

# THE CHRONICLE OF HIGHER EDUCATION

## Diversity in Academe 2014

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### Why So Few American Indians Earn Ph.D.'s, and What Colleges Can Do About It

By *Vimal Patel*

**D**arryl Reano struggled with guilt in graduate school at Purdue University, some 1,400 miles away from his home, in Acoma Pueblo, N.M. There, on his reservation, near a mesa west of Albuquerque, his aunt was dying. "She was on dialysis, and here I was earning my master's degree," he says. "I wasn't around to give my mom a hug. That's what hurt the most."

Mr. Reano, who is set to start a Ph.D. program in geology and geoscience education this fall, struggled with feelings familiar to those of many American Indians who leave their reservations to pursue higher education. Graduate education in particular, which demands late nights spent in labs and libraries, can take a psychological toll on students whose identities are so deeply tied to families and communities.

Those ties are a major reason that American Indians earn a troublingly low number of doctorates, say educators and advocates. Other factors are thought to include the extreme poverty typical of many tribal communities, a lack of faculty role models, and a financially challenged tribal-college system.

American Indians earned just 102 doctorates in 2012—even fewer than the 149 they earned 20 years before, according to the National Science Foundation's Survey of Earned Doctorates. American Indians and Alaska Natives represented 1.2 percent of the U.S. population in 2012 but earned just 0.3 percent of the doctorates awarded to U.S. citizens and permanent residents. They were the only minority group that did not earn more doctorates—or increase their share of all doctorates earned—over the past two decades.

While many observers are still dissatisfied with gains made by blacks and Hispanics, members of each of those groups earned about 6 percent of doctorates in 2012. (They represented about 13 percent and 17 percent of the population, respectively.) Twenty years ago, blacks earned 4 percent and Hispanics 3 percent of all doctorates.

### Number and Share of Doctorates Awarded by Race/Ethnicity, 1992 and 2012

	American Indian/ Native Alaskan	Asian	Black	Hispanic	White
1992	149 <b>0.5%</b>	1,755 <b>6.3%</b>	1,109 <b>4.0%</b>	912 <b>3.3%</b>	23,625 <b>84.3%</b>
2012	102 <b>0.3%</b>	2,980 <b>9.1%</b>	2,079 <b>6.3%</b>	2,141 <b>6.5%</b>	24,209 <b>73.5%</b>

Note: Percentages are based on the total of all doctorates awarded to U.S. citizens and permanent residents. Percentages do not add to 100 because figures exclude those who reported their race as "other" or listed more than one race. People reported as being of Hispanic ethnicity may be of any race. The 2012 numbers for Asians do not include Native Hawaiians or other Pacific Islanders.

American Indians have made progress at the bachelor's- and master's-degree levels. They earned nearly twice as many bachelor's degrees in 2012—10,743—than two decades earlier, and nearly three times as many master's degrees—3,275. Their share of those degrees also grew slightly during that time.

So why haven't those gains translated into more Ph.D.'s?

"The educational pipeline for American Indian students is pretty well built at the undergraduate level," says Aislinn HeavyRunner-Rioux, a doctoral student in educational leadership at the University of Montana at Missoula. Her proposed dissertation will examine American Indian persistence in graduate education. "It's strengthening at the master's level. It's still being built at the doctoral level."

Ms. HeavyRunner-Rioux's own trek through the education system illustrates the isolation, importance of family bonds, and financial struggles that can deter American Indians from pursuing doctorates. After her mother died of cancer, she struggled

emotionally and financially, dropping out of college for five years. She eventually made it to graduate school but had to choose between providing child care for her two young daughters or health care for herself. It was hardly a choice. She chose child care and learned to navigate the services of the student health center when she had a medical issue.

Now, she is using her own background to devise a survey that she hopes will help explain why so few American Indians pursue doctorates. "How can I get other Native students to where I'm at?" she says. "What piece of the puzzle could I help put in place to help more students get further along in this journey?"

"I just want to know what works."

**S**ome groups have an idea about what works. Since 2003 the Alfred P. Sloan Foundation has given more than \$17-million to a handful of colleges seeking to increase the number of American Indians pursuing master's and doctoral degrees in science, technology, engineering, and math. The group is especially underrepresented in the physical sciences and engineering, earning just 13 of more than 8,000 doctorates awarded in those fields in 2012.

Colleges in the Sloan Indigenous Graduate Partnership use the money to provide financial support for students—paying for travel home for local ceremonies, for instance—and to create programs that can alleviate their sense of isolation on campus. Member institutions include the University of Alaska's Anchorage and Fairbanks campuses, the University of Arizona, the University of Montana at Missoula, Montana Tech of the University of Montana, and Purdue University.

