Truth

STEM Women of Color Conclave®
Report of National Findings

2015

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Ain’t I A Woman?

Well, children, where there is so much racket there must be something out of kilter. I think that ‘twixt the negroes of the South and the women of the North, all talking about rights, the white men will be in a fix pretty soon. But what’s all this here talking about?

That man over there says that women need to be helped into carriages and lifted over ditches, and to have the best place everywhere. Nobody ever helps me into carriages, or over mud-puddles, or gives me any best place! And ain’t I a woman? Look at me! Look at my arm! I could have ploughed and planted, and gathered into barns, and no man could head me! And ain’t I a woman? I could work as much and eat as much as a man- when I could get it- and bear the lash as well! And ain’t I a woman? I have borne thirteen children, and seen them most all sold off to slavery, and when I cried out with my mother’s grief, none but Jesus heard me! And ain’t I a woman?

Then they talk about this thing in the head; what’s this they call it? [Intellect, somebody whispers] That’s it, honey. What’s that got to do with women’s rights or negro’s rights? If my cup won’t hold but a pint, and yours holds a quart, wouldn’t you be mean not to let me have my little half measure-full?

Then that little man in black there, he says women can’t have as much rights as men, ’cause Christ wasn’t a woman! Where did your Christ come from? Where did your Christ come from? From God and a woman! Man had nothing to do with Him.

If the first woman God ever made was strong enough to turn the world upside down all alone, these women together ought to be able to turn it back, and get it right side up again! And now they is asking to do it, the men better let them.

Obliged to you for hearing me, and now old Sojourner ain’t got nothing more to say.”
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The first STEM Women of Color Conclave® (SWOCC) was held on the campus of the University of Maryland Eastern Shore in 2006. With an additional investment from the National Science Foundation Innovative Frontiers Fund, in 2010, the Conclave was expanded to encompass women of color in academic STEM disciplines across the nation. As a result, the Conclave now exists as the largest assembly of women faculty of color in STEM fields, is grounded in intersectionality theory, and has given rise to the Society of STEM Women of Color, Inc. – a national organization committed to achieving the full integration of women of color into the academic STEM disciplines at all professorial ranks and leadership levels.

Each year, the Conclave acknowledges and celebrates the poignant words of Sojourner Truth, an abolitionist and former slave, who, in 1851, bared her naked chest while delivering a captivating speech to an audience of white male reporters, exclaiming, “…Ain’t I a Woman?” Sojourner considered that in the world in which she lived, it was accepted that women needed to be “…helped into carriages, lifted over ditches and to have the best place everywhere.” However, no one had ever helped her in such ways, despite the fact that she had plowed, planted, worked and even, as she noted, “…borne the lash…just like the men.”

Today, 160+ years beyond Sojourner’s life, women faculty of color – despite having earned doctoral degrees in STEM fields – continue to be least likely to be helped into carriages of privilege, provided with the best places that would be keenly attuned to their differential professional needs, or lifted over the mud puddles of implicit biases, benevolent prejudices, covert discriminations or incivilities.

SWOCC, now an important feature of the Society of STEM Women of Color, Inc., serves to replace absent carriages of privilege with vehicles of power; and permanently seal mud puddles of disadvantage. With a curriculum that holistically captures the lived experiences of women of color and translates them into effective practices for professional growth and development, the Conclave provides a unique and dynamic opportunity for STEM women faculty of color to be brazen in their deliberations, purposeful in their positions, courageous in their content and radical in their recommendations.

While, admittedly, this report will not solve every problem for STEM women faculty of color, it does represent a necessary step toward recording, disseminating and preserving an authentic narrative that fully captures, the strength, collective intelligence and values of those who exist at the intersection of race and gender.
There Must Be Something Out of Kilter

The underrepresentation of women of color in the academic STEM disciplines continues to threaten the nation’s ability to produce the ground-breaking scientific and technical knowledge that will be necessary to meet the global challenges of the twenty-first century (Cantor, et al., 2014). It is important to note that although the academy provides an institutional infrastructure for meeting such challenges, the core of the scientific enterprise is comprised of scholars and their networks, conferences, publications and professional associations. These knowledge networks organize academics into a complex system of relationships - known as “interpretive communities” - that control the production of most of the scholarly knowledge that we rely upon to shape our classrooms, define our disciplines, and determine funding priorities for federal agencies. As a result, these interpretive communities, from which underrepresented populations have been systematically excluded, exercise a powerful cultural authority within academe and the wider society.

