CNAS Diversity Task Force Report
May 9, 2011

Statement

 Missouri State University and the College of Natural and Applied Sciences (CNAS) value diversity and endorse efforts to increase the diversity of the student body, staff, and faculty. CNAS also supports University efforts through the initiative *Diversity— Inclusive Excellence*, and through campus organizations such as International Student Services, Multicultural Student Services, and the Office of Student Engagement with various student organizations. Recognizing and embracing diversity promotes equality, regardless of race, ethnicity, culture, gender, gender identity, sexual orientation, religion, political affiliation, or disability. A diverse environment for students, staff, and faculty supports the University's Public Affairs mission and fosters cognitive development and high-quality learning opportunities for students and faculty alike.

Executive Summary

 CNAS, Missouri State University, Springfield, Greene County, and southwestern Missouri show little racial and ethnic diversity. CNAS and Missouri State University seek a more diverse population. Accordingly, the CNAS Task Force on Diversity recommends that steps be taken increase the diversity of students in the college, by (1) establishing a CNAS Diversity Fellowship, (2) instituting a standing CNAS Committee on Diversity, which should include representatives from each department, (3) increasing local recruitment of diverse students through this appointment, (4) increasing recruitment efforts among the growing Hispanic/Latino populations in southwest Missouri, (5) increasing public outreach efforts in diverse communities, (6) reviewing and revising current recruitment literature and web products to make Missouri State and CNAS more attractive to under-represented groups. The task force further recommends that CNAS (7) recognize and celebrate student achievements, and that (8) more attention should focus on social and cultural events that provide for interactions between students, staff, and faculty, such as a "Welcome Week" and "Diversity Week".

 We consider that (9) CNAS should seek to recruit, hire, and retain a more diverse faculty and staff. A wider pool of qualified candidates for staff positions could be fielded through national web-based job-search engines. We recognize that CNAS faculty are lacking in some aspects of diversity. We consider that (10) hiring of new faculty should be addressed in discussions between CNAS and the departments. We especially encourage the thoughtful consideration of diverse candidates because they will provide a more welcoming environment for minority students. As a large university, we have a duty to hire a diverse, dynamic, high-quality workforce that will attract a diverse student body; and at Missouri State University we have an ideal opportunity to do so in our community and region.

Task Force Charges

 The Diversity Task Force first met on January 21, 2011. Dr. Tamara Jahnke, Dean of CNAS, charged the Diversity Task Force to examine the diversity of the College and make recommendations for helping to increase diversity in short-term (one year) and

long-term (two to five years). Dean Jahnke put forward these questions as a guide for investigations and discussions:

> *1. Although we are one of the most diverse colleges on our campus in terms of faculty, we do not have the same diversity in staff or students. What are some actions that we might take to improve this?*
>
> *2. The planning accreditation board has noted a lack of diversity in our students. NCATE has made the same note. Do faculty and staff have the skills necessary to welcome a diverse population if we recruit them?*
>
> *3. Are there unique activities in science, technology, engineering, and mathematics (STEM) areas and Hospitality and Restaurant Administration (HRA) that CNAS should host that would lift up and recognize current minority students, faculty and staff?*
>
> *4. What are some possible unique activities for recruiting or skills training that CNAS could provide?*
>
> *5. Faculty Diversity:*
> > *a. Are all faculty made to feel welcome?*
> > *b. Who does it well and how could we do it better.*
> > *c. What actions should CNAS be taking as we hire new faculty to ensure that we get a diverse pool of candidates, that all committees consider all candidates?*
>
> *6. Do the faculty have the skills to teach this diverse population of students and welcome them into our majors? How do we measure this and what kind of skills training do we need?*

The Task Force approached diversity issues in these ways: (1) regular meetings provided opportunities to discuss the questions posed, diversity trends, topics related to diversity, such as regional demographics, and to share resources on how other institutions are attempting to increase diversity, (2) two guests were invited to speak with the task force to discuss diversity issues to provide background, (3) U.S. Census data and information on CNAS faculty, undergraduate, and graduate students from the Dean's Office and the Office of Institutional Research provided for assessment of current diversity, and (4) the task force collectively examined possible means for increasing diversity and discussed recommendations.

