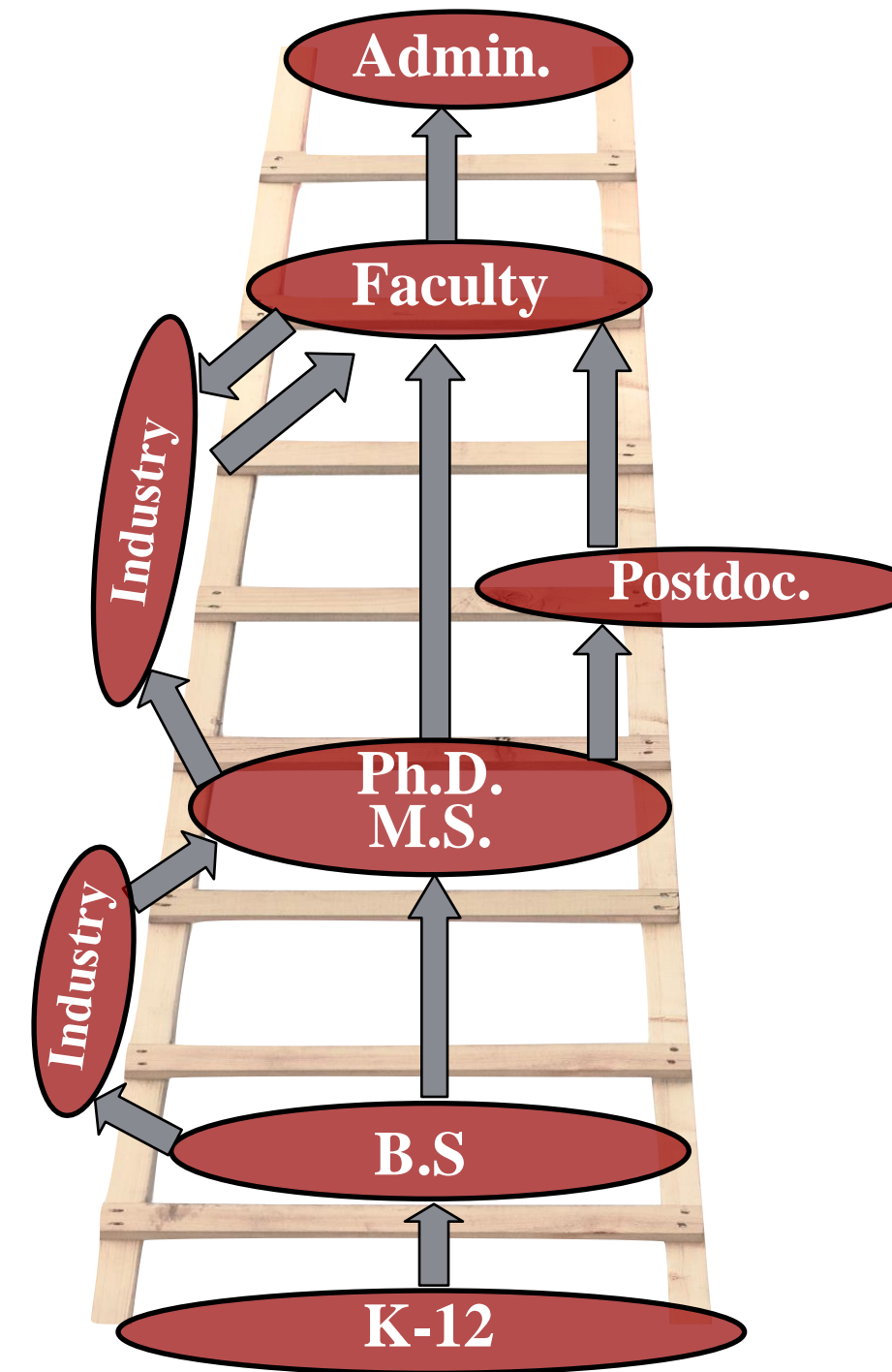


# **Departmental/Institutional Inclusion: Cultivating Change**

**Prof. Dontarie Stallings  
June 22, 2021**

# Re-Imagining the Pipeline into a Ladder

- Every rung in the ladder represents a point at which future faculty can be championed to jump past the next transition, rather than just trained to completion.
- Design strategic interventions for every step of the ladder
- Let's focus on making faculty jobs desirable, accessible and inclusive



