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Narrowing Gaps through Educational Investments for American Indians and Alaska Natives

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In many ways, the Makah and Ysleta del Sur Indian reservations are quite different. The Makah Reservation is in the northwest corner of the Olympic Peninsula, a cool, rainy, rural area in the Pacific Northwest. This is the ancestral homeland of the Makah people and the location of their traditions as skilled ocean fishers and forest hunters and gatherers. In contrast, the Ysleta del Sur Pueblo lies near the Mexican border in the hot, arid, inland environment of what is now metropolitan El Paso, Texas. The Pueblo was established there by indigenous agricultural people forced to move from their homelands, which had been located in New Mexico hundreds of miles to the north of El Paso, under duress during the Spanish colonial period.

Despite very different environments, cultures, and histories, these reservations have a couple of important things in common. As discussed below, both have relatively high employment rates and relatively diverse economies, compared to many other reservations. And this commonality may not be an accident, for both also have been recognized for exemplary commitment to education and workforce development (NCAI Partnership for Tribal Governance 2016).

To put the accomplishments of communities like these in context, this chapter summarizes recent research on how and why educational and workforce outcomes for American Indian and Alaska Native (AIAN) individuals still lag behind those of whites in the United States. It then discusses policy implications and initiatives some AIAN communities are taking to close these gaps by promoting effective, cul-

turally appropriate education and workforce development programs. Because studies show that the level of AIAN educational attainment is an important correlate of AIAN workforce outcomes, we emphasize programs that target AIAN children and youth.

WORKFORCE OUTCOMES STILL LAG FOR AMERICAN INDIANS AND ALASKA NATIVES

Employment and earnings are among the most basic indicators of workforce success. AIAN adults continue to lag behind white adults by both of these measures.

Discussion of AIAN workforce issues often centers on the high unemployment rate among AIAN adults, especially in tribal areas. However, Austin (2013, p. 5) makes the case that the percentage of adults who are employed provides a better benchmark for AIAN economic progress:

While the unemployment rate is the most commonly used measure of joblessness, it is not the best measure for populations suffering from chronically high unemployment. In these communities a significant segment of the population stops looking for work because their odds of finding work are very low. Once someone stops looking for work, she is no longer counted as unemployed. . . . Technically, to be “unemployed,” one must be looking for work. . . . The employment rate, or the employment-to-population ratio, is a better measure. . . . This measure simply provides the share of the population that is working. Whether or not individuals are actively looking for work does not affect the measure.

Austin uses U.S. Census data to show “a very large disparity” in employment rates between whites and American Indians. For prime-age (25 to 54 years old) American adults in 2009–2011, “the American Indian employment rate was 64.7 percent, 13.4 percentage points lower than the white rate. . . . [This gap] is more than four times the size of the decline seen nationally over the Great Recession. Thus, the data suggest that, relative to whites, Native Americans typically live under economic conditions comparable to a recession with impacts four times as harmful as the Great Recession’s overall effects” (Austin 2013, p. 5). Austin

goes on to show that the employment rate gap is somewhat deeper for AIAN adults who identify as single race (AIAN only) as compared to multiple race (AIAN and other), for men as compared to women, and for AIAN adults living on or near reservations as compared to those not.

Compounding AIAN adults' lower rate of employment is the tendency for employed AIAN adults to concentrate in occupations with a relatively low percentage of college graduates. After ranking 26 major occupations by the extent to which their workers have attended college (a measure of occupational skill requirements), Wise, Liebler, and Todd (2017) use U.S. Census data to show that the distribution of AIAN workers across these occupations has been significantly different from that of non-Hispanic whites from 1980 through 2008–2012.

In particular, AIAN workers are overrepresented in occupations with a relatively low percentage of college graduates (such as farming, fisheries, and forestry; building and grounds cleaning and maintenance; extraction; and construction) and underrepresented in most occupations with a relatively high percentage of college graduates (such as architecture and engineering; life, physical, and social sciences; law; health care; education; finance; and computer and mathematics). Paralleling Austin's findings, Wise, Liebler, and Todd (2017) show that occupational gaps are larger for single-race AIAN workers and for men, and that living on or near a reservation reinforces the tendency to work in an occupation with a relatively low percentage of college graduates.