Assessment of Current Diversity
It is difficult to assess diversity in its broadest context. While information exists on gender, race, and ethnicity, other forms of diversity are not readily discernible. We were not able to obtain information on gender identity, sexual orientation, religion, political affiliation, or disability because this data is either unavailable or are protected under the Health Information Privacy Act (HIPA). We recognize that a diverse community in

the broadest sense exists within CNAS and the best practice for sustaining it is to ensure that we offer an inviting, open atmosphere for self expression.

Diversity Background

Dr. Leslie Anderson, Interim Vice President of Diversity and Associate Professor of Counseling, Leadership, and Special Education visited with the task force on January 28, 2011. Dr. Anderson shared the *Inclusive Excellence Toolkit* from Denver University (Treviño et al. 2009). The Toolkit is a three-part guide to assessment, analysis, and action for promoting a diverse learning environment. Dr. Anderson provided insight into diversity by about the image that the CNAS puts forward. For example, what type of faces do we put in our literature? What is our mission statement? For our self-assessment: do student arrive and then leave? Is advisement effective for minorities or underrepresented groups? Are there subtle micro-aggressions that are expressed in the climate of the College? Should we re-evaluate our learning outcomes? Echoing a comment by Dean Jahnke in the first meeting of the task force, Dr. Anderson expanded on the idea of "Ouch!", where if one witnesses an overt or incidental offense of inappropriate or biased behavior in conversation or commission, the exclamation of "Ouch!" draws attention to it.

Dr. Johnny Washington, Professor of Philosophy, provided perspectives and insight into understanding and addressing issues in cultural and racial diversity at Missouri State from an African American perspective. Dr. Washington considered that we commonly have not welcomed diversity on campus, particular when students are not accustomed to diverse faculty, who may speak dialects that are unfamiliar to students. Dr. Washington stated further that he has not seen a growth in support for diversity since he began in 1993. He believes a major problem with recruiting is there is no critical mass of diversity on campus. One action plan designed from Dr. Washington's presentation was to educate our freshmen students immediately upon arrival on campus regarding diversity issues. One suggestion Dr. Washington made was to grow your own diversity by retaining students into graduate school and maintaining good relations with alumni, so we can recruit them following their doctoral degrees.

The composition of the task force was notable in that several members have either diverse experiences in their teaching or families or both. During the course of our discussions, the power of narrative was very important in communicating ideas on diversity. Dr. Saunders related a story of an incident involving a young Vietnamese student, who could not give a presentation before his teacher because he considered it culturally inappropriate to do so. Dr. Anderson related her experiences with raising her children in Maori schools in New Zealand, where white European models of learning are not successful. Narratives give meaning to ideas. This aspect is strongly encouraged in training and implementation of ideas put forward here. The task force notes the remarkable success of this approach in Dr. Carol Maples work in theatrical-interactive production of *Giving Voice: Scenarios to Deconstruct Oppression*.

Gender Diversity

Gender diversity in CNAS is not uniformly equal. From the CNAS Spring 2011 headcount of 1733 students, 42.6% are female and 57.4% male. The Cooperative Engineering program, Department of Computer Science, and Department of Physics and

Astronomy show the greatest disproportion with 5.9%, 8.8%, and 11.1% female students, respectively. Geography, Geology, and Planning follows this with 41.1% female students. In contrast, Biology and Hospitality and Restaurant Administration departments have 54.1% and 65.0% female students, respectively. Gender diversity in CNAS is partly reflective of cultural norms, and this disparity is reflected nationally. According to the National Science Foundation (NSF), in 2007, men constituted 81% of engineers, 81% of computer scientists, and 79% of physics students graduating with B.S. degrees (National Science Board, 2010). In the same report, women have earned approximately half of the science and engineering degrees granted in the U.S. since 2000.

Racial and Ethnic Diversity

Census data on racial, and ethnic diversity for southwestern Missouri generally are mirrored in the student body of CNAS and Missouri State University: *southwestern Missouri, Missouri State University, and CNAS are not diverse*. Statewide diversity, however, is roughly comparable to national trends. Large urban populations centers at St. Louis and Kansas City have much more diverse communities than the Springfield area and southwestern Missouri. Figure 1 graphically shows diversity of Missouri, the Springfield-Branson area, Greene County, and Springfield. Figures 2 and 3 show the diversity of students at Missouri State University as well as students and faculty and instructional staff in CNAS.

