

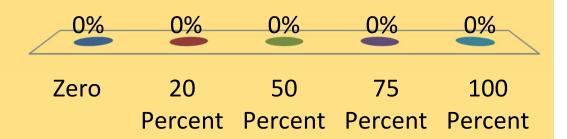
Institutional Racism, Bias, and Discrimination in STEM Disciplines

Professional Learning Community (PLC) in the College of Earth Ocean and Atmospheric Sciences (CEOAS)

Professor Dwaine Plaza
Associate Dean College of Liberal Arts

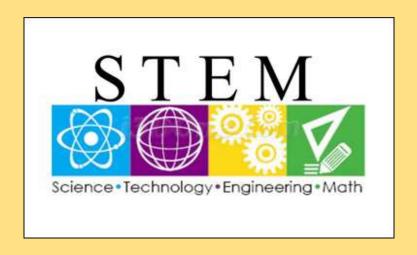
What Percent of the Readings did you complete before the lecture Today?

- A. Zero
- B. 20 Percent
- C. 50 Percent
- D. 75 Percent
- E. 100 Percent



Lecture Outline

- •Terms and concepts—race, racism, systemic discrimination, institutionalized discrimination
- Stereotyping/ Prejudice
- •What is cognitive bias?
- •Social capital/ cultural capital— treatment and opportunities?
- •What is White privilege? What is male privilege?
- •Discussion of Pipelines of privilege for women in STEM
- •What issues do graduate students of color face on the OSU campus?
- •Administrators and Faculty role in helping to make OSU a better place for students of color and women overall



Racism and Racist Thoughts

RACISM

Is the belief that humans are subdivided into distinct hereditary groups that are innately different in their social behavior and mental capacities and that can therefore be ranked as superior or inferior. The presumed superiority of some groups and inferiority of others is subsequently used to legitimate the unequal distribution of the society's resources, specifically various forms of prestige, and power.

Characteristics of Racist Thoughts:

- (1) Racist thinking presumes that differences among groups are innate and not subject to change.
- (2) Racist thoughts are inherently ethnocentric.
- (3) Racist ideologies do not necessarily reflect reality...
- (4) Racist thoughts are most prevalent in societies in which physical differences among groups are pronounced.

Functions of Racism

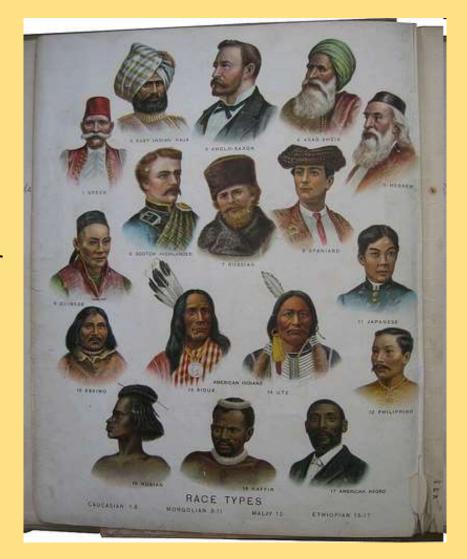
- (1) By Naturalizing inequality using a racist ideology this tends to promote and maintain the status quo for the majority groups who enjoy the powerful positions.
- (2) By declaring or portraying a group as being inferior it becomes possible to rationalize the expulsion, annihilated or enslavement of a population.

Historical Treatment of Race

Races were distinguished by skin color, facial type, cranial profile and size, texture and color of hair. Moreover, races were almost universally considered to reflect group differences in moral character and intelligence.

The eugenics movement of the late 19th and early 20th centuries, inspired by Arthur Gobineau's An Essay on the Inequality of the Human Races (1853-1855).

In Europe and North America the idea of race became a way of rigidly dividing groups by culture as well as by physical appearances. Campaigns of oppression and genocide were often motivated by supposed racial differences.



