

Discussion Questions

SACNAS: The Society for the Advancement of Chicanos/Hispanics and Native Americans in Science

SACNAS History

- 1. Why did the founders of SACNAS feel the need to create such an organization?**
 - There were very few Native and Hispanic scientific professionals in the 1970s – enough to fit into an elevator. They wanted to support those who had made it and help others become scientists.
- 2. What was happening in the 1970s that helps explain the name and reasons SACNAS was created?**
 - The Chicano or Chicanismo movement was fighting for rights and to improve the lives of Mexican-Americans. The Native American movement was also trying to right historical injustices against American Indians. SACNAS was tying itself to these larger struggles and focusing on these minorities in scientific professions.
- 3. What are some of the activities and goals of SACNAS?**
 - SACNAS tries to promote Native Americans and Hispanics in science through education, funding, and training for leadership positions. Some of its activities are organizing national and regional conferences, granting awards and scholarships to students, and helping students and graduates find scientific positions.
- 4. Why is SACNAS focused especially on Native and Hispanic Americans?**
 - Native Americans are the most underserved minority, making up only 1.4% of the US population, but less than 1% of the scientific degrees awarded. Hispanic Americans are the fastest growing minority group, making up 16.7% of the population, but they make up only 3.5% of the doctoral degrees awarded. SACNAS is trying to increase both of those numbers.
- 5. What kinds of issues does the SACNAS advocate for on behalf of minority scientists?**

SACNAS's stated goals are to increase the number of Chicanos/Hispanics and Native Americans with advanced degrees in science and research, leadership, and teaching careers at all levels. They try to increase governmental commitment to advancing Chicanos/Hispanics and Native Americans in science resulting in increased resources, elimination of barriers, and greater equity.

Biographies

George Castro

- 1. How did your scientist become interested in her field?**
 - He enjoyed taking things apart to figure out how they worked. Her really liked physics and chemistry in high school.
- 2. What sort of education did your scientist have?**
 - He went to UCLA for undergrad. He went to the University of California at Riverside for graduate school.
- 3. What kinds of challenges did the scientist face in their education or workplace?**
 - He had no friends who were interested in college growing up. The friends and classmates he had in college were very different.
- 4. What surprised you most about this scientist?**
 - Answers will vary.

John Victor Cortinas, Jr.

- 1. How did your scientist become interested in her field?**
 - His eight grade science teacher encouraged him in science. His hometown was hit by a very expensive tornado, which interested him in the weather.
- 2. What sort of education did your scientist have?**
 - He went to UCLA for undergrad. He went to the University of California at Riverside for graduate school.
- 3. What kinds of challenges did the scientist face in their education or workplace?**
 - Going from a smaller college to a large university was difficult for him and he considered dropping out.
- 4. What surprised you most about this scientist?**
 - Answers will vary.

Jose Garcia

- 1. How did your scientist become interested in her field?**
 - His high school had excellent math and science teachers. He really enjoys figuring out how things work at a fundamental level.
- 2. What sort of education did your scientist have?**
 - He received a cooperative scholarship to attend New Mexico State University. He studied at the University of Gottingen, Germany, and received his Ph.D. from the University of Wisconsin-Madison.
- 3. What kinds of challenges did the scientist face in their education or workplace?**

- There were no high schools near his home, so he had to travel far to attend a boarding school. He didn't have the money to go to college, but was able to get a scholarship so that he would be able to attend.

4. What surprised you most about this scientist?

- Answers will vary.

Carlos Gutierrez

1. How did your scientist become interested in her field?

- His grandmother told him stories about how his ancestors used the stars to understand nature. He wanted to be an astronomer, and in graduate school realized he should study astrophysics.

2. What sort of education did your scientist have?

- He attended the University of Dallas for undergrad, and went to graduate school at Johns Hopkins University in Baltimore.

3. What kinds of challenges did the scientist face in their education or workplace?

- At his graduate school, there was no Chicano or Latino community, and he considered transferring, but he eventually learned to love the city and his education.

4. What surprised you most about this scientist?

- Answers will vary.