The Springfield News-Leader featured an article on the changing demographics of southwestern Missouri based on the 2010 U.S. Census. The Latino/Hispanic population is the fastest growing segment in our community based on the percentage increase. Many Latinos work in agricultural and industrial facilities west of Springfield. Figure 1 shows the increase for Missouri from the years 2000 to 2010.

The student population at Missouri State is slightly more diverse than southwestern Missouri, owing in part to the number of non-resident aliens or students of the China campus at Dalian. A significant part of the CNAS graduate population (11.8%) is composed of non-resident aliens. This likely reflects the effective recruitment of graduate students from international university. Large segments of the university and CNAS undergraduate and graduate students are listed as unknown.

Perhaps the most astonishing element of graphs related to Missouri State University is that the *CNAS faculty is not more diverse than the student population*. A large percentage of Asian origin are indicated but diminishingly few Native Americans, Hispanic, Pacific Islanders and people of one or more races, and African Americans are present on the faculty. By including country of origin as a component, the faculty would appear more diverse, but if we value the ideal of inclusive excellence, significant efforts should be put forward to recruit a more diverse racial and ethnic student body, faculty, and staff.

Addressing Diversity Questions and Recommendations

1. *Although we are one of the most diverse colleges on our campus in terms of faculty, we do not have the same diversity in staff or students. What are some actions that we might take to improve this?*

Short-Term Recommendations

We recommend increased recruitment of minority students from local high schools. This may be achieved by having more activities and interactions with students at local high schools, where we can identify and specifically target our efforts. Along with this we should attempt to host more student workshops and tours for students at Missouri State University.

We acknowledge the value of *Expanding Your Horizons Conference* and encourage continued support of this effort. Connections should also be established with local Boys and Girls Clubs, Big Brother/Big Sister, and other community organizations to reach a diverse local population. Additional public outreach functions at the Discovery Center should be encouraged. For additional steps toward increasing gender diversity, we should encourage female students to apply for scholarships from large companies (for example, in Computer Science). Corporations commonly seek opportunities to support the recruitment of under-represented groups.

The Southwest Area Career Center (SWACC) in Monett may be a valuable partner for helping to recruit minority students. The Latino/Hispanic population of southwestern Missouri is under-recruited and efforts should be put forward to encourage students to attend local colleges and universities, but especially Missouri State and CNAS. Along the same lines, we recommend that CNAS work together with the College of Education to see that STEM activities are included in the *Hispanic Educational Access Initiative*.

We recommend increasing direct-marketing recruitment for CNAS degree programs in large urban centers of Missouri and in neighboring states. Do the full-time recruiters in St. Louis have materials that support recruitment of minority students? Are the recruiters familiar enough with CNAS programs to offer guidance in pursuit of scientific careers? Recruitment literature should be reviewed and revised as necessary. We should make certain that the recruitment materials we provide reflect the diverse environment we seek to achieve.

To increase staff diversity, we recommend advertising positions in popular Web-based recruitment sites such as *www.monster.com*. This potentially will provide for a more diverse pool of applicants. It was noted that to increase diversity in our staff, we need to pay staff more. We should encourage current staff members to help develop networks that will assist new hires with diverse backgrounds to become acquainted with the area. This will help in retention of a diverse workforce.

Long-Term Recommendations

We are less diverse as a faculty than perhaps we imagined, and all aspects and levels of diversity must be addressed to increase diversity in CNAS. By hiring more diverse faculty, we provide a more inviting environment for minority students.

We recommend establishing more scholarships for minorities and under-represented groups that specifically can be given to freshmen students entering the college. This will aid in the recruitment and retention.

We recommend establishing a "Diversity Week" modeled after a program at Drury University (perhaps best supported at the University-level). A diversity week will help to highlight achievements of minority students and faculty.

We recommend establishing a CNAS Diversity Fellowship, a renewable one-year appointment, where a portion of a faculty member's workload is reduced for release time to help establish connections with local middle and high school teachers and students. Attendant with these duties, the Diversity Fellow would be able to coordinate diversity events with local teachers and help in development of professional development opportunities.

We recommend developing a "Science Academy", funded by an NSF Research Experiences for Undergraduates (REU) grant to support science education. This could provide a recruitment environment for all students but NSF also specifically is interested in seeing increases in diversity through Program-specific opportunities such as Opportunities for Enhancing Diversity in the Geosciences (OEDG)(NSF Solicitation 10-599).

