2016) - Holistic admission review at Virginia Tech Grad School. Ⓑ

2. Medical Disciplines

AAMC (2014) - Roadmap to diversity and educational excellence: key legal and education policy foundations for medical schools. ⓈⒷⒹ

AAMC (2013) - Roadmap to excellence: key concepts for evaluating the impact of medical school holistic admissions. ⓈⒷ

AAMC Holistic Review Project (2013) - Achieving improved learning and workforce outcomes through admissions. Ⓢ

Association of American Medical Colleges (n.d.) - Holistic Review. Ⓢ

Cunningham (2012) - Health Professions Advisors: Perceptions of the health professions advising community regarding factors important to the selection of students for medical school. ⓈⒷ

Hadinger (2014) - Underrepresented minorities in medical school. Ⓓ

Witzburg (2013) - Holistic Review – shaping the medical profession one applicant at a time. Ⓢ

3. Health Care Disciplines

Glazer et al. (2016) - Holistic Admissions in Nursing: we can do this. ⓈⒷ

Urban Universities for Health (2014) - Holistic admissions in the health professions. Ⓢ

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

Wall, et al. (2015) - White paper on pharmacy admissions: developing a diverse workforce to meet the healthcare needs of an increasingly diverse society. Ⓢ

4. STEM disciplines

Holloway (2013) - Engineering students at typically invisible transition points: A focus on admissions and the sophomore year. Ⓓ

Section B: Selected Content from Articles, by discipline

1.   **General Disciplines**
- **Albert (201) - Holistic Admissions: Alternative Models for Applicant Assessment Ⓑ**
    - Reasons to use holistic admissions:
        - "Using holistic admissions to increase campus diversity or access by addressing disadvantages to certain groups, and using holistic admissions to improve admissions decision-making for a subset of applicants with weaker academic profiles."
- **Andrews (2007) - The impact of legal challenges to affirmative action on educational choice Ⓢ**
    - "The University of Michigan was forced by the court to change its undergraduate application and admission processes in order to meet the new legal standards. The University now uses a holistic review— in which the use of race in the admissions process conforms to"strict scrutiny " —to make admissions decisions."
        - "Strict Scrutiny requires that two conditions are met: 1) The existence of a compelling interest to warrant treating individuals differently. 2) The program used to further this interest must be "narrowly tailored" to accomplish its purpose."
- **Berkeley University of California (n.d.) - How Berkeley Selects Students Ⓢ**

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

- ○ "The goal of our selection process is to identify applicants who are most likely to contribute to Berkeley's intellectual and cultural community and, ultimately, to the State of California, the nation, and the world."
- ○ Considerations:
  - ■ "The applicant's full record of achievement in college preparatory work in high school, including the number and rigor of courses taken and grades earned in those courses."
  - ■ "Personal qualities of the applicant, including leadership ability, character, motivation, insight, tenacity, initiative, originality, intellectual independence, responsibility, maturity, and demonstrated concern for others and for the community are considered."
  - ■ " Likely contributions to the intellectual and cultural vitality of the campus. In addition to a broad range of intellectual interests and achievements, admission readers seek diversity in personal background and experience."
  - ■ "Performance on standardized tests, the SAT Reasoning Test or ACT Assessment plus Writing Test. In addition, any Advanced Placement or IBHL examinations the applicant may have taken will be considered."
  - ■ "Achievement in academic enrichment programs, including but not limited to those sponsored by the University of California. This criterion is measured by time and depth of participation, by the academic progress made by the applicant during that participation, and by the intellectual rigor of the particular program."
  - ■ "Other evidence of achievement. This criterion recognizes exemplary, sustained achievement in any field of intellectual or creative endeavor; accomplishments in extracurricular activities such as the performing

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

arts or athletics; leadership in school or community organizations; employment; and volunteer service."

- ○ "All achievements, both academic and nonacademic, are considered in the context of the opportunities an applicant has had, and the reader's assessment is based on how fully the applicant has taken advantage of those opportunities. For an applicant who has faced any hardships or unusual circumstances, readers consider the maturity, determination and insight with which the applicant has responded to and/or overcome them. Readers also consider other contextual factors that bear directly upon the applicant's achievement, including linguistic background, parental education level, and other indicators of support available in the home."
  - ○ "The review recognizes a wide range of talent and creativity that is not necessarily reflected in traditional measures of academic achievement but which, in the judgment of the reader, is a positive indicator of the student's ability to succeed at Berkeley and beyond."
- **Gilbert (2008) - Applications quest: a case study on holistic diversity in admission ⓈⓇ**
  - ○ "Applications Quest can best be described as a data mining and analysis software tool that facilitates holistic review in admission, school placement and academic support programs. The underlying concept behind Applications Quest is holistic comparisons of applications."
    - ■ "Reproducible and measurable"
      - ● "Manual holistic approaches are subjective, therefore not reproducible and measurable"
    - ■ "The study revealed that Applications Quest produced holistically more diverse recommended applicants versus the graduate program committee's accepted applicants with the same academic credentials. Specifically, the recommended applicants were holistically 12 percent more diverse than the accepted applicants."

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

- ○ Recommendations for phases:
  - ■ "1. Identify your diversity attributes (e.g., race, ethnicity, gender, political affiliation, religion, etc.) and require all applicants to submit diversity information."
  - ■ "2. Identify applicants that are "Automatic Admits" and accept them."
  - ■ "3. Identify the "Qualified Applicants" (those that meet your minimum requirements) and process them in software like Applications Quest to fill the remaining acceptance slots."
  - ■ "4. Reject all other applicants."
- **Hazelrigg (2016) - Report highlights promise of holistic graduate admissions to increase diversity Ⓑ Ⓓ**
  - ○ Definition of holistic admissions: "Holistic review, also known as whole-file or comprehensive review, considers a broad range of characteristics, including noncognitive and personal attributes, when reviewing applications. Higher education leaders consider holistic review a promising practice for achieving diverse cohorts of students with varied experience, backgrounds, and expertise."
  - ○ "Associated with improved student outcomes"
  - ○ Relating diversity objectives to university's mission and admissions process is key for holistic admissions as well as implementing "data-driven decisions"
- **Hirschman (1997) - A review of federal law: Desegregation and affirmative action as it relates to admission and financial aid programs plus guidelines for attaining student diversity in colleges and universities Ⓓ**
  - ○ "An institution may adopt a holistic evaluation process that considers all of the factors of a student's previous experience that may contribute to academic success (e.g., DeFuziis, Henson, Timmerman, McDonald, DeRonde, and Davis). For example, students may have had to overcome obstacles such as working to

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

support themselves or their families or may have had to learn a new language. A holistic process supports students from different backgrounds who have successfully faced adversity in some facet of their lives and have the potential to succeed in higher education but who may have been passed over if traditional criteria such as standardized test scores and GPAs were used exclusively."

- ○ "Using a holistic process that includes qualitative factors would avoid relying on standardized test scores that may have arbitrarily penalized minority applicants. Therefore, the holistic process may be a more accurate way to compare students' potential for academic success (e.g., McDonald). However, a holistic process may be more time consuming, and an institution should use caution to maintain high standards, thus assuring the value of its degree. Therefore, administrators who adopt the holistic process should develop methods to assess the qualitative factors selected to determine their validity in predicting graduation (e.g., portfolio review or interview process)."