American Indian students are also more likely to be "nontraditional" students. A recent survey of current students in the Sloan partnership found that 25 percent were 35 or older, about 40 percent had dependent children, and 15 percent were supporting extended-family members other than their children or partner, says Maria Teresa Velez, an associate dean at the graduate college of the University of Arizona, where the Sloan program

began.

"They place a very high priority on family, social network, and community obligations," she says.

Before the Sloan program began at Purdue, in 2007, an American Indian student earned a master's or doctorate in a STEM field every two years or so, says Kenneth Ridgway, an earth-sciences professor there who is a director of the Sloan program at Purdue. Since then, 17 American Indian students taking part in the program at Purdue have earned such degrees, and 12 are now enrolled. Only three students have withdrawn. Mr. Ridgway attributes the high retention rate to the program's focus on fostering community and matching students with the right research interests and supportive professors.

As part of the Sloan program, Purdue also created an educational and cultural center on the campus, where American Indian students can hang out. Graduate students meet regularly there to discuss their research projects and learn about the nuts and bolts of graduate school, like how to form a thesis committee and develop essential skills that first-generation graduate students may lack.

"It's important to have a place like that," Mr. Ridgway says. "Most Native Americans don't see where they fit into America's universities."

To help them make those connections, Purdue faculty members visit tribal communities to better explain how university research can improve tribal lands and the lives of American Indians. A faculty member might explain Purdue's studies of sand-dune migration on the Navajo reservation, for example, or efforts to restore the weasel-like pine marten to the woods of Wisconsin.

"We say, 'Look, these are issues your communities are facing, and you need to have your own community members have the expertise to make these decisions,' " Mr. Ridgway says. "When you put it in that context, then the elders and students start to say, 'OK, this is worth getting a graduate degree.' That's the first thing

we need to do: Just make communities aware."

**M**r. Ridgway attributes those efforts to the growth in bachelor's and master's degrees among American Indians. But multiple factors have kept that success from extending to the Ph.D. level, he says.

"A Ph.D. basically means you have to go away from the reservation or your community for years, and they don't see the direct connection about how it helps their community," he says. "People raised in a traditional way evaluate whether they are successful not by whether they have a Ph.D., but by how much they have helped their community. That might be part of the disconnect you see there."

Carrie Billy, president of the American Indian Higher Education Consortium, which lobbies for more federal money for tribal colleges, is hopeful that the doctoral numbers will increase. She cited the gains made by American Indians at the bachelor's and master's level, including in STEM fields. As this infrastructure for American Indian higher education solidifies, she expects it to expand to doctoral programs.

"We have made tremendous strides since tribal colleges started to be established in the 1960s," she says.

Of the consortium's 37 tribal colleges, which offer mostly two-year degrees, 13 now have bachelor's programs, five have master's programs, and one, Navajo Technical University, is laying the groundwork for the first doctoral program at a tribal college.

If you look at the evolution of historically black colleges and universities and even mainstream institutions, Ms. Billy says, "we're kind of on that same evolutionary track, trying to grow as quickly as we can."

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### **Institutions That Awarded the Most Doctorates to American Indians, 2008-12**

Rank	Institution	Doctorate recipients
1	U. of Arizona	28

2	Oklahoma State U. at Stillwater	25
3	U. of California at Berkeley	17
3	U. of Minnesota-Twin Cities	17
5	Arizona State U.	16
5	U. of Oklahoma at Norman	16
7	U. of Kansas	12
7	U. of New Mexico at Albuquerque	12
7	U. of Wisconsin at Madison	12
10	U. of Texas at Austin	11
10	U. of Washington	11
12	U. of North Dakota	10
13	Purdue U. main campus	9
14	U. of California at Davis	8
14	Virginia Tech	8
16	U. of Arkansas at Fayetteville	7
16	U. of North Carolina at Chapel Hill	7
16	U. of North Texas	7
16	U. of Southern California	7
16	Washington State U.	7
<b>Top 20 institutions</b>		<b>247</b>
<b>All institutions reported (201)</b>		<b>629</b>
Note: Figures include Alaska Natives.		
Source: Survey of Earned Doctorates by the National Science Foundation and five other federal agencies		

28 Comments

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**maanyaan** · 15 days ago

It's wonderful to hear of the encouragement being given to Native American students pursuing sciences. But clearly more must be done. It may not be an accurate depiction of things happening at the high school level, but I hear too often (or maybe such anecdotes just catch my attention more than others -- having received a B.Sc. in earth & environmental sciences) of Native students opting for 'easier' non-math and non-science subjects high school and consequently lacking important grounding should they discover later on that something like neuropsychology, etc. captures their interest.