Social Meaning of Race Today Affects

- Life chances
- Where you live
- How you are treated
- Access to wealth, power and prestige
- Access to education, housing, and other valued resources
- Life expectancy



Prejudice and Stereotypes

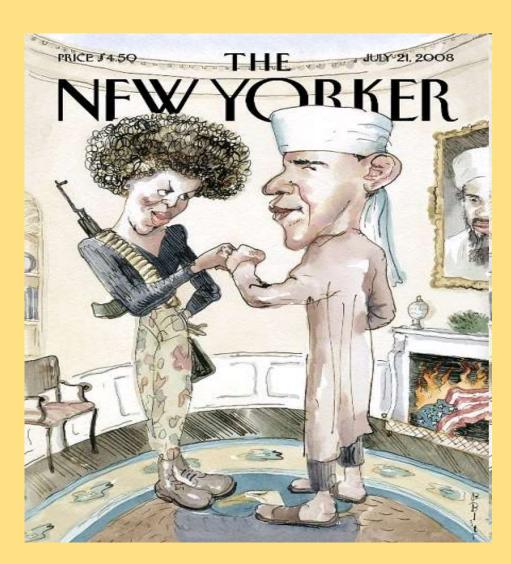
Prejudice: can be defined as an arbitrary belief or feeling toward an ethnic group or its individual members. Specifically, prejudice involves a judgment based on a fixed mental image of some group or class of people and applied to all individuals of that class without being tested against reality

Various levels of prejudice:

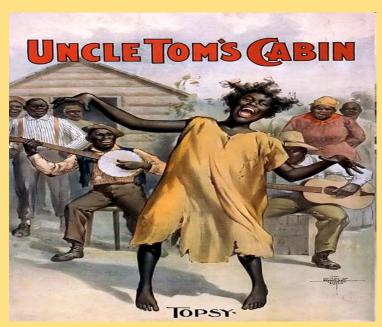
- (1) Categorical or generalized thoughts
- (2) Inflexible
- (3) Negative
- (4) Stereotypes

Stereotypes: First suggested by Walter Lippmann, who described them as "pictures in our heads that we do not acquire through personal experience. In the case of ethnic stereotypes, distinctive behavioral traits of an ethnic group are selected by out-group members who exaggerate them to construct a shorthand depiction of the group.

Stereotypes in American Popular Culture & Advertisements



Stereotypes and prejudice remain in our consciousness over time





Types of Discrimination in the United States

DISCRIMINATION

Whereas prejudice is the attitudinal element in enforcing ethnic stratification, discrimination is the active or behavioral element. It involves behavior aimed at denying members of particular ethnic groups equal access to societal rewards. It goes well beyond thinking unfavorably about members of certain groups. Prejudice and discrimination often but not always occur together.

Three General Types of Discrimination:

- (1) Individual Discrimination: These are actions taken by individuals or groups of limited size to injure or deny something to members of minority ethnic groups.
- (2) Institutional Discrimination: may be legal or customary, in which case it is not socially unexpected or disapproved but is legitimized. (Example Jim Crow Laws)
- (3) Structural Discrimination: most difficult form of discrimination to detect in modern multiethnic societies. This is an unintended form of discrimination. Example:

Individual, Structural verses Institutional Discrimination

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Many people are outraged that a "white man shot a black man."
There is only one problem with that statement: The shooter IS
NOT white. So why the call to hate white people over this?



1876-1965 Jim Crow Laws





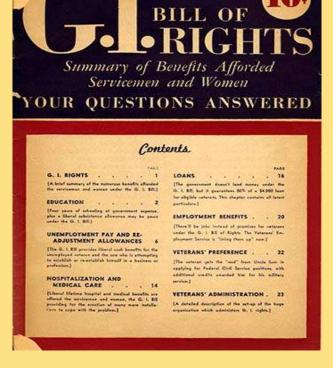
George Zimmerman Travon Martin

GI Bill for African Americans Post WWII









Public Policy that leads to Social Class Advantages

What is Cognitive Bias?

O Cognitive bias – unconscious patterns of thought which have the unintended effect of conferring advantage to some and disadvantage to others

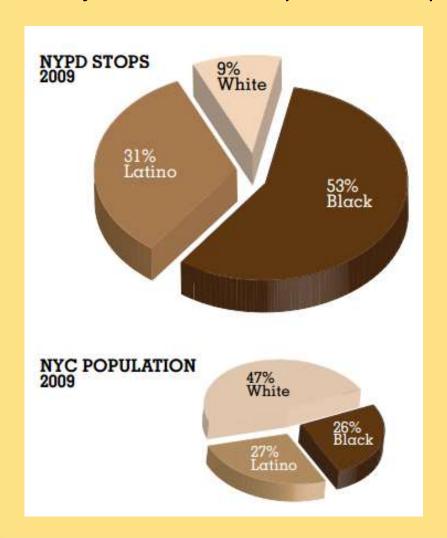
(Krieger 1995; Reskin 2000)