- **Kent (2016) - Holistic Review in Graduate Admissions Ⓢ Ⓑ**
  - ○ "Holistic review processes are most likely to be successful when well-aligned with a graduate institution's mission and with the goals of particular master's, doctoral, and professional graduate programs."
  - ○ FACETS and PPI assess noncognitive traits
- **Kyllonen (2016) - The case for noncognitive assessments Ⓢ**
  - ○ "Noncognitive traits provide a 20% improvement over cognitive ability measures in predicting training success and job performance"
    - ■ Emotional intelligence measure
- **Penn Admissions (n.d.) - Holistic Review Ⓢ**
  - ○ Definition: "A holistic review of each application means that the Admissions Selection Committee reads and discusses all pieces of the application, quantitative

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

and qualitative, descriptive or numeric, at once. We believe that every component of the application is an important lens into the lives and accomplishments of our prospective students. Ultimately, a natural synergy between these pieces arise such that admissions officers can recognize the many dimensions, idiosyncrasies, and talents of individual applicants. Holistic evaluation enables the Admissions Selection Committee to have robust conversations about applicants' record of academic excellence and intellectual curiosity, range of interests and hobbies, leadership skills, and potential impact on our campus. We strive to understand each applicant as a potential Penn classmate, leader, roommate, and citizen. We look beyond GPAs and test scores to capture the intangible qualities each candidate will bring to our campus community."

- **Rackham Graduate School (n.d.) - Holistic Review of Applications for Admission to Graduate Degree Programs** Ⓢ
  - Holistic definition: "Holistic review ensures that no single factor leads to either accepting the student or excluding the student from admission. One of its key values is the opportunity to recognize that an applicant's strength in one area might offset a weakness in another. By carefully weighing strengths, achievements, and the ways in which an applicant might contribute to educational environment of the graduate degree program, evaluators increase the likelihood that they offer admission to those most likely to succeed."
    - "The ETS *Guide* urges those who use the test scores to recognize the limitations of any single measure of knowledge and ability. The use of a cut off score to sort applicants and/or deny admission is particularly problematic. This practice ranks applicants based on a sharply truncated understanding of his/her full range of abilities, and overlooks valuable indicators of preparedness, potential for degree completion, and the contributions the applicant could make to the degree program."

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

- ○ Benefits: "A wide range of higher education organizations use holistic review because positive outcomes, such as higher completion rates and shorter time to degree, are seen when academic achievement as well as related skills and experiences are taken into account during the admissions process."
- ○ Considerations in the holistic admissions process:
  - ■ Academic Factors
    - ● "Caliber of curricular rigor in prior institutions attended; cumulative grade point average in the wider context of the academic record; the maturity and sophistication of the statement of academic purpose; the extent and quality of prior research experience; recommendations from faculty; standardized test scores; and correspondence between research interests and available faculty expertise."
      - ○ **"Academic Performance"**
        - ■ "Rank in class"
        - ■ "Overall GPA and GPA in major"
        - ■ "Written communication skills"
        - ■ "Curriculum in prior degree programs"
        - ■ "Progression of academic performance over time"
        - ■ "Standardized test scores"
        - ■ "Foreign language fluency"
      - ○ **"Research Potential"**
        - ■ "Research activity on and off campus"
        - ■ "Relevant work experience"
        - ■ "Creativity in problem-solving"
        - ■ "Aptitude for planning and organization"
        - ■ "Scholarly engagement outside of coursework"

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

- ■ Other Factors:
  - ● "Leadership experience; the nature and progression of extracurricular involvement; a demonstrated passion for and commitment to the disciplinary interests; sustained community engagement; research activity both on and off campus; and special talents shown to be employed effectively."
    - ○ **"Persistence and Commitment"**
      - ■ "Indices of leadership"
      - ■ "Recognition of achievements over time"
      - ■ "Extracurricular activities"
      - ■ "Community involvement or service"
      - ■ "Special talents or skills"
      - ■ "Personal and professional ethics"
      - ■ "Learning differences"
      - ■ "Educational, cultural and geographic background"
  - ○ "ETS and its GRE Board decided to use a Personal Potential Index (PPI) as an optional part of the test beginning in July 2009. With the PPI professors or supervisors will evaluate students on a six-point scale in the areas of knowledge and creativity, communication skills, teamwork, planning and organization, ethics and integrity, and resilience."
  - ○ Rackham University Admissions Application for Graduate School includes:
    - ■ "Official (M-Pathways) and self-reported (Rackham Application) GPA"
    - ■ "Official (M-Pathways) and self-reported (Rackham Application) transcript"
    - ■ "Language proficiency"
    - ■ "Postsecondary institutions attended"
    - ■ "Awards/scholarships"

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

- ■ "Recommendations"
- ■ "Academic statement of purpose"
- ■ "Curriculum vitae/resume"
- ■ "Volunteer activities"
- ■ "Work experiences"
- ■ "Participation in programs such as CIC-SROP, MARC, McNair Scholars"
- ■ "Parents' educational levels attained"
- ■ "Citizenship and parents' citizenship"
- ■ "Race/ethnicity (for U.S. citizens)"
- ■ "Native language"
- ■ "Demonstrated commitment to diversity in academic and civic realms"
- ■ "Financial assistance and family hardship"
- ■ "Educational background that is underrepresented in graduate education, such as tribal school, single-gender college, or community college."

- ● **UCLA Newsroom (2008) - Campus Explains Holistic Review Admissions Process** Ⓢ
  - ○ Definition: "applicants are assessed in terms of the full range of their academic and personal achievements, viewed in the context of the opportunities and challenges each has encountered."
  - ○ "Under the holistic model, the review of each application is an integrated process that considers the full record of a student's achievements and experiences, as well as the challenges faced, and provides a more carefully individualized and qualitative assessment. Further, each application is reviewed in its entirety by at least two readers, and the overall score is averaged. To ensure consistency and fairness, if there are meaningful discrepancies in the rankings given by the two reviewers, the application is further reviewed by senior managers within the admissions team."

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

- Goal: "The holistic admissions process attempts to assess candidates as they really are — as comprehensive individuals with varying assemblages of competencies and experiences that make it more, or less, likely that they will succeed at UCLA. Rather than examining a candidate's academic record or personal achievements in isolation, as occurred under the prior admissions scheme, holistic review reflects multiple readers' thoughtful consideration of the full spectrum of an applicant's qualifications, based on all the evidence provided in the application and viewed in the context of the applicant's academic and personal circumstances and the overall strength of the UCLA applicant pool."
  - "Using a broad concept of merit, readers assess a candidate's ability to succeed at UCLA by reference to the following criteria, which carry no pre-assigned weights":
  - "The applicant's full record of achievement in college preparatory work in high school"
  - "Personal qualities of the applicant"
  - "Likely contributions to the intellectual and cultural vitality of the campus"
  - "Performance on standardized tests"
  - "Achievement in academic enrichment programs"
  - "Other evidence of achievement"
  - "Opportunities"
  - "Challenges"
- **University of CA (2013) - Beyond the Numbers: Comprehensive Review Ⓢ**
  - "We read all applications with a sensitive awareness to the applicant's personal experiences, family background and potential to add to the rich and dynamic texture of our campuses. We recognize individual circumstances and consider the unique educational contexts and life experiences of all students."

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

- ○ "To guide the campuses in their comprehensive review of applicants, faculty from across the UC system developed 14 factors that all campuses consider when reading freshman applications. Based on campus-specific institutional goals and needs, the specific evaluation process and weight given to each factor differ from campus to campus, year to year."
  - ■ "The 14 Factors the UC system weighs"
    - ● "1. Grade-point average"
    - ● "2. Test scores"
    - ● "3. Performance in and number of courses beyond minimum a-g requirements"
    - ● "4. UC-approved honors courses and advanced courses"
    - ● "5. Eligibility in the Local Context (ELC) – CA residents only"
    - ● "6. Quality of senior-year program of study"
    - ● "7. Academic opportunities in California high schools"
    - ● "8. Outstanding performance in one or more academic subject areas"
    - ● "9. Achievements in special projects"
    - ● "10. Improvement in academic performance"
    - ● "11. Special talents, achievements and awards"
    - ● "12. Participation in educational preparation programs"
    - ● "13. Academic accomplishment in light of life experiences"
    - ● "14. Geographic location"
- ● **University of Michigan (n.d.) - Selection Process Ⓢ**
  - ○ Evaluation of applications:
    - ■ The First Review
      - ● "An Application Reader performs the first review. The Application Reader is someone who works for the Office of Admissions part-

13

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

time whose professional experience brings value and insight to the task of helping us make admissions decisions. Made up of former educators and admissions professionals, this is a talented and diverse group. This review is considered a blind read in that the Application Reader will not share his or her recommendation for admissions status with the next reviewer so that it will not influence their assessment of the student's file."