We recommend establishment of science degree programs at the Dalian campus to provide for more student engagement with CNAS as either graduate students or undergraduate transfer students.

2. The planning accreditation board has noted a lack of diversity in our students. NCATE has made the same note. Do faculty and staff have the skills necessary to welcome a diverse population if we recruit them?

Short-Term and Long-Term Recommendations

The consensus of the task force is that we consider an online diversity training product, comparable to *In Their Shoes*, which would help maintain awareness of diversity and help to provide a suitably welcoming environment for minorities and other students.

We recommend that diversity in CNAS be a key topic for discussions in the *Showcase on Teaching*. In this, faculty could discuss problems and solutions related to diverse student populations. Also, minority students could lead a panel discussions with faculty on their experiences at Missouri State University.

We recommend a one-day CNAS Diversity Retreat, where all CNAS faculty would be encouraged to participate. Experts on Diversity at MSU and possibly outside MSU would lead the sessions.

We also recommend having sessions on diversity throughout the year. At these sessions faculty could also discuss issues that arose in classroom situations and how they were handled. These sessions could possibly count as hours toward the Master Advisor.

3. Are there unique activities in science, technology, engineering, and mathematics (STEM) areas and Hospitality and Restaurant Administration (HRA) that CNAS should host that would lift up and recognize current minority students, faculty and staff?

Short-Term Recommendation

Recognizing students based solely on their differences may not be ideal if a student already feels a little out-of-place. Increasing the overall recognition of student achievements, however, should be encouraged. Encouraging the successes of more students would likely include more students from diverse backgrounds.

One comment by a task force member bears repeating *verbatim*:

> "I like the idea of adding more activities and opportunities for college faculty and students to mix socially. This would give people a chance to meet and mingle across disciplines; would encourage everyone to develop relationships and find common ground. The "Welcome Week" is a great idea."

CNAS faculty sometimes undervalues the need for socializing. Picnics and other social functions with students provide the best opportunities for retention of declared majors and recruitment of those who have not chosen a program of study.

4. What are some possible unique activities for recruiting or skills training that CNAS could provide?

Long-Term Recommendations

These items have partly been addressed previously. Among the duties of the proposed CNAS Diversity Fellow could be expanded to include informal training of faculty in diversity. The online training module recommended for faculty under question two, above, could be expanded to the general student population. It should include a video of the faces and voices of diverse faculty members.

5. Faculty Diversity:
   a. Are all faculty made to feel welcome?
   b. Who does it well and how could we do it better.
   c. What actions should CNAS be taking as we hire new faculty to ensure that we get a diverse pool of candidates, that all committees consider all candidates?

Short-Term and Long-Term Recommendations

There is anecdotal evidence that some candidates have not accepted positions at Missouri State University or not continued at Missouri State University because members of the candidate's family did not consider

Springfield to be a diverse city. It is difficult to change perceptions of areas that exhibit little diversity. Larger cities or cities that meet the needs for diverse community offer greater opportunities for such candidates.

Mentoring of new and diverse faculty members and their families provides the best means for faculty retention. Those of us who have lived in Springfield for a number of years have seen a flowering of a more diverse cultural and social community that may not be apparent to newcomers. Faculty, from the same discipline as well as from different disciplines across the university, should act as mentors, who, as best can be determined, mirror the diverse qualities of the new hires. From a more pragmatic standpoint, new faculty should be provided with a guidebook to the diverse aspects of the community; Springfield has markets specializing in Chinese, Japanese, Korean, Latin, and Russian foods. We are a large enough community that we have churches, synagogues, and centers for virtually every faith. Silver Dollar City is host to America's largest international festival, World Fest (April 7 to May 8, 2011); in the future, we should take advantage of this opportunity for cross-cultural awareness. The Missouri Ozarks also are an extraordinary setting that may not be apparent to some new faculty, so it is important that we promote aspects of the natural beauty and history of this area to new faculty.

