



HANDBOOK FOR **Faculty Searches and Hiring**



PREPARED BY THE UNIVERSITY OF MICHIGAN OFFICE OF THE PROVOST IN CONJUNCTION WITH THE ADVANCE PROGRAM

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The President's Diversity Letter should be distributed at least once per year by each school and college in one or more of their major recruiting materials. The letter is as follows:

Welcome to the University of Michigan. As one of our nation's great public universities, Michigan is most proud of its astonishing breadth and depth of academic excellence.

At the very core of our excellence is our longstanding commitment to build and nurture a campus community characterized by a diversity of people, heritage, academic disciplines, and scholarly pursuits. We know that a broad spectrum of perspectives leads to richer educational experiences and intellectual engagement for everyone. Our many and varied voices must all be heard and equally valued. They help us challenge one another's preconceived notions and expand our understanding. The fabric of our community is simply more vibrant when it is a diverse one.

We know, too, that as a public university we must strive to promote the diversity reflected in the state, the nation and the world we serve.

We cherish the value expressed by the University's first president, Henry Philip Tappan: "We must take the world as full as it is." All of us have a responsibility to recruit, welcome, and retain the finest faculty, as well as the most talented students and staff, of all backgrounds, so we can further enhance Michigan's academic distinction as well as the vitality of our campus.

The U-M Senate Assembly, the governing body representing faculty from the Ann Arbor, Flint, and Dearborn campuses, has voiced its "commitment to the value of diversity and urges that all members of the University— faculty, students, staff, and administration—work together to develop new approaches to maintain diversity as a critical component of student education, research, and service at the University of Michigan."

It is my honor to be part of an institution that has been a true leader in its continuous pursuit of diversity within higher education. We remain committed to the highest aspirations for a diverse future. I invite you to join this remarkable community, adding your unique perspective to our richly varied viewpoints and contributions.

Sincerely,

Mark Schlissel, MD, PhD
President

I. INTRODUCTION

Hiring and retaining exceptional academic colleagues is one of the most important things we do as faculty members. We value the University of Michigan's stimulating, welcoming, and diverse environment, and we want to continue to attract world-class artists, scholars, and students. Thus we must actively recruit talented colleagues, not just during formal searches, but at every opportunity: socially and professionally, one-on-one and via affinity groups, at conferences, and while performing field work.

Efforts to recruit, retain, and promote diverse faculty have produced slow and uneven results. This has been the case both nationally and at the University of Michigan. Since the summer of 2002, initially under the auspices of the

U-M's NSF ADVANCE grant, the Strategies and Tactics for Recruiting to Improve Diversity and Excellence (STRIDE) Committee has given presentations to search committees and other interested faculty and administrators aimed at helping with the recruiting and retention of women and other minorities underrepresented among the faculty (e.g., racial and ethnic minorities, sexual minorities, people with disabilities). This Handbook for Faculty Searches and Hiring is designed to integrate and summarize the recruitment and hiring practices that have been identified nationally and by the STRIDE committee as effective, practical, and fair. This faculty recruitment handbook has been updated regularly and this revision was completed in the summer of 2018. The present version incorporates valuable material from

the Office of the Provost Academic Affairs Faculty Hiring Manual developed in 2013 by a committee whose members included Lester P. Monts, Derek B. Collins, Alan V. Deardorff, Carmen R. Green, S. Jack Hu, Maya Kobersy, Carla O'Connor, Catherine Shaw, Anthony Walesby, and Gretchen Weir. This document is a combined product of the ADVANCE Program and the Office of the Provost committee, and supersedes all previous faculty recruitment handbooks. It reflects our collective best judgments about best practices. The Handbook for Faculty Searches and Hiring will be reviewed annually and updated as needed to respond to relevant new research findings.

The STRIDE committee is composed of a diverse group of senior faculty who are able to advise individuals and departments through presentations, detailed and targeted advice, or focused discussions as needed on hiring practices aimed at increasing both the diversity and excellence of the



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faculty. Although STRIDE was initially focused on faculty in science and engineering, in 2006 the Provost expanded its portfolio to include all schools and colleges in the University. Several times a year STRIDE offers a workshop for search committee members and other faculty entitled “Workshop on Faculty Recruitment for Diversity and Excellence.” The most recent PowerPoint slides for the presentation are accessible at the following URL:

advance.umich.edu/stride

After several years of experience with the STRIDE committee and several other related activities, ADVANCE was able to report real progress in the recruitment of women in each of the three colleges that employ the largest number of scientists and engineers at the University (College of Engineering, LSA Natural Sciences, and Medical School Basic Sciences). Before STRIDE began, the average rate of hiring new women faculty in STEM fields was 13% (as a proportion of all new faculty hired). In the years since STRIDE began (AY2003–2016), the rate has averaged 31% (a statistically significant increase). While many factors no doubt contributed to departments’ or programs’ willingness and ability to hire more women, STRIDE is the intervention that most directly provided ideas, tools, and best practices to aid in recruitment.

Moreover, some particular departments have reported especially rapid progress. For example, before the ADVANCE Program, the U-M Chemistry Department’s average representation of women in their applicant pool (1998–99 to 2002–03) was 10%. After the ADVANCE Program and the Department’s adoption of “open searches,” the average representation of women in the applicant pool rose to 18%. The percentage of underrepresented minority faculty also increased from 2% in AY2001 to 11% in AY2017. In the Department of Astronomy, the number of women on the tenure track increased from 0 in AY2001 to 5—or 26%—in AY2017. Rates of underrepresented minority faculty did not change over this same time period but were relatively high (11% in AY2017). Both departments—which participated actively in ADVANCE programs and employed recommended hiring practices—have become nationally recognized for the outstanding quality and diversity of their faculty hiring during this period.

The larger context for faculty hiring activities includes both national and federal mandates, state legal constraints, and University commitments. As then-President Coleman stated in her remarks to the community after the 2006 passage of Michigan’s Proposal 2, “The University of Michigan embraces, promotes, wants, and believes in diversity.” Laurita Thomas, Associate Vice President for Human

Resources, expressed the following views in a letter to the U-M community:

“...The passage of Proposal 2 does not change our commitment, nor does it alter our employment practices or the protections and requirements of various federal and state laws including the Civil Rights Acts of 1964, Title IX of the Education Amendments, the Americans with Disabilities Act, and Michigan’s Elliott-Larsen Civil Rights Act, which prohibits a wide array of discrimination extending far beyond issues of race and gender.

“We must continue to work diligently to recruit and retain the best faculty and staff by creating a community that seeks, welcomes, and defends diversity. We will do so in compliance with state and federal laws, and federal law requires that we continue to take affirmative steps (known as affirmative action) in our employment process in order to adhere to the equal employment opportunity and affirmative action provisions of Executive Order 11246 regarding race, gender, color, religion, and national origin required of all federal contractors. Proposal 2 specifically states that it does not prohibit actions that are required to establish or maintain eligibility for any federal program, if ineligibility would result in a loss of federal funds to the state.” Specifically, the document explains that this means that:

- The University’s nondiscrimination policy remains in full force and effect (see SPG 201.35 spg.umich.edu/sites/default/files/201x35.pdf).
- A host of federal and state civil rights laws, including those discussed above, continue to be in effect and applicable to the University.
- The University must continue to adhere to all the requirements of Executive Order 11246.
- As it relates to the employment process, Executive Order 11246 requires all federal contractors, such as U-M, to take affirmative steps to ensure its employment process is fair and equitable and offers equal opportunity in hiring and employment. The types of affirmative steps required include a focus on recruiting and outreach, such as casting the widest net possible when conducting an employment search.
- Executive Order 11246 also requires that federal contractors not discriminate against job applicants or employees.
- The University’s standard statement in employment ads, “A Non-Discriminatory/ Affirmative Action Employer” or similar language such as “Affirmative Action/Equal Opportunity Employer” is required by Executive Order 11246 and must continue to be used.

Further information regarding the University's nondiscrimination statement, its employment diversity, and its affirmative action obligations can be obtained from the Office of Institutional Equity.

hr.umich.edu/oie

This handbook is designed to provide guidance on how to recognize and recruit outstanding colleagues. Its techniques will increase the probability of identifying and attracting the best candidates, while helping us, as representatives of the University, demonstrate and articulate U-M's values. We believe that diversity, academic excellence, and enhanced student learning are so closely linked that we should hire and retain excellent faculty from a diverse array of backgrounds and experiences whenever possible. Whether you are involved in a formal search or recruiting in other ways, it is important that you provide opportunity to all applicants, including scholars and artists from underrepresented groups.

The process that meets our need for excellence also addresses our desire for inclusiveness. This manual outlines the multiple steps of the process:

- Initiating the Search Process
- Committee Activity Before the Search Begins
- Recruiting Activities During the Search
- Handling Campus Visits
- Final Stages of the Search Process: Negotiating the Offer
- Getting Off to a Good Start
- Evaluating the Search

This manual also contains three appendices consisting of a sample search committee charge, resources for active recruiting, and a reading list containing pertinent articles grouped by category.

This manual is not meant to supersede the existing procedures in any particular school or college but rather to encourage consistent and good practices across campus. The workshops provided by STRIDE are an important and useful complement to the information provided here.

Several schools and colleges mandate STRIDE workshops for chairs and/or search committee members, a practice we recommend.

II. INITIATING THE SEARCH PROCESS

The composition of the search committee, the charge to the search committee, and the definition/description of the faculty position are factors likely to have consequences for the outcome of the search. It is important that these issues be addressed deliberately and early. ADVANCE Program leadership is happy to meet with department chairs or other decision-makers to help think through issues associated with the composition of, and charge to, the search committee.

Composition of the Committee

- Search committees should include members with different perspectives and expertise, and with a demonstrated commitment to diversity.
- Search committees should include women and underrepresented minorities whenever possible. Note, however, that women and minorities are often asked to do significantly more service than majority males, so it is important to keep track of their service load, free them from less significant service tasks, and/or compensate them in other ways.
- It is often helpful to appoint some search committee members from outside the department.

Defining the Position

- Define the position in the widest possible terms consistent with the department's needs. Aim for consensus on specific specialties

or requirements, while planning to cast the hiring net as broadly as possible. Make sure that the position description does not needlessly limit the pool of applicants. Some position descriptions may unintentionally exclude female or minority candidates by focusing too narrowly on subfields in which few specialize.

- Consider as important selection criteria for all candidates (regardless of their own demographic characteristics), the ability of the candidate to add intellectual diversity to the department, to work successfully with diverse students and colleagues, and to mentor diverse students and junior colleagues.
 - If women or minority candidates are hired in areas that are not at the center of the department's focus and interest, they may be placed in an unfavorable situation. It is important to carefully think about how the department will support not only the individual, but also the

development of that person's area within the department. Consider "cluster hiring," which involves hiring more than one faculty member at a time to work in the same specialization.

- Establish selection criteria and procedures for screening, interviewing candidates, and keeping records before advertising the position.
- Make sure that hiring criteria are directly related to the requirements of the position, clearly understood, and accepted by all members of the committee. Ensure that criteria will not be assessed in terms of a single limited indicator and that committee members recognize the inevitable measurement uncertainty that is associated with any given indicator.
- Get committee (and if appropriate, departmental) consensus on the relative importance of different selection criteria. Plan to create multiple short lists based on different key criteria. (See "Creating the Short List," in section IV, below.)

Posting the Position

The job posting is the committee's—and the University's—first opportunity to clearly communicate about the position to the wide range of candidates it hopes to attract. First impressions are important. Make sure the announcement is clear, accurate, and welcoming.

Many schools and departments advertise openings in the *Chronicle of Higher Education*, *Journal of Hispanic Higher Education*, *Journal of Blacks in Higher Education*, and major journals in their field. Most fields have resources—listservs, email groups, etc.—that can help you identify or reach diverse qualified candidates.

Language for Announcing Positions

Proactive language can be included in job descriptions to indicate a department's commitment to diversity. This may make the position more attractive to female and minority candidates. Examples include:

- "The college is especially interested in qualified candidates who can contribute, through their research, teaching, and/or service, to the diversity and excellence of the academic community."
- "The University is responsive to the needs of dual career couples."
- "Women, minorities, individuals with disabilities, and veterans are encouraged to apply."
- "The University of Michigan [or school/college/department] seeks to recruit and retain a diverse workforce as a reflection of our commitment to serve the diverse people of Michigan, to maintain the excellence

of the University, and to offer our students richly varied disciplines, perspectives, and ways of knowing and learning."

- "The school/department is interested in candidates who have demonstrated commitment to excellence by providing leadership in teaching research or service toward building an equitable and diverse scholarly environment."
- "We will consider applicants knowledgeable in the general area of xxx. There are several broad areas of interest, including [several named]. In general, we give higher priority to the overall originality and promise of the candidate's work rather than to the sub-area of specialization. XXX University is an equal opportunity/affirmative action employer and is committed to increasing the diversity of its faculty. We welcome nominations of and applications from anyone who would bring additional dimensions to the University's research, teaching and clinical mission, including women, members of minority groups, protected veterans, and individuals with disabilities."
- "The University of Michigan is committed to fostering and maintaining a diverse work culture that respects the rights and dignity of each individual, without regard to race, color, national origin, ancestry, religious creed, sex, gender identity, sexual orientation, gender expression, height, weight, marital status, disability, medical condition, age, or veteran status. The University of Michigan is supportive of the needs of dual career couples and is an Equal Opportunity/ Affirmative Action Employer."

The race and/or gender of candidates may not be factors considered in hiring decisions, but search committees may indicate an interest in service, research, or other factors that contribute to intellectual diversity or the ability of the unit to meet the needs of diverse students. Manuals of our peer institutions may be helpful, such as UCLA's Faculty Search Toolkit at <https://ucla.app.box.com/v/searching-for-excellence>.

The Importance of Dual Career Considerations

Dual career considerations are important to many of our faculty candidates. Our data show that men and women ask for dual career assistance at similar rates. To alert candidates to our interest in helping qualified spouses and partners find appropriate positions, you might consider including the following statement in the ads for positions: "The University is responsive to the needs of dual career couples."

Details are listed below and can be found at the following URL: hr.umich.edu/sites/default/files/bf-search-manual-2010.pdf

SUBJECT	APPROPRIATE INQUIRIES	INAPPROPRIATE INQUIRIES
Age	None.	Questions about age, date of birth, requests for birth certificate.
Arrests/Convictions	May ask if any record of criminal convictions and/or offenses exist, if all applicants are asked.	Inquiries regarding arrest record.
Height and Weight	None.	Inquiries about the applicant's height or weight.
Citizenship	May ask questions about legal authorization to work in the specific position if all applicants are asked.	May not ask if person is a U.S. citizen or what citizenship the person holds.
Education	Inquiries about degree or equivalent experience.	None.
Disability	May ask about applicant's ability to perform job-related functions.	Question (or series of questions) that is likely to solicit information about a disability.
Marital or Parental Status	Whether applicant can meet work schedule or job requirements. Should be asked of all genders.	Any inquiry about marital status, children, pregnancy, or child care plans.
National Origin	May ask if legally authorized to work in this specific position if all applicants are asked.	May not ask a person's birthplace; if the person is a U.S. citizen; questions about the person's lineage, ancestry, descent, or parentage; how the person acquired the ability to speak/read/learn a foreign language.
Personal Finances	None.	Inquiries regarding credit record, owning a home, or garnishment record.
Photograph	None.	Any inquiry for a photograph prior to hire.
Political Affiliation	None.	Inquiries about membership in a political party.
Organizations	Inquiries about professional organizations related to the position.	Inquiries about personal or professional organizations suggesting race, sex, color, religion, creed, national origin or ancestry, age, marital status, sexual orientation, gender identity, gender expression, height, weight, disability, or veteran status.
Race or Color	None.	Comments about complexion or color of skin.
Religion	Describe the work schedule and ask whether applicant can work that schedule. Should be asked of all applicants.	Inquiries about religious preferences, affiliation, denominations, church, and religious holidays observed.
Sex	None.	Inquiries regarding gender, gender expression or gender identity.
Sexual Orientation	None.	Comments or questions about the applicant's sexual orientation.

At the same time, it is critical that all search committees recognize that it is inappropriate and illegal for individuals' marital or family status to affect evaluation of their application. Knowledge—or guesses—about these matters may not play any role in the committee's deliberation about candidates' qualifications or the construction of the short list. All committee members should recognize this and help maintain a proper focus in committee deliberations, but the committee chair has a special responsibility to ensure that the discussion excludes any inappropriate considerations.

The U-M Human Resources and Affirmative Action website includes a chart comparing legal questions with discriminatory questions (see p 8).

Regardless of candidates' personal characteristics (and without knowing anything about an individual's partner or family status), one feature of the University environment that is likely to be important and attractive to all candidates is its promotion of a humane work setting. As you provide that information to all candidates, keep these considerations in mind:

- While it is common for academics to be partnered with other academics, academic women are more likely to be partnered with other academics than academic men are. This means that disadvantages that affect two-career academic couples have a disproportionate impact on women.
- At the same time, recognize that there is variability among women in their personal and household circumstances. Do not assume one household type (e.g., a husband and children) applies to all women.
- Make sure everyone on the search committee has a good working knowledge of the U-M's dual career support programs. Consult the Provost's Office for further information. Information is also available online at [provost.umich.edu/programs/pfip.html](https://www.provost.umich.edu/programs/pfip.html). This site provides online resources for dual career partners seeking employment. Other documents are available by contacting the Provost's Office.
- Procedures vary somewhat in each school and college, so search committee chairs should consult their department chairs about the correct procedures they should follow.

- Provide all candidates with copies of dual career resources, which are also available online:
https://www.provost.umich.edu/programs/dual-career/Dual_Career_Services_June2017.pdf
- Address perceptions that Ann Arbor, as a small city, offers limited opportunities for a candidate's spouse or partner. Make sure candidates know about the diverse employment possibilities their partners might find not only at the University, but also throughout Ann Arbor and in the larger Southeast Michigan area. The Dual Career office can provide helpful information about Ann Arbor and surrounding communities. (See contact information above.)
- Identify someone in the department or outside it who can offer to have a confidential conversation (one not to be conveyed to anyone else in the department) with candidates about these issues. This person should be well-informed about all programs supporting faculty members' families, and willing to describe or discuss them with candidates, without transmitting information about the candidate's personal circumstances to the department or the search committee. For example, the College of Engineering has a committee of senior faculty women who volunteer to serve as contacts for women candidates, and the Associate Dean for Academic Affairs (ADAA) requires that each female candidate meet with a member of this committee.
- If a candidate does ask for help finding a relevant posting for a spouse or partner, follow the procedures appropriate to your school or college to arrange interviews or other opportunities for the spouse or partner as early in the hiring process as possible. Your department chair is the best source on this, but it is always possible to get information and assistance from the Dual Career Coordinator in the Provost's office.
- As noted in other places within this handbook, make sure all applicants for faculty positions are provided with information about the University's family friendly policies.

