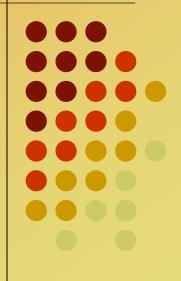
# Advancing Diversity at Virginia Tech

Dr. Elizabeth Creamer, Director of Assessment, AdvanceVT Leigh Harrell, AdvanceVT Graduate Fellow, Statistics Instructor January 12, 2009







# **Presentation Overview**

- Assess change in perceptions of *climate* between 2005 and 2008 surveys for tenured and tenure-track faculty
- Identify areas of significant difference between groups (gender, tenure status, race/ethnicity)
- Examine the relationship between departmental climate and other important aspects of faculty life







# **Survey Respondents**

- 2005 survey
  - 810 tenured and tenure-track faculty, 59%
- 2008 survey
  - 700 tenured and tenure-track faculty, 45%
- Comparisons of Respondents
  - Similar in college, gender and ethnic breakdown
  - Slightly higher proportion of pre-tenure faculty in 2008





## 2008 Survey Respondents by Gender and Tenure Status

	Survey Respondents Sept. 2008*		Total Tenured & Tenure- Track Faculty Sept. 2008	
	n	% of respondents	n	% of population
Male	477	68.1	1000	75.2
Female	223	31.9	329	24.8
Tenured	511	73.0	996	64.0
Pre-Tenure	189	27.0	327	36.0

\*Results for Tenured and Tenure-Track Faculty Respondents Only





#### 2008 Survey Respondents by Race/Ethnicity

	Survey Respondents Sept. 2008*		Total Tenured & Tenure- Track Faculty Sept. 2008	
	n	% of respondents	n	% of population
American Indian / Alaskan Native	2	0.3	6	0.4
Asian / Pacific Islander	65	9.3	162	12.2
Black	21	3.0	47	3.5
Caucasian	593	84.7	1082	81.4
Hispanic	19	2.7	32	2.4

\*Results for Tenured and Tenure-Track Faculty Respondents Only



## 2008 Survey Respondents by College



	Survey Respondents Sept. 2008*		Total Tenured & Tenure-Track Faculty Sept. 2008	
	n	%	n	%
Agriculture and Life Sciences	123	17.6	209	15.7
Architecture and Urban Studies	41	5.9	98	7.4
Business	39	5.6	91	6.8
Engineering	132	18.9	300	22.6
Liberal Arts and Human Sciences	181	25.9	291	21.9
Natural Resources	40	5.7	58	4.4
Science	98	14.0	194	14.6
Veterinary Medicine	39	5.6	69	5.2
Non-College Faculty	7	0.9	19	1.4



\*Results for Tenured and Tenure-Track Faculty Respondents Only

# **Analyzing Survey Results**

- Scales are clusters of related questions developed to identify major constructs; in this case, constructs related to faculty work-life and satisfaction.
- Conclusions based on groups of related items are more valid than responses to any single question.
- "Scale score": Responses to individual questions in the scale are summed and a mean score derived for the scale.

**Means 1 - 2** 

Means 3 - 4



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# **AdvanceVT Work-Life Survey Scales**

- Departmental climate (10 questions)
- Department leadership (8 questions)
- Work-life balance (12 questions)
- Diversity (9 questions)
- Job satisfaction (3 questions)





# Key Conclusions, 2005

- Regardless of discipline, race, or gender, departmental climate is significantly related to overall job satisfaction for faculty.
- Women and members of underrepresented groups generally have far less positive views of climate than do men and Caucasian faculty.





# Key Conclusions, 2008

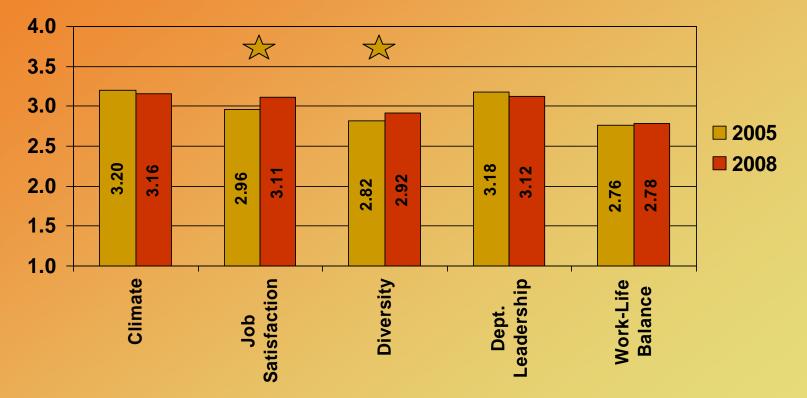
- Job satisfaction and diversity showed significant positive increases between 2005 and 2008 surveys.
- Women, Blacks, and Hispanics generally have less positive views than men and Caucasian faculty.