A lower employment rate plus overrepresentation of AIAN workers in occupations with a relatively low percentage of college graduates translates into reduced earnings for AIAN adults. According to the 2016 American Community Survey, median annual earnings for all AIAN adults with earnings in the past year were about \$24,600, or roughly two-thirds of the corresponding figure for non-Hispanic whites of about \$36,700.¹ Men of both races earned more than women, but in percentage terms the earnings gap was bigger for AIAN men (who earned about 61 percent as much as their non-Hispanic white peers) than for women (72 percent). The gaps for AIAN men and women were somewhat smaller when looking at either full-time, year-round workers only or "other" workers (not full-time, year-round) only. However, the higher percentage of AIAN workers who lacked full-time, year-round work contributed to the larger overall earnings gap between AIAN and non-Hispanic white workers.

AIAN EDUCATIONAL ATTAINMENT IS ONE KEY FACTOR

The studies reviewed above show a consistent pattern of subpar workforce outcomes for the AIAN population, from rates of employment to occupation to earnings. These studies and others also identify factors that are at least statistically associated with these AIAN workforce gaps. Chief among these factors is the relatively low level of AIAN educational attainment. However, the studies also show that measurable demographic factors such as education do not fully explain the gaps, leaving open the possibility that labor force discrimination may be an additional factor.

Table 11.1 summarizes two key measures of AIAN and white educational attainment since 1990. It shows that the percentage of adults 25 years old and older who have at least a high school degree and the percentage with at least a bachelor's degree steadily increased from 1990 to 2015 for both races. However, the rate of increase was similar for both AIAN and white adults, so that the percentage point gap in at least high school attainment fell slowly, and the percentage point gap for college attainment actually rose (because of the much higher 1990 base level among whites).² On the one hand, the increasing levels of attainment among AIAN adults are clearly a positive development that, other things being equal, tends to boost AIAN employment, occupational attainment, and earnings. On the other hand, the persistent gaps in AIAN-white educational attainment could contribute to continued gaps in workforce outcomes.

Research does in fact suggest that education is a key factor associated with poorer AIAN workforce outcomes. Based on a multivariate analysis that includes numerous demographic factors, Austin (2013) concludes that “the factor that does the most to increase American Indians’ odds of employment is higher education. . . . American Indians with advanced degrees have seven times the odds of American Indians with less than a high school education.” Similarly, Wise, Liebler, and Todd (2017, p. 20) find that “differences in educational attainment are the single most important explanatory factor behind the race-group differences in whether a worker is in an occupation group with relatively high education.”³ They also find that educational attainment affects

Table 11.1 Educational Attainment by Race (% persons 25 years old or more)

	High school degree or equivalent or higher		
	American Indian / Alaska Native	White	Percentage point gap
1990	65.5	77.9	12.4
2000	70.9	83.6	12.7
2010	80.5	90.7	10.2
2015	82.5	92.3	9.7
% change, 1990– 2015	126.0	118.4	–2.7
	Bachelor's degree or higher		
	American Indian / Alaska Native	White	Percentage point gap
1990	9.3	21.5	12.2
2000	11.5	26.1	14.6
2010	14.2	31.4	17.3
2015	14.6	34.2	19.6
% change, 1990– 2015	157.2	159.2	7.4

SOURCE: National Center for Education Statistics. For 1990 and 2000, 2004 *Digest of Educational Statistics*, Table 12. For 2010 and 2015, 2016 *Digest of Educational Statistics*, Table 104.40. Figures include Hispanic individuals.

occupational education levels for both sexes but to a greater extent for women than men.