**The ADVANCE Program
can be reached by email at:
advanceprogram@umich.edu**

Person-Specific Faculty Hiring

The hiring procedure most familiar to faculty involves a search process, initiated with definition of a “position,” posting of an ad for that position, and formal applications reviewed by a search committee that is appointed to do that job.

In contrast, person-specific faculty hiring involves consideration of a faculty appointment at any rank for an individual which did not arise in response to a job application or a posted position. Person-specific hiring occurs most often at the University of Michigan in the context of (1) consideration of faculty partners for dual career positions; (2) faculty appointments after special postdoctoral programs aiming at faculty appointments (President’s Postdoctoral Fellowship Program (PPFP), Society of Fellows, Psychology’s Diversity Postdoc Program; National Center for Institutional Diversity (NCID)); and (3) Provost’s Faculty Initiative Program (PFIP) positions, sometimes referred to as “target of opportunity” positions.

Each of these circumstances is slightly different, but all of them share the feature that the candidate is not evaluated in the context of a pool of applicants for that exact position. Moreover, in each case, the department would need to obtain a waiver of posting requirements from the relevant HR office, as set forth in SPG 201.22. See spg.umich.edu/policy/201.22. In addition, hiring for person-specific positions typically does not have a conventional timeframe dictated by the norms of the discipline or the timing of the posting of the ad; nor does it have a preexisting plan for the funding of the appointment. Although there are many

resources to help with that funding, it must be arranged, and normally some part of it comes from the unit.

Person-specific hiring is undertaken, however, with the same long-term goal and expectation as other faculty hiring: that any individual hired is brought into a unit (or in the case of joint appointments, multiple units) as a full

member, because of the belief that the individual can make a meaningful contribution as a faculty member. Therefore, the unit(s) must be prepared to take on responsibility

for addressing that person’s needs for support and development like those of any other faculty member at a similar rank.

General Principles

Three primary principles underlie good unit practices in considering individuals for person-specific hires:

1. **Transparency and consistency.** The unit has developed clear, transparent processes for handling hiring of this sort, which are accepted by the faculty. Ideally, these processes should be discussed and developed before any candidates are identified. Wherever possible these processes should mirror those of hiring through the conventional search process.
2. **Respectful processes.** All discussions about the potential hire should be undertaken with the same concern for a respectful assessment of a potential colleague that would be present in any search, and all interactions with the potential hire should convey that tone of respect.
3. **Equal treatment.** Every stage in the process should be undertaken with the potential outcome in mind that the individual under consideration might become a colleague in the department, one who deserves to be accorded the same credibility and respect as any other member of the faculty.

The different circumstances that lead to person-specific consideration, and the wide diversity of micro-cultures within the University make it impossible to recommend particular practices for all units. However, optimal kinds of practices are associated with the different stages in the process.

Practices at Each Stage in the Process

Identifying the candidate

This stage depends on the type of candidate. Sometimes individual candidates may be proposed from inside the unit (e.g., for PFIP, for special postdocs, or some dual career opportunities), or from outside (as for some dual career opportunities). Units should be prepared for both kinds of situations, and should recognize the potential value to the department of both kinds of opportunities. In addition, sometimes units create a standing or ad hoc ‘search’ committee that scans the field for promising candidates for one of these programs. Identity characteristics (such as race, ethnicity, sex, gender identity, gender expression, or other characteristics listed in the University’s nondiscrimination policy statement) must never be a factor in identifying a candidate for consideration for person-specific hires.

¹The PFIP program is described this way: “The Provost and Executive Vice President for Academic Affairs provides supplemental resources to help schools and colleges and other academic units to hire and retain faculty with a commitment to diversity, equity and inclusion through scholarship, teaching and/or service; to assist the dual career partners of tenure track and tenured faculty; and to respond to unique opportunities. Funds may be available to help units recruit or retain tenure-track faculty or to develop specific programmatic areas (e.g., cluster hiring).” Further information is here: provost.umich.edu/programs/pfip.html

Unit consideration of the candidate

As noted above, units should develop a standard procedure for consideration of such candidates that is already in place before such a candidate is considered. It is best if more than one person is involved in making such decisions. For example, in some units a standing review committee can evaluate all candidates who arise in this person-specific fashion; others may find that it's better to appoint an ad hoc review committee composed of individuals well qualified to assess the particular candidate's potential. If the candidate might be appropriate for a joint appointment with another unit, it is important to bring that other unit into the process as early as possible.

In either case, the committee should be consulted about the potential candidate's suitability for full consideration by the unit. This decision would normally be based on some—but perhaps not a great deal—of information: certainly at a minimum a CV. The review committee should either be charged to make the decision about a full review, or should make a recommendation to another departmental body, such as an executive committee, for that decision.

Assuming the decision is to move ahead with a full review, the unit would collect the normal materials for a full dossier for review (including information about scholarship, teaching and service, and letters of recommendation). If there is considerable time pressure, this may happen at the same time as a visit. However, time pressure is often detrimental in these processes, and it may benefit all concerned to schedule a visit only after an initial committee review and appropriate departmental procedures establish that a visit is warranted. Communications, in this and other stages, should always be directly with the candidate (e.g., not through partners in the case of a dual career situation).

Engaging the Provost's Office (if PFIP) or Dean's Office (if not PFIP)

It is often best to bring these offices (as appropriate) into the conversation at the very beginning, so they are aware of the possibility of a request for help in making a person-specific hire. Indeed sometimes units are able to work with these offices to develop a person-specific hiring strategy in advance, so there is some assurance of funding at the outset of the process. In any case, these offices must be contacted by the time a decision has been made to move ahead with considering a candidate for a visit. The Dean's or Provost's office should be informed and engaged with the unit's reasoning about the appointment.

Visit Arrangements

Candidates for person-specific hiring should be brought into the unit for a visit organized in precisely the same way as any other candidate to the unit, even if they are already on campus or in Ann Arbor. The visit should be announced in the same manner, they should meet the same people, participate in the same kinds of activities (job talks publicized in the usual manner and taking place in the usual location, chalk talks where appropriate, meetings with students and faculty, tours of the space and campus, meals with faculty and students, etc.), and be evaluated by the same processes.

Deliberation Procedures

Ordinarily the same procedures for decision making used for other faculty searches (e.g., having the "review committee" make a report, executive committee approval, department vote, etc.) should be followed.

In any faculty review process, individuals use many different standards in evaluating candidates for positions. In the case of person-specific hires, some faculty may be tempted to suggest particular standards they believe are appropriate to this kind of consideration but which are not broadly accepted by the faculty. Therefore, it is important for the department to have established understanding and norms about these issues. For example, a unit may be willing to consider dual career appointments (either for their own faculty hires or for other units') because it recognizes both their importance for faculty recruitment and retention campus-wide, and that they present unique opportunities to augment the strengths of the department. If it has been decided to consider such appointments, then the fact that "we wouldn't have searched for someone in this area" is not germane to appointing the person. Equally, our uncertainty that "this person might not have risen to the top of a national pool" cannot be relevant (since it is an uncertainty that cannot be addressed). Instead, a more appropriate benchmark may be: does this person meet our standard for a colleague in the department (someone who would add to the department in some ways)?

In the cases of PFIP and postdoc hiring, units may want to use a different standard than for dual career hires, but the unit should in advance adopt a clear set of criteria about what that standard is. For example, for junior hires, the standard in many units is that the candidate seems likely to be able to meet our criteria for tenure within the probationary period. In others, explicit comparison with some known pool of applicants for other positions (as by a standing committee) may be appropriate. But in general, wherever the goal is to bring new and diverse capacities into the department, departments should not rely on conventional metrics that may not have previously produced diversity in the past (such as high rates of publication in mainstream journals—often enabled by high-powered mentors at prestigious institutions), but instead rely on metrics that value the capacity to make new and important contributions.

Negotiating the offer

If the decision by the unit is to extend an offer, the goal is to hire a colleague who will thrive here. For that reason, negotiation should aim—like that for all faculty hiring—to maximize conditions for the individual's success. It should also be conducted in a fashion that communicates respect and consideration for the individual, including attention to a reasonable timeline similar to that followed in standard searches (or explicit and regular communication about causes of any unusual delays). It is critically important once the decision to make an offer has been made to communicate frequently with the candidate about the process of producing the formal offer.

III. COMMITTEE ACTIVITY BEFORE THE SEARCH BEGINS

The search committee, and/or a larger group in the department, should engage in a relatively extended review of the wider context of the discipline, as well as the department's own past history of searching and hiring, before beginning a new search. Some departments or schools may have good representation of women and minorities, but lack representation of other groups. In the case of a department or school that has had limited success in any particular group, the department is more likely to be able to achieve a different outcome if it has some understanding of factors that that may have played a role in limiting its past success.

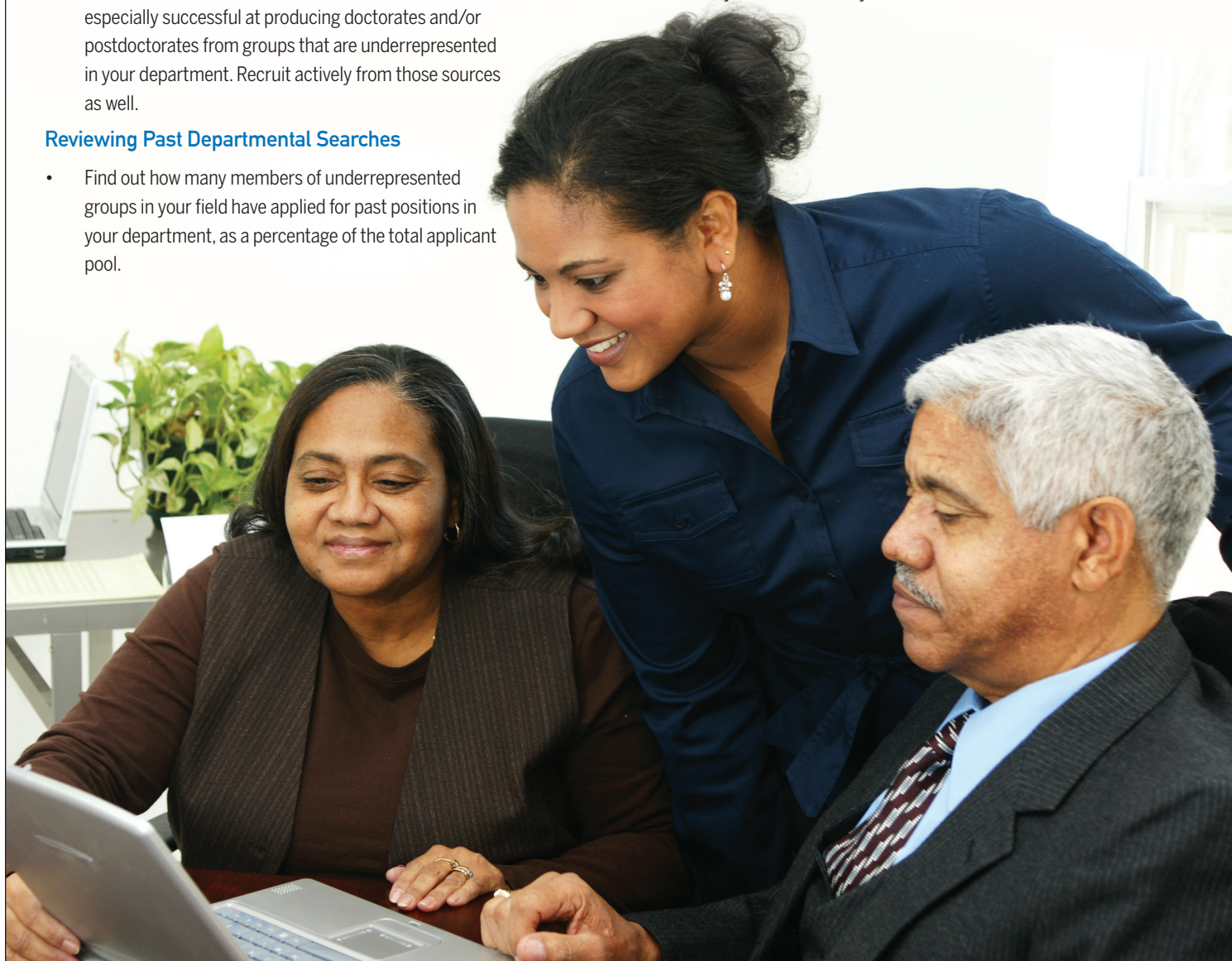
Creating a large pool of qualified candidates is the single most important step in conducting a successful search. Search committee members must take an active role in identifying and recruiting candidates and not leave a stone unturned in seeking out excellent candidates.

Reviewing the National Pool

- Take steps to identify the national "pools" of qualified candidates for the field as a whole and for subfields in which you are considering hiring. Subfield pools are sometimes quite different from overall pools. ADVANCE Program staff are willing and able to assist you in identifying field and subfield pools.
- Identify any institutions or individuals that are especially successful at producing doctorates and/or postdoctorates from groups that are underrepresented in your department. Recruit actively from those sources as well.
- Find out how many members of underrepresented groups in your field have been brought to campus for interviews in your field in previous searches.
- If members of underrepresented groups have been hired in recent searches, ask the search committees, the department chair, and the recently hired faculty themselves how they were successfully recruited.

Reviewing Past Departmental Searches

- Find out how many members of underrepresented groups in your field have applied for past positions in your department, as a percentage of the total applicant pool.



- If members of underrepresented groups in your field have been offered positions but have turned them down, attempt to find out why they have turned them down. Do recognize that many candidates are less than candid in talking with colleagues in the same field. ADVANCE does conduct exit interviews with faculty who leave positions at U-M annually and updates its report of themes identified in that report. Since these interviews are confidential, results specific to any individual or field cannot be divulged. However, you may find the annual report of campus-wide results will help you identify relevant issues. Be sure, in any case, to listen for potential insights into departmental practices that might have been a factor in candidates' decisions. Stories that appear to be highly individualized at first may reveal patterns when considered in the aggregate.
- Find out what has happened to members of underrepresented groups in your field who were not offered positions in previous searches. Where are they now? Does it appear that evaluation bias may have interfered with the assessment of their likely success?
- If no members of underrepresented groups in your field have been offered positions in recent searches, consider redefining departmental evaluation systems in ways that might better take strengths of all candidates into account. Consider, too, whether positions have been defined too narrowly. If candidates have been ranked on a single list, consider using multiple ranking criteria in the future.

Initial Discussions of the Search Committee's Charge

- Review the charge to the committee, including legal requirements and documentation (see Appendix 1 for a sample).
- Identify the tasks to be completed by the committee and set up a meeting schedule.
- Establish committee expectations regarding confidentiality and attendance.
- Decide what role, if any, internet searches are to play in the selection process and determine how equity and privacy concerns can be addressed if they are used or considered.
- Determine materials to be submitted by candidates; with the aim of ensuring that candidates will have the best opportunity to make a case for what they could contribute.
- Identify ways in which the committee as a whole will ensure that affirmative action is properly addressed and that diverse candidates are encouraged to apply.
- Verify that its charge includes particular focus on

equitable search practices, and the goal of identifying outstanding candidates, including outstanding women and underrepresented minority candidates for the position.

- Articulate the fact that diversity and excellence are fully compatible goals and can and should be pursued simultaneously.
- Identify selection criteria and develop the position description prior to beginning the search.
- As is consistent with federal affirmative action obligations, at the beginning of the search establish plans to actively recruit women and underrepresented minorities into the applicant pool if they are otherwise likely to be underrepresented in the pool.
- Be sure that all members of the search committee understand the potential role that evaluation bias could play to produce an unfair and inequitable search process.
- Review practices that will mitigate the kinds of evaluation biases that social science research has demonstrated result in unfair evaluations for women and minority candidates.
- Charge the search committee with customizing the candidate evaluation tool for that search (perhaps with discussion of overall emphases, relative importance of different criteria).
- Have the department or school faculty discuss and approve the candidate evaluation tool's list of criteria before the search starts.
- Include a checklist of responsibilities for search committee chair and for department chair (including ensuring the above practices are followed and ensuring that inappropriate discussions are prevented or addressed).
- Include discussion of how the plans to represent the school's or department's commitment to and strategies for hiring and advancing diverse faculty are integrated into the hiring process. This may be of particular concern for departments that have few or no women or underrepresented minority faculty. In these cases, it is crucial to develop long-term strategies for recruiting diverse faculty that go well beyond any single search. For example, the department might consider inviting women or minority faculty to give talks and then inviting them to apply for positions the following year.
- Remind committee members that the ADVANCE Program is available to consult as questions arise throughout the search process.

Issues to Cover in the First Search Committee Meeting

I. Introductions

II. Charge (the following provided merely as examples)

- a. Review essential characteristics of the position with the expectation that the committee will fine tune the position description. These might include:
 - i. Distinguished or promising record of scholarship; success in core academic functions (research and teaching); need to avoid overreliance of single indicators of excellence
 - ii. Tenurable at professor level (if applicable)
 - iii. Strong administrative experience and skills (if applicable)
 - iv. Commitment to diversity, equity, and inclusion, core values of the University
 - v. Ability to mentor diverse students and junior colleagues
- b. Set a clear expectation that the committee will cast a broad net for prospective candidates (national / international search).
- c. Detail the required outcome, e.g., “We have been asked to provide our recommendation of a single candidate for the department to hire” OR “we have been asked to provide a ranked list of the top 2 or 3 candidates for the department to discuss” OR “We have been asked to recommend an unranked list of 3–4 candidates. Because the committee is advisory, the candidates recommended to the Dean must be unranked.”
- d. The Dean/Department Chair would like recommendations by [date].