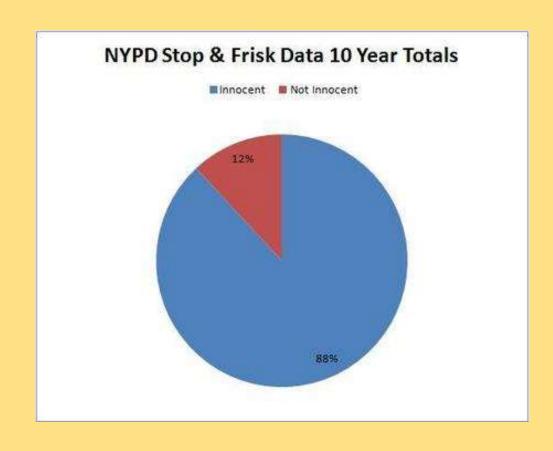
OStructural bias – institutional patterns and practices that confer advantage to some and disadvantage to others based on identity.

(McIntosh 1988; Rosette 2006)

What is Cognitive Bias and how does this happen?

A cognitive bias is a pattern of deviation in judgment, whereby inferences about other people and situations may be drawn in an illogical fashion. Individuals create their own "subjective social reality" from their perception of the input.





How does Cognitive Bias happen?

Once we've made up our mind about a group/ individual (consciously or not), it's often hard to change our opinion. When beliefs are formed, confirmation biases kick in and begin to look for information that supports our views, and selectively ignore everything which doesn't.

Our brains are hard-wired to automatically categorize things based largely on surface information. **Primitive Brain**— **Fight or Flight instinct.**

When we classify others, we mentally put them into an 'in group' or 'out group'. An in group is any group of which the perceiver is a part of, while the out group is a group in which the perceiver is not a member.

Our brains are designed to 'fill in the gaps' in order to provide organization in our knowledgethis system aims to make sense of our environment and dispel fears. One reason people may have negative opinions about out groups is because of underlying fear.



Who is part of the Dominant Group in the United States?

- The dominant ethnic group is the one at the top of the ethnic hierarchy, with maximal access to the society's power resources, particularly political authority, and control of the means of economic production.
- The dominant ethnic group (WASP) is given the power to regulate the flow and composition of further immigration to the society and to determine the social treatment of other groups as they have entered the society.





One drop Rule Applies to President Obama

What is Having Cultural Capital in the United States?

Cultural Capital— exposure to art and museums, practice the dominant religion, speak English, have a Christian name, having no accent or a neutral accent, dressing appropriately in styles, knowing popular culture, includes knowing music, look like the dominant group, knowing jokes and slang's, being physically attractive according to the values of the dominant culture.

Leads to Social Capital



What is Social Capital in the United States and how does this benefit you?

Social Capital are the networks one gets access too because of their cultural capital. The better your access to networks will likely predict your social mobility and your future success.

Having lots of social capital also gives you a sense of belonging and confidence to know you can do anything you want.



WHAT IS WHITE PRIVILEGE?

"White privilege" is a name for the unearned advantages and benefits that accrue to "white" (or lighter skinned) people by virtue of a system that establishes the experiences, values, and perceptions of their group as the norm and what is most desired or esteemed.

White privilege

- (1) automatically confers dominance to one group, while subordinating groups of color in a descending relational hierarchy,
- (2) owes its existence to the history and ideology of White supremacy, both as an idea and a set of legal and social practices
- (3) is premised on the mistaken notion of individual meritocracy and deservingness (hard work, family values, etc.) rather than favoritism,
- (4) is deeply embedded in the structural, systemic and cultural workings of U.S. society and
- > (5) operates within an invisible veil of unspoken and protected secrecy.
- (6) means not having to think about race all the time--the privilege to enjoy the benefits of whiteness without acknowledging those advantages and while denying that "race matters"

In the United States Today: White skin privilege usually includes...