- The Second Review
  - "A Territory Counselor performs the second review. Each counselor is responsible for applications from a specific geographic region; this allows each counselor to develop a deeper knowledge of schools and school systems in his/her region. This staff member knows the applicant's high school — in particular, the strength of the curriculum, how grades are earned and distributed, and what students can accomplish there. The counselor makes a recommendation for admissions status based in on this specialized level of knowledge."

- The Third Review
  - "The application is then sent on to be validated by a third reviewer. This is someone who holds a position of leadership in the Office of Admissions, who will read the application package, review the recommendations by the reader and territory counselor, and who then validates the admissions decision, or, if necessary, refers the file to the admissions review committee for a final review."

- "No matter which review they cover, each application reader gives it a broad perspective drawn from his or her professional experience and

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

knowledge of student applicants from across the country and around the world. Each also strives to look at the whole person."

- **Virginia Tech Graduate School (2016) - Holistic Admission Review Ⓑ**
  - Reasons for implementation:
    - "Develop diversity and well-qualified students"
    - "Maximize identification of talent"
  - "Hope, engagement, and entrepreneurial interests have been linked to academic success"
  - "Recommenders rate applicant's: communication skills, ethics, initiative, creativity, organization, and teamwork"

2. **Medical Discipline**
  - **AAMC (2014) - Roadmap to diversity and educational excellence: key legal and education policy foundations for medical schools ⓈⒷⒹ**
    - Diversity: "The concept of diversity as it is associated with achieving educational goals cannot relate solely to race or ethnicity, nor can it be just about 'the numbers.' Otherwise, the concept will likely reflect more of an interest in racial balancing—a forbidden focus under prevailing federal case law. As used by medical schools in establishing student-related goals and objectives, the term 'diversity' should be defined in a broadly inclusive manner, which may include personal attributes, experiential factors, demographics, and other considerations. It may also include a focus on race and ethnicity, to be sure, but it must do so in the context of broader, diversity-related educational interests and goals that the school clearly explains in its policies."
      - " For example, depending on a school's context and objectives, attributes such as an applicant's family status, languages spoken, socioeconomic

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

status, geographical origin, fields of interest, and leadership qualities and experiences such as health care internships, community service, and education background may be diversity characteristics a particular school considers."

- ■ "And to the extent that diversity encompasses student characteristics of race or ethnicity, then as a matter of federal law, we know at least two additional things. First, the concept of diversity cannot relate solely to race or ethnicity (otherwise, it reflects more of an interest in racial balancing than in educational diversity). Second, the objectives reflected by the concept are a means to an end, not the end in itself. In other words, diversity for diversity's sake is likely to be viewed as little more than an effort to achieve certain numerical goals, divorced from educational objectives—and as a result, unlikely to survive legal review."

- ○ "Action Plan Template: A Process Guide Checklist with Key Questions Derived from Federal Nondiscrimination Law"

  - ■ "Step 1. Inventory: Gather information about all diversity-related policies and programs, focusing both on those that are race- or ethnicity-conscious and those that are race- or ethnicity-neutral."

  - ■ "Step 2. Justify: Ensure that there are very good, institution-specific reasons ("compelling interests," in legal terms) that justify all identified race- and ethnicity-conscious policies and programs—including supporting evidence."

  - ■ "Step 3. Assess: Through a process of periodic review, ensure that race- and ethnicity-conscious policies and programs consider race or ethnicity only to the extent necessary to achieve important goals and, at the same time, that considering those factors materially advances the medical school's efforts to achieve those goals."

16

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

- ■ "Step 4. Act Take necessary action, based on relevant evidence. When changes need to be made, make them."
  - ○ Admissions Decisions on PDF page 45:
    - ■ "Substantive Foundations A medical school should establish substantive criteria for admissions that":
      - ● ¨Are aligned with the medical school's mission and goals."
      - ● ¨Are approved by the faculty.¨
      - ● "Are explained through policies that provide operational definitions of all selection criteria, including defining parameters for selecting applicants for interviews."
      - ● ¨ Incorporate data analysis in establishing operational elements of admissions policies, including":
        - ○ "Identifying probable location of relevant data and information in various application materials."
        - ○ "Ensuring consistent collection of relevant data and information for each applicant (e.g., initial and supplementary application materials, essays, and interviews)."
        - ○ "Ensuring consistent presentation, discussion, and assessment of those data and information among all applicants."
      - ● "Balance both academic accomplishments and personal factors in applicants designed to achieve mission-related goals, with evidence of how (and why) the selection process considers the following":
        - ○ "Academic background (e.g., major, grade point average and grade trend, MCAT scores, science background, other

17

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

academic interests, enthusiasm of recommenders, quality of
undergraduate institution, quality of essay, area and
difficulty of undergraduate course selection, and
coursework loads)."

- ○ "Personal attributes (e.g., culture, socioeconomic status,
  geography, rural/inner city, race/ethnicity, sex, gender
  identity, sexual orientation, faith, family status, national
  origin, individual interests, values and beliefs, maturity,
  leadership, being multilingual, etc.)."
- ○ "Personal experiences (e.g., overcoming hardship, work
  history, community service, health care experience,
  research experience, success in prior career[s], and life
  experiences)."
- ○ "Other (consistent with your school's goals)."

- **AAMC (2013) - Roadmap to excellence: key concepts for evaluating the impact of
  medical school holistic admissions** ⓈⒷ
  - ○ "Holistic admissions requires ongoing evaluation. In addition to examining data
    for improving processes, evaluation is necessary to demonstrate the vital
    connections across holistic admissions, the school's interest in diversity, and
    achieving institutional mission and excellence. Through evaluation, your school
    can address the following mission-critical questions":
    - ■ "Are the school's enrollment practices aligned to attract and support the
      broad range of diversity it seeks?"
    - ■ "If the school is now more balanced in its use of metrics (MCAT® scores,
      GPA) than previously, how does it gather, measure, and communicate data
      about the attributes and experiences it uses to assess applicants?"

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

- ■ "What is the interplay between individual student attributes and experiences within the institutional environment, and is it yielding the personal and professional outcomes the school desires for its students?"
- ■ "Has implementing holistic admissions—and, by extension, fully integrating holistic thinking into the institution's mission-driven diversity efforts—fundamentally changed and improved the institution and the educational experience of students in ways that positively affect the physician workforce and, most important, the health of the public?"
- ○ "For holistic review admissions policies to be effective, these policies need to be aligned with institutional mission and goals, integrated across outreach, recruitment, financial aid, retention, and curriculum, and consistent with and directly connected to institutional values"
- ○ "Establishing holistic review admissions policies may constitute an organizational change effort that requires clear support from institutional leaders and the participation of administrators, faculty, students, and other stakeholders."
- ○ "Outcomes influenced by holistic admissions include: learning outcomes, developmental outcomes, and professional outcome"
- ○ Evaluating Holistic Admissions
  - ■ The Why, What, Where, When, Who, and How of Evaluating Holistic Admissions and Related Programs listed on page 12 of the PDF
    - ● Data needed: student and institutional environmental data (qualitative and quantitative)
      - ○ Can be collected from: school-based applicant, student, and graduate sources, state/national organizations
    - ● When to track data: "Conduct ongoing evaluation from recruitment and outreach activities through admissions and at key intervals during students' time at your medical school and after graduation

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

to produce: process/formative evaluation and outcomes/summative evaluation."