III. Staff Support

[Name] has been assigned to provide staff support for the search. She/he has experience staffing searches and will provide a full range of support to help guide the committee through the search process. [Name], who is also a veteran of a number of searches in our office, will be assisting [Name] as needed.

IV. Process

- a. Outline time frame and frequency of meetings as well as expectations concerning attendance and confidentiality.
- b. Discuss what materials will be requested and where they will be kept.
- c. Discuss process to be used to set criteria for job posting.
- d. Discuss process the committee will use to generate short list/interview/campus visit candidates and campus visit candidates for approval.
- e. Discuss the role that evaluation bias can play in searches, and the specific steps the committee will take to mitigate it.
- f. Decide what role, if any, internet searches are to play in the selection process and determine how equity and privacy concerns can be addressed if they are used.
- g. Discuss any approvals, such as approval to interview, that the committee must seek before proceeding.
- h. Remind committee members that internal candidates, if there are any, should be treated the same as external candidates.
- i. Discuss how the search will be concluded.

Diversity statements.

Along with information on teaching and scholarship, some units at U-M and across the country now ask for a diversity statement. This is an opportunity for the applicant to discuss their potential for (or record of) contributing to diversity, equity, and inclusion in higher education. Such a statement could be encouraged, welcomed, or required as part of the formal application, either as a separate statement or integrated into existing components. Some U-M units requiring such a statement have reported that excellent candidates with significant and broad diversity commitments were identified and hired, and that the statement raised awareness among search committee and department as to the impact of the applicant's work.

If such a statement is to be requested, search committees and departments should discuss in advance the criteria to be used to evaluate the information. For example, does the candidate show a commitment to teaching and mentoring students from broadly diverse demographic and social backgrounds? What is the evidence for that commitment? Search committees and departments should also understand that the candidate's own identity characteristics (race/ethnicity, gender, etc.) are not relevant to this assessment and may not be considered in evaluating a candidate's demonstrated commitment to diversity, equity, and inclusion.

IV. RECRUITING ACTIVITIES DURING THE SEARCH

Broadening the Pool

- As noted under “person specific hiring,” the University of Michigan’s Provost’s Faculty Initiative Program (PFIP) provides supplemental resources “to help schools and colleges and other academic units to hire and retain faculty with a commitment to diversity, equity, and inclusion through scholarship, teaching, and/or service; to assist the dual career partners of tenure track and tenured faculty; and to respond to unique opportunities.” This program can help you recruit and retain faculty who are both excellent and committed to diversity, equity, and inclusion. Consult the Provost’s office for further information:
provost.umich.edu/programs/pfip.html
- View your committee’s task as including a process of generating a pool rather than merely tapping it. This may be accomplished by having committee members attend presentations at national meetings and develop a more diverse list of potential future candidates based on those meetings. Candidates identified in this way may be in any field, not necessarily the one targeted for a particular search. In fact, the department may consider creating a committee to generate exceptional candidates for targeted recruitment outside of subfield-defined searches. In addition, the committee may consider issuing

promising candidates invitations to visit U-M informally to present research before those individuals are ready for an active search. Cultivating future candidates is an important activity for the search committee to undertake, and may require that the search have a longer time horizon than is typical (one academic year).

- If your department is a significant source of qualified applicants nationally, consider setting aside the traditional constraint against “hiring our own.” It may be important, if your department or related ones at U-M is a significant producer of the pool, to avoid unduly constraining the search to those trained elsewhere.
- Keep in mind that some highly ranked eminent universities have only recently begun actively to produce women and minority PhDs. Therefore, consider candidates from a wide range of institutions.
- Consider the possibility that individuals, including women and underrepresented minorities, who have excelled at their research and teaching in departments less highly ranked than U-M’s may be under-placed and might thrive in the University of Michigan research environment.
- Consider reopening or intensifying the search if the pool of applicants does not include any female or minority candidates who will be seriously considered by the search committee.



Join Us

Using Active Recruiting Practices

- Place announcements using electronic job-posting services, websites, listservs, journals, and publications, particularly those targeted at diverse groups such as minority and women’s caucuses or professional networks in your discipline. (Several resources are listed below.)
- Make personal contacts, including women and minorities, at professional conferences and invite them to apply.
- Ask faculty and graduate students to help identify strong candidates, including women and minority candidates.
- Contact colleagues at other institutions to seek nominations of students nearing graduation or others interested in moving laterally, making sure to request inclusion of minorities and women.
- Identify suitable faculty at other institutions, particularly women and minority faculty who may currently be under-placed, and send job announcements directly to them.
- Contact relevant professional organizations for rosters listing women and minorities receiving PhDs (or other relevant degrees) in the academic field.

Be aware that most academic fields have resources—listservs, email groups, etc.—that can help you identify or reach qualified women and minority candidates. Either seek these out on your own, or request assistance from advanceprogram@umich.edu in identifying them. Appendix 2 presents a list of active recruiting resources.

How to Avoid Having Active Recruitment Efforts Backfire

Women and minority faculty candidates, like all candidates, wish to be evaluated for academic positions on the basis of their scholarly credentials. They will not appreciate subtle or overt indications that they are being valued on other characteristics, such as their gender or race. Women candidates and candidates of color already realize that their gender or race may be a factor in your interest in their candidacy. It is important that contacts with women and minority candidates for faculty positions focus on their scholarship, qualifications, and their potential academic role in the department.

Conducting a Fair Selection Process

Documenting the Search

Systematic tracking of the committee’s interaction with applicants is not only helpful to the committee during the search, but the resulting records may be useful in the future.

- Develop a standard form that summarizes each candidate’s progress during the search process (e.g., nominated, applied, reviewed, failed to meet minimum qualifications, shortlisted, interviewed, eliminated, etc.)
- Create a physical and/or electronic file for each candidate who meets the objective criteria established by the committee to hold their materials, recommendations, interview notes, and records of communications. (See below for maintaining appropriate contact with candidates.)
- Provide a secure location for files to ensure confidentiality throughout the search, such as a password-protected website to track candidates, their status, and associated materials.
- Maintain official minutes of search committee meetings. These can be brief, but they should document general criteria established by the committee and their decision-making process.
- Keep copies of letters and advertisements, especially those efforts made to recruit women and underrepresented minority candidates.
- Ensure that each applicant receives a Self-Identification Form to be returned to the Office for Institutional Equity. (See hr.umich.edu/working-u-m/management-administration/human-resources-administrative-forms.) This form offers the applicant the option of reporting their gender, ethnicity, and race. OIE uses these data to evaluate the success of the committee’s efforts to generate a diverse pool. Contact your school or college for information about how this form should be distributed.
- Ensure consistency of evaluations, interviews, and reference checks by developing standard forms and standard questions for these activities.
- Ensure that documentation provides rationales for search committee decisions and recommendations. This can be as extensive as notes to the candidate files, or as brief as a line in committee minutes (e.g., “The committee decided to limit interviews to those candidates having more than ten years of teaching experience”). Notes should indicate specific job-related reasons for selection or non-selection.

Communicating Promptly and Courteously with Candidates

Ongoing communication is vital to the success of the current search and to future searches. Our treatment of applicants, even those we do not wish to interview, should demonstrate the values of the University of Michigan and our respect for current and potential colleagues. Slow or sloppy communication can create a negative impression of the department, school, or University as a whole.

- Respectful communication and complete confidentiality are very important throughout the search
- Keep all candidates informed in a courteous and timely manner about the progress of the search
- Craft courteous form letters
- Notify candidates who were eliminated at the outset of the search because they do not meet minimum requirements; express appreciation for their interest in U-M
- Make timely requests to internal and external colleagues for nominations
- Send thank you messages upon receipt of nominations
- Send communications to nominees encouraging them to apply (include position description)
- Send timely acknowledgments of receipt of applications and/or other materials
- Send timely notification to candidates who are no longer being considered; provide feedback on their application, if appropriate, and thank them for their interest in U-M
- Engage in prompt follow-up with finalists after campus visits
- Make timely and courteous requests for references
- Keep the “short list” of candidates up to date on the status of the search, but they should not be told that another candidate has been offered the job until the finalist has accepted the department’s offer

Reviewing Applications with Objective Criteria

As you begin to evaluate applicants, be aware of conscious and unconscious biases that may exist, including those below, which have been identified by psychological research:

- We often judge people based exclusively on our own experience.
- We tend to favor people who look like us or have other experiences like our own.
- We need to consider the experience and needs of our diverse student population.

- Women and underrepresented minority candidates are penalized disproportionately if reviewers do not allocate adequate time (15–20 minutes) to reviewing their files.
- Be sure to consider whether you are using evidence to arrive at your evaluations/ratings.

There is a large body of work on how unconscious biases influence judgments when reviewing scientific work and job candidates. Examples include:

- The STRIDE Committee’s website is a helpful resource for PowerPoint slides, resources, and tools: advance.umich.edu/stride
- “Why So Slow? The Advancement of Women,” a book by Virginia Valian
- ADVANCE Program staff will be happy to help you obtain this material (advanceprogram@umich.edu).

By incorporating the qualifications in the position description into a standard evaluation form, screening criteria can be applied consistently to all candidates.

- Determine, prioritize, and document search criteria based on position duties. Discuss the range of evidence that will be considered as relevant to each criterion.
- Notice that different criteria may produce different top candidates. Be sure to consider all criteria that are pertinent to the department’s goals (e.g., experience working with diverse students). In addition, discuss the relative weight of the different criteria, and the likelihood that no or few candidates will rate high on all of them.
- Identify essential or threshold qualifications without which a candidate will not be selected, no matter how impressive in other areas. Rank other skills or competencies in order of importance.
- Consider including criteria not directly related to the specific discipline, if they are nonetheless important to the ability to succeed in the job in the department or college, such as collegiality or an unusual combination of skills/perspectives.
- Ensure that the criteria for evaluation of candidates do not preclude people with non-traditional career patterns (e.g., an engineer who has worked at a national research laboratory, individuals who have taken family leave, a first-generation scholar who began his or her career at an institution that was not research-intensive, or individuals with disabilities whose careers have been interrupted).

- Consider highly successful people with transferable skill sets.
- Develop a mechanism for screening applications that includes recording why or why not the applicant was selected. You will need to justify your final recommendations based upon the position description.
- Using a standard form will keep committee members focused on the agreed-upon criteria and provide documentation for the process.

One of the hallmarks of an equitable search is that all candidates are treated in the same manner. This may include asking the same questions under the same conditions, and being evaluated using consistent criteria. It is difficult to maintain a level playing field if the search committee uses internet searches to gather additional information about the candidates.

- Some candidates might gain an unfair advantage because of their positive presence on the web; others might be disadvantaged by incorrect information.
- Internet searches might also reveal personal details, such as marital status or age, which should not be considered by the search committee members. Because it is difficult to disregard this kind of information once it enters the review process, it is best to avoid it.

The committee should decide what role, if any, internet searches are to play in the selection process, and should ensure that the same standard is applied to all candidates. In addition, if internet searches are used, candidates should be provided an opportunity to respond to any information considered by the committee.

Creating the Short List

The most important general point about the process of creating the short list is to build in several checkpoints at which you make a considered decision about whether you are satisfied with the pool of candidates you have generated

- Get consensus on the multiple criteria that will be used to choose candidates for interviews. Notice that different criteria may produce different top candidates. Be sure to consider all criteria that are pertinent to the department's goals (e.g., experience working with diverse students might be one). In addition, discuss the relative weighting of the different criteria, and the likelihood that no or few candidates will rate high on all of them.
- Beware of systems of evaluation that inadvertently screen out well-qualified applicants from minority-serving institutions.

- Be careful to place a suitable value on non-traditional career paths. Take into account time spent raising children or getting particular kinds of training, unusual undergraduate degrees, and different job experiences. There is considerable evidence that evaluations of men frequently go up when they have such experience, while evaluations of women with the same kinds of experience go down.
- Develop a "medium" list from which to generate your short list. Are there women or minority candidates on it? If not, consider intensifying the search before moving on to a short list.
- Consider creating separate short lists ranking people on different criteria, such as teaching, research potential, collaborative potential, and mentoring capacity. This helps mitigate the tendency for "halo" effects that result from reliance on overall impressions rather than evidence-based judgments of particular criteria. Develop your final shortlist by taking the top candidates across different criteria. Evaluate this step before finalizing the list; consider whether evaluation bias may still be affecting your choices.
- Be sure to consider the experience and needs of our diverse student population.
- Review the top female and/or minority candidates in your pool. Consider whether your short list should be revised because the committee's judgments were influenced by evaluation bias (the tendency to underestimate women and underrepresented minority members' qualifications and overestimate those of white males).
- Evaluation bias is minimized if you interview more than one woman and/or underrepresented minority candidate. As noted earlier, research indicates that interviewers evaluate women and underrepresented minorities more fairly when there is more than one woman in the interview pool. When there is only one woman or underrepresented minority, s/he is far less likely to succeed than women or minorities who are compared to a diverse pool of candidates, probably because of the heightened perceived salience of his or her race or gender.
- Remember that there are many ways to assess a candidate's skills (e.g., samples of work, presentation of research, or a lecture in an undergraduate class) and each assessment tool produces different kinds of information.

- If the committee learns of a strong candidate who is nevertheless not appropriate for the current open position, the committee should consider forwarding that information to the department Chair or Dean. The Provost provides supplemental resources to help the schools and colleges and other academic units to hire faculty with a commitment to diversity, equity, and inclusion through scholarship, teaching, and/or service; to assist the dual career partners of tenure track and tenured faculty, and to respond to unique opportunities. Provost's Faculty Initiative Program funding may be available to help units recruit tenure-track faculty apart from the search at hand.
- Submit a request for approval of interview candidates, if your department or school/college requires a review of the committee's short list at this point.

Inviting Candidates to Interview

Letters and information packages should be prepared in advance so that the committee can promptly send a complete invitation package as soon as it decides whom to interview. It is easier to evaluate an informed candidate than one who has not been given the opportunity to prepare. Provide information about the following issues, as appropriate:

- Time, place, and format of the interview. If "hotel" interviews at conferences are a part of the process, consider whether the setting (a hotel room) may make members of some groups (e.g., women) less comfortable than others. Consider whether this practice is essential to your process if it likely disadvantages some groups. Equally, if you use Skype or phone interviews, consider whether you have found that some kinds of individuals consistently perform better in that context and if that differential performance is job-relevant.
- Detailed itinerary, including names of interviewers
- Contact information, including cell phone number of host
- Background on department, school/college, the University of Michigan, and Ann Arbor
- Travel arrangements and directions to campus
- Information on the location and accessibility of campus locations relevant to the visit.
- Contacts that a candidate can use if s/he needs accommodations for a disability
- General information on family-friendly policies, benefits and dual career services from your school/college and/or the Provost's office.

V. HANDLING CAMPUS VISITS

With careful planning, a campus visit can create a positive impression on the candidate and also provide information to help your unit make an informed decision.

Planning for Effective Information-Gathering

- Identify all people and groups to be involved in the interview process and provide them with relevant information about the position: job description, essential functions of the position, necessary areas of inquiry, and standard interview questions.
- Schedule and reserve appropriate spaces for interviews and communicate those times and places to interviewers as far in advance as possible. Send reminders a few days before the event.
- Review the structure of the visit and the interview process with all interviewers, especially those who may be conducting individual interviews rather than meeting with the committee.
- Provide faculty with this section of the faculty hiring manual to ensure that they have a consistent and comprehensive understanding of the interview process.
- Provide information about the candidate and his or her scholarly work to all faculty and encourage them to read it. Faculty who are prepared ask better questions and make a better impression on the candidate.
- Ask faculty to provide feedback about specific facets of the candidate's potential, rather than just requesting generic feedback. Studies show that when people focus on particular issues of performance, they are much less likely to rely on implicit or unconscious biases.
- Provide an evaluation sheet or other systematic feedback mechanisms, and detail how feedback should be given to the committee or chair.
- Encourage faculty to take notes during the interview that focus on required skills and relevant applicant responses.
- Notes can be helpful when reflecting on individual applicants or when discussing them with others who interviewed the same persons at different times.

- Remind faculty of their responsibility not only to elicit specific information from the candidate but also to be courteous to the candidate and positive about U-M.
- Be explicit about confidentiality expectations.
- Require interviewers to understand what questions should not be asked of candidates (see p 8). This will help ensure that interviews are conducted appropriately.
- Remember that the candidate should do the majority of the talking during an interview.
- Consider asking each candidate to present a paper, to lead a colloquium, teach a class, or meet with graduate students while on campus for the interview. If they conduct any of these activities, arrange for feedback to the committee about their performance.

Making a Good Impression

- Remind participants that the campus visit is an important opportunity for the department to communicate three messages:
 - o You are seriously interested in the candidate's scholarly credentials and work, as well as other evidence of their excellence and creativity.
 - o Michigan is a good place to work, because it is intellectually lively and committed to diversity in its leadership, faculty, staff and student body.
 - o Michigan is a good place to work, because it has a variety of humane, family-friendly policies in place.

How these messages are communicated can make a critical difference in recruiting individuals to campus. They may be especially important in recruiting women or minority candidates to departments in which they will be vastly outnumbered by male or majority colleagues.

- Make it clear that you are interested in the candidate's scholarship and skills, rather than his or her demographic characteristics. It is not helpful to make a point with candidates that the department is eager to hire women and minorities.
- Consider how the department will represent the University as a whole as a place in which women and minority faculty can thrive.
- Consider how the department will represent itself as a place in which women and minority faculty can thrive. This may be difficult for departments that currently have few or no women and minority faculty members. Some things that may make the department more attractive to women and underrepresented minorities are:
 - o Clear and public policies and procedures for evaluation and promotion
 - o Mentoring resources for junior faculty in general and female and underrepresented minority faculty in particular
 - o Development of some practices in evaluation and annual reporting that value mentoring of women and minority faculty and students
- Schedule interviews and events with consistency in achieving outcomes, recognizing that different means may be required. For example, white male candidates may automatically be meeting with white male faculty, given the composition of your department. When recruiting candidates with different race and/or gender characteristics, it will be equally important for them to meet diverse students and faculty. Race/ethnicity and gender are not the only personal characteristics that may be important to consider; if a candidate mentions that s/he is particularly concerned with the availability of a community identified with a particular nationality, religion, family status, sexual identity, or other characteristic, take steps to help them meet with appropriate members of that community. One option is to create opportunities for the candidate to meet with faculty members outside the evaluation process, including members of STRIDE, who can provide relevant information to candidates.
- Give the candidate a chance to interact with the department's faculty in multiple venues. Formal talks may not reveal every candidate's strengths. Consider including Q + A sessions, "chalk talks," and other less formal interactions.
- Be sure to offer information and access to faculty who might represent opportunities for interdisciplinary collaboration.
- Avoid leaving candidates alone with faculty who may be hostile to hiring women and underrepresented minorities. If a candidate is confronted with racist, sexist, or homophobic remarks, take positive and assertive steps to defuse the situation. Be sure there is a practice in place in the department for dealing with the expression of racist, sexist, or homophobic attitudes, and that the candidate is made aware of it, if the situation arises.
- Be sure to gather equivalent information from all candidates, so you will be able to evaluate them all in terms of the same criteria. This does not require use of uniform questions with all candidates, but does require care in obtaining comparable information.