The concentration of knowledge production in a few hands dangerously undermines the scholarly and civic functions of STEM by creating a condition whereby the interests and experiences of one powerful sector are universalized as the interests and experiences of society, in general. It is, therefore, the integration of scholars from a wide range of over- and underrepresented populations into these knowledge networks that must be aggressively pursued if we are to meet the demand for the kind of scholarship that will materially improve quality of life for both minority and majority populations in the future.

Further, we contend that it is not just the systematic exclusion of underrepresented populations from existing knowledge networks that impairs the ability of STEM to adequately address the needs of a diverse society. Indeed, we argue that it is equally the absence of an intersectional complexity, specifically germane to the interests

“I would hope that a wise Latina woman with the richness of her experiences would more often than not reach a better conclusion ...”

Justice Sonya Sotomayor 2001
and experiences women of color that leaves the STEM enterprise ill-equipped to successfully meet global challenges.

Although Kimberlé Crenshaw and others have correctly defined intersectionality as the ways in which multiple social and historical structures of oppression work together to limit the opportunities for women of color (Malcom, et al., 1976; Crenshaw, 1991), our formative SWOCC framework foregrounds the “intersectional complexity of lived experience” by women of color as the grounding component for individual, institutional, and social change. The framework centralizes - and confers cultural authority to - that “lived experience” as it is enacted through the structure and themes of the annual Conclave, which ensures that intersectional complexity and how it impacts the lives of women of color permeates the entire conference experience. By doing so, the Conclave is able to leverage these cultural sources of strength to heighten the profile of STEM women of color who, in turn, constitute a powerful knowledge network for the production of innovative and more inclusive scientific knowledge.
In order to achieve these goals, the following guiding principles have been strategically and systemically incorporated into the SWOCC framework and the Conclave experience:

**Principles**

**I.** An intersectional lens is fundamental to examining, reporting, and understanding how multiple categories of difference work together to determine the status of women of color in STEM.

**II.** An intersectional lens is also required for revealing the powerful ways in which the “lived experience” within complex communities and cultures historically has, and continues to, serve as a source of resilience and persistence for women of color in STEM.

**III.** Meaningfully addressing the barriers that have systematically inhibited the participation of women of color in STEM requires ongoing exposure to the best research in this area, as well as engagement with prominent thought leaders from within and outside of academe.

**IV.** Finally, the long-term success of an intersectional approach to the empowerment of STEM women of color and the production of better and more inclusive scientific knowledge will require the creation of a socially-sanctioned structure in which new interpretive communities can be nurtured and sustained.
Help Into Carriages and Over Mud Puddles

In the mid 1970s, the “cost” of becoming a scientist for women of color was detailed in *The Double Bind* (Malcolm, et al., 1976), a report of the American Association for the Advancement of Science that arose from the first recorded meeting of U.S. minority women scientists. This report also outlined definitive recommendations and programs for addressing the unique issues related, in large part, to the role that the intersection of race and gender plays in the underrepresentation of women of color in the academic STEM fields. Two specific recommendations included: 1) the establishment of a “communications network” for minority women scientists, and 2) a follow up meeting.

Sadly, since the *Double Bind* report, only sporadic efforts have directly addressed these recommendations - despite the unmatched capacity of women of color to provide the kind of diverse perspectives needed for achieving better scientific innovation (Cantor, et al, 2014), and the kind of same-race/same-gender mentoring needed to retain underrepresented students in STEM (Mack, et al., 2013). In 2009, the National Science Foundation's Committee on Equal Opportunities in Science and Engineering hosted the Mini-Symposium on Women of Color in STEM. And in 2012, the Institute for Women's Policy Research convened a meeting, Accelerating Change for Women Faculty of Color in STEM: Policy, Action, and Collaboration, which resulted in a national report and call for programmatic and policy shifts that would promote the career advancement of women of color.