Although education is the factor most strongly associated with workforce outcomes for AIAN adults, other factors also contribute. Austin (2013) finds that veterans and those who speak only English at home have higher odds of employment, and that disabled persons or, to a small degree, those living on or near reservations have lower odds. He also finds that AIAN employment rates differ significantly among U.S. states. With regard to the odds of being in an occupation with a relatively high percentage of college graduates, Wise, Liebler, and Todd (2017) also find small positive effects associated with English proficiency and small negative effects associated with living on or near a reservation.⁴

Multivariate demographic analyses like these frequently fail to fully account for the AIAN-white workforce gaps. On that basis, Austin (2013, p. 13) concludes that this “leaves open the possibility that racial discrimination may play a role” in low AIAN employment rates. Similarly, Wise, Liebler, and Todd (2017, p. 3) regard their inability to fully account for the underrepresentation of AIAN workers in high-education occupations “as a sign that deeper social and economic issues may continue to restrain the well-being of the AIAN population.”

Two recent studies shed additional light on the relationship between higher educational attainment and workforce outcomes. Keo, Peterson, and West (2018) study the extent to which a college degree is associated with higher earnings for AIAN and non-Hispanic white adults. Comparing outcomes of college graduates and those with only a high school degree, they confirm numerous earlier studies that find a college degree has a strong positive effect on participation in the labor force, employment, and earnings. For AIAN adults, for example, Keo, Peterson, and West find that completing college is associated with about a 7 percentage point increase in employment rates. This effect is larger than for non-Hispanic whites, meaning that AIAN workers experience larger increases in employment associated with higher education than their non-Hispanic white peers. However, the differential returns are not sufficient to close the non-Hispanic white–AIAN employment gap. They find a similar pattern when college effects are measured by labor force participation—higher returns for AIAN adults but not enough to fully close the racial gap in participation.

For earnings, the results in Keo, Peterson, and West (2018) are more complicated. On the one hand, the usual finding of much higher earnings among college graduates clearly applies to AIAN workers, given Keo, Peterson, and West’s result that an AIAN worker with a bachelor’s degree earns 52.3 percent more than an AIAN worker with no college course work. On the other hand, they find that the comparable gain for a non-Hispanic white college graduate with a BA is even higher, at 58.2 percent. They find similar patterns for other postsecondary degrees. These weaker AIAN earnings gains persist even when Keo, Peterson, and West control for occupation and field of study. Simulating what would happen if AIAN education levels converged with those of non-Hispanic white adults, other things being equal, they find that equalization in educational attainment would reduce the AIAN–non-Hispanic

white earnings gap by less than 10 percent.⁵ They stress that although enhanced college attendance and completion are important in advancing the well-being of AIAN communities, the elimination of persistent racial earnings inequalities will require additional interventions, such as addressing systemic and institutional discrimination.

Leibert's (2016) detailed study of young workers in Minnesota complements Keo, Peterson, and West's national findings. She combines data on 200,000 Minnesota students who obtained a postsecondary credential between 2010 and 2013 with employment data on workers covered by Minnesota's Unemployment Insurance program.⁶

Leibert (2016) traces post-college graduation labor market experience while controlling for individual differences in race, academic degree, age, and other factors. Her results, partially summarized in Table 11.2, show that, compared to non-Hispanic whites as well as other racial and ethnic groups, Minnesota American Indian college graduates were overrepresented in part-time or temporary/seasonal employment and earned less than other graduates at almost every education and age level and persistently over time.

Leibert (2016) also finds that younger college completers (between the ages of 20 and 30) have smaller gaps in employment status and earnings. Compared to younger college graduates or workers with less than a bachelor's degree, AIAN and blacks who gain postsecondary degrees after age 30 fall relatively further behind non-Hispanic whites in finding well-paid, full-time jobs, as shown in Table 11.3. These age

Table 11.2 Employment and Wage Outcomes in the Second Year after Graduation, in Minnesota (by race/ethnicity, completers of all award levels, classes of 2011–2013)

Racial/ethnic group	Median annual wages (\$)		Employment status (%)		
	Part-time	Full-time, year-round	Part-time or seasonal	Full-time, year-round	Unknown
American Indian	14,688	37,389	46.6	27.60	25.80
Asian	17,610	42,015	42.0	35.40	22.60
Black	16,762	41,210	48.2	31.60	20.20
Hispanic/Latino	16,656	42,124	43.2	31.50	25.30
Two or more races	16,295	39,434	46.2	30.60	23.20
White	18,480	43,738	42.6	34.30	23.10

SOURCE: Re-created by authors from Leibert (2016).

effects are significant for the AIAN workforce because “American Indian graduates . . . are . . . older compared to other college graduates. . . . [Some] 39.7 percent of American Indian graduates completed a post-secondary credential after age 30, compared to 25.3 percent of [non-Hispanic] white and 22.5 percent of Asian graduates” (p. 4).