- How evaluation should be carried out:
  - "Define success based on institutional mission"
  - "Translate mission into clear goals, including diversity goals"
  - "Set outcome measures to assess progress toward goals"
  - "Identify data and sources needed to measure outcomes"
  - "Collect and analyze data at regular intervals for short-term, intermediate-term, and long-term impacts"
  - "Craft narrative based on findings, identify areas for improvement, make recommendations, dispel incorrect assumptions"
  - "Disseminate findings/recommendations to stakeholders"
  - Examples of Data Categories and Sources for Evaluating the Impact of Holistic Admissions at a Medical School on page 15 of the PDF
  - When evaluation should occur on page 16 of the PDF
  - I-E-O model for determining impact of holistic review on page 29 of PDF
  - Measures for evaluating demographics on page 31 of PDF
- **AAMC Holistic Review Project (2013) - Achieving Improved Learning and Workforce Outcomes Through Admissions Ⓢ**
  - Holistic admissions:
    - "Provides a mechanism for aligning admissions with institutional mission and facilitates identifying a broadly diverse student body, which contributes to an enriched learning environment for all students and a better prepared physician workforce."

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

- "An integrated holistic admissions process incorporates four core principles at each stage: screening, interview, and selection. These four core principles emphasize the importance of giving individualized consideration to every applicant and provide operational guidance to ensure that admissions processes and criteria are both mission- and evidence-based, promote diversity, and use a balance of Experiences, Attributes, and Academic Metrics."
- **Association of American Medical Colleges (n.d.) - Holistic Review Ⓢ**
  - Holistic Admissions Definition:
    - "a flexible, individualized way of assessing an applicant's capabilities by which balanced consideration is given to experiences, attributes, and academic metrics and, when considered in combination, how the individual might contribute value as a medical student and physician."

  - Experiences-Attributes-Academic Metrics Model
    - 4 Core Principles:
      - "1. In a holistic admissions process, selection criteria are broad-based, clearly linked to school mission and goals, and promote diversity as an essential element to achieving institutional excellence."
      - "2. A balance of experiences, attributes, and academic metrics (EAM) is used to assess applicants with the intent of creating a richly diverse interview and selection pool and student body; Applied equitably across the entire candidate pool; and Grounded in data that provide evidence supporting the use of selection criteria beyond grades and test scores."

21

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

- ● "3. Admission staff and committee members give individualized consideration to how each applicant may contribute to the medical school learning environment and practice of medicine, weighing and balancing the range of criteria needed in a class to achieve the outcomes desired by the school."
- ● "4. Race and ethnicity may be considered as factors when making admission-related decisions only when such consideration is narrowly tailored to achieve mission-related educational interests and goals associated with student diversity, and when considered as part of a broader mix of factors, which may include personal attributes, experiential factors, and demographics. Or other considerations."*
  - ○ "*Under federal law (and where permitted by state law)"
  - ■ "An integrated holistic admissions process incorporates four core principles at each stage: screening, interview, and selection."
- ● **Cunningham (2012) - Health professions advisors: Perceptions of the health professions advising community regarding factors important to the selection of students for medical school** Ⓢ Ⓑ
  - ○ "This study determined if differences exist among the health professions advising community between factors (academic and non-academic) used as selection criteria in medical school admissions, as well as the impact of the holistic review in admissions on new admissions initiatives with respect to personal and professional backgrounds of advisors. The study examined the differences based on the gender, race and ethnicity, age, years of advising experience, institution size and type, classification and region of the population."
    - ■ "The findings of the study suggested that the personal and professional background of a health professions advisor did impact the perception of

22

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

importance among the academic and non-academic factors used in the selection of medical students."

- ○ "The admissions efforts of any medical school should be aligned with the mission, goals and diversity interests of the respective medical school, and each school must decide which applicants will benefit most from the school's educational program, and best serve the needs of its patients, community and the medical profession at large."

- ○ "As the medical school community begins shifting the selection paradigm from academics as the sole criteria for admissions to a comprehensive review, a review of a student in the context of experience, academic preparation and attributes important to the field of medicine, better tools to identify non-cognitive traits must be developed. Additionally, the Holistic Review Project espouses the absolute need for medical schools to tailor the selection of students to fit the school-specific institutional values and mission; therefore, if done properly, each of the U.S. medical schools would be unique in the screening, interview and selection of premedical students."

- ○ 9 competencies to assess during initial screen/evaluation for medical students
  - ■ Integrity and Ethics
  - ■ Reliability and Dependability
  - ■ Service Orientation
  - ■ Social and Interpersonal Skills
  - ■ Capacity for Improvement
  - ■ Resilience and Adaptability
  - ■ Cultural Competence
  - ■ Oral Communication
  - ■ Teamwork

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

- ○ "Attributes described as a "non-cognitive","personal qualities", "character traits" are difficult to identify and measure; however, the professionals involved in medical schools have long desired to consider these attributes. Measurements of non-cognitive traits can include personal qualities noted in letters of recommendation, personal statements and the personal interview."
  - ○ "However, the growing concern regarding the traditional interview format is the apparent lack of reliability and predictive validity due to the impossibility to control the content of the interview, as well as the way the interviewer assesses the premedical student (Eva et al, 2004). Further, interviewers may be biased towards candidates who are like themselves."
    - ■ "Another source of bias was social and demographic characteristics, with interviewers tending to give higher ratings to candidates with similar backgrounds. Moreover, they found that personal interviews did not necessarily cover information that is useful in selecting students because of the variation in interview content."
  - ○ "The AAMC developed the Admissions Initiative to explore the possibility of competency-based admissions, believing this paradigm provides the greatest flexibility for applicants with diverse educational backgrounds to prepare and demonstrate suitability as medical students and future physicians, aligning to the Holistic Review."
- ● **Hadinger (2014) - Underrepresented Minorities in Medical School Admissions Ⓓ**
  - ○ "Schools utilizing an integrated holistic admissions process operationalize diversity in each stage of the process: screening, interview and selection. One key element of holistic admissions is a widening of the lens through which applicants are considered. To illustrate this expanded consideration of the potential value each individual applicant brings to a medical school and as future physicians, the Project developed the Experiences-Attributes-Academic Metrics (E-A-M) model.

24

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

The model provides a shared framework for considering the various dimensions -- experiences (e.g., life experience, educational background), attributes (e.g., race, physical ability, perspectives) and metrics (e.g., MCAT score, grade trends, grade point average) -- that contribute to excellence."

- ○ "Somewhat surprisingly, given the recent shift toward holistic review, medical schools have rated the importance of applicant demographic characteristics such as race and ethnicity in the admissions process as relatively low (Monroe et al., 2013). As Monroe et al. suggest, one possible reason for the low importance placed on applicant demographics is that schools believe that conducting holistic reviews of applicants allows minority and other underrepresented applicants to show their potential, and thus renders consideration of characteristics such as race and ethnicity as unnecessary."

- **Witzburg (2013) - Holistic review -- shaping the medical profession one applicant at a time Ⓢ**
  - ○ "A holistic review process therefore emphasizes attributes, including learning ability, that are associated with excellence in physicians. Applicants are evaluated according to criteria that are institution-specific, mission-driven, broad-based, and applied consistently across the entire applicant pool at a given school. Holistic review does not abandon the assessment of aptitude in science. Rather, it places such measures in the broader context of the applicant's life experiences, with a particular focus on adversities overcome, challenges faced, advantages and opportunities encountered, and the applicant's demonstrated resilience in the face of difficult circumstances. Each factor, be it the undergraduate grade-point average (GPA), the MCAT score, or the leadership roles assumed in volunteer service organizations, is evaluated in the context of the complete portfolio of information available about the applicant. That is, a given level of accomplishment for one applicant may look very different in the context of

25

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

another applicant with a different life story. Medical schools have many more qualified applicants than they can realistically interview, so holistic principles must be applied from the initial screening through the entire admissions process for their desired effect to be realized."

○ "Holistic review is an information-hungry process; electronic processing greatly facilitates both the application and the evaluation of the program. Experiences, attributes, and academic metrics are evaluated and scored in a systematic and consistent manner across the entire applicant pool, with due consideration to the demonstrated validity of various criteria in predicting success in both medical school and medical practice. The BUSM program uses structured interviewing, rigorous training of participating faculty and staff, and systematic evaluation of data elements, all of which minimize the influence of conscious and unconscious bias."