- Introduce women and minority members of the department to all candidates, not just women and minorities. Moreover, if women and minority faculty members are expected to play an especially active role in recruiting new faculty, be sure to recognize this additional service burden in their overall service load.
- Inform candidates before scheduling the interview what expenses will and will not be reimbursed, what receipts are needed, and how to fill out expense forms. Reimburse him or her as soon as possible.
- First impressions are important.
 - o Provide transportation to and from the airport and the hotel.
 - o If the candidate arrives the evening before the interview, be sure a search committee member or other faculty member is available to take the candidate to dinner and/or other activities.
 - o These arrangements should be comparable for all candidates.
- Consider appointing a host for the visit who takes responsibility for all aspects of the visit. That person should assign a search committee member or staff member to escort the candidate to and from interviews.
- Do not schedule the candidate's interview day so tightly that there is no time for breaks. Candidates should be given windows between appointments to take care of personal and professional business and to gather their thoughts.
- Be sure that departmental staff know that candidates will be visiting so that they can greet visitors appropriately.
- Plan schedules that are similar in format to ensure an equitable basis for evaluation. Internal and external candidates should be given equal opportunity to interact with campus colleagues.
- Mention to all candidates that the University offers reasonable accommodations to persons with disabilities. The following language may be used:
 - o The University provides reasonable accommodations for persons with disabilities, both in the interview process and for its faculty, students and staff. Should you need an accommodation, please let us know at your earliest convenience so that we may make arrangements in advance of your interview. Please contact [person] at [phone number] or [email] with any request you may have.
- o If a candidate requests an accommodation and the department does not know how to meet the accommodation request or has concerns about the request, please contact the Office for Institutional Equity at 734/763-0235(v) or 734/647-1388 (tty), or Institutional.Equity@umich.edu for assistance.
- Consider providing a guided tour of campus and showcase the community; discuss the positive aspects of working and living in Ann Arbor and the surrounding communities.
- Provide all candidates with information such as:
 - o The link to the University's "Working at U-M" website: hr.umich.edu/working-u-m
 - o Information for LGBTQ faculty, students, and staff: <https://spectrumcenter.umich.edu/>
 - o The link to the University's Veteran and Military Services Program website: vets.umich.edu
 - o The link to the U-M Council for Disability Concerns: ability.umich.edu
 - o Information about the diverse employment possibilities that partners might find not only at the University (careers.umich.edu), but at other institutions of higher learning in Michigan (miherc.org) and throughout Ann Arbor and the larger Southeast Michigan area.
 - o Dual career services brochures from your college or the Provost's office as well as a link to the University's website on dual career resources: provost.umich.edu/faculty/family/dual-career
 - o Information about fun University or Ann Arbor events, such as Top of the Park, The University Musical Society, the Uniquely Michigan website (hr.umich.edu/benefits-wellness/community-perks/uniquely-michigan) and information about recreational activities.
 - o Information about benefits offered by the University, including medical and retirement benefits. Information is available at the Benefits website: hr.umich.edu/benefits-wellness.

- Openly discuss standards of creative and scholarly productivity and research with all candidates.
- Decide whether the search would be enhanced by a meeting with the Associate Dean, Dean, or Provost. If so, prepare them in advance by sharing the candidates' CVs.
- Demonstrate a commitment to teaching by including students in the schedule and/or a commitment to interdisciplinary and interdivisional activity by scheduling interviews with colleagues in other departments and divisions, if appropriate.
- Allow time at the end of the visit for a private meeting between the candidate and the chair of the search committee or department. Use this opportunity to learn what questions remain, whether the candidate has questions about the position, and what may be obstacles to their accepting it.
- Confirm the candidate has been given copies of the University's "family-friendly" policies (dual career, maternity leave, modified duties, etc.), regardless of gender, partner or parent status, or race or ethnicity. Some information is available on the Work Life Resource Center's website: <https://hr.umich.edu/benefits-wellness/family/work-life-resource-center>.
- Remind interviewers that all the time spent with an applicant, including social functions and meals, is considered part of the interview process. Anyone who meets with the candidate in a social context should avoid conversation that touches on inappropriate topics or inquiries that are illegal in an interview context. Such discussion could be misinterpreted by the candidate at the time or subsequently.
- Make a good last impression. The last point of contact —e.g., the person conducting the last interview or taking the candidate to the airport —should be someone with a positive attitude toward the candidate, the department, and the University.
- Under no circumstances should a candidate be told that the position has already been offered to another individual, nor should it ever be suggested that one or more candidates is being interviewed for reasons unrelated to the designated qualifications for the position.

Making the Final Decision or Recommendation

- Consider only the candidate's ability to perform the essential functions of the job and avoid making assumptions based on perceived race, ethnic background, religion, marital or familial status, age, disability, sexual orientation, or veteran status.
- Ask faculty to provide feedback about specific facets of the candidate's potential, rather than just requesting generic feedback. Studies show that when people focus on particular issues of performance, they are much less likely to rely on implicit biases. A sample evaluation form follows; it can be modified to represent the key criteria for your search. It is also available at <http://advance.umich.edu/resources/>.
- Ensure that the final discussion of the candidates remains focused on the search criteria and evidence about the qualifications of the candidates for the position. Do not engage in or permit others to engage in discussion of personal characteristics that are not job-relevant, or global evaluations unsupported by specific evidence.
- Often providing an unranked list of acceptable candidates to the chair or Dean, or the department, allows more diverse candidates to remain in consideration at the last stage. Sometimes more than one candidate can be considered for a final offer.

Candidate Evaluation Template

The following offers a method for department faculty to provide evaluations of job candidates. It is meant to be a template for departments that they can modify as necessary for their own uses. The proposed questions are designed for junior faculty candidates; however, alternate language is suggested in parentheses for senior faculty candidates.

Candidate's Name:

Please indicate which of the following are true for you (check all that apply):

- | | | |
|---|--|---|
| <input type="checkbox"/> Read candidate's CV and statements
(e.g. teaching, diversity) | <input type="checkbox"/> Read candidate's letters of
recommendation | <input type="checkbox"/> Met with candidate |
| <input type="checkbox"/> Read candidate's scholarship | <input type="checkbox"/> Attended candidate's job talk | <input type="checkbox"/> Attended lunch or dinner with
candidate |
| <input type="checkbox"/> Other (please explain): | | |

Please comment on the candidate's scholarship as reflected in the job talk:

Please comment on the candidate's teaching ability as reflected in the job talk:

Please rate the candidate on each of the following:

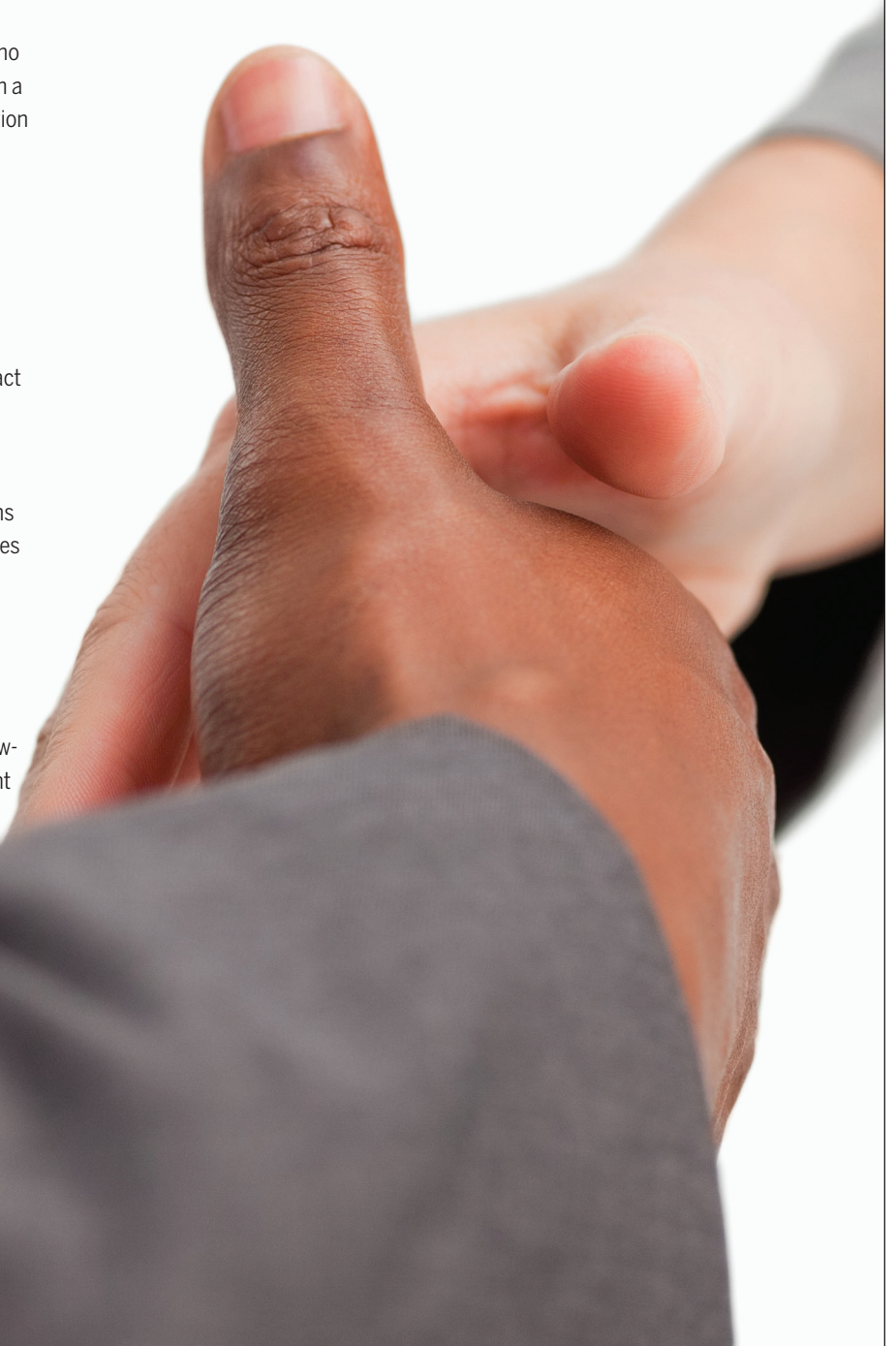
	excellent	good	neutral	fair	poor	unable to judge
Potential for (evidence of) scholarly impact in the classroom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potential for (evidence of) research productivity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potential for (evidence of) research funding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potential for (evidence of) collaboration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potential for (evidence of) contribution to department's priorities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to make positive contribution to department's climate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potential (demonstrated ability) to attract and supervise diverse graduate students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potential (demonstrated ability) to teach and supervise diverse undergraduates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potential (demonstrated ability) to be a conscientious university community member	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other comments?

VI. FINAL STAGES OF THE SEARCH PROCESS: NEGOTIATING THE OFFER

While the committee may feel they are moving quickly as they debate and decide on final recommendations and conduct reference and credential checks, the finalists will be acutely aware of any delays in communication. The committee chair or his or her designee should be responsible for staying in touch with finalists, if only to report after no decision has been made.

- The “short list” of candidates should be kept up to date on the status of the search but should not be told that another candidate has been offered the job until the finalist has accepted the department’s offer.
- If a candidate has been completely eliminated with no possibility of being reconsidered, let them know with a personal letter or phone call that includes appreciation of their talents and their interest in the University of Michigan.
- If there is any doubt about the appropriateness of eliminating and contacting selected candidates, consult with the Office for Institutional Equity or the Office of the General Counsel.
- The way an offer is negotiated can have a huge impact not only on the immediate hiring outcome, but also on a new hire’s future career. Candidates who feel that University representatives (committee chairs, department chairs, deans, etc.) conduct negotiations honestly and openly, and aim to create circumstances in which they will thrive, are more satisfied in their positions and more likely to stay at the U-M than are those who feel that a department or chair has deliberately withheld information, resources, or opportunities from them. Initial equity in both the negotiated conditions and in the department’s follow-through on the commitments it makes are important factors in retention as well as recruitment.



- Some candidates may have received less mentoring at previous career stages than their counterparts, and may therefore be at a disadvantage in knowing what they can legitimately request in negotiations. In addition, there is some evidence that women are less inclined to negotiate for themselves than men are, and that when they do they are viewed differently. To ensure equity, aim to empower the candidate to advocate on his or her own behalf, by providing all candidates with a complete list of things it would be possible for them to discuss in the course of negotiations. This list will vary by field, and should include those items that will maximize the likelihood of candidate success in that field. For some fields these might include:
 - o Salary
 - o Benefits
 - o Course release time
 - o Lab equipment
 - o Lab space
 - o Renovation of lab space
 - o Research assistant
 - o Clerical / administrative support
 - o Attractive teaching opportunity
 - o Travel funds
 - o Discretionary Funds
 - o Summer salary
 - o Moving expenses
 - o Assistance with partner/spouse position
 - o Other issues of concern to the candidate
- Consider appointing a negotiation facilitator— which may be the search committee chair— to help the candidate throughout the negotiation process. This person should be specifically charged with assisting the candidate in articulating her/his needs and desires to the chair or dean, and providing information about the University context, not with actually negotiating the offer.

VII. GETTING OFF TO A GOOD START

- Be sure to provide clear, detailed, written information about mentoring practices as well as all crucial review criteria and milestones such as annual reviews, third-year reviews, tenure reviews, and post-tenure promotion reviews.
- If a candidate has been selected for appointment and has a partner who will need placement help, the department chair should ensure that the couple is referred for dual career services.
- See The Importance of Dual Career Considerations within Section II, and be familiar with University resources to support these efforts. Consult the Provost's office for further information.

VIII. EVALUATING THE SEARCH

- If the department hires a strong woman and/or minority candidate, consider the factors that may have enabled it to do so and keep a record of good practices and successful searches for future reference.
- If the applicant pool was not as large, as qualified, or as diverse as was anticipated, consider:
 - o Could the job description have been constructed in a way that would have brought in a broader pool of candidates?
 - o Could the department have recruited more actively?
 - o Were there criteria for this position that were consistently not met by women or candidates of color? Where they relevant to the job description?
- If women and/or minority candidates were offered positions that they chose not to accept, what reasons did they offer? Consider as many factors as you can identify. Are there things that the department could do to make itself more attractive to such candidates in the future? Be sure that any analysis and insight is shared with departmental decision-makers and is part of the process of initiating future searches.



APPENDIX 1: SAMPLE SEARCH COMMITTEE CHARGE

MEMORANDUM

TO:

FROM: [Dean or Department Chair]

RE: Search for

DATE:

I am inviting you to become a member of the advisory committee to search for [describe the position] in the department/school/college of _____.

The advisory committee is charged with finding and recruiting the very best candidate to fill this position. It is an important task, since we have high expectations about what this new faculty colleague could bring to the position and our community. [Insert here the preliminary position description and the job requirements, e.g. "We are seeking an assistant professor in the field of X with particular expertise in the areas of Y and Z."]

[If appropriate use this paragraph to describe any additional goals of the search, e.g., acquire expertise in an emerging field, increase opportunities for interdisciplinary collaboration, shore up an area recently weakened by attrition.]

[Name] _____

has agreed to chair the search committee, with

[Name] _____

and

[Name] _____

providing committee support.

The University is committed to creating an environment that is welcoming, inclusive, and supportive for all members of our community. As a search committee member, you will play a critical role in ensuring that the search reflects these values. Please familiarize yourself with the attached search manual, which clearly explains how to meet the University's equal opportunity and affirmative action obligations by conducting a fair, open, and equitable search. [Mention any additional materials that have been compiled for the committee, for example, timeline or reference material.]

I am asking that the advisory committee complete its search by [date]_____, at which time I will ask for [specify the expected outcome, for example an unranked list of three to four candidates that the committee recommends for the position]. I will then meet with the committee to hear your views on the strengths and weaknesses of the final candidates.

I appreciate your willingness to provide this important service to [our department/school].

cc: Search Chair

APPENDIX 2: ACTIVE RECRUITING RESOURCES

Be aware that most fields also have resources—listservs, email groups, etc.—that can help you identify or reach qualified women and minority candidates in particular. Either seek these out on your own, or request assistance from advance@umich.edu in identifying them. Some fairly broad listings are included here.

“Guidelines for Recruiting a Diverse Workforce.” Penn State University. Available online:

psu.edu/dept/aaoffice/pdf/guidelines.pdf

“Faculty Recruitment Toolkit.” University of Washington. Available online:

washington.edu/diversity/faculty-advancement/handbook

“Recruitment and Selection of Faculty and Academic Professional and Administrative Employees Appendix A: Recruiting a Diverse Qualified Pool of Applicants” University of Minnesota.

policy.umn.edu/hr/recruitfacpa-appa

“Equity and Diversity in the Search Process Toolkit.” University of Minnesota.

<https://diversity.umn.edu/eoaa/searchprocesstoolkit>

“Massachusetts Institute of Technology Faculty Search Committee Handbook.” (2002).

<http://facultygovernance.mit.edu/reports/mit-faculty-search-committee-handbook>

“Search Committee Toolkit.” University of California at Los Angeles.