More clearly than Keo, Peterson, and West (2018), Leibert (2016) finds that occupation and field of study may be associated with workforce gaps. Her Minnesota-only sample shows that American Indian graduates are overrepresented in fields that typically lead to low-paying personal- or food-service jobs. In fields that typically lead to high-paying jobs, such as science, technology, engineering, and mathematics (STEM), she finds (p. 7) that American Indians are underrepresented “because fewer enroll and the large majority of those who enroll do not complete [their course of study].” Non-Hispanic whites who graduate in the typically low-paying fields earn not much more than their American Indian peers, but a much smaller share of non-Hispanic whites graduate in these

Table 11.3 Wage Outcomes by Race, Age, and Education Level, in Minnesota

Age at graduation	Education level	Racial group	Share of graduates employed full-time year-round (%)	Median annual full-time wages (\$)	Earnings ratio to whites (%)
20 to 30	Below bachelor’s	American Indian	20.8	29,764	83.7
		Black	22.1	32,186	90.5
		White	29.9	35,574	100.0
	Bachelor’s and above	American Indian	32.5	41,104	94.6
		Black	30.6	39,975	92.0
		White	33.5	43,473	100.0
31 to 55	Below bachelor’s	American Indian	27.0	35,236	82.4
		Black	33.4	39,754	93.0
		White	36.9	42,754	100.0
	Bachelor’s and above	American Indian	32.4	47,837	70.3
		Black	43.4	54,539	80.1
		White	43.4	68,071	100.0

SOURCE: Re-created by authors from Leibert (2016).

ate in these fields. Leibert concludes that “American Indians . . . are missing out on excellent job opportunities in fast-growing occupations. . . . These results also demonstrate that racial minorities who pursue in-demand majors have good labor market outcomes” (p. 7).

POLICY CONSIDERATIONS

The common finding that measurable demographic factors do not fully account for observed workforce outcome gaps and the more detailed findings of Keo, Peterson, and West (2018) and Leibert (2016) concerning outcomes for college graduates have implications for both tribal and nontribal policymakers. As noted above, the general inability to statistically explain workforce gaps raises the possibility that labor market discrimination continues to harm AIAN workers and job seekers. This suggests a need for deeper research as well as active enforcement of labor laws that prohibit racial discrimination in the workplace.

Their finding that earnings gains for AIAN college graduates, though large, are less than for non-Hispanic whites, suggests to Keo, Peterson, and West (2018, pp. 14–15) that AIAN adults “will have a harder time paying off college debt.” This, they argue, will discourage AIAN youth from pursuing higher education and thereby contribute to wealth and income inequality and lower intergenerational economic mobility. For these reasons, they favor financially aiding AIAN college students with grants rather than loans. Alternatively, in light of evidence that AIAN students are disproportionately motivated by a desire to help their tribal communities, they recommend consideration of loan-forgiveness programs for AIAN students, for example by tying forgiveness to “working in a job that directly gives back to the community.”

Leibert’s (2016) findings regarding the effects of age of completion and field of study lead her to some targeted recommendations. Based on her finding that racial disparities are much smaller among those who graduate college before age 30, she recommends programs that help AIAN and other minority students enter and complete college while still young adults. To ensure that minority students get the most out of their college degree, she suggests that policymakers “increase in-school support to ensure that minority students learn about employers’

expectations and hiring practices, set clear learning and career goals, gain early career experience especially in an industry related to the field of study, and conduct a well-targeted job search.” Like Keo, Peterson, and West (2018), she warns that reducing racial gaps in college completion will not be sufficient to eliminate racial disparities in labor market outcomes, because of evidence that “systemic barriers are preventing inclusion even for people who successfully complete an in-demand credential.” She sees the hiring of racial minority college graduates at high rates and competitive wages in some industries (e.g., nursing and residential care facilities) as evidence that barriers can be overcome but points out that other industries continue to lag (e.g., construction and manufacturing). On that basis, she suggests a general need for Minnesota’s business community to “increase recruitment and hiring of qualified racial minorities.”