Unlike previous efforts, the STEM Women of Color Conclave®, now the largest convening of STEM women faculty of color, represents a promising recent effort with potential to seminally redress the marginalization of women of color in the academic STEM enterprise. Specifically, the Conclave departs from traditional symposia models, and relies upon a comprehensive approach to professional development that actually empowers STEM women of color for career and leadership actualization. The Conclave also uses its cultural authority to: 1) meaningfully contribute to the research base and national discourse on race-gender intersectionality, and 2) harness a centralized body of knowledge and best practices that will support institutions of higher education in expanding their capacities to recruit, retain and advance a diverse STEM faculty.
Essentially, the STEM Women of Color Conclave® is comprised of four critical elements that form an intersectional integration framework. This framework (Figure 1) purposefully embeds cultural relevance and authority into: 1) development of an agenda, 2) speaker selection, 3) exposure to intersectionality research, and 4) careful construction of thought mapping assemblies. All of these elements are tactically conceptualized and integrated in a cultural and contemporary context with keen attention to creating a cohesive experience for authentic professional development, while adding qualitative value to statistical profiles of women of color in the academy.

**Figure 1. SWOCC Intersectional Integration Framework**

**SWOCC Framework**

**Agenda for Women of Color**

As an intervention for increasing the number of women of color in the academic STEM disciplines, the Conclave focuses its attention on an agenda that is *for*, not *about*, women of color. To that end, the agenda is constructed in a way that suggests that women at the intersection of race and gender comprise a dominant culture in the academy. As such, elements of the agenda are both shaped by and tailored to the lived experiences of STEM women of color and to Conclave participant feedback. Therefore, the agenda ensures that this venue is accurate and intentional in its attempts to promote full inclusion, fully characterize statistical profiles and broadly disseminate the relevant information and appropriate themes most closely associated with the intersection of gender and race.
Culturally Competent Speakers

Each annual Conclave agenda arises from a theme that is carefully selected to provide novel insight and exploration into various domains of intersectionality as they relate to the STEM academy. The principal mechanism by which Conclave participants are introduced to and engaged in these themes is through the intentional selection of speakers who are deeply and demonstrably committed to issues of intersectionality as they pertain to STEM higher education. Conclave speakers are directed to address the audience in creative and highly interactive ways that can be simultaneously enlightening and empowering, as opposed to defeating and merely informative.

Thought Mapping Assemblies

In an effort to maximize time spent in and between multiple encounter phases of career identity, the Conclave Thought Mapping Assemblies are intended to support a healthy identity and world view for STEM women of color. Facilitated by nationally renowned experts, this venue provides Conclave attendees with opportunities to openly, bravely, and safely discuss relevant topics of intersectionality in a more informal and non-threatening atmosphere.

Intersectionality Research

Ong, et al. (2010) have recently identified a scarcity of a comprehensive body of literature that focuses on the unique experiences of all women of color, not just Black women. This dearth of information contributes to persistent feelings of isolation for women of color and an inherent lack of understanding among non-minority colleagues. An important aspect of the Conclave is to expose women of color from all STEM disciplines (particularly non-social scientists) to the current body of knowledge related to intersectionality in, and outside of, STEM. Such exposure is expected to stimulate interest among scholars, particularly those who possess the sensitivity to and affinity for intersectionality theory, and generate additional empirical and phenomenological works.
Look at Me

The STEM Women of Color Conclave®, aside from supporting an interpretive community for scientific innovation, is an important catalyst for fully integrating women of color in the academic STEM fields at all professorial and leadership levels. The intensive 2-day professional development meetings are grounded in and integrated with intersectionality theory that is believed to support and accelerate transition through the various stages of career identity (Mack, et al., 2013), while also catalyzing career and leadership actualization. This national convening, like other academy and society meetings, not only promotes membership culture and the establishment of traditions (Tan and Subramaniam, 2009; Frankel and Bird, 2003), but also provides opportunities for ameliorating feelings of isolation so often reported by underrepresented groups in STEM fields, serves as a foundation for holistic professional development and encourages cross-disciplinary interactions.

Annually, the Conclave brings together nearly 150 women and men faculty and administrators in STEM fields who are of diverse backgrounds, professorial ranks, and institution types – with increasing attention to Hispanic and American Indian women in STEM (Figure 2).
In addition to increasing racial/ethnic diversity among its attendees, the Conclave also boasts of disciplinary diversity. This is especially relevant for disciplines where women of color are acutely underrepresented, such as computer science, engineering, mathematics and the physical sciences (Figure 3). Disciplinary representation from these fields, in particular, is of importance for the Conclave as an intervention in ameliorating the underrepresentation of women of color in STEM because these fields are germane to U.S. economic growth and global preeminence in science and technology. It is of importance to note that the Black women attendees of the Conclave, annually, represent 20%, 15%, and 10% of all U.S. Black women engineering, computer science and physical science faculty, respectively.