<https://ucla.box.com/s/l4adttwi8hk6xb77zfc8vb24tw04bdt7>

“Searching for Excellence and Diversity: A Guide for Search Committee Chairs.” Case Western Reserve University.

https://wiseli.engr.wisc.edu/docs/SearchBook_Wisc.pdf

“Recruitment and Retention: Guidelines for Chairs.” (updated 2007). Hunter College, CUNY.

hunter.cuny.edu/genderequity/repository/files/equity-materials/recruitretain.515.pdf

The CIC Directory compiles listings of women and minority Ph.D. recipients, accessible with a U-M account.

apps.cic.net/CICDirectory

The Minority and Women Doctoral Directory “is a registry which maintains up-to-date information on employment candidates who have recently received, or are soon to receive, a Doctoral or Master’s degree in their respective field from one of approximately two hundred major research universities in the United States. The current edition of the directory lists approximately 4,500 Black, Hispanic, American Indian, Asian American, and women graduate students in nearly 80 fields in the sciences, engineering, the social sciences, and the humanities.” Directories are available for purchase from info@mwdd.com

National Science Foundation Survey of Earned Doctorates is published yearly. While it does not list individual doctoral recipients, it is a good resource for determining how big the pool of new women and minority scholars will be in various fields.

nsf.gov/statistics/srvydoctorates

Ford Foundation Fellows is an on-line directory of minority PhDs in all fields, administered by the National Research Council (NRC). The directory contains information on Ford Foundation Postdoctoral fellowship recipients awarded since 1980 and Ford Foundation Predoctoral and Dissertation fellowship recipients awarded since 1986. This database does not include Ford Fellows whose fellowships were administered by an institution or agency other than the NRC.

nrc58.nas.edu/FordFellowDirect/Main/Directory.aspx

Mellon Mays Undergraduate Fellowship Program provides an online list of minority PhDs and their dissertation, book, and article titles in all fields upon request.

mmuf.org

The Faculty for The Future Project is administered by WEPAN (The Women in Engineering Program and Advocates Network), and offers a free forum for students to post resumes and search for positions and for employers to post positions and search for candidates. The website focuses on linking women and underrepresented minority candidates from engineering, science, and business with faculty and research positions at universities.

<https://www.wepan.org/>

IMDiversity.com is dedicated to providing career and self-development information to all minorities, specifically African Americans, Asian Americans, Hispanic Americans, Native Americans and women. It maintains a large database of available jobs, candidate resumes, and information on workplace diversity.

imdiversity.com

Nemnet is a national minority recruitment firm committed to helping schools and organizations in the identification and recruitment of minority candidates. Since 1994 it has worked with over 200 schools, colleges and universities, and organizations. It posts academic jobs on its website and gathers vitae from students and professionals of color.

nemnet.com

HBCU Connect.com Career Center is a job posting and recruitment site specifically for students and alumni of historically black colleges and universities.

jobs.hbcuconnect.com

Society of Women Engineers maintains an online career fair.

swe.org

Association for Women in Science maintains a job listings page.

awis.org

American Indian Science & Engineering Society maintains a job listings page (and a resume database available to Career Fair exhibitors).

aises.org

American Indian Graduate Center hosts a professional organization, fellowship and postdoctoral listings, and a magazine in which job postings can be advertised.

aigcs.org

National Society of Black Engineers seeks increase the number of minority students studying engineering at both the undergraduate and graduate levels. It encourages members to seek advanced degrees in engineering or related field and to obtain professional engineering registrations.

nsbe.org

Society of Hispanic Professional Engineers is a leading social-technical organization whose primary function is to enhance and achieve the potential of Hispanics in engineering, math and science.

shpe.org

APS is committed to the inclusion of underrepresented minorities in physics and has spent decades working on programs to increase recruitment and retention of African American, Hispanic American, and Native American physicists.

aps.org/programs/roster/index.cfm

Recruitment Sources page at Rutgers lists several resources that can be helpful in recruiting women and minority candidates.

uhr.rutgers.edu/uhr-units-offices/consulting-staffing-compensation/hiring-toolkit/hiring-and-recruitment-resources

Faculty Diversity Office page at Case Western Reserve University provides links to many specific professional organizations and diversity resources for faculty searches.

<https://case.edu/diversity/office-for-faculty-diversity/resources-for-new-faculty>

The CIC Doctoral Directory is a listing of doctoral degree recipients who are members of groups underrepresented in higher education and who are alumni of the universities of the Committee on Institutional Cooperation. The Directory is designed to increase the visibility of doctoral alumni who bring diverse perspectives and experiences to higher education. The Directory will be promoted among hiring committees at CIC member universities, and the searchable, online database will be freely available to the public.

<https://www.btaa.org/resources-for/students/doctoral-directory/the-doctoral-directory>

APPENDIX 3: READING LISTS

1. What is the nature of the problem?—General analysis

Aronson, J., Lustina, M. J., Good, C., Keough, K., Steele, C. M., & Brown, J. (1999). When white men can't do math: Necessary and sufficient factors in stereotype threat. *Journal of Experimental Social Psychology*, 35(1), 29–46.

Research on “stereotype threat” (Aronson, Quinn, & Spencer, 1998; Steele, 1997; Steele & Aronson, 1995) suggests that the social stigma of intellectual inferiority borne by certain cultural minorities can undermine the standardized test performance and school outcomes of members of these groups. This research tested two assumptions about the necessary conditions for stereotype threat to impair intellectual test performance. First, we tested the hypothesis that to interfere with performance, stereotype threat requires neither a history of stigmatization nor internalized feelings of intellectual inferiority, but can arise and become disruptive as a result of situational pressures alone. Two experiments tested this notion with participants for whom no stereotype of low ability exists in the domain we tested and who, in fact, were selected for high ability in that domain (math-proficient white males). In Study 1 we induced stereotype threat by invoking a comparison with a minority group stereotyped to excel at math (Asians). As predicted, these stereotype-threatened white males performed worse on a difficult math test than a nonstereotype-threatened control group. Study 2 replicated this effect and further tested the assumption that those that have been attributed to genetically rooted sex differences.

Berdahl, J. L., & Min, J.-A. (2012). Prescriptive stereotypes and workplace consequences for East Asians in North America. *Cultural Diversity and Ethnic Minority Psychology*, 18(2), 141–152.

We pursue the idea that racial stereotypes are not only descriptive, reflecting beliefs about how racial groups actually differ, but are prescriptive as well, reflecting beliefs about how racial groups should differ. Drawing on an analysis of the historic and current status of East Asians in North America, we study descriptive and prescriptive stereotypes of East Asians along the dimensions of competence, warmth, and dominance and examine workplace consequences of violating these stereotypes. Study 1 shows that East Asians are descriptively stereotyped as more competent, less warm, and less dominant than Whites. Study 2 shows that only the descriptive stereotype of East Asians as less dominant than Whites is also a prescriptive stereotype. Study 3 reveals that people dislike a dominant East Asian coworker compared to a nondominant East Asian or a dominant or a nondominant White coworker. Study 4 shows that East

Asians who are dominant or warm are racially harassed at work more than nondominant East Asians and than dominant and nondominant employees of other racial identities. Implications for research and theory are discussed.

Chesler, M. A., & Young, A. A. (2013). *Faculty identities and the challenge of diversity: reflections on teaching in higher education*. Boulder, CO: Paradigm Publishers.

This book examines the undergraduate teaching experiences and collegial relationships of university faculty who hold appointments in social science, humanities, or natural science and engineering, and who have received undergraduate teaching or service-to-diversity nominations and awards. Documenting and interpreting faculty members' social identities and pedagogical practices, this book explores how professors address the diverse racial, ethnic, gender, and sexual identities of their students.

Chesler, M., & Young Jr., A. A. (2007). Faculty members' social identities and classroom authority. *New directions for teaching and learning*, 2007(111), 11–19.

How do faculty members' social group identities influence their choices about how they present themselves and their course materials? How do these identities affect student responses to them and the material they present?

Dennehy, T. C., & Dasgupta, N. (2017). Female peer mentors early in college increase women's positive academic experiences and retention in engineering. *Proceedings of the National Academy of Sciences*, 114(23), 5964–5969.cA

Scientific and engineering innovation is vital for American competitiveness, quality of life, and national security. However, too few American students, especially women, pursue these fields. Although this problem has attracted enormous attention, rigorously tested interventions outside artificial laboratory settings are quite rare. To address this gap, we conducted a longitudinal field experiment investigating the effect of peer mentoring on women's experiences and retention in engineering during college transition, assessing its impact for 1 y while mentoring was active, and an additional 1 y after mentoring had ended. Incoming women engineering students (n = 150) were randomly assigned to female or male peer mentors or no mentors for 1 y.

Dovidio, J. F., & Gaertner, S. L. (1998). On the nature of contemporary prejudice: The causes, consequences, and challenges of aversive racism. In J. Eberhardt & S. T. Fiske (Eds.), *Confronting racism: The problem and the response* (pp. 3–32). Newbury Park, CA: Sage.

This chapter examines one factor that contributes to the current frustrations of black Americans: the operation of a subtle form of racism among individuals that is less overt but just as insidious as old-fashioned racism.

Ely, R. J., & Thomas, D., A. (2001). Cultural diversity at work: The effects of diversity perspectives on work group processes and outcomes. *Administrative Science Quarterly*, 46(2), 229–273.

This paper develops theory about the conditions under which cultural diversity enhances or detracts from work group functioning. From qualitative research in three culturally diverse organizations, we identified three different perspectives on workforce diversity: the integration-and-learning perspective, the access-and-legitimacy perspective, and the discrimination-and-fairness perspective. The perspective on diversity a work group held influenced how people expressed and managed tensions related to diversity, whether those who had been traditionally underrepresented in the organization felt respected and valued by their colleagues, and how people interpreted the meaning of their racial identity at work. These, in turn, had implications for how well the work group and its members functioned. All three perspectives on diversity had been successful in motivating managers to diversify their staffs, but only the integration-and-learning perspective provided the rationale and guidance needed to achieve sustained benefits from diversity. By identifying the conditions that intervene between the demographic composition of a work group and its functioning, our research helps to explain mixed results on the relationship between cultural diversity and work group outcomes.

Fiske, S. T. (2002). What we know about bias and intergroup conflict, the problem of the century. *Current Directions in Psychological Science*, 11(4), 123–128.

Discusses what psychologists, after years of study, now know about intergroup bias and conflict. It is stated that most people reveal unconscious, subtle biases, which are relatively automatic, cool, indirect, ambiguous, and ambivalent. Subtle biases underlie ordinary discrimination: comfort with one's own in-group, plus exclusion and avoidance of out-groups. Such biases result from internal conflict between cultural ideals and cultural biases. On the other hand, a small minority of people, extremists, do harbor blatant biases that are more conscious, hot, direct, and unambiguous. Blatant biases underlie aggression, including

hate crimes. Such biases result from perceived intergroup conflict over economics and values, in a world perceived to be hierarchical and dangerous. Reduction of both subtle and blatant bias results from education, economic opportunity, and constructive intergroup contact. (PsycINFO Database Record (c) 2005 APA, all rights reserved)

Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82(6), 878–902.

This article presents results of research proceeding from the theoretical assumption that status is associated with high ratings of competence, while competition is related to low ratings of warmth. Included in the article are ratings of various ethnic and gender groups as a function of ratings of competence and warmth. These illustrate the average content of the stereotypes held about these groups in terms of the dimensions of competence and warmth, which are often key elements of evaluation.

Guarino, C. M., & Borden, V. M. (2017). Faculty service loads and gender: Are women taking care of the academic family?. *Research in Higher Education*, 58(6), 672–694.

The authors analyzed national survey data as well as annual faculty performance reporting system data from a Midwestern university. They find that women faculty perform more service than male faculty, even after controlling for rank, race/ethnicity, and field of study or department, and that this difference is driven by internal (rather than external) service.

Gutiérrez y Muhs, G., Niemann, Y. F., González, C. G., & Harris, A. P. (Eds.). (2012). *Presumed incompetent: The intersections of race and class for women in academia*. Boulder, CO: University Press of Colorado.

This book is an account of the intersecting roles of race, gender, and class in the working lives of women faculty of color. Through personal narratives and qualitative empirical studies, more than 40 authors expose the daunting challenges faced by academic women of color as they navigate the often hostile terrain of higher education, including hiring, promotion, tenure, and relations with students, colleagues, and administrators.

Kahneman, D. (2003). A perspective on judgment and choice: Mapping bounded rationality. *American Psychologist*, 58(9), 697–720.

Early studies of intuitive judgment and decision making conducted with the late Amos Tversky are reviewed in the context of two related concepts: an analysis of accessibility, the ease with which thoughts come to mind; a distinction between effortless intuition and deliberate reasoning. Intuitive thoughts, like percepts, are highly accessible. Determinants and consequences of accessibility help explain the central results of prospect theory, framing effects, the heuristic process of attribute substitution, and the characteristic biases that result from the substitution of nonextensional for extensional attributes. Variations in the accessibility of rules explain the occasional corrections of intuitive judgments. The study of biases is compatible with a view of intuitive thinking and decision making as generally skilled and successful.

Kahneman, D. (2011). *Thinking, fast and slow*. New York, NY: Farrar, Straus and Giroux.

Renowned psychologist and winner of the Nobel Prize in Economics, Kahneman explains the two systems that drive the way we think. System 1 is fast, intuitive, and emotional; System 2 is slower, more deliberative, and more logical. The impact of overconfidence on corporate strategies, the difficulties of predicting what will make us happy in the future, the profound effect of cognitive biases on everything from playing the stock market to planning our next vacation—each of these can be understood only by knowing how the two systems shape our judgments and decisions.

Kang, S. K., DeCelles, K. A., Tilcsik, A., & Jun, S. (2016). Whitened Résumés: Race and Self-Presentation in the Labor Market. *Administrative Science Quarterly*, 61(3), 469–502.

Using interviews, a laboratory experiment, and a resume audit study, we examine racial minorities' attempts to avoid anticipated discrimination in labor markets by concealing or downplaying racial cues in job applications, a practice known as "resume whitening." Interviews with racial minority university students reveal that while some minority job seekers reject this practice, others view it as essential and use a variety of whitening techniques. Building on the qualitative findings, we conduct a lab study to examine how racial minority job seekers change their resumes in response to different job postings. Results show that when targeting an employer that presents itself as valuing diversity, minority job applicants engage in relatively little resume whitening and thus submit more racially transparent resumes. Yet our audit study of how employers respond to whitened and unwhitened resumes shows that organizational diversity statements are

not actually associated with reduced discrimination against unwhitened resumes. Taken together, these findings suggest a paradox: minorities may be particularly likely to experience disadvantage when they apply to ostensibly pro-diversity employers. These findings illuminate the role of racial concealment and transparency in modern labor markets and point to an important interplay between the self-presentation of employers and the self-presentation of job seekers in shaping economic inequality.

Katznelson, I. (2006). When Affirmative Action Was White. *Poverty and Race Research Action Council*, 15(2).

This article proposes that many federal programs can be best understood as "affirmative action for whites" both because in some cases substantial numbers of other groups were excluded from benefiting from them, or because the primary beneficiaries were whites. It states the rationale for contemporary affirmative action as "corrective action" for these exclusionary policies and programs.

Klein, K. J., & Harrison, D. A. (2007). On the diversity of diversity: Tidy logic, messier realities. *Academy of Management Perspectives*, 21(4), 26–33.

This article briefly reviews the arguments presented in Scott Page's article "Making the Difference: Applying a Logic of Diversity" before plumbing the assumptions that underlie his case. It challenges several of these assumptions suggesting that the nature and effects of diversity in organizations are more complex and less predictable than he suggests. It then outlines an alternative conceptualization of the nature and effects of diversity in organizations, and concludes by proposing a set of practical suggestions that may indeed allow organizations to realize the benefits of diversity that Page calls for.

Merton, R. K. (1948). The Self-Fulfilling Prophecy. *Antioch Review*, 8, 193–210.

The self-fulfilling prophecy is, in the beginning, a false definition of the situation evoking a new behaviour which makes the original false conception come true. This specious validity of the self-fulfilling prophecy perpetuates a reign of error. For the prophet will cite the actual course of events as proof that he was right from the very beginning.

Oreopoulos, P. (2011). Why do skilled immigrants struggle in the Labor market? A field experiment with thirteen thousand resumes. *American Economic Journal: Economic Policy*, 3(4), 148–171.

Thousands of randomly manipulated resumes were sent in response to online job postings in Toronto to investigate why immigrants, allowed in based on skill, struggle in the labor market. The study finds substantial discrimination

across a variety of occupations towards applicants with foreign experience or those with Indian, Pakistani, Chinese, and Greek names compared with English names. Listing language fluency, multinational firm experience, education from highly selective schools, or active extracurricular activities had no diminishing effect. Recruiters justify this behavior based on language skill concerns but fail to fully account for offsetting features when listed.

Page, S. E. (2007). Making the difference: Applying a logic of diversity. *Academy of Management Perspectives*, 21, 6–20.

This article explains why corporate spending of billions of dollars on diversity training, education, and outreach makes good business sense and why organizations with diverse employees often perform best. This is done by describing a logic of diversity that relies on simple frameworks. Within these frameworks, it is demonstrated how collections of individuals with diverse tools can outperform collections of high “ability” individuals at problem solving and predictive tasks. In problem solving, these benefits come not through portfolio effects but from superadditivity: Combinations of tools can be more powerful than the tools themselves. In predictive tasks, diversity in predictive models reduces collective error. Page shows that diversity matters just as much as highly accurate models when making collective predictions. This logic of diversity provides a foundation on which to construct practices that leverage differences to improve performance.

Rosette, A. S., Leonardelli, G. J., Phillips, K. W. (2008). The White standard: Racial bias in leader categorization. *Journal of Applied Psychology*, 93(4), 758–776.

In 4 experiments, the authors investigated whether race is perceived to be part of the business leader prototype and, if so, whether it could explain differences in evaluations of White and non-White leaders. The first 2 studies revealed that “being White” is perceived to be an attribute of the business leader prototype, where participants assumed that business leaders more than nonleaders were White, and this inference occurred regardless of base rates about the organization’s racial composition (Study 1), the racial composition of organizational roles, the business industry, and the types of racial minority groups in the organization (Study 2). The final 2 studies revealed that a leader categorization explanation could best account for differences in White and non-White leader evaluations, where White targets were evaluated as more effective leaders (Study 3) and as having more leadership potential (Study 4), but only when the leader had recently been given credit for organizational success, consistent with the prediction that leader prototypes are

more likely to be used when they confirm and reinforce individualized information about a leader’s performance. The results demonstrate a connection between leader race and leadership categorization.