# Scale Score Means 2005 vs. 2008





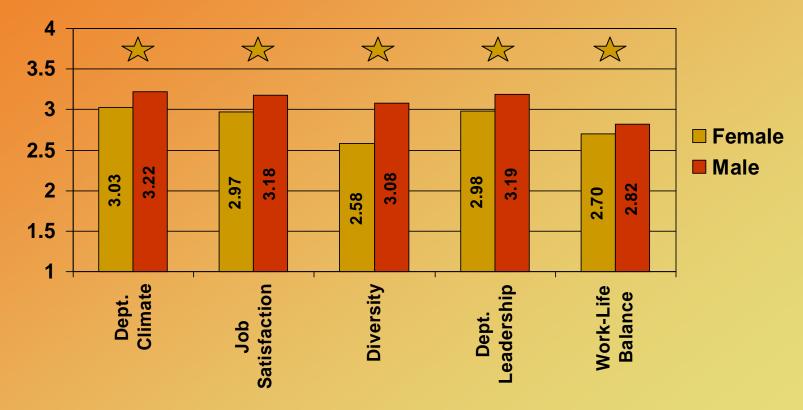
Indicates statistically significant difference between 2005 and 2008 responses







# **2008 Differences by Gender**



Indicates statistically significant difference between female and male in 2008 responses





# **2008 Differences by Race/Ethnicity and Tenure Status**

- Ethnicity
  - Caucasian faculty had significantly higher means than Hispanic faculty on all five scales.
  - Caucasian faculty had significantly higher means than Black faculty on work-life balance, job satisfaction, and diversity.
  - Caucasian and Asian/Pacific Islander faculty had no significant differences on any of the five scales.
- Tenure Status

VirginiaTech

• Tenured faculty had significantly higher means than pre-tenure faculty on work-life balance.

# Departmental Climate Scale (10 Items)

- Measures faculty perceptions of relationships in the work environment
- Sample Items:
  - I have good relationships with my co-workers.
  - There is a lot of conflict in my department.
  - Part-time and non-tenure track faculty are treated as second class citizens in my department.



# Departmental Climate 2005 vs. 2008

- No significant change
  - 2005 overall mean = 3.20
  - 2008 overall mean = 3.16

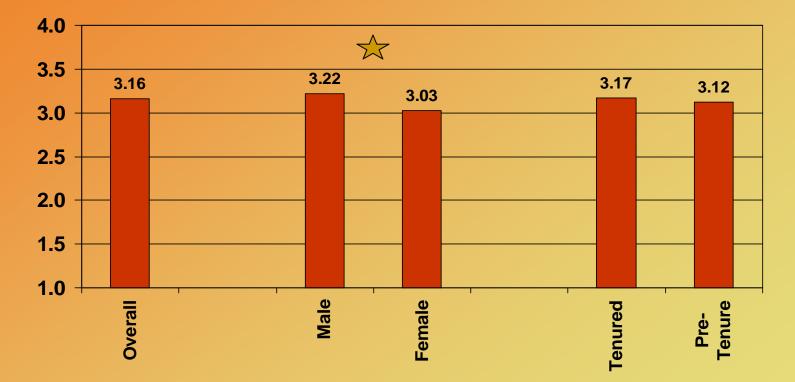


- No significant change in mean score by gender, race/ethnicity, or tenure status
- Means > 3.0 indicate faculty members have a generally positive view of departmental climate.