3 ^ | ▾ · Reply · Share >



**vegaschic** · 14 days ago

The title of the article, "Why So Few American Indians Earn Ph.D.'s, and What Colleges Can Do About It," begs the question: Why must ANYTHING be done about it?

Nothing needs to be done. This is a matter of individual rational choice. Instead of asking "what colleges can do about it," we should respect the individual choice of the chooser.

Those who see the world through the lens of "what colleges can do about it" are members of the self-appointed thought police who deem disagreement with their

point of view to be apostasy.

23 ^ | v • Reply • Share >



**megginson** → vegaschic • 13 days ago

Two points in reply to the conjecture that not getting a Ph.D. is only "a matter of individual rational choice" for reservation-based people in the U.S.: First of all, anyone familiar with the socioeconomic status of the people under discussion might (!) disagree with the conjecture, unless that only means that people make an individual rational choice not to do something that is frequently financially impossible. I would agree that the article makes less of that point than it should, but anyone who doubts it should contact Dr. Velez, mentioned in the article, who will supply an earful of information on that point in no uncertain terms.

Second, it certainly can be a matter of individual rational choice for people not to immerse themselves in an environment at an institution that was never designed for them and has few plans for accommodating their particular needs (and I've always found it striking that secular institutions that go out of their way to make sure that Christmas falls during a vacation period will not specifically state that, for example, Navajo students have a right to be back home for important ceremonials; folks, that is just a statement that, in this game, numbers win). And there are those pesky

[see more](#)

21 ^ | v • Reply • Share >



**caveat2** → vegaschic • 13 days ago

I agree with vegaschic.

It is obvious that Native Americans are making free choices as adults related to enjoying current consumption of their cultural values (having children early in life, remaining close to family, and consuming cultural traditions).

This is opposed to early sacrificing of their present consumption, for personal investment in their own human capital that would reward them with greater future consumption and ROI to their culture.

5 ^ | v • Reply • Share >



**11308938** • 14 days ago

Thanks to the Chronicle for covering a population that usually is only represented by an asterisk or footnote in national reports on achievement at the doctoral level. Tribal Colleges have made tremendous contributions to American Indian education by serving as conduits to 4 yr. and graduate institutions, while offering basic education to local tribal communities and preserving the language and culture of their respective tribes. Because they only serve 10% of the population of American Indian students nationwide, however, there is very little connection and correlation between tribal college funding and completion of the PhD by American Indian students. Funding and support is also needed at the mainstream institutions attended by 90% of American Indian students who should be encouraged to seek advanced degrees.

14 ^ | v • Reply • Share >



**Dorothy Roberts Arvizu** • 14 days ago

Graduate education is also an extremely patriarchal, hierarchal culture that is built on INDIVIDUAL achievement at the expense of that individual's other connections. It is a process of domination, elimination and exclusion that leaves too many isolated from everything that really matters.

^ | v • Reply • Share >



**macarthur** • 13 days ago

Please note that the chart above is mis-labelled. The title says 2012 but the axis says 2002.

^ | v • Reply • Share >



**No name** • 13 days ago

My goodness. Aren't there enough Native Americans working on deadend jobs as adjuncts? There are few jobs that rival the poverty of the reservation, but maybe these kids can grow up to be adjuncts teaching 6 courses at 4 campuses for \$2k a course too!

And hey, aren't there enough Native Americans teaching junior high english with a PhD and pretending that it was all worthwhile? Let's get some of them to spend six years on a PhD before they come of junior high teaching.

5 ^ | v • Reply • Share >



**caveat2** → No name • 13 days ago

I have to disagree with you, no name. I suspect that if properly prepared by appropriate Ph.D. programs, most academic disciplines in American universities would fight over recruiting them to add to their faculty, if for no other reason than "statistical diversity" government reporting value.

Sad, but true.

9 ^ | v • Reply • Share >



**Robert Wilson** • 13 days ago

The article does not explain how Indians are different from other family-oriented and/or economically challenged populations. Also, is there a problem to be resolved?

6 ^ | v • Reply • Share >



**Kim** • 13 days ago

Great job Darryl. I received my Master's degree 13 years ago and opted to not continue into a doctoral program because there was no incentive for me. The field of geoscience in the oil and gas industry does not have any incentives other than saying you have a PhD. That wasn't enough for me. I am very happy Darryl has chosen to move on to getting a PhD. Good luck.