Invisible, unearned assets

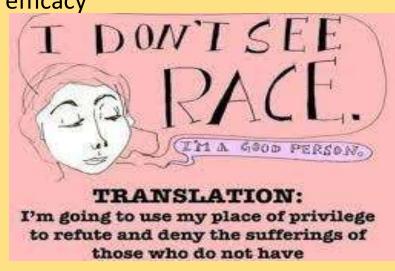
A lack of awareness of "over rewards" due to racial status

A belief in the "myth of meritocracy"

A power that is "conferred systematically"

The automatic ability to set agendas and assert preferences

Access to resources and a "concomitant sense of social efficacy"



What are the typical Reactions to the Term "White Privilege" from:

White Euro-American people:

- (1) Often find the question perplexing,
- (2) Would rather not think about their whiteness,
- (3) Are uncomfortable or react negatively to being labeled "White",
- (4) Deny its importance in affecting their lives,
- (5) Seem to believe that they are unjustifiably accused of being bigoted by virtue of being White.
- (6) Often are defensive and claim that they do not see color and that they are bias and prejudice, free in their day to day activities.
- (7) They deny the reality of people of color and to define their experience from a White perspective.

What is Male Privilege?

Male privilege is a concept within sociology for examining social, economic, and political advantages or rights that are available to men solely on the basis of their sex. A man's access to these benefits may vary depending on how closely they match their society's ideal masculine norm.

- •Men are less likely to be interrupted when they speak
- •Men are automatically assumed to know what we are talking about (experts).
- •Men are allow you to take up more physical space.
- •Men are more likely to get praise for ordinary parental duties or for being a single father.
- •Men are not judged as a "slut" even for things unrelated to their sex life.
- •Men are less likely to be the target of street harassment. The majority of women have
- experienced street harassment in their lives.
- Men are less likely to experience intimate partner violence.
- Men are less likely to be stalked.
- •Men are less likely to be raped.



What Causes Privileged Systems to Arise?

Organizations or systems are formed by dominant groups, and reflect the norms and beliefs of those groups

- Standards, expectations, and assumptions based on group norms typically aren't questioned
- Procedures and practices reinforce those standards
- Unearned privileges benefit dominant groups but remain invisible to their members – this is just the way things are

Privileged systems become the status quo; members resist change

Attempts to rectify injustice may perpetuate structural biases by:

- Focusing on perceived "deficits" of non-dominant groups and not addressing unearned advantages of dominant groups
- Using dominant cultures as the yardstick to measure other groups

Approximately what Percentage of STEM Jobs are Done by Women Today?

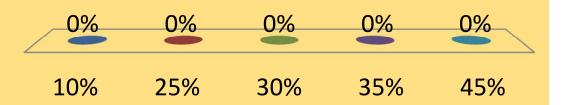
A. 10%



C. 30%

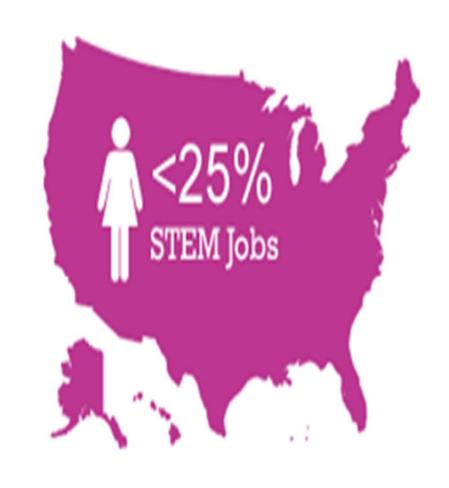
D. 35%

E. 45%





The wage gap between women and men is much smaller in STEM occupations than other occupations. In STEM fields, women earn \$0.92 for every \$1 earned by men, compared to \$0.77 for other fields.