#### **Departmental Climate** 2008 Differences by gender & tenure status

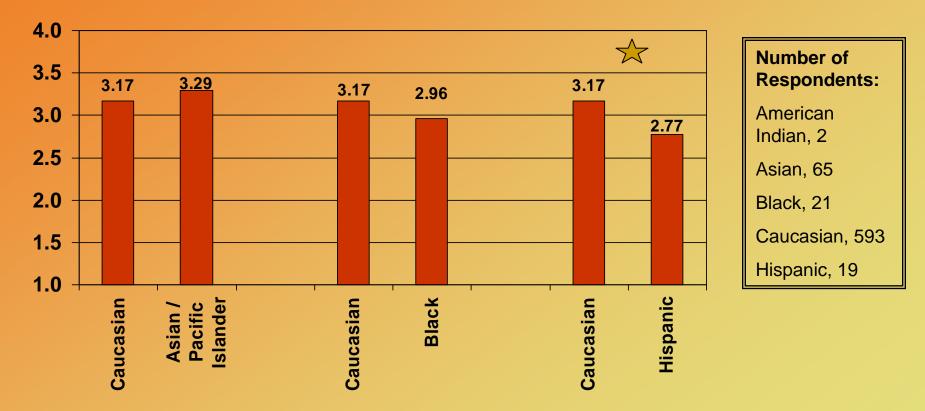


Indicates statistically significant difference between groups.





## **Departmental Climate** 2008 Differences by Ethnicity



Indicates statistically significant difference between Caucasian & other group.





# **Department Leadership Scale** (8 Items)

• Measures faculty perceptions of the administration in their department

#### • Sample Items:

- Overall, my department is well managed.
- I am treated fairly by the administration in my department.
- The leadership of my department can be trusted.





# **Department Leadership** 2005 vs. 2008

• No significant change

- 2005 overall mean = 3.18
- 2008 overall mean = 3.12



- No significant change in mean score by gender, race/ethnicity, or tenure status
- Means > 3.0 indicate faculty members have a generally positive view of departmental leadership

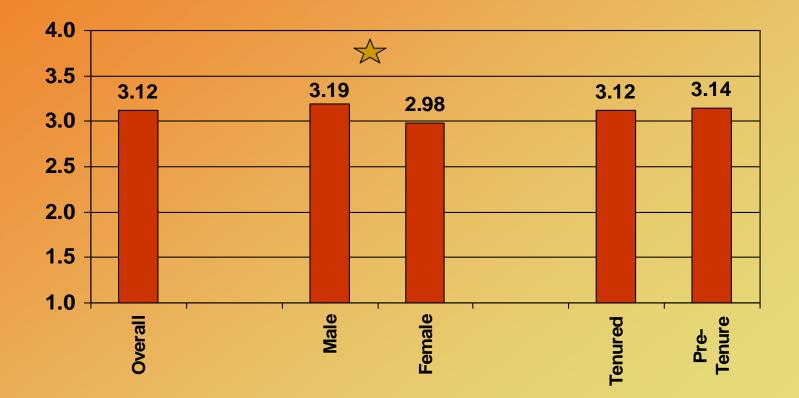




# **Departmental Leadership**



2008 Differences by gender & tenure status

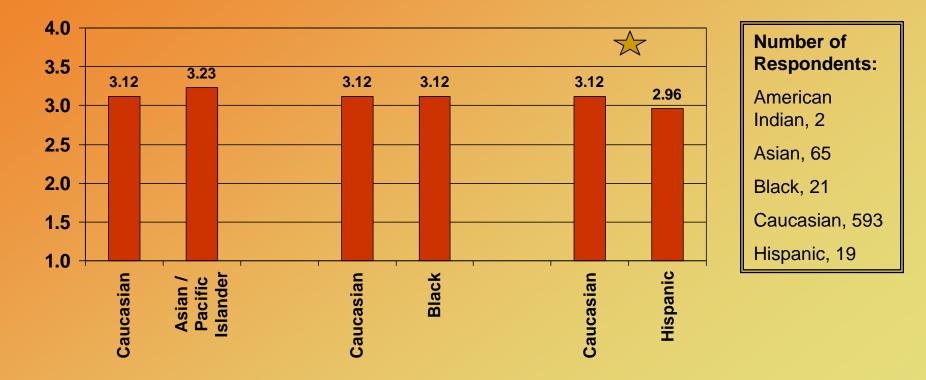


Indicates statistically significant difference between groups.





# **Departmental Leadership** 2008 Differences by Ethnicity



Indicates statistically significant difference between Caucasian & other group.