Sackett, P. R., DuBois, C. L. Z., & Noe, A. W. (1991). Tokenism in performance evaluation: the effects of work group representation on male-female and white-black differences in performance ratings. *Journal of Applied Psychology*, 76(2), 263–267.

Male-female differences in performance ratings were examined in 486 work groups across a wide variety of jobs and organizations. As suggested by the sex stereotyping literature, women received lower ratings when the proportion of women in the group was small, even after male-female cognitive ability, psychomotor ability, education, and experience differences were controlled. Replication of the analyses with racial differences (White-Black) in 814 work groups demonstrated that group composition had little effect on performance ratings. The effects of group composition on stereotyping behaviors do not appear to generalize to all minority contexts.

Sagaria, M. A. D. (2002). An exploratory model of filtering in administrative searches: Toward counterhegemonic discourses. *The Journal of Higher Education*, 73(6), 677–710.

This paper describes administrator search processes at a predominantly white university in order to explore whether searches may be a cause for the limited success in diversifying administrative groups.

Shih, M., Pittinsky, T. L., & Ambady, N. (1999). Stereotype susceptibility: Identity salience and shifts in quantitative performance. *Psychological science*, 10(1), 80–83.

Recent studies have documented that performance in a domain is hindered when individuals feel that a sociocultural group to which they belong is negatively stereotyped in that domain. We report that implicit activation of a social identity can facilitate as well as impede performance on a quantitative task. When a particular social identity was made salient at an implicit level, performance was altered in the direction predicted by the stereotype associated with the identity. Common cultural stereotypes hold that Asians have superior quantitative skills compared with other ethnic groups and that women have inferior quantitative skills compared with men. We found that Asian-American women performed better on a mathematics test when their ethnic identity was activated, but worse when their gender identity was activated, compared with a control group who had neither identity activated. Cross-cultural investigation

indicated that it was the stereotype, and not the identity per se, that influenced performance.

Spencer, S. J., Steele, C. M., & Quinn, D. M. (1999). Stereotype threat and women's math performance. *Journal of Experimental Social Psychology*, 35, 4–28.

When women perform math, unlike men, they risk being judged by the negative stereotype that women have weaker math ability. We call this predicament stereotype threat and hypothesize that the apprehension it causes may disrupt women's math performance. In Study 1 we demonstrated that the pattern observed in the literature that women underperform on difficult (but not easy) math tests was observed among a highly selected sample of men and women. In Study 2 we demonstrated that this difference in performance could be eliminated when we lowered stereotype threat by describing the test as not producing gender differences. However, when the test was described as producing gender differences and stereotype threat was high, women performed substantially worse than equally qualified men did. A third experiment replicated this finding with a less highly selected population and explored the mediation of the effect. The implication that stereotype threat may underlie gender differences in advanced math performance, even those that have been attributed to genetically rooted sex differences, is discussed.

Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality & Social Psychology*, 69(5), 797–811.

Stereotype threat is being at risk of confirming, as self-characteristic, a negative stereotype about one's group. Studies 1 and 2 varied the stereotype vulnerability of Black participants taking a difficult verbal test by varying whether or not their performance was ostensibly diagnostic of ability, and thus, whether or not they were at risk of fulfilling the racial stereotype about their intellectual ability. Reflecting the pressure of this vulnerability, Blacks underperformed in relation to Whites in the ability-diagnostic condition but not in the nondiagnostic condition (with Scholastic Aptitude Tests controlled). Study 3 validated that ability-diagnosticity cognitively activated the racial stereotype in these participants and motivated them not to conform to it, or to be judged by it. Study 4 showed that mere salience of the stereotype could impair Blacks' performance even when the test was not ability diagnostic. The role of stereotype vulnerability in the standardized test performance of ability-stigmatized groups is discussed.

Steele, C. M. (2010). *Whistling Vivaldi: How stereotypes affect us and what we can do*. New York, NY: WW Norton & Co.

Through dramatic personal stories, Claude Steele shares the experiments and studies that show, again and again, that exposing subjects to stereotypes—merely reminding a group of female math majors about to take a math test, for example, that women are considered naturally inferior to men at math—impairs their performance in the area affected by the stereotype. Steele's conclusions shed new light on a host of American social phenomena, from the racial and gender gaps in standardized test scores to the belief in the superior athletic prowess of black men. Steele explicates the dilemmas that arise in every American's life around issues of identity, from the white student whose grades drop steadily in his African American Studies class to the female engineering students deciding whether or not to attend predominantly male professional conferences. *Whistling Vivaldi* offers insight into how we form our senses of identity and ultimately lays out a plan for mitigating the negative effects of "stereotype threat" and reshaping American identities.

Stone, J., Lynch, C. I., Sjomeling, M., & Darley, J. M. (1999). Stereotype threat effects on black and white athletic performance. *Journal of Personality and Social Psychology*, 77, 1213–1227.

Two experiments showed that framing an athletic task as diagnostic of negative racial stereotypes about Black or White athletes can impede their performance in sports. In Experiment 1, Black participants performed significantly worse than did control participants when performance on a golf task was framed as diagnostic of "sports intelligence." In comparison, White participants performed worse than did control participants when the golf task was framed as diagnostic of "natural athletic ability." Experiment 2 observed the effect of stereotype threat on the athletic performance of White participants for whom performance in sports represented a significant measure of their self-worth. The implications of the findings for the theory of stereotype threat (C. M. Steele, 1997) and for participation in sports are discussed.

Sy, T., Shore, L. M., Strauss, J., Shore, T. H., Tram, S., Whiteley, P., & Ikeda-Muromachi, K. (2010). Leadership perceptions as a function of race-occupation fit: The case of Asian Americans. *Journal of Applied Psychology*, 95(5), 902–919. <http://doi.org/10.1037/a0019501>

On the basis of the connectionist model of leadership, we examined perceptions of leadership as a function of the contextual factors of race (Asian American, Caucasian American) and occupation (engineering, sales) in 3 experiments (1 student sample and 2 industry samples).

Race and occupation exhibited differential effects for within- and between-race comparisons. With regard to within-race comparisons, leadership perceptions of Asian Americans were higher when race–occupation was a good fit (engineer position) than when race–occupation was a poor fit (sales position) for the two industry samples. With regard to between-race comparisons, leadership perceptions of Asian Americans were low relative to those of Caucasian Americans. Additionally, when race–occupation was a good fit for Asian Americans, such individuals were evaluated higher on perceptions of technical competence than were Caucasian Americans, whereas they were evaluated lower when race–occupation was a poor fit. Furthermore, our results demonstrated that race affects leadership perceptions through the activation of prototypic leadership attributes (i.e., implicit leadership theories). Implications for the findings are discussed in terms of the connectionist model of leadership and leadership opportunities for Asian Americans.

Temm, T. B. (2008). If you meet the expectations of women, you exceed the expectations of men: How Volvo designed a car for women customers and made world

1a. What does the problem look like in science?

Carrell, S. E., Page, M. E., & West, J. E. (2009). Sex and science: How professor gender perpetuates the gender gap. *The Quarterly Journal of Economics*, 125(3), 1101–1144.

Why aren't there more women in science? Female college students are currently 37 percent less likely than males to obtain a bachelor's degree in science, technology, engineering, and math (STEM), and comprise only 25 percent of the STEM workforce. This paper begins to shed light on this issue by exploiting a unique dataset of college students who have been randomly assigned to professors over a wide variety of mandatory standardized courses. We focus on the role of professor gender. Our results suggest that while professor gender has little impact on male students, it has a powerful effect on female students' performance in math and science classes, their likelihood of taking future math and science courses, and their likelihood of graduating with a STEM degree. The estimates are largest for female students with very strong math skills, who are arguably the students who are most suited to careers in science. Indeed, the gender gap in course grades and STEM majors is eradicated when high performing female students' introductory math and science classes are taught by female professors. In contrast, the gender of humanities professors has only minimal impact on student outcomes. We believe that these results are indicative of important environmental influences at work.

headlines. In L. Schiebinger (Ed.), *Gendered Innovation in Science and Engineering* (pp. 131–149). Stanford, CA: Stanford University Press.

This article describes how a concept car designed by women was rated highly by men.

Valian, V. (1998). Chapter 1: Gender schemas at work; Chapter 7: Evaluating women and men. *Why So Slow? The Advancement of Women*. Cambridge, MA: MIT Press.

This book attempts to uncover the invisible barriers that prevent women from achieving the same professional success as men. Valian's arguments are based on statistical laboratory and field studies and center around gender schemas – our implicit hypotheses about sex differences. Though gender schemas are not entirely inaccurate, Valian argues that schemas alter our ability to evaluate men and women without bias. In general, the schema of a woman is incompatible with the schema of a successful professional. The consequence is that professional women are often underrated, while their male counterparts are overrated. Because of these imbalances, however slight, women accumulate advantage at a slower rate than men.

Casadevall, A., & Handelsman, J. (2014). The Presence of Female Conveners Correlates with a Higher Proportion of Female Speakers at Scientific Symposia. *MBio*, 5(1). doi.org/10.1128/mBio.00846-13

We investigated the hypothesis that the gender of conveners at scientific meetings influenced the gender distribution of invited speakers. Analysis of 460 symposia involving 1,845 speakers in two large meetings sponsored by the American Society for Microbiology revealed that having at least one woman member of the convening team correlated with a significantly higher proportion of invited female speakers and reduced the likelihood of an all-male symposium roster. Our results suggest that inclusion of more women as conveners may increase the proportion of women among invited speakers at scientific meetings.

Clancy, K. B., Lee, K. M., Rodgers, E. M., & Richey, C. (2017). Double jeopardy in astronomy and planetary science: Women of color face greater risks of gendered and racial harassment. *Journal of Geophysical Research: Planets*, 122(7), 1610–1623.

Women generally, and women of color specifically, have reported hostile workplace experiences in astronomy and related fields for some time. However, little is known of the extent to which individuals in these disciplines experience inappropriate remarks, harassment, and

assault. We hypothesized that the multiple marginality of women of color would mean that they would experience a higher frequency of inappropriate remarks, harassment, and assault in the astronomical and planetary science workplace. We conducted an internet-based survey of the workplace experiences of 474 astronomers and planetary scientists between 2011 and 2015 and found support for this hypothesis. In this sample, in nearly every significant finding, women of color experienced the highest rates of negative workplace experiences, including harassment and assault. Further, 40% of women of color reported feeling unsafe in the workplace as a result of their gender or sex, and 28% of women of color reported feeling unsafe as a result of their race. Finally, 18% of women of color, and 12% of white women, skipped professional events because they did not feel safe attending, identifying a significant loss of career opportunities due to a hostile climate. Our results suggest that the astronomy and planetary science community needs to address the experiences of women of color and white women as they move forward in their efforts to create an inclusive workplace for all scientists.

Ginther, D. K., Schaffer, W. T., Schnell, J., Masimore, B., Liu, F., Haak, L. L., & Kington, R. (2011). Race, ethnicity, and NIH research awards. *Science*, 333(6045), 1015–1019.

We investigated the association between a U.S. National Institutes of Health (NIH) R01 applicant's self-identified race or ethnicity and the probability of receiving an award by using data from the NIH IMPAC II grant database, the Thomson Reuters Web of Science, and other sources. Although proposals with strong priority scores were equally likely to be funded regardless of race, we find that Asians are 4 percentage points and black or African-American applicants are 13 percentage points less likely to receive NIH investigator-initiated research funding compared with whites. After controlling for the applicant's educational background, country of origin, training, previous research awards, publication record, and employer characteristics, we find that black applicants remain 10 percentage points less likely than whites to be awarded NIH research funding. Our results suggest some leverage points for policy intervention.

Hale, G. B., & Regev, T. (2014). Gender ratios at top PhD programs in economics. *Economics of Education Review*, 41, 55–70.

Analyzing university faculty and graduate student data for the top-ten U.S. economics departments between 1987 and 2007, we find that there are persistent differences in gender composition for both faculty and graduate students across institutions and that the share of female faculty and the share of women in the entering PhD class are

positively correlated. We find, using instrumental variables analysis, robust evidence that this correlation is driven by the causal effect of the female faculty share on the gender composition of the entering PhD class. This result provides an explanation for persistent underrepresentation of women in economics, as well as for persistent segregation of women across academic fields.

Keller, J. (2007). Stereotype threat in classroom settings: The interactive effect of domain identification, task difficulty and stereotype threat on female students' maths performance. *British Journal of Educational Psychology*, 77(2), 323–338.

Stereotype threat research revealed that negative stereotypes can disrupt the performance of persons targeted by such stereotypes. This paper contributes to stereotype threat research by providing evidence that domain identification and the difficulty level of test items moderate stereotype threat effects on female students' maths performance.

Lincoln, A. E., Pincus, S., Koster, J. B., & Leboy, P. S. (2012). The Matilda Effect in science: Awards and prizes in the US, 1990s and 2000s. *Social studies of science*, 42(2), 307–320.

Science is stratified, with an unequal distribution of research facilities and rewards among scientists. Awards and prizes, which are critical for shaping scientific career trajectories, play a role in this stratification when they differentially enhance the status of scientists who already have large reputations: the 'Matthew Effect'. Contrary to the Mertonian norm of universalism – the expectation that the personal attributes of scientists do not affect evaluations of their scientific claims and contributions—in practice, a great deal of evidence suggests that the scientific efforts and achievements of women do not receive the same recognition as do those of men: the 'Matilda Effect'. Awards in science, technology, engineering and medical (STEM) fields are not immune to these biases. We outline the research on gender bias in evaluations of research and analyze data from 13 STEM disciplinary societies. While women's receipt of professional awards and prizes has increased in the past two decades, men continue to win a higher proportion of awards for scholarly research than expected based on their representation in the nomination pool. The results support the powerful twin influences of implicit bias and committee chairs as contributing factors. The analysis sheds light on the relationship of external social factors to women's science careers and helps to explain why women are severely underrepresented as winners of science awards. The ghettoization of women's accomplishments into a category of 'women-only' awards also is discussed.

Massachusetts Institute of Technology. Committee on Women Faculty. (1999). A Study on the Status of Women Faculty in Science at MIT. *The MIT Faculty Newsletter*, XI(4).

This is the original MIT report that has spurred so many other studies

Merton, R. K. (1968). The Matthew effect in science. *Science*, 159(3810), 56–63.

This account of the Matthew effect is another small exercise in the psychosociological analysis of the workings of science as a social institution. The initial problem is transformed by a shift in theoretical perspective. As originally identified, the Matthew effect was construed in terms of enhancement of the position of already eminent scientists who are given disproportionate credit in cases of collaboration or of independent multiple discoveries. Its significance was thus confined to its implications for the reward system of science. By shifting the angle of vision, we note other possible kinds of consequences, this time for the communication system of science. The Matthew effect may serve to heighten the visibility of contributions to science by scientists of acknowledged standing and to reduce the visibility of contributions by authors who are less well known. We examine the psychosocial conditions and mechanisms underlying this effect and find a correlation between the redundancy function of multiple discoveries and the focalizing function of eminent men of science—a function which is reinforced by the great value these men place upon finding basic problems and by their self-assurance. This self-assurance, which is partly inherent, partly the result of experiences and associations in creative scientific environments, and partly a result of later social validation of their position, encourages them to search out risky but important problems and to highlight the results of their inquiry. A macrosocial version of the Matthew principle is apparently involved in those processes of social selection that currently lead to the concentration of scientific resources and talent (50).

Mervis, J. (2005). A Glass Ceiling for Asian Scientists? *Science*, 310, 606–607.

This article documents the low rate of Asian and Asian American scientists at higher and leadership levels even in fields where they are relatively numerous at lower ranks.

Moss-Racusin, C. A., Dovidio, J. F., Brescoll, V. A., Graham, M. J., & Handelsman, J. (2012). Science faculty's subtle gender biases favor male students. doi.org/10.1073/pnas.1211286109 *Proceedings of the National Academy of Sciences*, 109(41), 16474–16479.

Despite efforts to recruit and retain more women, a stark gender disparity persists within academic science. Abundant research has demonstrated gender bias in many demographic groups, but has yet to experimentally investigate whether science faculty exhibit a bias against female students that could contribute to the gender disparity in academic science. In a randomized double-blind study (n = 127), science faculty from research-intensive universities rated the application materials of a student—who was randomly assigned either a male or female name—for a laboratory manager position. Faculty participants rated the male applicant as significantly more competent and hireable than the (identical) female applicant. These participants also selected a higher starting salary and offered more career mentoring to the male applicant. The gender of the faculty participants did not affect responses, such that female and male faculty were equally likely to exhibit bias against the female student. Mediation analyses indicated that the female student was less likely to be hired because she was viewed as less competent. We also assessed faculty participants' preexisting subtle bias against women using a standard instrument and found that preexisting subtle bias against women played a moderating role, such that subtle bias against women was associated with less support for the female student, but was unrelated to reactions to the male student. These results suggest that interventions addressing faculty gender bias might advance the goal of increasing the participation of women in science.

Ross, D. A., Boatright, D., Nunez-Smith, M., Jordan, A., Chekroud, A., & Moore, E. Z. (2017). Differences in words used to describe racial and gender groups in Medical Student Performance Evaluations. *PLoS one*, 12(8), e0181659.

The transition from medical school to residency is a critical step in the careers of physicians. Because of the standardized application process—wherein schools submit summative Medical Student Performance Evaluations (MSPE's)—it also represents a unique opportunity to assess the possible prevalence of racial and gender disparities, as shown elsewhere in medicine.

Schmader, T., Whitehead, J., & Wysocki, V. H. (2007). A linguistic comparison of letters of recommendation for male and female chemistry and biochemistry job applicants. *Sex Roles*, 57(7-8), 509–514.

Letters of recommendation are central to the hiring process. However, gender stereotypes could bias how recommenders describe female compared to male applicants. In the current study, text analysis software was used to examine 886 letters of recommendation written on behalf of 235 male and 42 female applicants for either a chemistry or biochemistry faculty position at a large U.S. research university. Results revealed more similarities than differences in letters written for male and female candidates. However, recommenders used significantly more standout adjectives to describe male as compared to female candidates. Letters containing more standout words also included more ability words and fewer grindstone words. Research is needed to explore how differences in language use affect perceivers' evaluations of female candidates

Sheltzer, J. M., & Smith, J. C. (2014). Elite male faculty in the life sciences employ fewer women. *Proceedings of the National Academy of Sciences*, 111(28), 10107–10112.