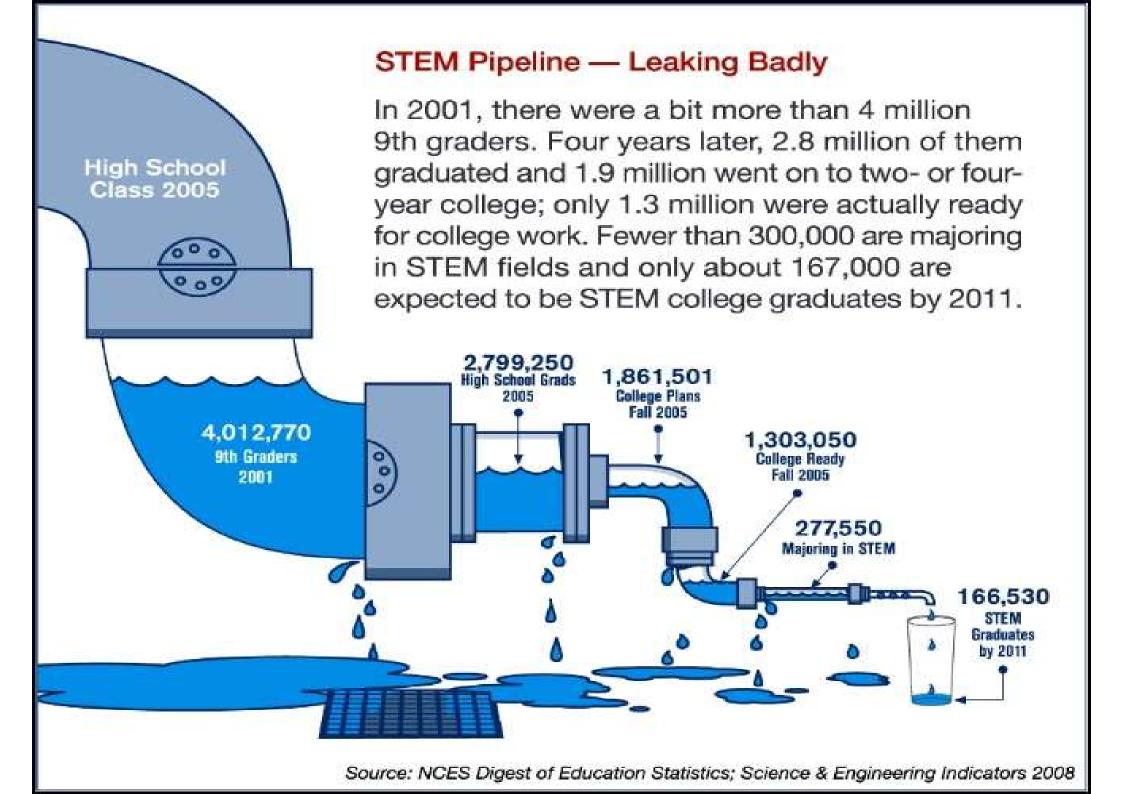


Although women fill close to half of all jobs in the U.S. economy, they hold less than 25 percent of STEM jobs.