# Work-Life Balance Scale (12 Items)

- Measures faculty perception of balance between work and personal life
- Sample items:
  - It is difficult to have a personal life and be promoted or earn tenure at Virginia Tech.
  - It is possible to hold a leadership position while balancing work and personal responsibilities.
  - Virginia Tech cares about the family/home life of its faculty.







# Work-Life Balance 2005 vs. 2008

• No significant change:

- 2005 overall mean = 2.76
- 2008 overall mean = 2.78



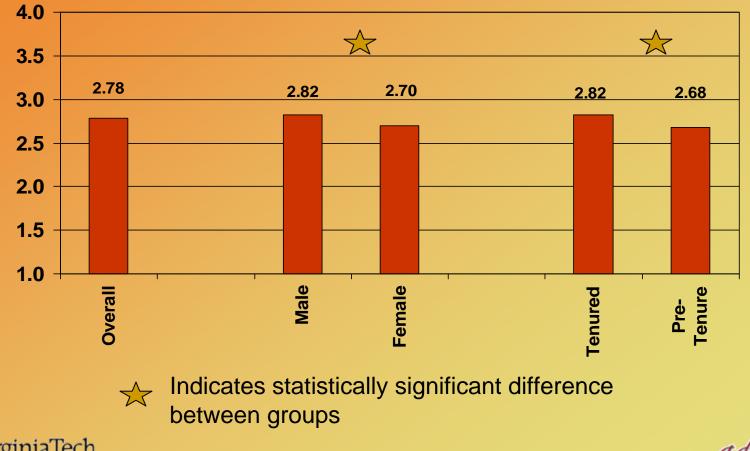
 Overall means on work-life balance scale were lower than other scales for all groups.





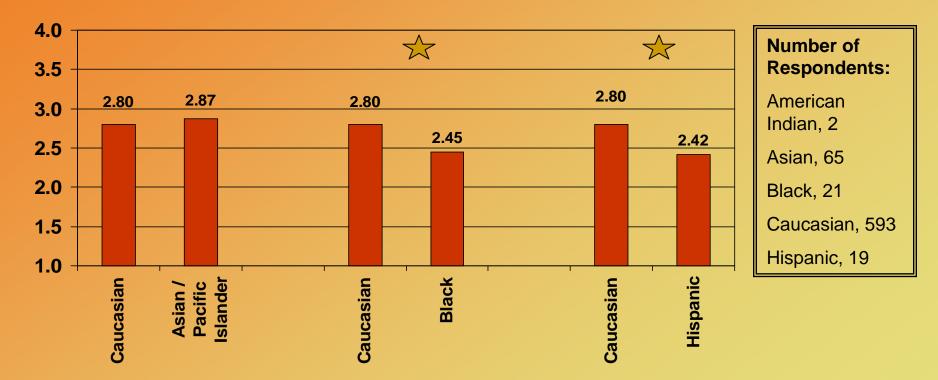
# **Work-Life Balance**

#### 2008 Differences by gender, tenure status





## Work-Life Balance 2008 Differences by Ethnicity



Indicates statistically significant difference between Caucasian & other groups.





# Diversity Scale (9 Items)



 Measures faculty perceptions of equity and fair treatment regardless of race, gender, sexual orientation and disability.

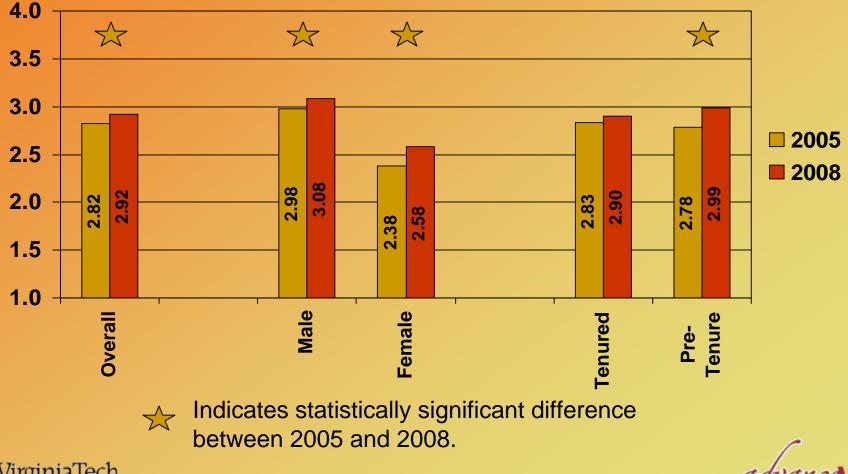
#### • Sample items:

- In general, the Virginia Tech campus is free of intimidation, harassment, and discrimination.
- Faculty members with disabilities are treated fairly.
- There is accountability for racist behavior.