We recommend that new faculty seek out affiliations with professional organizations that will help them in their academic careers. Examples include:

- IEEE Women in Engineering (WIE)
- Association of Women in Mathematics (AWM)
- Association for Women in Science (AWIS)
- Center for Women in Science and Engineering (WISE)
- Society of Hispanic Professional Engineers (SHPE)
- National Organization of Black Chemists and Chemical Engineers
- American Indian Science and Engineering Society (AISES)
- Society for Advancement of Chicanos and Native Americans in Science (SACNAS)
- Association for Women Geoscientists (AWG)
- National Association of Black Geologists and Geophysicists (NABGG)
- ASM International (ASM was once "American Society for Metals" but this organization is for professionals who work with all materials)
- Sociedad de Astronomia de Puerto Rico
- Latino Hotel Association www.latinohotelassociation.org
- Asian American Hotel Owners Association www.aahoa.com
- National Association of Black Hotel Owners, Operators and Developers *www.nabhood.net*

In order to have a more culturally diverse pool of candidates for faculty positions, the following should be included:

1. Build relationships with schools that have significant minority enrollment. This can be done through guest seminar programs, internships, and other partnering activities.
2. Augment existing search efforts by sending opportunity postings to professional organizations and societies comprised largely of minority members.
3. Step up recruiting efforts in large, more racially diverse cities in our region; establish a true presence in these cities; get our name out there.
4. Go to more meetings that are well attended by a diverse group of faculty.
5. Develop relationships with historically Black institutions, historically Hispanic institutions, and historically Native American institutions.
6. Network with local and regional business, civic and religious leaders to gain their assistance in our recruiting efforts.

Faculty need to be trained to be year-round recruiters of promising candidates for future job openings.

6. *Do the faculty have the skills to teach this diverse population of students and welcome them into our majors? How do we measure this and what kind of skills training do we need?*

Long-Term Recommendations

It is unclear whether faculty members have the skills necessary to teach a diverse population of students. We need to leverage the expertise that exists within the college to educate faculty and staff on cultural diversity. Training in cross-cultural advisement, especially is an aspect that has received little attention at the university. Training can always help, and it should be made available so that the level of awareness needed to maintain a diverse population can be sustained.

The metrics for measuring diversity will likely rest on direct measurement of racial and ethnic composition of CNAS. In Springfield, the educational institutions, Ozarks Technical Community College, Drury University, and Missouri State University are the "lights on the hills" that provide the greatest opportunity for hiring a diverse workforce and developing a diverse community. If we are unable to do this, it likely won't happen.

Missouri Racial/Ethnic Diversity
(pop. 5,988,927)

Native American — 0.46%

Asian — 1.64%

Hispanic — 1.8%

Other (Native Hawaiian, Pacific Islander, two or more, and all other races) — 3.53%

African American — 11.58%

White (non-Hispanic) — 80.1%

2000   2010

Springfield-Branson Area
(Christian, Greene, Stone, and Taney)
(pop. 436,520)

Greene County
(pop. 275,174)

Springfield
(pop. 159,498)