3. **Health Care Discipline**

● Glazer et al. (2016) – Holistic Admissions in Nursing Ⓢ Ⓑ

○ "Under a holistic admissions review process, the admissions team considers a student's life experiences and personal qualities alongside traditional measures of academic achievement such as grades and test scores."

○ "Researchers reported that holistic admission processes have been adopted by 93% of dentistry schools, 91% of medical schools, 82% of public health schools, 78% of pharmacy schools, and 47% of nursing schools."

■ "Further analysis of the survey results showed that 72% of the schools utilizing holistic admissions review reported an increase in diversity of their incoming class."

■ "Schools using holistic admissions review also reported positive changes to the learning environment, including increased community engagement,

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

student cooperation and teamwork, and students' openness to perspectives different from their own."

- "Holistic admissions review exists on a continuum, and schools may choose to implement some practices over others. Nonacademic criteria that may be included as part of a holistic admissions process include first-generation college student, experience with disadvantaged populations, origin in a geographic area specifically targeted by the school, and/or an applicant from a medically underserved region"

- Those who need to be involved:
  - Healthcare stakeholders
  - Administration
  - Accrediting bodies
  - Faculty
  - Community

- Needs:
  - Holistic model
    - "Nursing deans and admissions personnel are requesting a systematic model, a "how to" guide, for the implementation of holistic admissions processes that includes best practices based on exemplars. A model contrived from exemplars would provide a process that everyone understands and allow schools to see how holistic admissions review processes were implemented "in a place that does it and does it well" and "allows you to observe someone like you." Included in the model would be information on processes, resources, and outcomes associated with holistic admissions review. For example, what interview processes

27

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

were used? What types of interviews were conducted? What are some examples of interview questions? Who was on the interview committee? What type of training did the interview committee undergo? What did the interviewing scoring rubric assess? How much did the interview affect the applicant's overall application score?"

- Better understanding of legal guidelines
  - "Nursing deans and their designees also express the need for information regarding legally sound practices for use of holistic admissions review and would like to see examples from other nursing schools that have already adopted a holistic admissions review process."
- Training
  - "Recommendations for training included a peer-learning experience where faculty are paired with other faculty who have experience with holistic admissions; use of a train-the-trainer model where "2–3 faculty go learn and then present back to the rest of the faculty"; and others requested Webcast/ podcast/Webinars."

■ Recommendations:
  - "Increase Knowledge and Understanding of Holistic Admissions Review Among Nursing Deans"
  - "Work to Obtain Buy-In and Support for Holistic Admissions Review"
  - "Conduct a Self-Assessment of Current Admissions Practices"
  - "Provide Nursing Administrators, Faculty, and Staff With Diversity Training"

28

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

- ● "Conduct Further Research to Identify Factors Most Critical for Success in Nursing"
- ● **Urban Universities for Health (2014) - Holistic Admissions in the Health Professions Ⓢ**
  - ○ Definition: "Holistic review is a university admissions strategy that assesses an applicant's unique experiences alongside traditional measures of academic achievement such as grades and test scores. It is designed to help universities consider a broad range of factors reflecting the applicant's academic readiness, contribution to the incoming class, and potential for success both in school and later as a professional. Holistic review, when used in combination with a variety of other mission-based practices, constitutes a "holistic admission" process."
    - ■ "The desired outcomes of a holistic admission process will vary depending on each institution's mission and goals. However, one core goal of a holistic process is the assembly of a diverse student body — diverse not only in race, ethnicity, and gender, but also in experience, socioeconomic status, and perspective."
  - ○ Core Principles:
    - ■ "Selection criteria are broad-based, are clearly linked to school mission and goals, and promote diversity as an essential element to achieving institutional excellence."
    - ■ "A balance of applicant experiences, attributes, and academic metrics (E-A-M)"
      - ● "Is used to assess applicants with the intent of creating a richly diverse interview and selection pool and student body;"
      - ● "Is applied equitably across the entire candidate pool"
      - ● "Is grounded in data that provide evidence supporting the use of selection criteria beyond grades and test scores."

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

- ■ "Admissions staff and committee members give individualized consideration to how each applicant may contribute to the school learning environment and to the profession, weighing and balancing the range of criteria needed in a class to achieve the outcomes desired by the school."
- ■ "Race and ethnicity may be considered as factors when making admission-related decisions only when such consideration is narrowly tailored to achieve mission-related educational interests and goals associated with student diversity, and when considered as part of a broader mix of factors, which may include personal attributes, experiential factors, demographics, or other considerations."

- ● **Wall et al. (2015) - White paper on pharmacy admissions: developing a diverse workforce to meet the health-care needs of an increasingly diverse society Ⓢ**

"As a cornerstone, it is recommended that holistic admission processes be adopted broadly across pharmacy education. Holistic admission provides a means for programs to evaluate applicants beyond the academic profile as required by ACPE, and supports the creation of a diverse learning environment and health workforce that is equipped to advance health equity. Holistic admissions practices support the ability of schools/colleges to evaluate applicants with the propensity to develop the characteristics outlined in ACPE Standard 4: the knowledge, skills, abilities, behaviors and attitudes necessary to demonstrate self-awareness, leadership, innovation and entrepreneurship, and professionalism."

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

○

4. STEM Discipline

●	**Holloway (2013) - Engineering students at typically invisible transition points: A focus on admissions and the sophomore year Ⓓ**

○	"Though the admissions stage of the system can and does vary by institution, this gateway has not been part of the national conversation. A focus on transforming admissions policy, then, may have significant implications for who becomes an engineer. Transforming admissions policy to be more aligned with the type of engineer needed to be successful in the new century may also be valuable. However, to transform admission policies in a positive way, an understanding of the outcomes of the current policies are needed, as well as an understanding of what changes might be impactful and how any change to those policies can be made."

○	"A review of the literature revealed there is a significant gap in research that critically evaluates engineering students' admission processes and policies for: a) gender bias when admission decisions principally focus on, but do not exclusively use, typical pre-college metrics (i.e., standardized test score, high school grade point average [GPA], and high school class rank); b) gender bias with regard to the types of factors (i.e., cognitive and psycho-social [or affective/attitudinal]) used to make admission decisions for student success (operationalized in terms of first-year retention and graduation);"

31

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

○ "Indeed, Camara and Kimmel (2005) point out that "most admissions decisions are made using tools that have been around for 50 years or more" (p. viii). Noncognitive factors have been shown to be positively correlated with college student success, but have not been made a substantial part of admissions decisions, although researchers have identified their addition as a possibility to ameliorate the underrepresentation issue (Sedlacek, 2005)."

"Due to the legal environment in the United States, while admissions officers can and should use a holistic mix of factors in directing admissions and scholarship decisions, different factors cannot be used for men and women, or majority and minority students, even if these factors were to be based on the known success factor data for each population (American Association for the Advancement of Science & Association of American Universities, 2010). Efforts to apply identical admission criteria to every group can lead to selection criteria benefitting certain population(s); identifying this phenomenon creates the opportunity to create a leverage point in the higher education system that may increase access to an engineering education for those who have been traditionally underrepresented."

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

o

Section C: References, alphabetical

AAMC. (2014). Roadmap to diversity and educational excellence: key legal and education policy foundations for medical schools. Retrieved from https://members.aamc.org/eweb/upload/14-050%20Roadmap%20to%20Diversity_2nd%20ed_FINAL.pdf

AAMC. (2013). Roadmap to excellence: key concepts for evaluating the impact of medical school holistic admissions. Retrieved from https://members.aamc.org/eweb/upload/Holistic%20Review%202013.pdf

AAMC Holistic Review Project. (2013). Achieving improved learning and workforce outcomes through admissions. Retrieved from https://www.aamc.org/download/358700/data/hrp2-pager.pdf

Albert, J. & Bielat, K. (2010). Holistic admissions: alternative models for applicant assessment. *The Advisory Board Company,* 1-12.