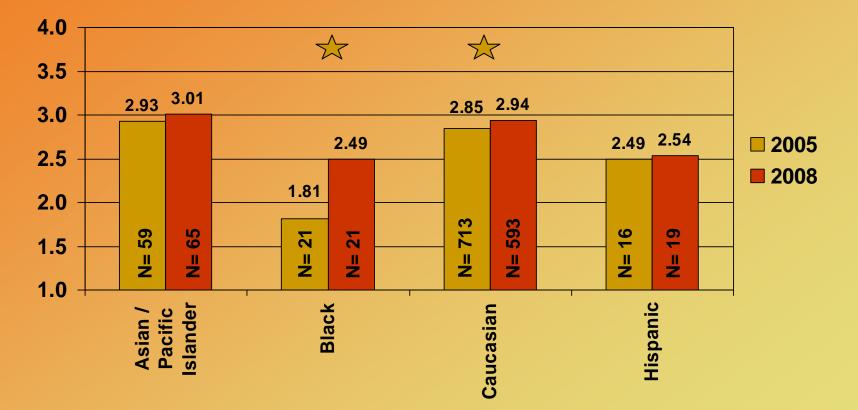
## **Diversity** Scale Score Means, 2005 vs. 2008



Invent the Future

## **Diversity** Scale Score Means, 2005 vs. 2008











#### **Diversity, 2005 vs. 2008** Items with Significant Difference by Gender

	Female
In general, the Virginia Tech campus is free of intimidation, harassment, and discrimination.	
Faculty members are treated fairly at Virginia Tech regardless of their gender.	Î
There is accountability at Virginia Tech for sexist behavior.	

There were no significant differences in male responses on these items, 2005 compared to 2008.





#### **Diversity, 2005 vs. 2008** Items with Significant Difference by Ethnicity

	Caucasian	Black
In general, the Virginia Tech campus is free of intimidation, harassment, and discrimination.	=	
Faculty members are treated fairly regardless of race or ethnicity.		II
There is accountability for racist behavior.	Ξ	

There were no significant differences in responses from Asian or Hispanic faculty, 2005 compared to 2008.





# Job Satisfaction Scale (3 Items)

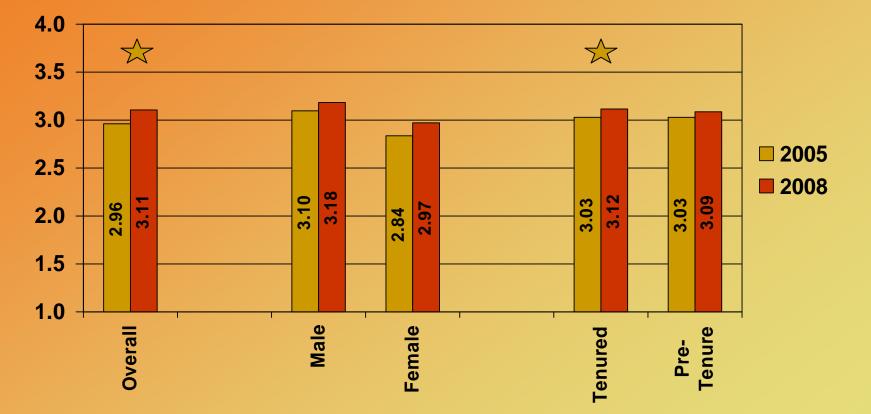


- Measures faculty satisfaction with their employment at Virginia Tech
- All items:
  - Please indicate your satisfaction with your job at Virginia Tech overall. (Very Dissatisfied to Very Satisfied)
  - Virginia Tech is a good place to work. (Strongly Disagree to Strongly Agree)
  - I feel I "fit in" at Virginia Tech. (Strongly Disagree to Strongly Agree)



# Job Satisfaction 2005 vs. 2008





https://www.indicates.com/statistically.significant.difference/between 2005 and 2008.