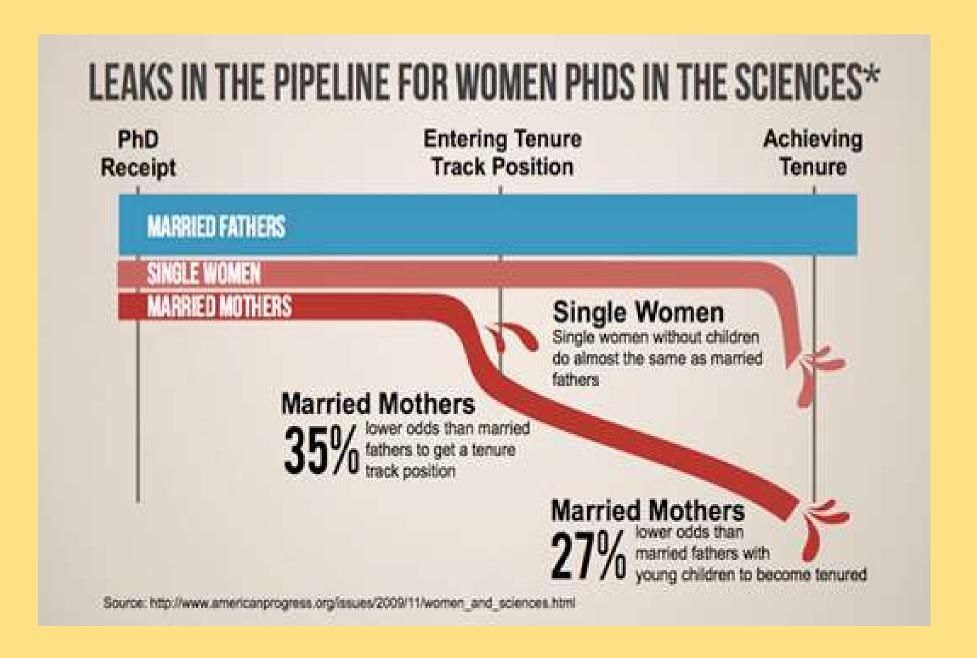
Earning Gap Intersectionality







Male Privilege in the Academic Pipeline



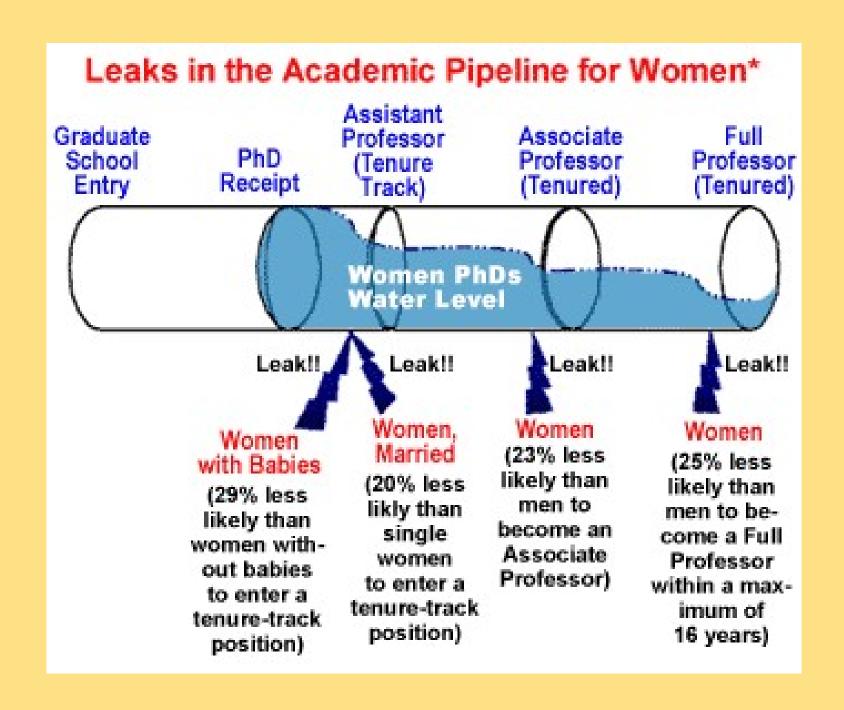
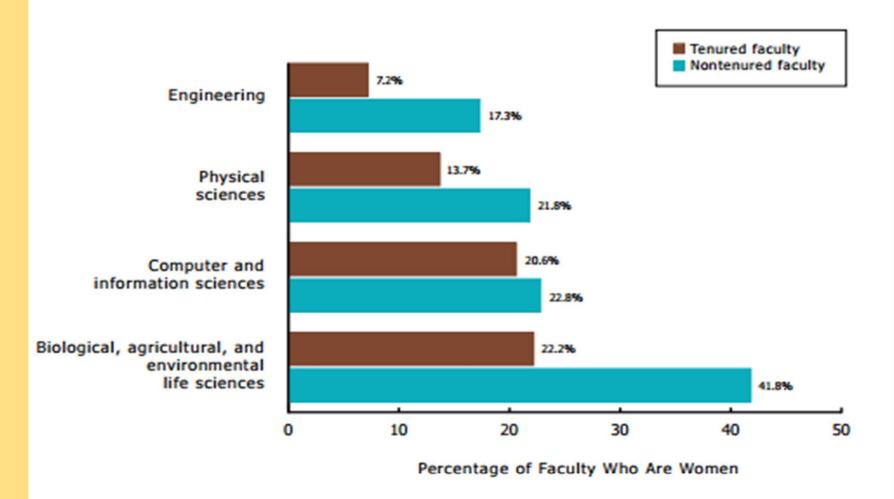


Figure 13. Female STEM Faculty in Four-Year Educational Institutions, by Discipline and Tenure Status, 2006

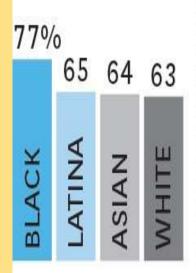


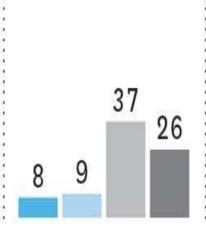
Source: National Science Foundation, Division of Science Resources Statistics, 2009, Characteristics of doctoral scientists and engineers in the United States: 2006 (Detailed Statistical Tables) (NSF 09-317) (Arlington, VA), Author's analysis of Table 20.