Andrews, R. J. (2007). *The impact of legal challenges to affirmative action on educational choice* (Order No. 3287447). Available from ProQuest Dissertations & Theses Global. (304851193). Retrieved from http://0-search.proquest.com.liucat.lib.liu.edu/docview/304851193?accountid=12142

Association of American Medical Colleges. (n.d.) Holistic Review. Retrieved from https://www.aamc.org/initiatives/holisticreview/

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

Berkeley University of California. (n.d.) How Berkeley selects students. Retrieved from

http://admissions.berkeley.edu/selectsstudents

Cunningham, T. K. (2012). *Health professions advisors: Perceptions of the health professions advising community regarding factors important to the selection of students for medical school* (Order No. 3547613). Available from ProQuest Dissertations & Theses Global. (1277497808). Retrieved from http://0-

search.proquest.com.liucat.lib.liu.edu/docview/1277497808?accountid=12142

Gilbert, J. (2008). Applications quest: a case study on holistic diversity in admission. *Journal of College Admission,* 12-18.

Glazer, G., Clark, A., Bankston, K., Danek, J., Fair, M., & Michaels, J. (2016). Holistic admissions in nursing: we can do this. *Journal of Professional Nursing,* 1-8. Retrieved from http://www.sciencedirect.com/science/article/pii/S8755722316000156

Hadinger, M. A. (2014). *Underrepresented minorities in medical school admissions*(Order No. 3622642). Available from ProQuest Dissertations & Theses Global. (1548006795). Retrieved from http://0-

search.proquest.com.liucat.lib.liu.edu/docview/1548006795?accountid=12142

Hazelrigg, K. (2016). Report highlights promise of holistic graduate admissions to increase diversity. *Targeted News Science*. Retrieved from

http://search.proquest.com.proxymu.wrlc.org/pqrl/docview/1758043414/4ECAB283D25F4EBFPQ/1?accountid=27975

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

Hirschman, J. L. (1997). *A review of federal law: Desegregation and affirmative action as it relates to admission and financial aid programs plus guidelines for attaining student diversity in colleges and universities* (Order No. 9728045). Available from ProQuest Dissertations & Theses Global. (304352772). Retrieved from http://0-search.proquest.com.liucat.lib.liu.edu/docview/304352772?accountid=12142

Holloway, E. M. (2013). *Engineering students at typically invisible transition points: A focus on admissions and the sophomore year* (Order No. 3613140). Available from ProQuest Dissertations & Theses Global. (1511460029). Retrieved from http://0-search.proquest.com.liucat.lib.liu.edu/docview/1511460029?accountid=12142

Jones, R. C. (2001). *Exploring the practice-centered thinking of teachers of teachers* (Order No. 3020363). Available from ProQuest Dissertations & Theses Global. (250180309). Retrieved from http://0-search.proquest.com.liucat.lib.liu.edu/docview/250180309?accountid=12142

Kent, J. & Mathur, A. (n.d.). Holistic review in graduate education: promising new practices. *Council of Graduate Schools.* [Video file]. Retrieved from https://www.youtube.com/watch?v=1Yx5l_e8Yyw

Kent, J. D. & McCarthy, M. T. (2016). Holistic Review in Graduate Admissions. *Council of Graduate Schools.* Washington, DC: Council of Graduate Schools.

Kyllonen, P. C. (2005). The case for noncognitive assessments. Retrieved from http://www.ets.org/Media/Research/pdf/RD_Connections3.pdf

35

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

Mejia Abreu, H. (2013). *Evidence-based admissions: Correlates of students' academic success in veterinary medical school* (Order No. 3597857). Available from ProQuest Dissertations & Theses Global. (1458440978). Retrieved from http://0-search.proquest.com.liucat.lib.liu.edu/docview/1458440978?accountid=12142

Penn Admissions. (n.d.) Holistic review. Retrieved from http://www.admissions.upenn.edu/apply/whatpennlooksfor/holistic

Rackham Graduate School. (n.d.) Holistic review of applications for admission to graduate degree programs. Retrieved from http://www.rackham.umich.edu/faculty-staff/information-for-programs/resources-for-recruiters/holistic-review-of-applications

UCLA Newsroom. (2008). Campus explains holistic review admissions process. Retrieved from http://newsroom.ucla.edu/stories/080905_holistic-admissions_reed

University of California. (2013). Beyond the numbers: comprehensive review. Retrieved from http://admission.universityofcalifornia.edu/counselors/files/comprehensive_review_facts.pdf

University of Michigan. (n.d.) Selection process. Retrieved from http://admissions.umich.edu/apply/freshmen-applicants/selection-process

Urban Universities for Health. (2014). Holistic admissions in the health professions. Retrieved from

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

http://urbanuniversitiesforhealth.org/media/documents/Holistic_Admissions_in_the_Health_Professions.pdf

Virginia Tech Graduate School. (2016). Holistic admission review at Virginia Tech Graduate School. Retrieved from https://www.youtube.com/watch?v=uvSNtNTr62o

Wall, A. L., Aljets, A., Ellis, S. C., Hansen, D. J., Moore, W. M., Petrelli, H. M. W., Speedie, M. K., TenHoeve, T., Watchmaker, C., Winnike, J. S., Wurth, S. D. (2015). White paper on pharmacy admissions: developing a diverse work force to meet the health-care needs of an increasingly diverse society. *American Journal of Pharmaceutical Education,* 79(7), 1-18.

Witzburg, R. A., Sondheimer, H. M. (2013). Holistic review -- shaping the medical profession one applicant at a time. *The New England Journal of Medicine.*

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

Section D: References Organized by Grad Program/Discipline

1. **General Graduate Disciplines**
   o **Albert - Holistic Admissions: Alternative Models for Applicant Assessment - 2010 (PDF) Ⓑ**
     ▪ Albert, J. & Bielat, K. (2010). Holistic admissions: alternative models

       for applicant assessment. *The Advisory Board Company,* 1-12.

   o **Andrews - The impact of legal challenges to affirmative action on educational choice - 2007 (PDF) Ⓢ**
     ▪ Andrews, R. J. (2007). *The impact of legal challenges to affirmative*

       action on educational choice (Order No. 3287447). Available from

       ProQuest Dissertations & Theses Global. (304851193). Retrieved from

       http://0-

       search.proquest.com.liucat.lib.liu.edu/docview/304851193?accountid=

       12142

   o **Berkeley University of California - How Berkeley Selects Students - n.d.**

     (Website) Ⓢ

     ▪ Berkeley University of California. (n.d.) How Berkeley selects

       students. Retrieved from

       http://admissions.berkeley.edu/selectsstudents

   o **Gilbert - Applications quest: a case study on holistic diversity in admission - 2008 (PDF) Ⓢ Ⓡ**
     ▪ Gilbert, J. (2008). Applications quest: a case study on holistic diversity

       in admission. *Journal of College Admission,* 12-18.

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

- **Hazelrigg - Report highlights promise of holistic graduate admissions to increase diversity - 2016 (PDF) Ⓑ Ⓓ**
  - Hazelrigg, K. (2016). Report highlights promise of holistic graduate admissions to increase diversity. *Targeted News Science*. Retrieved from

    http://search.proquest.com.proxymu.wrlc.org/pqrl/docview/175804341

    4/4ECAB283D25F4EBFPQ/1?accountid=27975

- **Hirschman - A review of federal law: Desegregation and affirmative action as it relates to admission and financial aid programs plus guidelines for attaining student diversity in colleges and universities - 1997 (PDF) Ⓓ**
  - Hirschman, J. L. (1997). *A review of federal law: Desegregation and affirmative action as it relates to admission and financial aid programs plus guidelines for attaining student diversity in colleges and universities* (Order No. 9728045). Available from ProQuest Dissertations & Theses Global. (304352772). Retrieved from http://0-search.proquest.com.liucat.lib.liu.edu/docview/304352772?accountid=12142

- **Kent - Holistic Review in Graduate Admissions - 2016 (PDF) Ⓢ Ⓑ**
  - Kent, J. & Mathur, A. (n.d.). Holistic review in graduate education: promising new practices. *Council of Graduate Schools.* [Video file]. Retrieved from https://www.youtube.com/watch?v=1Yx5l_e8Yyw