# Key Conclusions, 2008

- Job satisfaction and diversity showed significant positive increases between 2005 and 2008 surveys.
- Women, Blacks, and Hispanics generally have less positive views than men and Caucasian faculty.



# **Future Work**

- Complete analysis of all questions in survey
- Compare climate across colleges and departments
- Explore relationships between job satisfaction and other scales
- Look more closely at diversity related questions
- Qualitative analysis of open ended questions











## **Supplemental data:**





#### Survey Respondents, 2005 vs. 2008

	2005 Survey Respondents		2008 Survey Respondents	
	n	%	n	%
Male	594	73.3	477	68.1
Female	216	26.7	223	31.9
Caucasian	713	88.0	593	84.7
Non- Caucasian	97	12.0	107	15.3
Tenured	621	76.7	511	73
Pre-Tenure	189	23.3	189	27





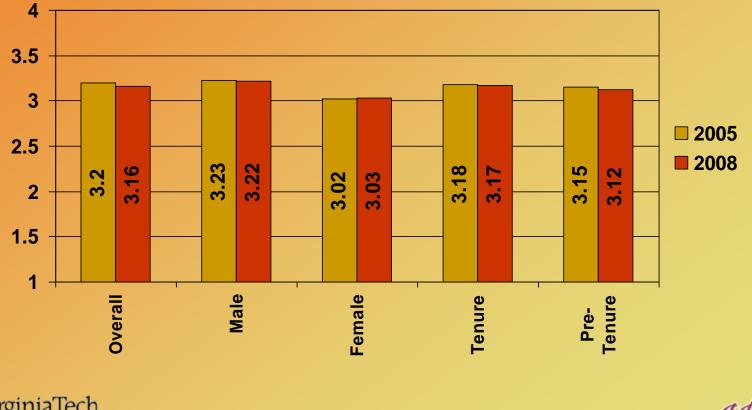
#### Survey Respondents, 2005 vs. 2008

	2005 Survey Respondents		2008 Survey Respondents	
	n	%	n	%
Agriculture and Life Sciences	143	17.5	123	17.6
Architecture and Urban Studies	51	6.3	41	5.9
Business	56	6.9	39	5.6
Engineering	154	18.9	132	18.9
Liberal Arts and Human Sciences	199	24.4	181	25.9
Natural Resources	42	5.1	40	5.7
Science	119	14.6	98	14
Veterinary Medicine	46	5.6	39	5.6
Administrative/Other	6	0.7	7	0.9



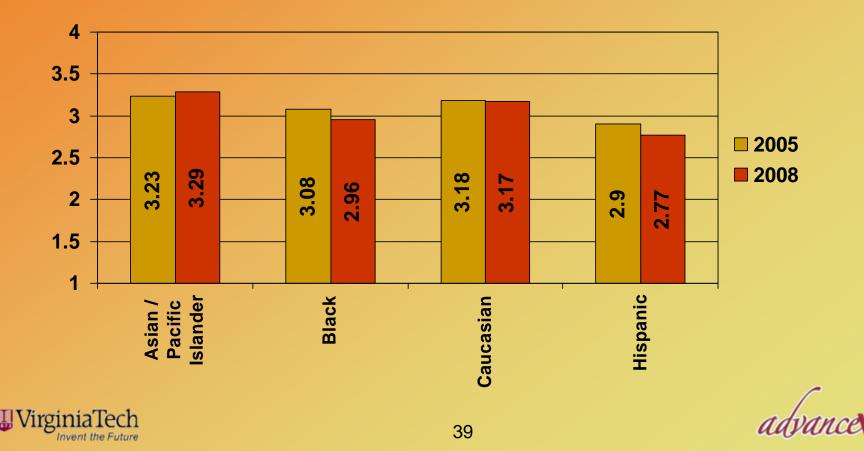
## Departmental Climate Scale Score Means, 2005 vs. 2008