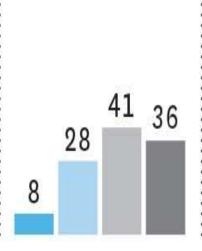
PERCENT OF U.S. WOMEN IN STEM WHO REPORT...

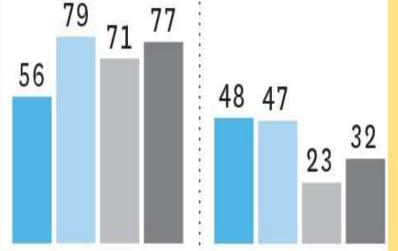
having to provide more evidence of competence than others to prove themselves. that colleagues have suggested they should work fewer hours after having children. that at work, they find themselves pressured to play a stereotypically feminine role.*

that women in their work environments support one another. they've been mistaken for either administrative or custodial staff.







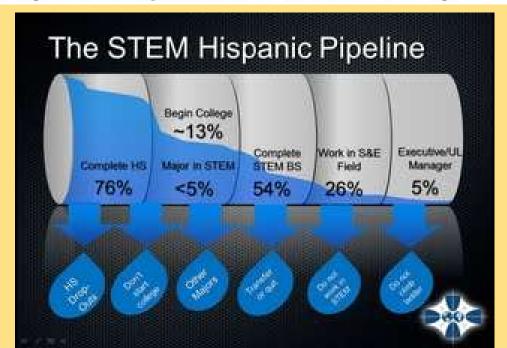


^{*}SUCH AS "OFFICE MOTHER" OR "DUTIFUL DAUGHTER." **SOURCE** JOAN C. WILLIAMS, KATHERINE W. PHILLIPS, AND ERIKA V. HALL

3lacks in Engineering

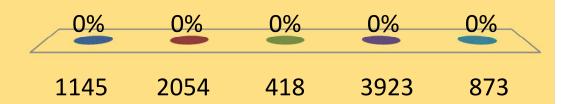


All degree data is from ASEE and is the average from 2009-13. The coefficient of variance can range from 3%-12% for a particular number. K-12 data is from 2011-12 from ed.gov



Of the 31,000 Students at Oregon State University in 2016, approximately how many are African American?