^ | v • Reply • Share >



**bdavi52** • 13 days ago

When can we stop measuring whether something is right or wrong, good or bad, by demographic count?

I thought my family had a great Christmas -- but looking back I now realize there were no Native Americans present at the celebration. I'm so ashamed.

I enjoyed watching the Superbowl--but now I realize I don't even know whether any Native Americans were on either team. How can I say I enjoyed it if I don't know that number?

And how many Native Americans have walked through the Chicago Art Institute? No one knows. And yet, insanely, we evidently feel comfortable asserting that the Art Institute is doing an excellent job as an art museum?

Yes, there are very few Native Americans who earn PhD's. But how many have wanted to earn a PhD, worked to earn a PhD, applied to earn a PhD and were denied?

Can't we bus them to the Art Institute? Can't we legislate their presence on every

[see more](#)

4 ^ | v • Reply • Share >



**caveat2** → bdavi52 • 13 days ago

Bdavi52, I love your sarcasm.

God forbid that Barry and his cabal of socialistic tyrannical cohorts would allow people to make their own decisions that give each of them the most



allow people to make their own decisions that give each of them the most satisfaction. They believe (speak) that there must be equality of ownership of income and wealth.....but not equality of laboring, work, or contribution to society. By the way, where is the equality of whites playing on the NBA teams in proportion to their population. Shameful, just shameful to have such discrimination.

Barry and Mooch think they are the only people in the world who know what is best for everyone else. Free choice is rapidly disappearing in the U. S. And, other world leaders are finally realising that Barry, Harry, Eric, Nancy, and Mooch are without integrity and common sense.

1 ^ | v • Reply • Share ›



**bdavi52** → caveat2 • 13 days ago

Thanks!

But you're right....imbalance is everywhere. Unfortunately I have but one spouse...and as hard as I try to make the numbers turn out right (female, male, black, white, gay, straight, etc..) as long as there's just one of them, I can't do it!! I've failed!

2 ^ | v • Reply • Share ›



**11231962** • 13 days ago

How are we really defining "Native American" or "American Indian" here? How many benefits supposedly designed for dark-skinned, poor, reservation-dwelling Indians end up in the hands of middle-class whites with small amounts of "Indian blood" and tribal memberships that do not nullify their overall white identity.

3 ^ | v • Reply • Share ›



**Che Pajogwin** → 11231962 • 13 days ago

This is what we Indigenous people call "the box checkers". They check the box for Native American because they have "a grandmother who was a Cherokee princess" or "a grandfather who was a Blackfoot warrior". Anyone who repeats these two cliches is usually embellishing.

As for the paltry benefits in exchange for centuries of robbery, rape, pillage, and injustice; one has to be a registered member of a federally recognized tribe in order to qualify. One cannot simply "check a box" and receive assistance for tuition, or other university expenses.

2 ^ | v • Reply • Share ›



**TerribleEddie** → 11231962 • 13 days ago

The article seems to conflate Indian with reservation. There are only around 200,000 reservation dwellers, which is a tiny fraction of the population that claims Indian identity. And you're right--most of the Indian scholarship money goes to fakers and wannabes.

PS: Can we stop with the "Native American" lingo already? I don't know any real Indians who call themselves that. They call themselves Indians.

3 ^ | v • Reply • Share ›



**wacoose** → TerribleEddie • 12 days ago

I don't, but then I'm Canadian (we usually refer to ourselves as "native" or "aboriginal"). I believe the number of (Asian) Indians and Indian-Americans has or is close to surpassing the number of Native Americans in the US--it makes no sense to refer to both groups as Indians.

3 ^ | v • Reply • Share ›



**TerribleEddie** → wacoose • 12 days ago

Makes no sense to refer to them as natives either. But then, little about racial classification is rational.