TRIBAL COMMUNITY INITIATIVES

The Makah Tribe and Ysleta del Sur Pueblo Tribe demonstrate how tribal communities are promoting higher educational attainment as part of broader strategies to eliminate AIAN workforce gaps. To pique students’ interest in college generally and STEM fields specifically, the tribe has cosponsored a fisheries management internship with hands-on and academic components. In recent years, as many as 100 percent of Makah reservation high school graduates have gone on to postsecondary education, frequently with financial aid from the tribe (NCAI Policy Research Center 2012). Similarly, the Tigua people of Ysleta del Sur Pueblo are addressing Leibert’s recommendation “that minority students learn about employers’ expectations and hiring practices” by helping to fund the Tigua Next Generation Program. It places 14- to 21-year-old Tigua youth in five-week paid summer jobs to give them experience with a range of potential careers and help them set their educational and occupational sights high (NCAI Partnership for Tribal Governance 2015).

These two tribes are part of a broad pattern of tribal educational and workforce initiatives that range from cradle to career. A leading example is the Coeur d’Alene Tribe, whose “education pipeline” approach to

workforce development comprehensively supports and monitors tribal members' workforce development (NCAI Partnership for Tribal Governance 2016). The Pipeline originated about a decade ago, when the four-year graduation rate at the main high school serving tribal (and other area) youth was under 35 percent. At about that time, in the midst of the tribe's foundation-funded visioning and planning process aimed at improving the quality of reservation life,⁷ the tribe's Department of Education ("Department") was asked to explain its work to tribal officials.

The Department ultimately responded by mapping out an "education pipeline," which includes 15 stages of workforce development from infancy to postgraduate degrees, with monitoring of the numbers of tribal and nontribal youth at each stage and stage-specific programs designed to support their progression. The Department began using the pipeline concept to collect data, monitor progress, and manage its responsibilities across the entire cradle-to-career path. That allowed the Department to identify "ruptures," where too many youth were failing to progress, and then target resources and new programs to fix them. By the 2014–2015 school year, when an additional set of student supports was put in place for high school students, the four-year high school graduation rate had reached 55 percent. Over the next two years, these supports reached more students, and the four-year graduation rate rose to about two-thirds.⁸ The tribe also has entered into partnerships with regional colleges and universities to support the next stage of learning for future tribal workers, including college programming to deepen tribal students' cultural identity and civic pride in hopes that they will bring their new skills back to the community.

Few tribal or nontribal communities can boast a fully articulated and comprehensive workforce development framework like that which is in place at Coeur d'Alene. However, many AIAN communities across the country have innovative education and workforce development programs that collectively span the same cradle-to-career range of activity, as shown by the following examples and sources of information:

Early Childhood Development (ECD) Programs. Head Start, Early Head Start, and an array of other ECD programs are available in many AIAN communities, although access to high-quality programs remains an issue. The White Earth Nation in Minnesota has a flagship

ECD program and for 17 years has sponsored a highly regarded ECD professional development conference on the science of brain development. Evidence that high-quality ECD programs are the foundation of both cultural preservation and workforce development in Indian country was presented at the Federal Reserve Bank of Minneapolis during the Center for Indian Country Development's October 2016 conference, titled "Early Childhood Development in Indian Country."⁹ The conference presented examples from multiple tribes and programs, including the feasibility and benefits of the growing number of programs that combine high-quality ECD activities with tribal language immersion and cultural preservation content. Better Way Foundation, a conference participant, and the Shakopee Mdewakanton Sioux Community subsequently partnered with the Center for Indian Country Development to seek new ideas for sustaining and enhancing both early childhood development and early childhood nutrition programs in Minnesota's tribal communities. In 2017, this "Healthy Communities, Healthy Nations" initiative led to several dialogues on ECD needs and next steps with providers, funders, and tribal leaders in Minnesota, as well as a set of recommendations for further action over the following three years (Shakopee Mdewakanton Sioux Community et al. 2018).