- A. 1145
- B. 2054
- C. 418
- D. 3923
- E. 873

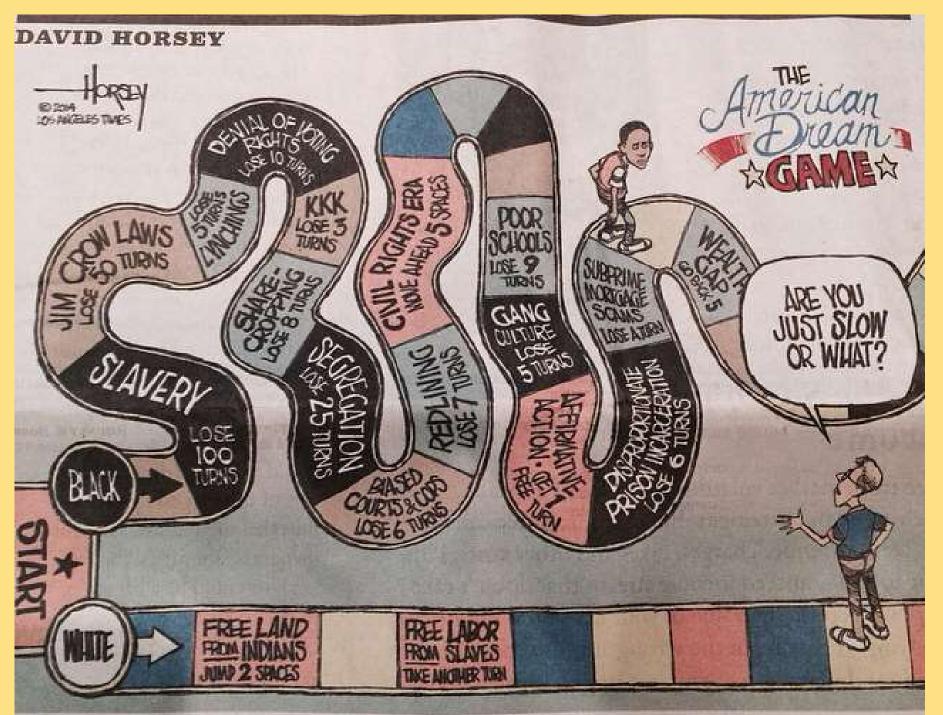


OSU Graduate Student Enrollment by Race 2016

Minority Enrollment

Enrollment by Academic Unit, Ethnicity, and Student Level

	American Indian/ Alaskan Native				Asian				Black				Hispanic				Native Hawaiian/ Pacific Islander			
Academic Unit	Under- Grad	Grad	First Prof.	Total	Under- Grad	Grad	First Prof.	Total	Under- Grad	Grad	First Prof.	Total	Under- Grad	Grad	First Prof.	Total	Under- Grad	Grad	First Prof.	Total
Ag. Sciences	18	3		21	47	7		54	20	3		23	194	29		223	1			1
Business	14	-	•	14	182	13	-	195	37	3	-	40	276	9	-	285	11	-	-	11
Earth, Ocean, and Atmos_Sci	7	-		7	17	3	-	20	5			5	44	8	-	52	2	-	-	2
Education		3		3		13	-	13		14	-	14	1	24	-	25		1	-	1
Engineering	23	1		24	744	48	-	792	89	8	-	97	537	32	-	569	15	1	-	16
Forestry	4	2		6	6	5	-	11	4	-	-	4	46	11	-	57	-	-		
Graduate School		2		2		37	-	37		23	-	23		50	-	50	2	3	-	3
Liberal Arts	26	3		29	161	10	-	171	82	5	-	87	400	28	-	428	24	1		25
Pharmacy		-	0		-	2	132	134	-		6	6	-	1	19	20	-	-	1	1
Public Health and Human Sci	25	3		28	195	16	-	211	42	4	-	46	332	33	-	365	7	-	-	7
Science	10	1		11	444	23	-	467	40	3	-	43	313	19	-	332	4	-	-	4
Univ. Explor. Studies	8			8	52	-	-	52	30	-	-	30	114	-	-	114	11		-	11
Vet. Medicine	-	-	1	1	•	-	11	11	-	•	-			-	16	16	-	-	-	
Total	135	18	1	154	1,848	177	143	2,168	349	63	6	418	2,257	244	35	2,536	75	6	1	82



Issues African American Graduate Students Face at OSU

- 1. Pressure to represent your race or ethnic group
- 2. Dealing with stereotypes—Stereotype threat
- 3. Dealing with daily Micro-Aggressions
- 4. Tension of blend into your department or program versus standing out
- 5. Difficulties teaching (and being part of) a student body with little diversity.
- 6. Small numbers of minority professors as potential mentors or role models
- 7. Lack of cultural understanding from faculty and other students
- 8. Lack of entertainment/leisure time/community building opportunities in Corvallis
- 9. Dealing with pressures in the larger society—police racial profiling and harassment
- 10. Hegemony and stress of living in a location that puts you under a micro-scope

24/7

Faculty of Color and STEM Women Face Similar Microaggressions in the OSU Work Place

- •Feeling always under surveillance.
- Scholarship and leadership is often not recognized
- Persistent unjustified criticism
- Public humiliation
- Threats to professional standing
- Scrutiny of work
- Unfair allegations of incompetence
- Can be verbal or horizontal (other colleagues)
- Lateral Violence
- Campus Incivility
- Bullying
- Campus Aggression



Strategies to Facilitate a Change in the Culture of the College or Unit

Begin by coming to terms and admitting that there is a problem in the structure and culture of the College/ Unit.

Form work teams to access workplace diversity and inclusivity for women and people of color

Determine if there exists historical patterns within the department in hiring and retaining women, faculty of color, and in recruiting and mentoring students of color...?

Set realistic "thresholds" and develop goals for establishing an inclusive multicultural College that has as its core the dismantling of the patriarchic structures of order.

Organizational senior leaders in the college need to invested in change:

- •build broad coalitions to support the change process
- •fill key positions with competent change agents
- •use task forces to guide the implementation of change



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