1 ^ | v • Reply • Share ›



**willvnilv** • 13 days ago



...ing... 12 days ago

The problem can be solved rather easily. although I DO NOT recommend this solution. Turn the problem over to the for-profit scam schools and everyone in the native American Nation will have PHD's in very short order. There will be some major deficiencies in this solution. Their bank accounts will be cleaned out, their Title IV entitlements will be exhausted, they will receive a very poor education, no academic rigor, no real scholarly research, no access to a university level research library, and poor instruction will be the norm, with most of it delivered online through gaming modalities. Moreover, they will be pushed along quickly and falsely praised for having the intelligence of Einstein (bald-faced lying), and the fact that some have deficiencies in reading, writing and comprehension will make no difference, their grades will be consistently very high. Their programs of study will be poorly constructed and will lack cogency and coherence. Their exit credential, a PHD, (sic) will be worthless. It will be disrespected in the commercial marketplace and the only jobs they will be able to secure are ones they could have achieved without a phony PHD. They will be in debt for the remainder of their lives. But notwithstanding these few minor limitations, your statistics will blossom almost overnight, in fact they will fly off the charts and be very impressive. Almost every native American will hold a PHD. That is really a grand achievement. You think my discourse is folly? Think again. Based on this story, a good number of the fraudster for-profits have opportunistically sprung into action and tomorrow morning a well oiled recruitment program will begin. Slick recruiters will set out to lie, deceive and bamboozle as many native Americans as possible; and sadly history points to the fact that these slicksters will entrap a good number of NA's into their web of fraud. Be prepared to protect all native Americans against the predatory for-profit schools.

^ | v • Reply • Share >



**mca1969** • 12 days ago

The study acknowledged that the number of bachelor and master degrees had gone up considerably. Did it look to see what the bright students were doing in that mix? Maybe instead going for a Ph.D., they are going to medical school, law school, or into the business sector. Before we declare there is a problem, lets examine the facts.

6 ^ | v • Reply • Share >



**inteinte** • 12 days ago

I can't believe I got this far down in the comments without anyone mentioning Elizabeth Warren. Doesn't she count? I mean, she's whiter than even I am (and I'm as white as they get), but still.

1 ^ | v • Reply • Share >



**mkt42** • 11 days ago

While acknowledging the problem, we should also look more closely at the numbers in the article which purport to measure the size of the problem. In 2010 the Education Dept changed the definitions that it used to report students' ethnicity. In particular, "2 or more races" became a reporting category.

Depending on how schools were previously reporting their students of mixed backgrounds, the reported numbers may have changed significantly. Students who in 1992 were reported as Native American or American Indian might've been reported as "2 or more races" in 2012. Some of the decline in the doctorate percentages is probably due to this change in reporting. How much of it? I do not know.

^ | v • Reply • Share >



**MGJ** → mkt42 • 9 days ago

True and as two or more they are not counted as Native, even if they put in a tribal affiliation.

^ | v • Reply • Share >



**MGJ** • 9 days ago

Just a thought. Being Native and traversing the red tape/non-indigenous culture of

a University is hard. Having to leave your family for the first four - five years is tough, you have a lot of responsibility to "home"/"ceremony"/community. Then you add that you must travel even further away from your support system to study for a Ph.D and know you are not coming home soon... What kind of a job will you find on the rez that will ensure you pay off all the debt you have now racked up? All of this is on the students minds, as well as feeling out of place. Then you have the universities that are asking "Why are "we"( the university) spending money on such a small population?" (I was asked the very question by a visiting regent during a WASC interview.)

3 ^ | v • Reply • Share ›



**vwmorris** • 9 days ago

I'm an enrolled member of a Native tribal community and received my Ph.D. late last year. Though I had the support of one Native faculty member on my campus, the need for a cultural center to help support Natives and people of color is essential. We as underrepresented populations on mainstream college campuses need support to help sustain Native students through social, psychological, physiological, and mental issues incurred on and off the rez. Also, the support of other Natives who have made it through the educational experience can help support other Natives through guidance, assistance with academics, and motivation. Job placement is also essential in helping to motivate other Natives to move forward in their educational endeavors.

1 ^ | v • Reply • Share ›



**jestliveit** • 8 days ago

Confession time: "Native" mother with second child pursuing a PhD in the fall! Though the road is tough (impossible dream for almost all of us) it IS possible to be a Native American and be deemed smart. Education is more than just reading and studying. It is looking within yourself and finding the will to accomplish a goal (again... For anyone.). Please, please before you look from the outside and make statements about a person or ethnic group--- consider that many of the peoples you are judging have less than you do. Many homes on some reservations (mine is one) do not have running water, or inside bathrooms. In today's world this is unthinkable yet the ORIGINAL /NATIVE dwellers of this beautiful country are left without. It is difficult to try to breathe when someone is holding your head under water. So breathe people and throw the boat owner a life raft!!!

1 ^ | v • Reply • Share ›



**ndale27** • an hour ago

A facetious answer to the title question might be, "because there are still so many people in higher education who use outmoded epithets for Native Americans!" A less facetious answer would be that most bright young native Americans may be able to read the signs that a doctorate promises so little in the way of career prospect these days, that better avenues should be followed if you have any smarts.

^ | v • Reply • Share ›

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