Work Experience and Career Planning Programs. A number of tribes, including the Makah, Coeur d'Alene, Chickasaw, and Saginaw Chippewa, expose their youth to information about prospective careers or work experience, often via internships or summer jobs in tribal government or tribally owned enterprises (NCAI Policy Research Center 2012). Other organizations provide similar experiences for AIAN youth from across the country, sometimes in a specific field. For example, the Indigenous Food and Agriculture Initiative at the University of Arkansas School of Law conducts a multiday Native Youth in Food and Agriculture Leadership Summit each summer for a rapidly growing number of participants from around the United States.¹⁰

Support for AIAN College Students. Adapting to college life is difficult for many students, but AIAN students often face an additional combination of challenges related to low incomes, few family mentors with college experience, their first extended absence from a close-knit Native culture, and the feeling of belonging to a small minority group

that is at times invisible and at other times disrespected. Programs that help students survive and thrive on campus range from the very local, such as the Payne Family Native American Center at the University of Montana and similar student centers on other campuses, to national programs such as College Horizons, the Native Pathways to College program of the American Indian College Fund, and scholarships for advanced degrees offered by the American Indian Graduate Center.

The growth of tribal colleges and universities in recent decades has also helped many youth attend college at low cost while maintaining important local family and cultural ties. Articulation agreements between tribal colleges and larger regional institutions can help students to transfer and continue postsecondary studies elsewhere. The comprehensive Wokini Initiative announced by South Dakota State University (SDSU) in 2017 will “offer programming and support to enrolled members of the nine tribal nations in South Dakota interested in gaining access to educational and advancement opportunities at South Dakota State University . . . [and] will also enhance research and outreach collaborations and programs with tribes, tribal colleges and other tribal organizations in the state.”¹¹ A groundbreaking aspect of the Wokini Initiative links its funding to land taken from Indian tribes in the nineteenth century and used to establish SDSU as the state’s land grant institution. These and other strategies were discussed at the Federal Reserve Bank of Minneapolis Center for Indian Country Development’s “Tribal Community Perspectives on Higher Education” conference in September 2017.¹²

Programs for Adults. This chapter primarily focuses on workforce development programs aimed at children and youth. This focus reflects the significance of education as a factor associated with AIAN workforce gaps as well as the authors’ areas of relative expertise. However, the National Congress of American Indians (NCAI) maintains an active dialogue and set of resource materials on traditional adult-oriented workforce development programs and policy issues. We invite readers to visit the NCAI website (www.ncai.org) and the materials there associated with NCAI’s Partnership for Tribal Governance (PTG), which works with tribal nations to document their innovative approaches to workforce development (many of which we have drawn on here). In addition, a number of successful workforce development training programs at tribal colleges and universities have been profiled in *Tribal*

College: Journal of American Indian Higher Education, including the American Indian Higher Education Consortium/Tribal Colleges and Universities Advanced Manufacturing Network Initiative funded by the U.S. Department of Energy's National Nuclear Security Administration (Kuslikis 2018); building trades apprenticeship programs sponsored by Iḷisaġvik College in Alaska (Brown 2018); the Tribal College Consortium for Developing Montana and North Dakota Workforce (DeMaND), which used equipment simulators and other innovative practices to accelerate workforce training, especially for jobs in the booming shale-oil sector, accessible to tribal members at four tribal colleges and universities in Montana and North Dakota (Worley 2014); and Leech Lake Tribal College's successful peace officer training program, early childhood education degree program, and Integrated Residential Builder degree program, which has recently expanded to include internships leading to careers as photovoltaic, or solar panel, installers (Buckland 2018).