0.77% Native Amerian
1.89% Asian
3.67% Hispanic
4.09 % Other
4.51% African American
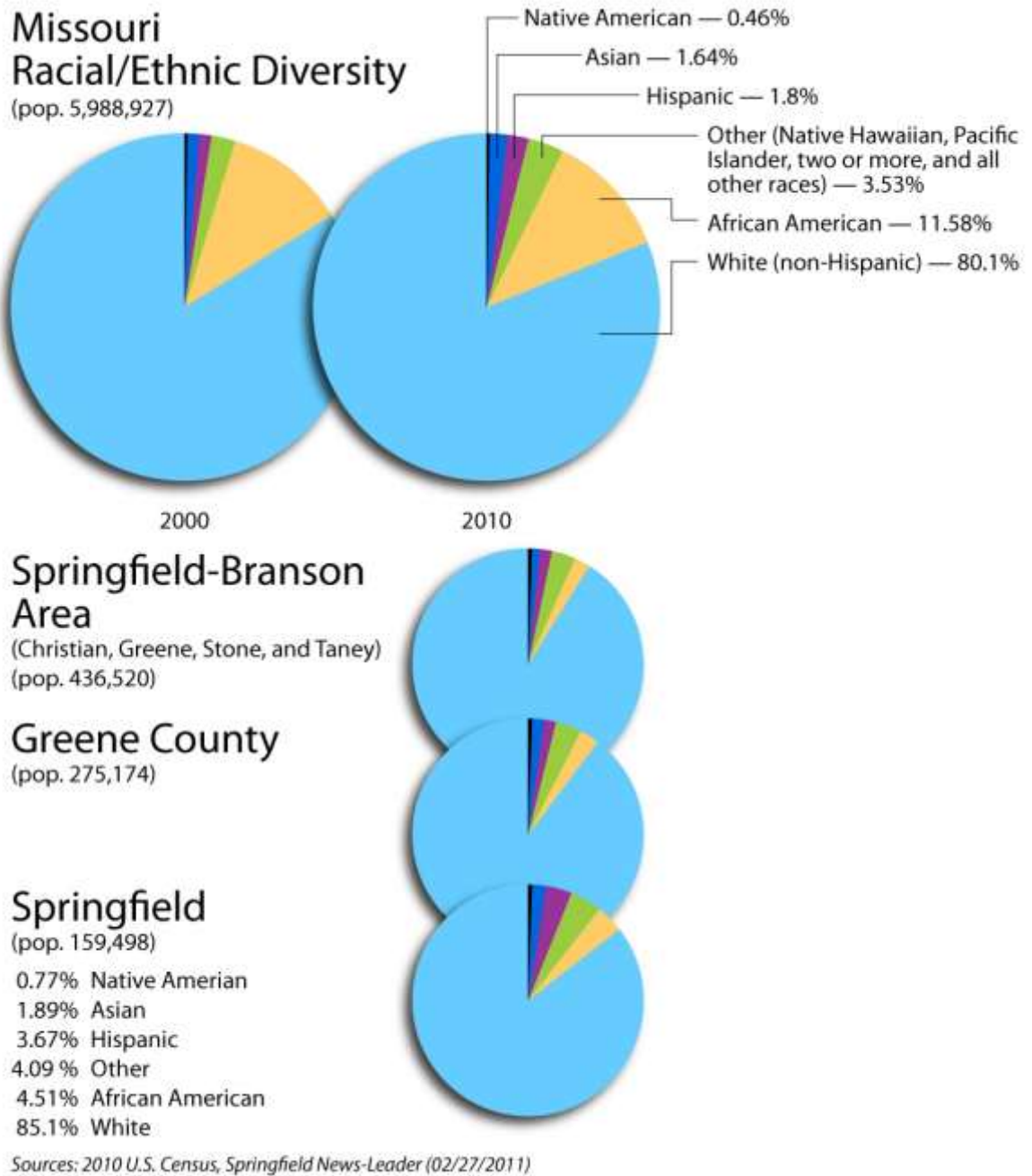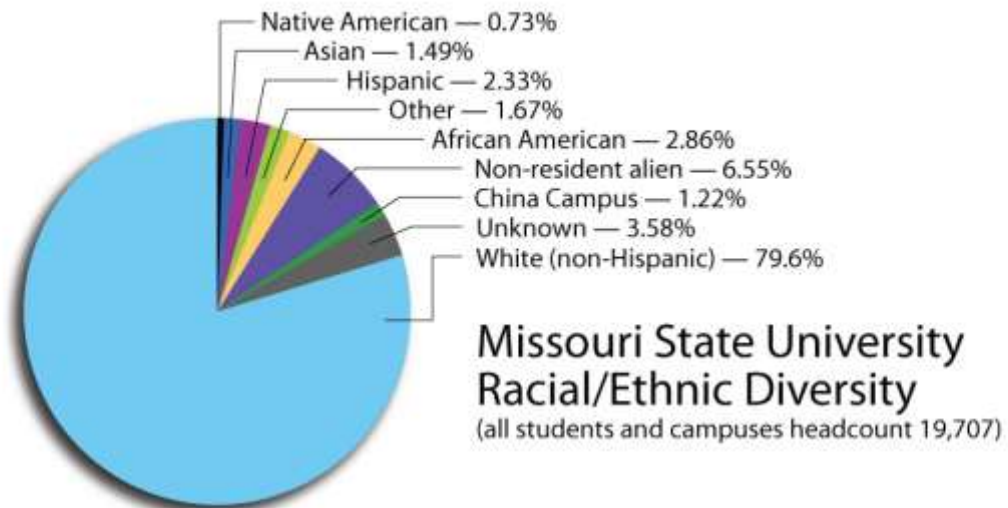85.1% White

Sources: 2010 U.S. Census, Springfield News-Leader (02/27/2011)

Figure 1. Racial and ethnic diversity in Missouri, Springfield-Branson area, Greene County, and Springfield.