- **Kyllonen - The case for noncognitive assessments - 2016 (PDF) Ⓢ**

39

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

- Kyllonen, P. C. (2005). The case for noncognitive assessments. Retrieved from http://www.ets.org/Media/Research/pdf/RD_Connections3.pdf

o **Penn Admissions - Holistic Review - n.d. (Website)** Ⓢ
  - Penn Admissions. (n.d.) Holistic review. Retrieved from http://www.admissions.upenn.edu/apply/whatpennlooksfor/holistic

o **Rackham Graduate School - Holistic Review of Applications for Admission to Graduate Degree Programs - n.d. (Website)** Ⓢ
  - Rackham Graduate School. (n.d.) Holistic review of applications for admission to graduate degree programs. Retrieved from http://www.rackham.umich.edu/faculty-staff/information-for-programs/resources-for-recruiters/holistic-review-of-applications

o **UCLA Newsroom - Campus Explains Holistic Review Admissions Process - 2008 (Website)** Ⓢ
  - UCLA Newsroom. (2008). Campus explains holistic review admissions process. Retrieved from http://newsroom.ucla.edu/stories/080905_holistic-admissions_reed

o **University of CA - Beyond the Numbers: Comprehensive Review - 2013 (PDF)** Ⓢ
  - University of California. (2013). Beyond the numbers: comprehensive review. Retrieved from http://admission.universityofcalifornia.edu/counselors/files/comprehensive_review_facts.pdf

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

- o **University of Michigan - Selection Process (Website) Ⓢ**
    - ▪ University of Michigan. (n.d.) Selection process. Retrieved from

        http://admissions.umich.edu/apply/freshmen-applicants/selection-

        process

- o **Virginia Tech Graduate School - Holistic Admission Review - 2016 (Webinar) Ⓑ**
    - ▪ Virginia Tech Graduate School. (2016). Holistic admission review at

        Virginia Tech Graduate School. Retrieved from

        https://www.youtube.com/watch?v=uvSNtNTr62o

2. **Medical Discipline**

- o **AAMC - Roadmap to diversity and educational excellence: key legal and education policy foundations for medical schools - 2014 (PDF) ⓈⒷⒹ**
    - ▪ AAMC. (2014). Roadmap to diversity and educational excellence: key

        legal and education policy foundations for medical schools. Retrieved

        from https://members.aamc.org/eweb/upload/14-

        050%20Roadmap%20to%20Diversity_2nd%20ed_FINAL.pdf

- o **AAMC - Roadmap to excellence: key concepts for evaluating the impact of medical school holistic admissions - 2013 (PDF) Ⓢ Ⓑ**
    - ▪ AAMC. (2013). Roadmap to excellence: key concepts for evaluating

        the impact of medical school holistic admissions. Retrieved from

        https://members.aamc.org/eweb/upload/Holistic%20Review%202013.

        pdf

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

o **AAMC Holistic Review Project - Achieving Improved Learning and Workforce Outcomes Through Admissions - 2013 (PDF)** Ⓢ

  ▪ AAMC Holistic Review Project. (2013). Achieving improved learning and workforce outcomes through admissions. Retrieved from

    https://www.aamc.org/download/358700/data/hrp2-pager.pdf

o **Association of American Medical Colleges - Holistic Review - n.d. (Website)** Ⓢ

  ▪ Association of American Medical Colleges. (n.d.) Holistic Review. Retrieved from https://www.aamc.org/initiatives/holisticreview/

o **Cunningham - Health professions advisors: Perceptions of the health professions advising community regarding factors important to the selection of students for medical school - 2012 (PDF)** ⓈⒷ

  ▪ Cunningham, T. K. (2012). *Health professions advisors: Perceptions of the health professions advising community regarding factors important to the selection of students for medical school* (Order No. 3547613). Available from ProQuest Dissertations & Theses Global. (1277497808). Retrieved from http://0-

    search.proquest.com.liucat.lib.liu.edu/docview/1277497808?accountid=12142

o **Hadinger - Underrepresented Minorities in Medical School Admissions - 2014 (PDF)** Ⓓ

  ▪ Hadinger, M. A. (2014). *Underrepresented minorities in medical school admissions*(Order No. 3622642). Available from ProQuest

42

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

Dissertations & Theses Global. (1548006795). Retrieved from http://0-

search.proquest.com.liucat.lib.liu.edu/docview/1548006795?accountid

=12142

- o **Witzburg - Holistic review -- shaping the medical profession one applicant at a time - 2013 (PDF)** Ⓢ
  - ▪ Witzburg, R. A., Sondheimer, H. M. (2013). Holistic review -- shaping

    the medical profession one applicant at a time. *The New England*

    Journal of AAMC. (2013). Roadmap to excellence: key concepts for

    evaluating the impact of medical school holistic admissions. Retrieved

    from

    https://members.aamc.org/eweb/upload/Holistic%20Review%202013.

    pdf

3. **Health Care Disciplines**

- o `Glazer et al. – Holistic Admissions in Nursing – 2016 (Word Document)` Ⓢ Ⓑ
  - ▪ Glazer, G., Clark, A., Bankston, K., Danek, J., Fair, M., & Michaels, J.

    (2016). Holistic admissions in nursing: we can do this. *Journal of*

    Professional Nursing, 1-8. Retrieved from

    http://www.sciencedirect.com/science/article/pii/S8755722316000156

- o **Urban Universities for Health - Holistic Admissions in the Health Professions - 2014 (PDF)** Ⓢ
  - ▪ Urban Universities for Health. (2014). Holistic admissions in the health

    professions. Retrieved from

43

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

http://urbanuniversitiesforhealth.org/media/documents/Holistic_Admissio

ns_in_the_Health_Professions.pdf

- o **Wall et al. - White paper on pharmacy admissions: developing a diverse workforce to meet the health-care needs of an increasingly diverse society - 2015 (PDF) Ⓢ**

    - ▪ Wall, A. L., Aljets, A., Ellis, S. C., Hansen, D. J., Moore, W. M., Petrelli, H. M. W., Speedie, M. K., TenHoeve, T., Watchmaker, C., Winnike, J. S., Wurth, S. D. (2015). White paper on pharmacy admissions: developing a diverse work force to meet the health-care needs of an increasingly diverse society. *American Journal of Pharmaceutical Education,* 79(7), 1-18.

4. **STEM Disciplines**

    - o **Holloway - Engineering students at typically invisible transition points: A focus on admissions and the sophomore year - 2013 (PDF) Ⓓ**
        - ▪ Holloway, E. M. (2013). *Engineering students at typically invisible transition points: A focus on admissions and the sophomore year* (Order No. 3613140). Available from ProQuest Dissertations & Theses Global. (1511460029). Retrieved from http://0-search.proquest.com.liucat.lib.liu.edu/docview/1511460029?accountid=12142

Section E: References Organized by Theme

- **Software and Tools/Models**

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

o   AAMC Holistic Review Project. (2013). Achieving improved learning and
    workforce outcomes through admissions. Retrieved from
    https://www.aamc.org/download/358700/data/hrp2-pager.pdf

o   AAMC. (2013). Roadmap to excellence: key concepts for evaluating the impact
    of medical school holistic admissions. Retrieved from
    https://members.aamc.org/eweb/upload/Holistic%20Review%202013.pdf

o   AAMC. (2014). Roadmap to diversity and educational excellence: key legal and
    education policy foundations for medical schools. Retrieved from
    https://members.aamc.org/eweb/upload/14-
    050%20Roadmap%20to%20Diversity_2nd%20ed_FINAL.pdf

o   Andrews, R. J. (2007). *The impact of legal challenges to affirmative action on
    educational choice* (Order No. 3287447). Available from ProQuest Dissertations
    & Theses Global. (304851193). Retrieved from http://0-
    search.proquest.com.liucat.lib.liu.edu/docview/304851193?accountid=12142

o   Association of American Medical Colleges. (n.d.) Holistic Review. Retrieved
    from https://www.aamc.org/initiatives/holisticreview/

o   Berkeley University of California. (n.d.) How Berkeley selects students.
    Retrieved from http://admissions.berkeley.edu/selectsstudents

o   Cunningham, T. K. (2012). *Health professions advisors: Perceptions of the health
    professions advising community regarding factors important to the selection of*

45

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

students for medical school (Order No. 3547613). Available from ProQuest

Dissertations & Theses Global. (1277497808).

o   Gilbert, J. (2008). Applications quest: a case study on holistic diversity in

admission. *Journal of College Admission,* 12-18.

o   Glazer, G., Clark, A., Bankston, K., Danek, J., Fair, M., & Michaels, J. (2016).