CONCLUSION

Workforce outcomes for American Indians and Alaska Natives continue to significantly lag behind the outcomes of whites in the United States. We have reviewed evidence suggesting that differences in educational attainment account for much of this gap, although both subtle and overt labor force discrimination may also play a role. AIAN communities and tribal governments recognize the educational issues and are taking steps to close the attainment gaps. Progress has been uneven and too slow for many of the children and families affected. Neel Kashkari, president of the Federal Reserve Bank of Minneapolis, says the continuing large gap in AIAN educational achievement is "absolutely unacceptable"; Kashkari calls for "decisive action and improvement."¹³ Leaders in AIAN communities, tribes, and tribal educational institutions must rise to this challenge, but they cannot do the job alone. The federal government's responsibility to the AIAN people of the United States, as well as the best interests of state governments seeking to build strong twenty-first century workforces, call for decisive action as well. This action includes the provision of reliable and adequate funding for

a national American Indian and Alaska Native “education pipeline” and high expectations for its educators and students. As President Kashkari put it, “Our nation cannot afford to shortchange the current generation of American Indian and Alaska Native students, let alone future generations.”

Notes

The views expressed here are those of the authors and not necessarily those of the Federal Reserve Bank of Minneapolis or the Federal Reserve System.

1. The figures in this paragraph are derived from the U.S. Census Bureau’s 2016 American Community Survey one-year estimates and are based on earnings over the past 12 months for individuals 16 years and over.
2. The percentage-point gap in high school attainment shrank between 1990 and 2010 because the rate of increase among the AIAN population was sufficiently higher than for whites to outweigh the relative difference in initial levels of AIAN and white high school graduation rates. By contrast, the initial 1990 percentage point gap in AIAN and white attainment of bachelor’s degrees was larger, and the subsequent rate of increase for AIAN individuals only slightly higher. As a result, the 1990–2010 percentage point gain in bachelor’s degrees for whites outstripped the gain for AIAN individuals because the much higher base level for whites had a larger effect on changes in the percentage point gap than the only somewhat more rapid pace of increase for AIAN individuals.
3. This result may seem trivial or obvious by definition, but it is not. As Wise, Liebler, and Todd (2017) note, the educational attainment of individual AIAN adults need not be closely related, on average, to the population-wide educational level associated with occupations. The AIAN population is simply too small, relative to the overall population that is used to rank occupations by educational level, to yield a significant automatic link. Furthermore, Wise, Liebler, and Todd obtain similar results about the strong explanatory power of education if they first rank occupations by income instead of by education. Thus, the stated result is meaningful and informative.
4. The negative effect of reservations on occupational education level may reflect the outsized concentration of reservation jobs in the government sector and in the casino-linked industries of “arts/entertainment/recreation” and “accommodation and food services,” as documented in Akee, Mykerezi, and Todd (2017).
5. The simulations do not, however, account for full market adjustments, such as how wages by occupation might change if the supply of minority college graduates were to rise substantially.
6. Excluded are graduates who went to work for the federal government, were self-employed, or left the state; graduates under 20 or over 55 years old; individuals who did not report any race or reported as “Native Hawaiian” or “Other Pacific

- Islander”; individuals who reported being “nonresident alien”; and graduates in a few academic programs that lack reliable wage records or student records.
7. This was one of the Horizons community development programs funded by the Northwest Area Foundation and implemented with additional support from, in this case, the University of Idaho Extension Service.
 8. Because the number of students involved is small—about 10 to 12 in each ninth-grade cohort tracked through graduation—further monitoring over more years will be needed to assess the statistical significance of these increases.
 9. See <https://www.minneapolisfed.org/indiancountry/events/all-events/early-childhood-development-in-indian-country> for conference materials and videos (accessed September 4, 2018).
 10. See <http://indigenousfoodandag.com/youth-summit> (accessed September 4, 2018).
 11. See <https://www.sdstate.edu/wokini> (accessed September 4, 2018).
 12. See <https://www.minneapolisfed.org/indiancountry/events/all-events/tribal-community-perspectives-on-higher-education> for conference materials (accessed September 4, 2018).
 13. Speech at the Tribal Community Perspectives on Higher Education Conference, Minneapolis, Minnesota, September 27, 2017; available at www.minneapolisfed.org/news-and-events/presidents-speeches/tribal-community-perspectives-on-higher-education (accessed September 4, 2018).

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