Native American — 0.73%
Asian — 1.49%
Hispanic — 2.33%
Other — 1.67%
African American — 2.86%
Non-resident alien — 6.55%
China Campus — 1.22%
Unknown — 3.58%
White (non-Hispanic) — 79.6%

Missouri State University Racial/Ethnic Diversity
(all students and campuses headcount 19,707)

2011

College of Natural and Applied Sciences
(Spring undergraduate headcount 1,733)

2011

2009

0.87%	Native Amerian
1.90%	Asian
2.37%	Hispanic
1.96%	Other
2.48%	African American
3.52%	Non-resident alien
3.35%	Unknown
83.6%	White

(Fall graduate student headcount 136)

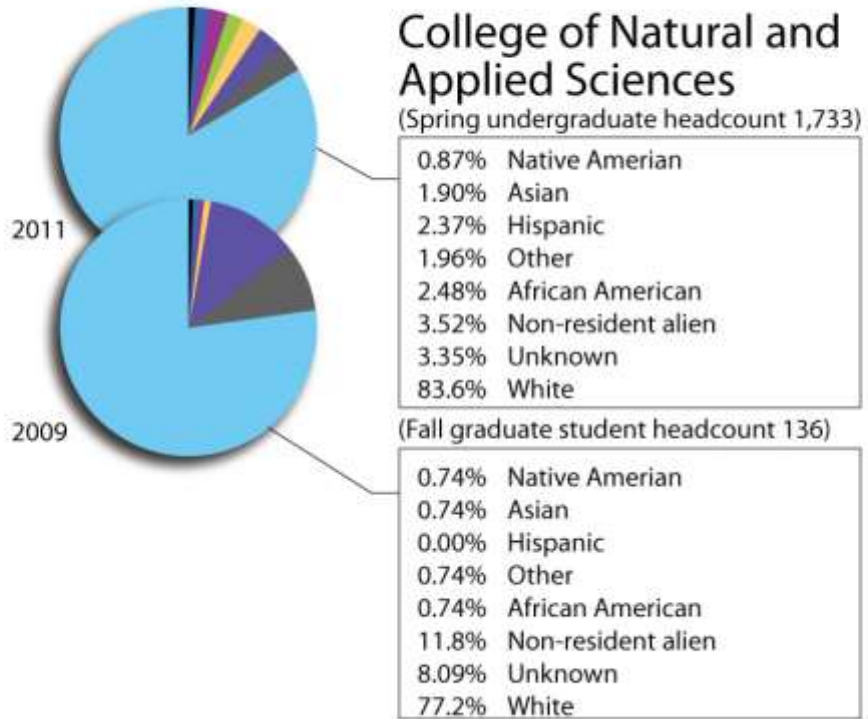| 0.74% | Native Amerian |
0.74%	Asian
0.00%	Hispanic
0.74%	Other
0.74%	African American
11.8%	Non-resident alien
8.09%	Unknown
77.2%	White

Figure 2. Racial and ethnic diversity in Missouri State University students and CNAS undergraduate and graduate students.

College of Natural and Applied Sciences
(194 Faculty and Teaching Assistants)

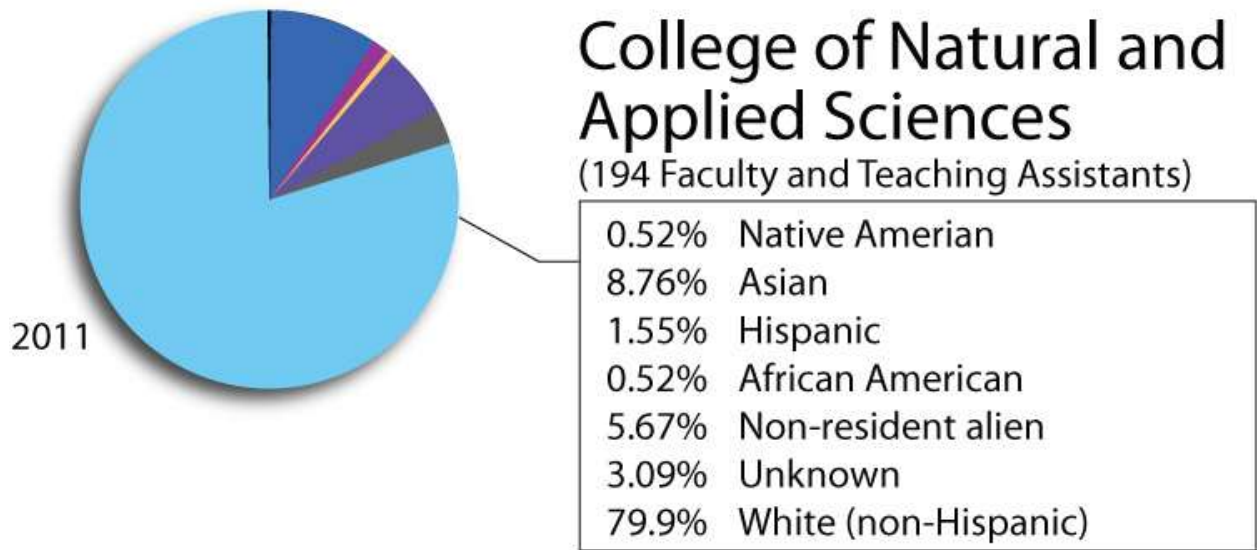|	
0.52%	Native Amerian
8.76%	Asian
1.55%	Hispanic
0.52%	African American
5.67%	Non-resident alien
3.09%	Unknown
79.9%	White (non-Hispanic)