Holistic admissions in nursing: we can do this. *Journal of Professional Nursing,*

1-8. Retrieved from

http://www.sciencedirect.com/science/article/pii/S8755722316000156

o   Kent, J. D. & McCarthy, M. T. (2016). Holistic Review in Graduate Admissions.

Council of Graduate Schools. Washington, DC: Council of Graduate Schools.

o   Kyllonen, P. C. (2005). The case for noncognitive assessments. Retrieved from

http://www.ets.org/Media/Research/pdf/RD_Connections3.pdf

o   Penn Admissions. (n.d.) Holistic review. Retrieved from

http://www.admissions.upenn.edu/apply/whatpennlooksfor/holistic

o   Rackham Graduate School. (n.d.) Holistic review of applications for admission to

graduate degree programs. Retrieved from

http://www.rackham.umich.edu/faculty-staff/information-for-programs/resources-

for-recruiters/holistic-review-of-applications

46

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

o   UCLA Newsroom. (2008). Campus explains holistic review admissions process. Retrieved from http://newsroom.ucla.edu/stories/080905_holistic-admissions_reed

o   University of California. (2013). Beyond the numbers: comprehensive review. Retrieved from http://admission.universityofcalifornia.edu/counselors/files/comprehensive_review_facts.pdf

o   University of Michigan. (n.d.) Selection process. Retrieved from http://admissions.umich.edu/apply/freshmen-applicants/selection-process

o   Urban Universities for Health. (2014). Holistic admissions in the health professions. Retrieved from http://urbanuniversitiesforhealth.org/media/documents/Holistic_Admissions_in_the_Health_Professions.pdf

o   Wall, A. L., Aljets, A., Ellis, S. C., Hansen, D. J., Moore, W. M., Petrelli, H. M. W., Speedie, M. K., TenHoeve, T., Watchmaker, C., Winnike, J. S., Wurth, S. D. (2015). White paper on pharmacy admissions: developing a diverse work force to meet the health-care needs of an increasingly diverse society. *American Journal of Pharmaceutical Education,* 79(7), 1-18.

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

o   Witzburg, R. A., Sondheimer, H. M. (2013). Holistic review -- shaping the

   medical profession one applicant at a time. *The New England Journal of*

   Medicine.

- **Recommendations for phases**
  - o   Gilbert, J. (2008). Applications quest: a case study on holistic diversity in

     admission. *Journal of College Admission,* 12-18.

- **Outcomes of Holistic Admissions/Best Practices for Evaluation**
  - o   AAMC. (2013). Roadmap to excellence: key concepts for evaluating the impact

     of medical school holistic admissions. Retrieved from

     https://members.aamc.org/eweb/upload/Holistic%20Review%202013.pdf

  - o   AAMC. (2014). Roadmap to diversity and educational excellence: key legal and

     education policy foundations for medical schools. Retrieved from

     https://members.aamc.org/eweb/upload/14-

     050%20Roadmap%20to%20Diversity_2nd%20ed_FINAL.pdf

  - o   Albert, J. & Bielat, K. (2010). Holistic admissions: alternative models for

     applicant assessment. *The Advisory Board Company,* 1-12.

  - o   Cunningham, T. K. (2012). *Health professions advisors: Perceptions of the health*

     professions advising community regarding factors important to the selection of

     students for medical school (Order No. 3547613). Available from ProQuest

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

Dissertations & Theses Global. (1277497808). Retrieved from http://0-

search.proquest.com.liucat.lib.liu.edu/docview/1277497808?accountid=12142

o Glazer, G., Clark, A., Bankston, K., Danek, J., Fair, M., & Michaels, J. (2016).

Holistic admissions in nursing: we can do this. *Journal of Professional Nursing,*

1-8. Retrieved from

http://www.sciencedirect.com/science/article/pii/S8755722316000156

o Hazelrigg, K. (2016). Report highlights promise of holistic graduate admissions to

increase diversity. *Targeted News Science*. Retrieved from

http://search.proquest.com.proxymu.wrlc.org/pqrl/docview/1758043414/4ECAB2

83D25F4EBFPQ/1?accountid=27975

o Kent, J. & Mathur, A. (n.d.). Holistic review in graduate education: promising

new practices. *Council of Graduate Schools.* [Video file]. Retrieved from

https://www.youtube.com/watch?v=1Yx5l_e8Yyw

o Kent, J. D. & McCarthy, M. T. (2016). Holistic Review in Graduate Admissions.

Council of Graduate Schools. Washington, DC: Council of Graduate Schools.

o Virginia Tech Graduate School. (2016). Holistic admission review at Virginia

Tech Graduate School. Retrieved from

https://www.youtube.com/watch?v=uvSNtNTr62o

- **Diversity**

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

o AAMC. (2014). Roadmap to diversity and educational excellence: key legal and

   education policy foundations for medical schools. Retrieved from

   https://members.aamc.org/eweb/upload/14-

   050%20Roadmap%20to%20Diversity_2nd%20ed_FINAL.pdf

o Hadinger, M. A. (2014). *Underrepresented minorities in medical school*

   admissions(Order No. 3622642). Available from ProQuest Dissertations & Theses

   Global. (1548006795). Retrieved from http://0-

   search.proquest.com.liucat.lib.liu.edu/docview/1548006795?accountid=12142

o Hazelrigg, K. (2016). Report highlights promise of holistic graduate admissions to

   increase diversity. *Targeted News Science*. Retrieved from

   http://search.proquest.com.proxymu.wrlc.org/pqrl/docview/1758043414/4ECAB2

   83D25F4EBFPQ/1?accountid=27975

o Hirschman, J. L. (1997). *A review of federal law: Desegregation and affirmative*

   action as it relates to admission and financial aid programs plus guidelines for

   attaining student diversity in colleges and universities (Order No. 9728045).

   Available from ProQuest Dissertations & Theses Global. (304352772). Retrieved

   from http://0-

   search.proquest.com.liucat.lib.liu.edu/docview/304352772?accountid=12142

o Holloway, E. M. (2013). *Engineering students at typically invisible transition*

   points: A focus on admissions and the sophomore year (Order No. 3613140).

50

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ

Available from ProQuest Dissertations & Theses Global. (1511460029).

Retrieved from http://0-

search.proquest.com.liucat.lib.liu.edu/docview/1511460029?accountid=12142

- **Miscellaneous**

  o Burns, D. M. (2011). *Out of heaven: Myth, eschatology, and theurgy in the sethian gnostic apocalypses of nag hammadi* (Order No. 3496805). Available from ProQuest Dissertations & Theses Global. (921659290). Retrieved from http://0-search.proquest.com.liucat.lib.liu.edu/docview/921659290?accountid=12142

  o Jones, R. C. (2001). *Exploring the practice-centered thinking of teachers of teachers* (Order No. 3020363). Available from ProQuest Dissertations & Theses Global. (250180309). Retrieved from http://0-search.proquest.com.liucat.lib.liu.edu/docview/250180309?accountid=12142

51

Reference Table: Admissions Themes and Corresponding Symbol			
Software & Tools/ Models	Recommendation for Phases	Outcomes & Best Practices	Diversity
Ⓢ	Ⓡ	Ⓑ	Ⓓ