Vicente Llamas

1. How did your scientist become interested in her field?

- He liked building things and thought he would become an electrician after building his own stereo. He originally studied electrical engineering, but fell in love with physics after taking college classes in it.

2. What sort of education did your scientist have?

- He attended the Marymount University in Los Angeles for college, and graduate school at the University of Missouri.

3. What kinds of challenges did the scientist face in their education or workplace?

- At his graduate school, there was no ethnic diversity, and the Midwestern culture was very different from Los Angeles. People in Rolla, Missouri weren't sure how to treat him and he was one of only two Hispanic students.

4. What surprised you most about this scientist?

- Answers will vary.

Ramon Lopez

1. How did your scientist become interested in her field?

- His parents bought him a telescope for his eleventh birthday, and he decided to become a physicist after reading about the Apollo moon landings.
- 2. What sort of education did your scientist have?**
 - He started college early at the University of Illinois as a physics major. He attended Rice University in Houston for graduate school.
- 3. What kinds of challenges did the scientist face in their education or workplace?**
 - He was very underprepared for college, and got poor grades during his first year. He also didn't like the isolation that graduate school put him in, and considered dropping out.
- 4. What surprised you most about this scientist?**
 - Answers will vary.

Luz Martinez

- 1. How did your scientist become interested in her field?**
 - Her parents were both chemists so she always knew about science.
- 2. What sort of education did your scientist have?**
 - She attended the University of Puerto Rico before going to graduate school at the Massachusetts Institute of Technology.
- 3. What kinds of challenges did the scientist face in their education or workplace?**
 - A college professor told her she shouldn't be in graduate school because she was "wasting the federal government's money." Many male professors were doubtful of her abilities.
- 4. What surprised you most about this scientist?**
 - Answers will vary.

Karen Magnus

- 1. How did your scientist become interested in her field?**
 - She was encouraged to go into science by the Space Race and her teachers. She really enjoyed the experience of lab work she got in college, so she decided to change her field from medicine to biology.
- 2. What sort of education did your scientist have?**
 - She attended the University of California at Davis for college, and then went to Johns Hopkins University for graduate school.
- 3. What kinds of challenges did the scientist face in their education or workplace?**
 - When she was growing up, the idea that all women should just get married and have kids was very common.
- 4. What surprised you most about this scientist?**

- Answers will vary.

JV Martinez

1. How did your scientist become interested in her field?

- He became curious about the wonders of nature living in Northern Arizona. He also was attracted to math and science since elementary school.

2. What sort of education did your scientist have?

- He went to college at Northern Arizona University. Then he attended graduate school at Oregon State University before a post doctorate at Cornell University.

3. What kinds of challenges did the scientist face in their education or workplace?

- His principal told him he had to settle for the discrimination Hispanic students received in high school. Even though he got good grades, most people didn't think he could get a college education. He was the only Mexican American in his math and science classes.

4. What surprised you most about this scientist?

- Answers will vary.

Carmen Nappo

1. How did your scientist become interested in her field?

- His uncle introduced him to science fiction films, as well as math and philosophy. He really liked physics in high school and decided to study it in college.

2. What sort of education did your scientist have?

- He went to the University of California at Riverside for college. He then got a masters at the University of Washington. Decades later, he went back for a Ph.D. from the Georgia Institute of Technology.

3. What kinds of challenges did the scientist face in their education or workplace?

- His mother was Sioux, and he was discriminated against because of this in the Italian community where he grew up. His father tried to distance the family from their Native American heritage.

4. What surprised you most about this scientist?

- Answers will vary.

Elba Serrano

1. How did your scientist become interested in her field?

- Her family moved around a lot, but wherever she went, she was taught the same science. She also recognized how important health research is to people around the world.

2. What sort of education did your scientist have?

- She attended the University of Rochester for undergrad, and Stanford University for her Ph.D.
- 3. What kinds of challenges did the scientist face in their education or workplace?**
- She was picked on and bullied in school for being Puerto Rican. She was also the only minority and one of two women studying physics at the University of Rochester.
- 4. What surprised you most about this scientist?**
- Answers will vary.