2011

Figure 3. Racial and ethnic diversity of faculty and instructional staff in CNAS.

Selected References

[1] National Science Board. 2010. *Science and Engineering Indicators 2010*. Arlington, VA: National Science Foundation (NSB 10-01).
<http://www.nsf.gov/statistics/seind10/c2/c2h.htm>

[2] Dialogue to Action Circles Issue Guide. 2009. *Achieving the Dream at UHD*.
< http://www.uhd.edu/academic/colleges/university/atd.htm>

[3] Vernon Wall and Kathy Obear, Magna Online Seminars. 2011. *Recruiting a Racially Diverse, Culturally Competent Faculty*, Tuesday, February 8, 2011.
<http://www.magnapubs.com/catalog/recruiting-faculty/>

[4] Kimberly Tanner and Deborah Allen, 2007. *Approaches to Biology Teaching and Learning, Cultural Competence in the College Biology Classroom*, CBE_Life Sciences Education, Vol 6, 25-258, Winter 2007.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1103711/>

[5] American Geophysical Union. 2002. *AGU Diversity Plan*.
<http://www.agu.org/education/diversity_program/plan.shtml>

[6] Kathlenn Wong and Jesus Trevino. 2010. *Diversity in the Classroom: Examining the Intersections of Faculty Development, Student Learning, and Inclusive Pedagogy*: Association of American Colleges and Universities Conference "Facing the Divides: Diversity, Learning, and Pathways to Inclusive Excellence", Houston, Texas October, 2010.
<http://www.aacu.org/meetings/diversityandlearning/DL2010/workshops.cfm>

[7] Jesus Trevino, Thomas Walker and Johann Leyba. *Inclusive Excellence Toolkit*, Denver University Center for Multicultural Excellence.
<http://www.du.edu/cme/ie_du.html>

[8] Michael Stout, 2010. *Overview of Shifting Demographics in Springfield: What does it Mean?* Springfield Chamber of Commerce Leadership Presentation, September 30, 2010.

[9] Paul Gasbarra and Jean Johnson. 2008. *Out Before the Game Begins, America's Competitiveness*: Hispanic Participation in Technology Careers Summit, May 5-6, 2008.
<http://www.ibm.com/ibm/ibmgives/downloads/Out_Before_the_Game_Begins_April_16_2008.pdf>

[10] Ben Gose. 2008. *Whatever happened to all those plans to hire more minority professors?*: Chronicle of Higher Education, September 26, 2008.
<http://chronicle.com/article/Whatever-Happened-to-All-Those/21980/>

[11] Gloria Gadsden. 2008. *Minority Report*: Chronicle of Higher Education, October 24, 2008.
<http://chronicle.com/article/Minority-Report/4102/>

[12] Orlando Taylor, Cheryl Burgan Apprey, George Hill, Loretta McGrann, and Jianping Wang. 2010. *Diversifying the Faculty*. Peer Review, 12(3), 15-18.

Diversity Task Force Chair and Members

Paula A. Kemp, Chair
Mathematics

Laura E. Rios
Physics and Astronomy

Abigale S. Ehlers
Hospitality and Restaurant Administration

Georgianna L. Saunders
Biology

Kevin R. Evans
Geography, Geology, and Planning

Diann M. Thomas
Chemistry

Hui Lui
Computer Science