Women make up over one-half of all doctoral recipients in biology-related fields but are vastly underrepresented at the faculty level in the life sciences. To explore the current causes of women's underrepresentation in biology, we collected publicly accessible data from university directories and faculty websites about the composition of biology laboratories at leading academic institutions in the United States. We found that male faculty members tended to employ fewer female graduate students and postdoctoral

2. How does evaluation bias actually operate?

Bertrand, M., & Mullainathan, S. (2003). Are Emily and Greg More Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination. *American Economic Review*, 94(1), 991–1013.

Empirical study demonstrating impact of implicit discrimination by race, and not attributable to class.

Bertrand, M., Chugh, D., & Mullainathan, D. (2005). Implicit discrimination. *American Economic Review*, 95(2), 94–98.

Reflective discussion of how and where implicit discrimination operates. Includes useful review of the literature, and fairly extended discussion of research needed.

researchers (postdocs) than female faculty members did. Furthermore, elite male faculty—those whose research was funded by the Howard Hughes Medical Institute, who had been elected to the National Academy of Sciences, or who had won a major career award—trained significantly fewer women than other male faculty members. In contrast, elite female faculty did not exhibit a gender bias in employment patterns. New assistant professors at the institutions that we surveyed were largely comprised of postdoctoral researchers from these prominent laboratories, and correspondingly, the laboratories that produced assistant professors had an overabundance of male postdocs. Thus, one cause of the leaky pipeline in biomedical research may be the exclusion of women, or their self-selected absence, from certain high-achieving laboratories.

Wenneras, C., & Wold, A. (1997). Nepotism and sexism in peer-review. *Nature*, 387, 341–343.

This study assessed gender differences in ratings applications of postdoctoral fellowships from the Swedish Medical Research Council, as well as predictors of those ratings. Overall, female applicants were rated lower than male applicants, and therefore the rate of awards to females was lower than that to males. Using objective criteria of scientific productivity, the researchers found that in fact female applicants had to be 2.5 times more productive than their male counterparts in order to receive the same “competence” ratings from reviewers. Parallel findings were reported for U.S. funding agencies in a 1994 GAO report on Peer Review: Reforms Needed to Ensure Fairness in Federal Agency Grant Selection. Related issues have been raised in the recent (2004) GAO report Gender Issues: Women's Participation in the Sciences has Increased, But Agencies Need to Do More to Ensure Compliance with Title IX.

Biernat, M. & Kobrynowicz, D. (1997). Gender- and race-based standards of competence: Lower minimum standards but higher ability standards for devalued groups. *Journal of Personality and Social Psychology*, 72(3), 544–557.

Stereotypes may influence judgment via assimilation, such that individual group members are evaluated consistently with stereotypes, or via contrast, such that targets are displaced from the overall group expectation. Two models of judgment—the shifting standards model and status characteristics theory—provide some insight into predicting and interpreting these apparently contradictory effects. In two studies involving a simulated applicant-evaluation setting, we predicted and found that participants set lower minimum-competency standards, but higher ability

standards, for female than for male and for Black than for White applicants. Thus, although it may be easier for low- than high-status group members to meet (low) standards, these same people must work harder to prove that their performance is ability-based.

Bobo, L., Kluegel, J. R., & Smith, R. A. (1997). Laissez-faire racism: The crystallization of a kinder, gentler, antiblack ideology. In S. A. Tuch & J. K. Martin (Eds.), *Racial attitudes in the 1990s: Continuity and change* (pp.15–42). Westport, CT: Praeger.

Studies of racial attitudes in the U.S. present a difficult puzzle. On the one hand, several recent studies point to the steadily improving racial attitudes of whites toward African Americans (Steeh and Schuman 1992; Firebaugh and Davis 1988). These attitudinal trends are reinforced by many more tangible indicators, most notably the size, relative security, and potentially growing influence of the black middle class (Dawson 1994; Landry 1987). On the other hand, a number of social policies put forward to improve the status of African Americans and other minorities, such as affirmative action, are often contested if not ubiquitously unpopular (Bobo and Smith 1994; Kluegel and Smith 1986). Again, signs of negative racial attitudes are borne out by a number of tangible indicators such as the burgeoning evidence of racial discrimination experienced by blacks almost irrespective of social class background (Bobo and Suh 1995; Kirschenman and Neckerman 1991; Feagin and Sikes 1994; Braddock and McPartland 1986; Waldinger and Bailey 1991; Zweigenhaft and Domhoff 1991).

Caffrey, M. (1997, May 12). Blind auditions help women. *Princeton Weekly Bulletin*.

Based on **Goldin, C. & Rouse, C. (2000).** Orchestrating impartiality: The impact of “blind” auditions on female musicians. *American Economic Review*, 90(4), 715–741.

A change in the audition procedures of symphony orchestras—adoption of “blind” auditions with a “screen” to conceal the candidate’s identity from the jury—provides a test for gender bias in hiring and advancement. Using data from actual auditions for 8 orchestras over the period when screens were introduced, the authors found that auditions with screens substantially increased the probability that women were advanced (within the orchestra) and that women were hired. These results parallel those found in many studies of the impact of blind review of journal article submissions.

Dutt, K., Pfaff, D. L., Bernstein, A. F., Dillard, J. S., & Block, C. J. (2016). Gender differences in recommendation letters for postdoctoral fellowships in geoscience. *Nature Geoscience*, 9(11), 805.

The authors examined postdoctoral fellowship recommendation letters: 1224 letters submitted by recommenders in 54 countries. Female applicants are much less likely to receive excellent letters vs. good letters as compared to male applicants. Letter length differs by region (longest in the Americas) but letter tone is equivalently distributed across all regions.

Gopnik, A. (2011). What John Tierney Gets Wrong About Women Scientists. [slate.com/articles/double_x/doublex/2011/02/what_john_tierney_gets_wrong_about_women_scientists.html](https://www.slate.com/articles/double_x/doublex/2011/02/what_john_tierney_gets_wrong_about_women_scientists.html) Understanding a New Study about Discrimination. *Slate*.

Heilman, M. E. (1980). The impact of situational factors on personnel decisions concerning women: varying the sex composition of the applicant pool. *Organizational Behavior and Human Performance*, 26, 386–395.

One hundred male and female MBA students evaluated a woman applicant for a managerial position when the proportion of women in the applicant pool was varied. Results indicated that personnel decisions of both males and females were significantly more unfavorable when women represented 25% or less of the total pool. Additional findings suggest that this effect was mediated by the degree to which sex stereotypes predominated in forming impressions of applicants. The results were interpreted as supportive of the thesis that situational factors can function to reduce the adverse effects of sex stereotypes in employment settings.

Heilman, M. E. (2001). Description and Prescription: How Gender Stereotypes Prevent Women’s Ascent Up the Organizational Ladder. *Journal of Social Issues*, 57(4), 657–674.

This review article posits that the scarcity of women at the upper levels of organizations is a consequence of gender bias in evaluations. It is proposed that gender stereotypes and the expectations they produce about both what women are like (descriptive) and how they should behave (prescriptive) can result in devaluation of their performance, denial of credit to them for their successes, or their penalization for being competent. The processes giving rise to these outcomes are explored, and the procedures that are likely to encourage them are identified. Because of gender bias and the way in which it influences evaluations in work settings, it is argued that being competent does not ensure that a woman will advance to the same organizational level as an equivalently performing man.

Heilman, M. E., & Okimoto, T. G. (2007). Why are women penalized for success at male tasks?: The implied communality deficit. *Journal of Applied Psychology*, 92(1), 81–92

In 3 experimental studies, the authors tested the idea that penalties women incur for success in traditionally male areas arise from a perceived deficit in nurturing and socially sensitive communal attributes that is implied by their success. The authors therefore expected that providing information of communality would prevent these penalties. Results indicated that the negativity directed at successful female managers - in ratings of likability, interpersonal hostility, and boss desirability - was mitigated when there was indication that they were communal. This ameliorative effect occurred only when the information was clearly indicative of communal attributes (Study 1) and when it could be unambiguously attributed to the female manager (Study 2); furthermore, these penalties were averted when communality was conveyed by role information (motherhood status) or by behavior (Study 3). These findings support the idea that penalties for women's success in male domains result from the perceived violation of gender-stereotypic prescriptions.

Latu, I. M., Mast, M. S., Lammers, J., & Bombardi, D. (2013). Successful female leaders empower women's behavior in leadership tasks. *Journal of Experimental Social Psychology*, 49(3), 444–448.

Women are less likely than men to be associated with leadership, and the awareness of this stereotype may undermine women's performance in leadership tasks. One way to circumvent this stereotype threat is to expose women to highly successful female role models. Although such exposures are known to decrease women's leadership aspirations and self-evaluations, it is currently unknown what the effects of role models are on actual behavior during a challenging leadership task. We investigated whether highly successful female role models empower women's behavior in a leadership task. In a virtual reality environment, 149 male and female students gave a public speech, while being subtly exposed to either a picture of Hillary Clinton, Angela Merkel, Bill Clinton, or no picture. We recorded the length of speeches as an objective measure of empowered behavior in a stressful leadership task. Perceived speech quality was also coded by independent raters. Women spoke less than men when a Bill Clinton picture or no picture was presented. This gender difference disappeared when a picture of Hillary Clinton or Angela Merkel was presented, with women showing a significant increase when exposed to a female role model compared to a male role model or no role models. Longer speaking times also translated into higher perceived speech

quality for female participants. Empowered behavior also mediated the effects of female role models on women's self-evaluated performance. In sum, subtle exposures to highly successful female leaders inspired women's behavior and self-evaluations in stressful leadership tasks.

Rivera, L. A. (2017). When Two Bodies Are (Not) a Problem: Gender and Relationship Status Discrimination in Academic Hiring. *American Sociological Review*, 82(6), 1111–1138.

Junior faculty search committees serve as gatekeepers to the professoriate and play vital roles in shaping the demographic composition of academic departments and disciplines, but how committees select new hires has received minimal scholarly attention. In this article, I highlight one mechanism of gender inequalities in academic hiring: relationship status discrimination. Through a qualitative case study of junior faculty search committees at a large R1 university, I show that committees actively considered women's—but not men's—relationship status when selecting hires. Drawing from gendered scripts of career and family that present men's careers as taking precedence over women's, committee members assumed that heterosexual women whose partners held academic or high-status jobs were not “movable,” and excluded such women from offers when there were viable male or single female alternatives. Conversely, committees infrequently discussed male applicants' relationship status and saw all female partners as movable. Consequently, I show that the “two-body problem” is a gendered phenomenon embedded in cultural stereotypes and organizational practices that can disadvantage women in academic hiring. I conclude by discussing the implications of such relationship status discrimination for sociological research on labor market inequalities and faculty diversity.

MacNell, L., Driscoll, A., & Hunt, A. N. (2015). What's in a Name: Exposing Gender Bias in Student Ratings of Teaching. *Innovative Higher Education*, 40(4), 291–303.

Student ratings of teaching play a significant role in career outcomes for higher education instructors. Although instructor gender has been shown to play an important role in influencing student ratings, the extent and nature of that role remains contested. While difficult to separate gender from teaching practices in person, it is possible to disguise an instructor's gender identity online. In our experiment, assistant instructors in an online class each operated under two different gender identities. Students rated the male identity significantly higher than the female identity, regardless of the instructor's actual gender, demonstrating gender bias. Given the vital role that student ratings play in academic career trajectories, this finding warrants considerable attention.

Nittrouer, C. L., Hebl, M. R., Ashburn-Nardo, L., Trump-Steele, R. C., Lane, D. M., & Valian, V. (2017). Gender disparities in colloquium speakers at top universities. *Proceedings of the National Academy of Sciences*, 115(1), 104–108.

Colloquium talks at prestigious universities both create and reflect academic researchers' reputations. Gender disparities in colloquium talks can arise through a variety of mechanisms. The current study examines gender differences in colloquium speakers at 50 prestigious US colleges and universities in 2013–2014. Using archival data, we analyzed 3,652 talks in six academic disciplines. Men were more likely than women to be colloquium speakers even after controlling for the gender and rank of the available speakers. Eliminating alternative explanations (e.g., women declining invitations more often than men), our follow-up data revealed that female and male faculty at top universities reported no differences in the extent to which they (i) valued and (ii) turned down speaking engagements. Additional data revealed that the presence of women as colloquium chairs (and potentially on colloquium committees) increased the likelihood of women appearing as colloquium speakers. Our data suggest that those who invite and schedule speakers serve as gender gatekeepers with the power to create or reduce gender differences in academic reputations.

Nosek, B. A., Banaji, M. R., & Greenwald, A. G. (2002). Harvesting implicit group attitudes and beliefs from a demonstration website. *Group Dynamics: Theory, Research and Practice*, 6, 101–115.

This article demonstrates widely shared schemas, particularly “implicit” or unconscious ones, about race, age and gender.

Porter, N., & Geis, F. L. (1981). Women and nonverbal leadership cues: When seeing is not believing. In C. Mayo & N. Henley (Eds.), *Gender and nonverbal behavior* (pp. 39–61). New York, NY: Springer Verlag.

When study participants were asked to identify the leader of the group, they reliably picked the person sitting at the head of the table whether the group was all-male, all-female, or mixed-sex with a male occupying the head; however, when the pictured group was mixed-sex and a woman was at the head of the table, both male and female observers chose a male sitting on the side of the table as the leader half of the time.

Shaw, A. K., & Stanton, D. E. (2012). Leaks in the pipeline: separating demographic inertia from ongoing gender differences in academia. *Proceedings of the Royal Society of London B: Biological Sciences*, 279(1743), 3736–3741.

Identification of the causes underlying the under-representation of women and minorities in academia is a source of ongoing concern and controversy. This is a critical issue in ensuring the openness and diversity of academia; yet differences in personal experiences and interpretations have mired it in controversy. We construct a simple model of the academic career that can be used to identify general trends, and separate the demographic effects of historical differences from ongoing biological or cultural gender differences. We apply the model to data on academics collected by the National Science Foundation (USA) over the past three decades, across all of science and engineering, and within six disciplines (agricultural and biological sciences, engineering, mathematics and computer sciences, physical sciences, psychology, and social sciences). We show that the hiring and retention of women in academia have been affected by both demographic inertia and gender differences, but that the relative influence of gender differences appears to be dwindling for most disciplines and career transitions. Our model enables us to identify the two key non-structural bottlenecks restricting female participation in academia: choice of undergraduate major and application to faculty positions. These transitions are those in greatest need of detailed study and policy development.

Sommers, S. (2006). On Racial Diversity and Group Decision Making: Identifying Multiple Effects of Racial Composition on Jury Deliberations. *Journal of Personality and Social Psychology*, 90(4), 597–612.

This research examines the multiple effects of racial diversity on group decision making. Participants deliberated on the trial of a Black defendant as members of racially homogeneous or heterogeneous mock juries. Half of the groups were exposed to pretrial jury selection questions about racism and half were not. Deliberation analyses supported the prediction that diverse groups would exchange a wider range of information than all-White groups. This finding was not wholly attributable to the performance of Black participants, as Whites cited more case facts, made fewer errors, and were more amenable to discussion of racism when in diverse versus all-White groups. Even before discussion, Whites in diverse groups were more lenient toward the Black defendant, demonstrating that the effects of diversity do not occur solely through information exchange. The influence of jury selection questions extended previous findings that blatant racial issues at trial increase leniency toward a Black defendant.

Steinpreis, R. E., Anders, K. A., & Ritzke, D. (1999). The impact of gender on the review of the curricula vitae of job applicants and tenure candidates: A national empirical study. *Sex Roles*, 41(7/8), 509–528.

The authors of this study submitted the same c.v. for consideration by academic psychologists, sometimes with a man's name at the top, sometimes with a woman's. In one comparison, applicants for an entry-level faculty position were evaluated. Both men and women were more likely to hire the "male" candidate than the "female" candidate, and rated his qualifications as higher, despite identical credentials. In contrast, men and women were equally likely to recommend tenure for the "male" and "female" candidates (and rated their qualifications equally), though there were signs that they were more tentative in their conclusions about the (identical) "female" candidates for tenure.

Storage, D., Horne, Z., Cimpian, A., & Leslie, S. J. (2016). The frequency of "brilliant" and "genius" in teaching evaluations predicts the representation of women and African Americans across fields. *PLoS one*, 11(3), e0150194.

Women and African Americans—groups targeted by negative stereotypes about their intellectual abilities—may be underrepresented in careers that prize brilliance and genius. A recent nationwide survey of academics provided initial support for this possibility. Fields whose practitioners believed that natural talent is crucial for success had fewer female and African American PhDs. The present study seeks to replicate this initial finding with a different, and arguably more naturalistic, measure of the extent to which brilliance and genius are prized within a field. Specifically, we measured field-by-field variability in the emphasis on these intellectual qualities by tallying—with the use of a recently released online tool—the frequency of the words "brilliant" and "genius" in over 14 million reviews on RateMyProfessors.com, a popular website where students can write anonymous evaluations of their instructors. This simple word count predicted both women's and African Americans' representation across the academic spectrum. That is, we found that fields in which the words "brilliant" and "genius" were used more frequently on RateMyProfessors.com also had fewer female and African American PhDs.

Terrell, J., Kofink, A., Middleton, J., Rainear, C., Murphy-Hill, E., Parnin, C., & Stallings, J. (2017). Gender differences and bias in open source: Pull request acceptance of women versus men. [http://](http://doi.org/10.7287/peerj.preprints.1733v2)

doi.org/10.7287/peerj.preprints.1733v2 *PeerJ Computer Science*, 3, e111.

The likelihood of computer code modifications being accepted by an open source software community was examined. When the gender of the contributor was unknown, women's contributions were more likely to be accepted than men's. When the gender was known, the opposite was true.

Sekaquaptewa, D. (2014). On being the solo faculty member of color: Research evidence from field and laboratory studies. In S. A. Fryberg & E. J. Martinez (Eds.), *The Truly Diverse Faculty: New Dialogues in American Higher Education* (Future of Minority Studies) (pp. 99-124). New York, NY: St. Martins Press LLC.