# Demographics of Undergraduate Students in 2018

Undergraduate Demographic Representation by Percentatge, AY2017-18

	US Population			Enrolling in College			Degree Conferred in Chemistry		
	% Female	% Male	% Total	% Female	% Male	% Total	% Female	% Male	% Total
<b>African-American / Black</b>	6.5%	6.0%	12.5%	7.5%	4.5%	12.1%	5.3%	2.7%	8.0%
<b>Asian-Pacific</b>	3.0%	2.5%	5.5%	3.3%	2.9%	6.3%	7.5%	6.3%	13.8%
<b>Hispanic / Latino / Latina</b>	9.1%	9.3%	18.5%	11.8%	8.4%	20.2%	6.3%	6.5%	12.8%
<b>Native American</b>	0.4%	0.4%	0.8%	0.4%	0.3%	0.7%	0.2%	0.2%	0.44%
<b>Multi-Race</b>	1.1%	1.1%	2.2%	2.1%	1.6%	3.7%	2.1%	2.1%	4.1%
<b>White, Non-Hispanic</b>	30.5%	29.7%	60.1%	27.3%	22.0%	49.3%	27.9%	30.0%	57.9%
<b>Other</b>	0.1%	0.4%	0.5%	4.0%	3.8%	7.8%	1.4%	1.5%	2.9%
<b>Total</b>	<b>51%</b>	<b>49%</b>	<b>100%</b>	<b>57%</b>	<b>43%</b>	<b>100%</b>	<b>51%</b>	<b>49%</b>	<b>100%</b>

NOTE: This data reflects the numbers generated by the National Center for Science and Engineering Statistics (April 29, 2021). The title of the report is 'Women, Minorities, and Persons with Disabilities in Science and Engineering'. The report provides statistical information about the participation of these three groups in science and engineering education and employment. A formal report, in the form of a digest, is issued every 2 years,

**% US Population**

URPOC: 34%

**% Enrolling in College**

URPOC: 36.7%

**% URPOC Undergrad Degree**

Chemistry: 25.3%

# Demographics of MS & PhD Students in 2018

## Graduate Demographic Representation by Percentatge, AY2018

	US Population			MS Degree Conferred in Chemistry			PhD Degree Conferred in Chemistry		
	% Female	% Male	% Total	% Female	% Male	% Total	% Female	% Male	% Total
<b>African-American / Black</b>	6.5%	6.0%	12.5%	2.6%	2.4%	5.0%	—	—	4.2%
<b>Asian-Pacific</b>	3.0%	2.5%	5.5%	5.9%	5.8%	11.7%	—	—	11.1%
<b>Hispanic / Latino / Latina</b>	9.1%	9.3%	18.5%	5.0%	5.1%	10.1%	—	—	6.1%
<b>Native American</b>	0.4%	0.4%	0.8%	0.1%	0.4%	0.4%	—	—	0.4%
<b>Multi-Race</b>	1.1%	1.1%	2.2%	1.7%	1.3%	3.0%	—	—	2.2%
<b>White, Non-Hispanic</b>	30.5%	29.7%	60.1%	27.1%	37.8%	64.9%	—	—	70.5%
<b>Other</b>	0.1%	0.4%	0.5%	2.8%	2.1%	4.9%	—	—	5.5%
<b>Total</b>	<b>51%</b>	<b>49%</b>	<b>100%</b>	<b>45%</b>	<b>55%</b>	<b>100%</b>	<b>39%</b>	<b>61%</b>	<b>100%</b>

NOTE: This data reflects the numbers generated by the National Center for Science and Engineering Statistics (April 29, 2021). The title of the report is 'Women, Minorities, and Persons with Disabilities in Science and Engineering'. The report provides statistical information about the participation of these three groups in science and engineering education and employment. A formal report, in the form of a digest, is issued every 2 years,