No statistically significant difference between 2005 and 2008

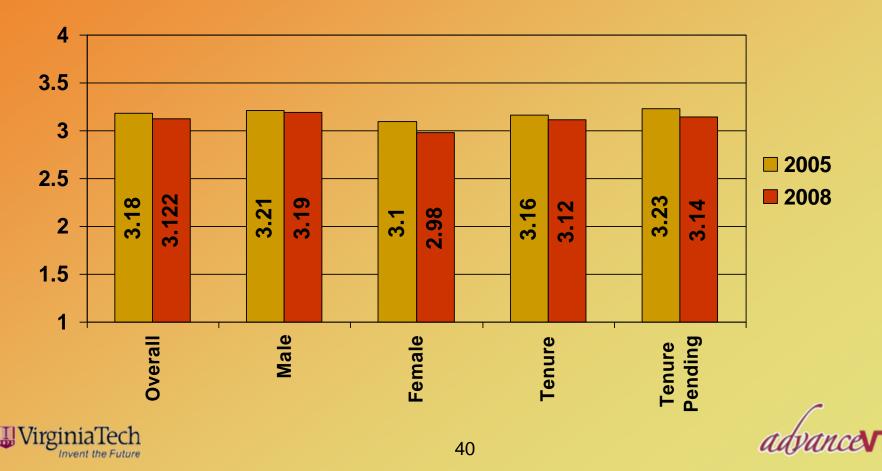


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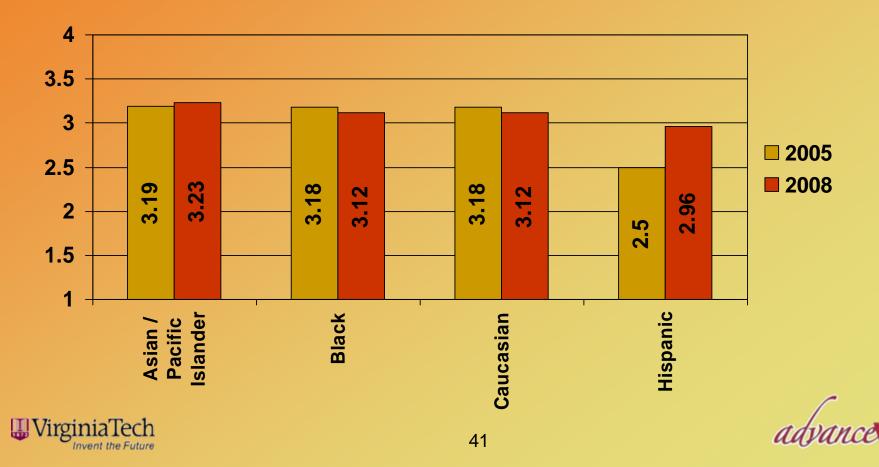
# Departmental Climate Scale Score Means, 2005 vs. 2008



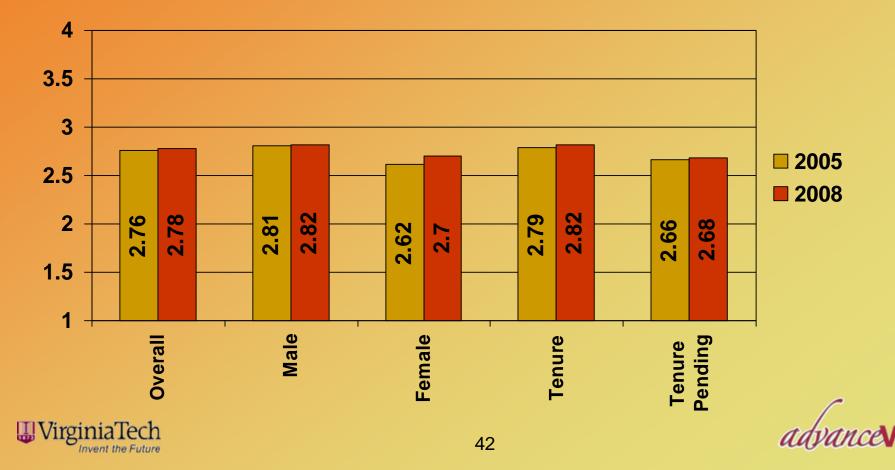
# Departmental Leadership Scale Score Means, 2005 vs. 2008



# Departmental Leadership Scale Score Means, 2005 vs. 2008



# Work-Life Balance Scale Score Means, 2005 vs. 2008



# Work-Life Balance Scale Score Means, 2005 vs. 2008