In 1988, Duke University had a plan. In a large effort to diversify their faculty, each of their 56 departments was mandated to hire one black faculty member within five years. Five years later, administrators conceded that although 25 new black faculty members had been hired, 18 had left the university. What the administrators may have failed to recognize is that hiring only one person of color per academic department can create demonstrable negative experiences and outcomes directly attributable to the situation of solo status, or being the only member of one's racial group in the department. In this chapter, I review research addressing the issues faced by junior faculty of color (JFC) who face, as these newly hired black faculty likely faced, being one of few or the only person of color in his or her department. This research provides insight into the heightened visibility experienced by such faculty members and how it influences the career experiences of JFC, and suggests potential strategies for reducing negative outcomes.

Trix, F. & Psenka, C. (2003). Exploring the color of glass: letters of recommendation for female and male medical faculty. *Discourse & Society*, 14(2), 191–220.

This study compares over 300 letters of recommendation for successful candidates for medical school faculty positions. Letters written for female applicants differed systematically from those written for male applicants in terms of length, in the percentages lacking basic features, in the percentages with "doubt raising" language, and in the frequency of mention of status terms. In addition, the most common possessive phrases for female and male applicants ("her teaching" and "his research") reinforce gender schemas that emphasize women's roles as teachers and students and men's as researchers and professionals.

3. Strategies for reducing the impact of bias on judgments

Bauer, C. C., & Baltes, B. B. (2002). Reducing the effects of gender stereotypes on performance evaluations. *Sex Roles*, 47(9-10), 465–476.

This study is one of many showing (1) that people vary in the degree to which they hold certain stereotypes and schemas; (2) that having those schemas influences their evaluations of other people; and (3) that it is possible to reduce the impact of commonly held stereotypes or schemas by relatively simple means. In this study college students with particularly negative stereotypes about women as college professors were more likely to rate accounts of specific incidents of college classroom teaching behavior negatively, if they were described as performed by a female. In the second phase of the study students' reliance on their stereotypes was successfully reduced by providing them with time and instructions to recall the specific teaching behaviors of the instructors in detail. Thus, focusing attention on specific evidence of an individual's performance eliminated the previously demonstrated effect of gender schemas on performance ratings.

Chesler, M. A. (1996). Protecting the investment: Understanding and responding to resistance. *The Diversity Factor* 4(3), 2–10.

This article discusses common barriers to successful implementation of diversity-related cultural change efforts, including both those that are intentional and unintentional. It also outlines strategies for addressing or dealing with these various forms of resistance.

Dovidio, J. F., & Gaertner, S. L. (2000). Aversive racism and selection decisions: 1989 and 1999. *Psychological Science*, 11(4), 315–319.

Investigated differences over a 10-year period in Whites' self-reported racial prejudice and their bias in selection decisions involving Black and White candidates for employment in a sample of 194 undergraduates. The authors examined the hypothesis, derived from the aversive-racism framework, that although overt expressions of prejudice may decline significantly across time, subtle manifestations of bias may persist. Consistent with this hypothesis, self-reported prejudice was lower in 1998–1999 than it was in 1988–1989, and at both time periods, White participants did not discriminate against Black relative to White candidates when the candidates' qualifications were clearly strong or weak, but they did discriminate when the appropriate decision was more ambiguous. Theoretical and practical implications are considered. (PsycINFO Database Record (c) 2005 APA, all rights reserved)

Ellison, S. F., & Mullin, W. P. (2014). Diversity, Social Goods Provision, and Performance in the Firm. doi.org/10.1111/jems.12051 *Journal of Economics & Management Strategy*, 23(2), 465–481.

Economists have studied the effect of diversity on the provision of social goods and the stock of social capital. In parallel, management scholars have studied the effect of diversity in the workplace on firm performance. We integrate these two growing literatures and explore these questions with a unique dataset. A firm provided eight years of individual-level employee survey data, which include measures of the stock of social capital, plus office-level measures of diversity and performance. We find some evidence that more gender-homogeneous offices enjoy higher levels of social goods provision but those offices do not perform any better and may actually perform worse.

Sensoy, Ö., & DiAngelo, R. (2017). “We Are All for Diversity, but...”: How Faculty Hiring Committees Reproduce Whiteness and Practical Suggestions for How They Can Change. *Harvard Educational Review*, 87(4), 557–580.

Despite stated commitments to diversity, predominantly White academic institutions still have not increased racial diversity among their faculty. In this article Robin DiAngelo and Özlem Sensoy focus on one entry point for doing so—the faculty hiring process. They analyze a typical faculty hiring scenario and identify the most common practices that block the hiring of diverse faculty and protect Whiteness and offer constructive alternative practices to guide hiring committees in their work to realize the institution's commitment to diversity.

Stewart, A. J., & Valian, V. (2018). *An Inclusive Academy: Achieving Diversity and Excellence*. MIT Press.

In this book, the authors argue that diversity and excellence go hand in hand and provide guidance for achieving both. Stewart and Valian, themselves senior academics, support their argument with comprehensive data from a range of disciplines. They show why merit is often overlooked; they offer statistics and examples of individual experiences of exclusion, such as being left out of crucial meetings; and they outline institutional practices that keep exclusion invisible, including reliance on proxies for excellence, such as prestige, that disadvantage outstanding candidates who are not members of the white male majority. Most importantly, the authors provide practical advice for overcoming obstacles to inclusion.

Stewart, A. J., Malley, J. E., & Herzog, K. A. (2016). Increasing the Representation of Women Faculty in STEM Departments: what Makes a Difference?. *Journal of Women and Minorities in Science and Engineering*, 22(1), 23–47.

The focus of this paper is on the process of increasing the representation of women in STEM as it occurred in academic departments within a research university explicitly committed to diversifying the faculty in science and engineering fields. The authors used thematic analysis of interviews with 59 senior faculty drawn from 20 departments to identify forces that enabled or constrained demographic change over 13 years. The accounts by faculty from departments that most increased the representation of women included references to four enabling forces (open recognition of a serious problem coupled with shame about past circumstances; strong leadership on diversity from one or more department chairs; change-enabling features of the departmental and disciplinary context; and

4. Dual career and work-family issues

Anonymous. (2011). The A to Z of dual-career couples. chronicle.com.ezproxy.lib.usf.edu/article/The-A-to-Z-of-Dual-Career/128096 *Chronicle of Higher Education*.

Practical commentary and advice for dual-career couples.

Calisi, R. M. (2018). Opinion: How to tackle the childcare–conference conundrum. *Proceedings of the National Academy of Sciences*, 115(12), 2845–2849.

Conferences are vital forums for academic researchers. At these meetings, scientists communicate new discoveries, form research collaborations, make contacts with funding agencies, and attract new members to our labs and programs. Even with new technological advances that allow remote communication, resource sharing, and networking, face-to-face interactions are a crucial component for one's career advancement and ongoing education. Early-stage researchers, who benefit significantly from these events, face some notable barriers to attendance. One major challenge is what we call the childcare–conference conundrum: Parent–researchers face a conundrum as they struggle to attend key conferences and further their careers while finding care for the children. Conferences face a conundrum as they assess how to better accommodate mothers and families.

Correll, S., Benard, S., & Paik, I. (2007). Getting a Job: Is There a Motherhood Penalty? *American Journal of Sociology*, 112(5), 1297–1338.

Survey research finds that mothers suffer a substantial wage penalty, although the causal mechanism producing

proactivity in pursuing diversity). The accounts by faculty from departments that did not increase diversity at all included reference to three constraining forces (viewing other priorities as more important than diversity; external factors that constrain or limit the possibility of change; and unfavorable features of the departmental context). Departments that increased faculty diversity somewhat expressed some enabling and some constraining forces, and omitted some. The authors discuss the implications of these findings for successful departmental change, particularly in the context of larger institutional change efforts.

Turner, C. S. V. (2002). *Diversifying the faculty: A guidebook for search committees*. Washington, D.C.: Association of American Colleges and Universities.

Informed by the growing research literature on racial and ethnic diversity in the faculty, this guidebook offers specific recommendations to faculty search committees with the primary goal of helping structure and execute successful searches for faculty of color.

it remains elusive. The authors employed a laboratory experiment to evaluate the hypothesis that status-based discrimination plays an important role and an audit study of actual employers to assess its real-world implications. In both studies, participants evaluated application materials for a pair of same-gender equally qualified job candidates who differed on parental status. The laboratory experiment found that mothers were penalized on a host of measures, including perceived competence and recommended starting salary. Men were not penalized for, and sometimes benefited from, being a parent. The audit study showed that actual employers discriminate against mothers, but not against fathers.

Goldin, C. (2006, March 15). Working It Out. nytimes.com/2006/03/15/opinion/working-it-out.html *The New York Times*, p. A27.

Op-ed piece to counter the news and opinion articles that women, especially graduates of top-tier universities and professional schools, are “opting out” in record numbers and choosing home and family over careers.

Kerber, L. K. (2005, March 18). We Must Make the Academic Workplace More Humane and Equitable. chronicle.com/article/We-Must-Make-the-Academic/28101 *The Chronicle of Higher Education*.

Reflection by an academic historian both on the history of the academic workplace, and the ways in which it is currently an environment that is both inhumane and particularly difficult for women faculty.

Lee, Jessica. (2017). *Parents in the Pipeline.* thepregnantscholar.org/wp-content/uploads/Parents-in-the-Pipeline-Postdoc-Report.pdf

While the numbers of women in STEM remain abysmally low, the rates of women's academic achievement in other fields have reached or exceeded gender parity. One reason is that research appointments were not designed to be compatible with having a family, and the resulting strain pushes women – and many men – off their career track. This report, based on the first comprehensive nationwide survey of postdocs who have children, and institutional data provided by the National Postdoctoral Association, highlights the full dimensions of this parenthood leak in the STEM pipeline.

Schiebinger, L. L., Henderson, A. D., & Gilmartin, S. K. (2008). *Dual-Career Academic Couples:*

What Universities Need to Know (pp.1-98). Stanford, CA: The Michelle R. Clayman Institute for Gender Research.

Meeting the needs and expectations of dual-career academic couples—while still ensuring the high quality of university faculty—is the next great challenge facing universities. Academic couples comprise 36 per-cent of the American professoriate—representing a deep pool of talent. The proportion of academic couples (i.e., couples in which both partners are academics) at four-year institutions nationally has not changed since 1989. What has changed is the rate at which universities are hiring couples. Academic couple hiring has increased from 3 percent in the 1970s to 13 percent since 2000. In a recent survey of Canadian science deans, couple hiring emerged as one of the thorniest issues confronting their faculties. Administrators in this study concur.

5. Lesbian, Gay, Bisexual, and Transgendered Issues

Atherton, T. J., Barthelemy, R. S., Deconinck, W., Falk, M. L., Garmon, S., Long, E., ... Reeves, K. (2016). *Lgbt climate in physics: Building an inclusive community.* *American Physical Society*, College Park, MD.

The authors offer six recommendations that their committee identified as the most critical steps the American Physical Society could take to ensure that LGBT individuals pursuing physics can enter a level playing field.

Gay & Lesbian Alliance Against Defamation. (July 2018). *GLAAD Media Reference Guide (10th ed.)* glaad.org/sites/default/files/GLAAD-Media-Reference-Guide-Tenth-Edition.pdf.

GLAAD's Media Reference Guide offers reporters the language tools they can use to tell stories regarding the lesbian, gay, bisexual and transgendered culture and people in a way that brings out journalistic excellence, while portraying the story participants with dignity, accuracy and fairness.

Russ, T. L., Simonds, C. J., & Hunt, S. K. (2002). *Coming Out in the Classroom . . . An Occupational Hazard?: The Influence of Sexual Orientation on Teacher Credibility and Perceived Student Learning.* *Communication Education*, 51(3), 14.

This study examined the influence of instructor sexual orientation on perceptions of teacher credibility. The purpose was to determine if college students perceive gay teachers as less credible than straight teachers. In addition, the researchers sought to explore the role of teacher credibility in terms of perceived student learning. In order to examine these variables, a male confederate presented a lecture on cultural influences to 154 undergraduate students enrolled in eight separate introductory communication

classes. In each class, the confederate was careful to keep his delivery and immediacy cues (e.g. vocal expressiveness, movement, and eye contact) natural and consistent. The confederate's sexual orientation, however, was systematically manipulated. Findings indicate that students perceive a gay teacher as significantly less credible than a straight teacher. This study also found that students of a gay teacher perceive that they learn considerably less than students of a straight teacher. To help explain the complex reasons behind students' biased evaluations, the authors have included an in-depth qualitative analysis of participants' responses.

Tilcsik, A. (2011). *Pride and Prejudice: Employment Discrimination against Openly Gay Men in the United States.* *American Journal of Sociology* 117(2), 586–626.

This article presents the first large-scale audit study of discrimination against openly gay men in the United States. Pairs of fictitious résumés were sent in response to 1,769 job postings in seven states. One résumé in each pair was randomly assigned experience in a gay campus organization, and the other résumé was assigned a control organization. Two main findings have emerged. First, in some but not all states, there was significant discrimination against the fictitious applicants who appeared to be gay. This geographic variation in the level of discrimination appears to reflect regional differences in attitudes and antidiscrimination laws. Second, employers who emphasized the importance of stereotypically male heterosexual traits were particularly likely to discriminate against openly gay men. Beyond these particular findings, this study advances the audit literature more generally by covering multiple regions and by highlighting how audit

techniques may be used to identify stereotypes that affect employment decisions in real labor markets.

Weichselbaumer, D. (2003). Sexual orientation discrimination in hiring. *Labour Economics*, 10, 629–642.

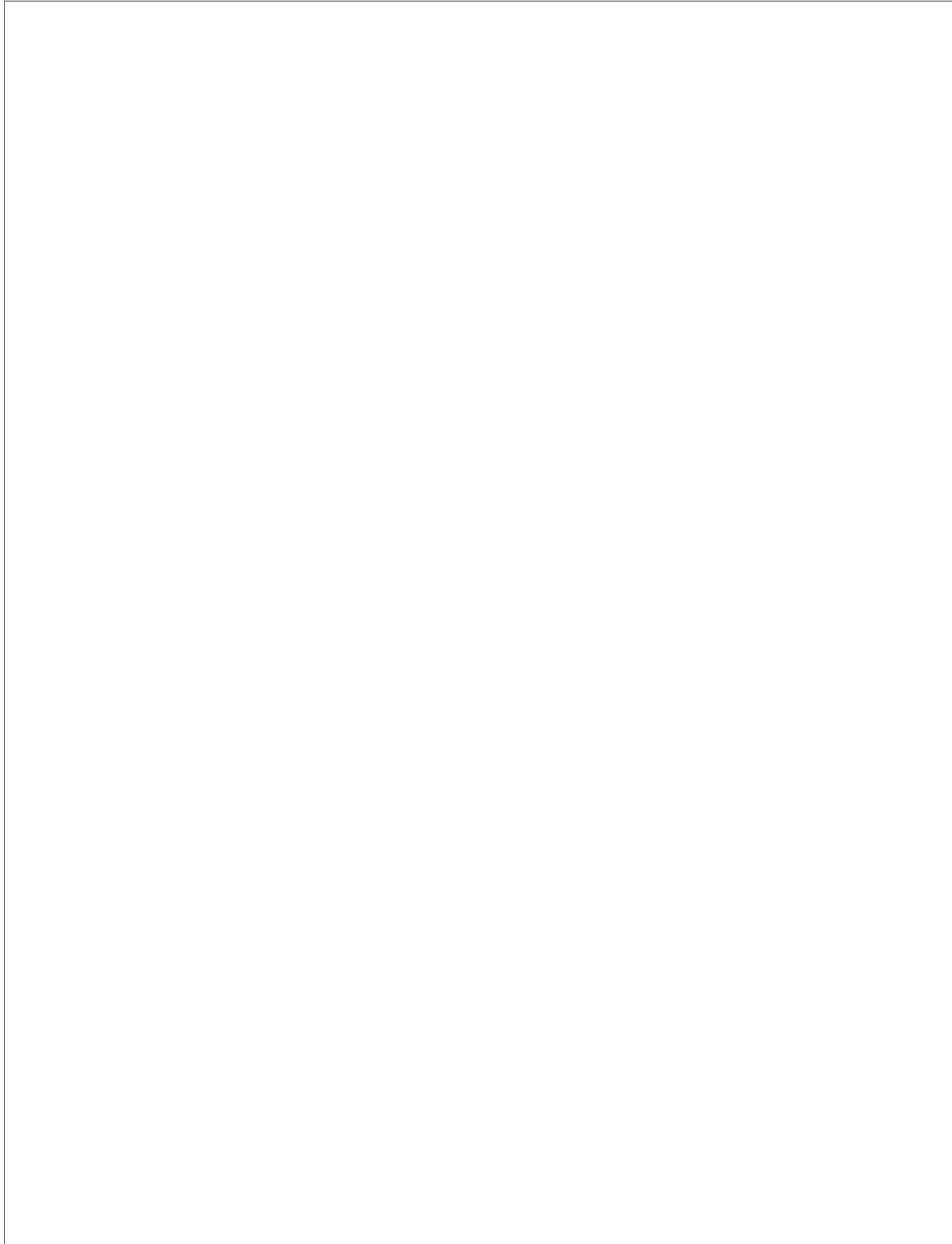
Little research has been done to examine discrimination against gays and lesbians in the labor market. Wage regressions have documented lower incomes for gays but repeatedly showed higher incomes for lesbians. The results concerning lesbian women are striking but can be reconciled with the existence of labor market discrimination, however. Problems like sample selection and unobserved heterogeneity—in particular, lesbians' violation of stereotypical female gender roles—might be responsible for their higher earnings. To investigate whether discrimination against lesbians actually does exist, a labor market experiment is conducted. Job applications of candidates, who are equivalent in their human capital but differ in their sexual orientation, are sent out in response to job advertisements. Furthermore, to test whether increased masculinity affects labor market outcomes, the applicants differ in their perceived gender identity. While results show a strong negative effect for lesbian orientation, gender identity does not have a significant overall impact on hiring chances.

Yoshino, Kenji. (2006, January 15). The pressure to cover. nytimes.com/2006/01/15/magazine/15gays.html *The New York Times*.

In this article Yoshino discusses the underlying discriminatory practice of forcing minorities to assimilate into the mainstream culture by covering mutable cultural traits. A wide range of minorities is explored to illustrate how prone to injustice the American melting pot can be when faced with diversity.

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