**% US Population**

URPOC: 34%

**% URPOC MS Degree**

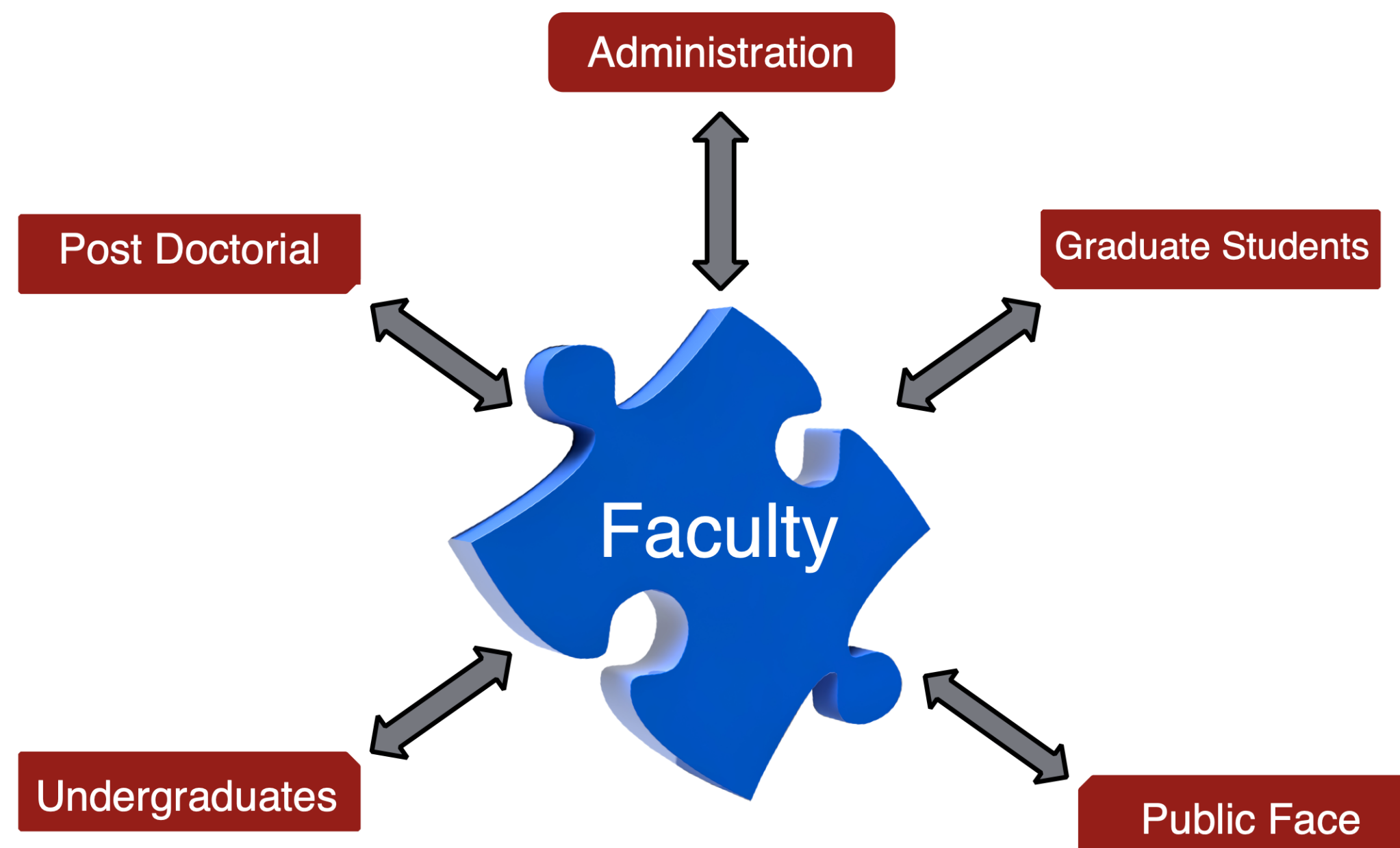
MS Chemistry: 18.5%

**% URPOC PhD Degree**

PhD Chemistry: 12.9%

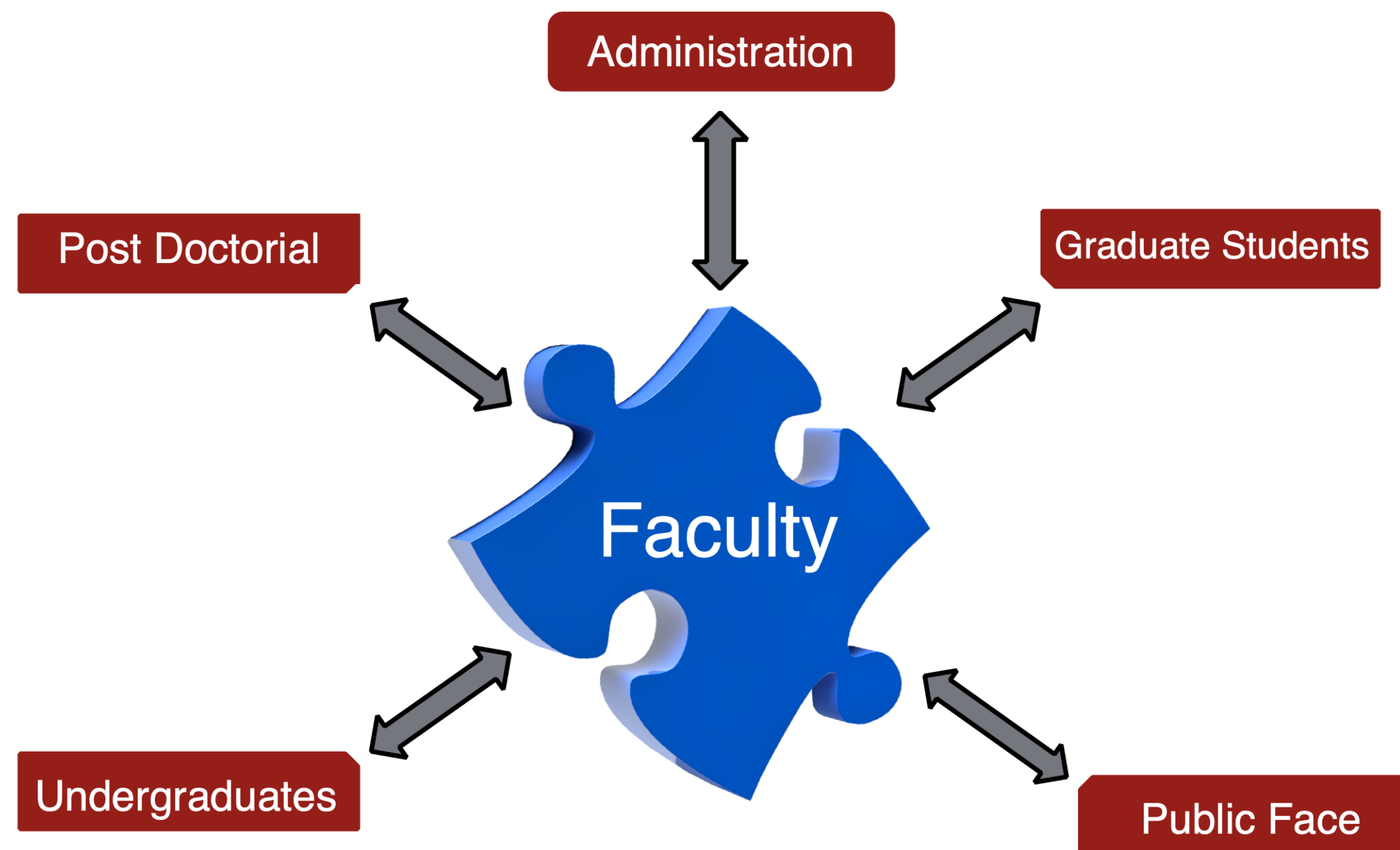
# Key Change Agents

- Faculty represent the fulcrum for change within the university/our fields
- Every single faculty member has the capacity to be part of the solution
- We are training the next generation of scientist.



# Key Change Agents

- The crisis of underrepresentation
- By 2050, the US will be a majority minority nation
- Our aim is for our scientific workforce to reflect that shift in population
- **How do we get there?**



# How do we address the Problem?

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## Aspire

- Clarity w.r.t. what you/department values
  - Understand what you want your culture to be
  - lineup your leadership actions with your target culture
  - Members of the “out-group” are often penalized by unwritten rules and lack of transparency.
  
- Quantitative decision making
- Top-down leadership
- Effective assessment
- Link to meritocratic culture



# How do we address the Problem?

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## Internally Assess

- Clarity w.r.t. what you/department values
  
- Quantitative decision making
  - know your internal statistics
  - climate survey
  - utilize best “peer reviewed” practices
  
- Top-down leadership
- Effective assessment
- Link to meritocratic culture



# How do we address the Problem?

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## Build for the Future

- Clarity w.r.t. what you/department values
- Quantitative decision making
  
- Top-down leadership
  - diversity management with actionable responsibilities
  
- Effective assessment
- Link to meritocratic culture



# How do we address the Problem?

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## Act

- Clarity w.r.t. what you/department values
- Quantitative decision making
- Top-down leadership
  
- Effective assessment
  - plan → act → analyze → adjust
  
- Link to meritocratic culture

# How do we address the Problem?

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## Wholesale Incorporation

- ☑ Clarity w.r.t. what you/department values
- ☑ Quantitative decision making
- ☑ Top-down leadership
- ☑ Effective assessment
  
- ☑ Link to meritocratic culture
  - link diversity and inclusion to management efforts
  - Make hiring, tenure, and promotion decisions based upon ability, results, and merit



# Conclusion

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- Demographic data frames where we are, where we failing, and where we are succeeding
  - In the **OXIDE** project, we believe that this requires a focus on the promotion from doctorates to the professoriate
- The numbers demonstrate that we need to systemic changes in the climate and representation at every level of academic education and research
  - In the **OXIDE** project, we believe that this requires intentional changes in policies and procedures as this workshop has been designed to inform and motivate
- At every level, leadership needs to take action to improve DEI climate and increase participation

# Acknowledgements

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