**Figure 3. Conclave Attendance, by Discipline**

- **Life Sciences** (10%)
- **Physical Sciences** (10%)
- **Mathematics** (10%)
- **Computer Science** (10%)
- **Engineering** (14%)
- **Social Sciences** (8%)
- **Education** (10%)
- **Other** (11%)
- **Life Sciences** (10%)
In the United States, women of color – including Black, Hispanic and American Indian women – who collectively make up 14.4% of working-age adults (25-64 years) in the population, account for only 3.3% of the entire STEM professoriate. Recent data from the National Science Foundation (2015) indicates that progress has been made, particularly at the Assistant and Associate professor levels. However, the progression of STEM women faculty of color to upper professorial ranks and leadership positions remains low. This national trend is mirrored among those Conclave attendees who identify themselves as faculty, with 80% reporting that they are either Assistant and Associate Professors (Figure 4).

**Figure 4. Average Conclave Attendance, by Professorial Rank**
Strong Enough

At Conclave IV, in 2013, a baseline survey was conducted to examine whether or not the Conclave, as a career identity catalyst, could have an effect on either the self-efficacy or professional outcomes of attendees. Nearly 60% of attendees that year, representing all races/ethnicities responded to this survey (Table 1).

Table 1. Conclave Survey Respondents, by Race/Ethnicity

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<td>American Indian/Alaskan Native</td>
<td>3%</td>
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<tr>
<td>Asian</td>
<td>3%</td>
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<tr>
<td>Black, or African American</td>
<td>68%</td>
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<tr>
<td>Hispanic</td>
<td>13%</td>
</tr>
<tr>
<td>White</td>
<td>9%</td>
</tr>
<tr>
<td>Multiple Races</td>
<td>3%</td>
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Among survey responses, no statistical associations were found between self-efficacy scores and race/ethnicity, number of leadership conferences attended, academic rank, number of publications, number of research grants on which the respondent is the principal investigator, number of students advised or mentored, years of experience in academia, or years of experience in administrative role. This suggests that the Conclave, because it is poised to provide the holistic approach to professional development that few other efforts offer, can have profound impact in many areas of career advancement in STEM higher education for women of color.

In addition to the baseline self-efficacy survey, attendees were asked to evaluate the impact of external influences — such as the presence or absence of children/dependents in the household, familial responsibility, marital status, and access to mentors — on career development and achievement. Several noteworthy outcomes include the following:

- While there is no statistical relationship between baseline self-efficacy and career satisfaction, a relationship does exist between career satisfaction and the level of familial understanding of a career as an academician.

- There is a relationship between career satisfaction and regular access to and interaction with a mentor.
Right Side Up Again

In the conclusion of her speech, Sojourner proclaimed that a collective effort, among women and men, would be needed to reverse gender imbalances and “… turn [the world] right side up again.” Indeed the STEM Women of Color Conclave® provides an appropriate and sustainable means for achieving this important feat – not only because it assumes cultural authority for accurately capturing the full range of narratives of women of color in the academic STEM disciplines, but also because it wholeheartedly embraces the inherent responsibility thereof.

To that end, the STEM Women of Color Conclave® resolves to be responsible and accountable for the personal and professional well-being of STEM women faculty of color in the following ways:

The Conclave will function as a nationally recognized structure dedicated to a culturally-informed approach to promoting and protecting the interests of the STEM women faculty of color.

The Conclave will leverage the explanatory power of its intersectional framework to maximize the cultural authority of women faculty of color as a newly empowered interpretive community in STEM.

The Conclave will serve as a socially-responsible repository for data collection and protection for the population it serves and the narratives that fully characterize their statistical profiles.

The Conclave will promote empirical and qualitative research that relies on an intersectional lens to deepen and expand our understanding of STEM women faculty of color.

The Conclave will cultivate and respond to the collective disciplinary and experiential knowledge of its participants as a means of creating environments in which STEM women faculty of color can thrive.

The Conclave will strengthen its capacity to provide a social-psychological experience for empowering women of color to move to full intersectional integration within STEM with their “lived experiences” not only intact, but as a core driver of success.
REFERENCES

Old Sojourner Ain’t Got Nothing More to Say


