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Remembering the Forgotten Minority: An Analysis of American Indian Employment Patterns in State and Local Government, 1991–2011

Valerie H. Hunt, Melissa A. Taylor, and Daniel “Ramon” Cox

Analyses of employment patterns among marginalized racial and ethnic groups remain focused on Latinos and/or African Americans,¹ while research focusing on other marginalized racial and ethnic patterns is rare.² For example, there is only one study in the political science and public administration literatures examining American Indian public sector employment patterns in state and local governments.³ The scarcity of scholarship specific to American Indian public-sector employment trends supports Geoff Peterson and Robert Duncan’s argument that within American politics discourse, American Indians are the forgotten minority.⁴ Situational factors—lack of involvement or participation in politics, concentration on reservations, and relatively small numbers in most states—may also contribute to the dearth of academic work in this area.⁵ Given that American Indians, living both within and outside of reservations, remain the most disadvantaged group in the United States in terms of poverty and

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unemployment, we believe empirical assessments of American Indian representation in the distribution of public-sector jobs is critically important for several reasons.⁶

First, the theory of representative bureaucracy posits that the demographic composition of a bureaucracy should mirror the corresponding demographics of the population served by the bureaucracy.⁷ In addition to symbolic importance, increasing access and presence of marginalized groups to and in managerial public-sector positions may lead to greater receptiveness to the public policy interests and needs of traditionally marginalized groups like American Indians.⁸ Second, by focusing on managerial workforces in public-sector bureaucracies, rather than nonmanagerial workforces, we can examine traditionally marginalized groups' shares of those positions affording economic progress in terms of good salaries, benefits, security, status, and mobility.⁹ Third, it is important to ascertain any level of growth in the American Indian representation in the more desirable public-sector jobs over the past several decades. Peterson and Duncan find that American Indians have experienced growth in terms of population and power in certain states and that this growth may demonstrate that these traditionally marginalized populations are assimilating into mainstream culture, becoming more active in mainstream politics, and, perhaps, more and more, obtaining leadership posts in nontribal government workforces.¹⁰ As such, it is vital that we trace American Indian success (or non-success) in occupying managerial-level state and local government positions. Of equal importance is an examination of employment trends in government bureaucracies as power in multiple policy areas continues to devolve to state and local governments from the federal government.¹¹

The purpose of this article is to replicate, extend, and expand the only existing study analyzing proportional representation levels of American Indians in state and local government bureaucracies in key states over time. Our analysis includes Valerie Hunt, Brinck Kerr, Linda K. Ketcher, and Jennifer Murphy Hunt's study of the six states with the largest percentages of American Indian populations in the 2000 census: Alaska, Arizona, Montana, New Mexico, Oklahoma, and South Dakota, as well as North Dakota and Wyoming. We add North Dakota and Wyoming because they have greater percentages of American Indian populations when compared to other states not already included in the study by Hunt and colleagues.¹² In addition, we add ten years of data to increase the study timeline to a total of twenty-four years (1991–2015). With this increased time frame, we also examine potential impacts of the Great Recession (circa 2007–2009) in our eight study states. Unfortunately, we only examine the effects of recession in four states (Oklahoma, New Mexico, Alaska, and Arizona) as data were unavailable for AI/AN populations in the other four states.

Our research questions are: (1) are American Indians overrepresented in the lower-paying, public-sector positions in state and local government bureaucracies (i.e., cities, counties, townships, and special districts, excluding school districts? (2) in contrast, are American Indians underrepresented in the more desirable, better-paying public sector positions? and (3) in addition, for both managerial and nonmanagerial positions, have levels of representation within states changed over time?

LITERATURE REVIEW

We begin with a brief overview of the current economic conditions faced by American Indians. Next, we review existing research measuring the distribution of government jobs among traditionally marginalized groups, while highlighting the paucity of studies on American Indians. Finally, we describe our research design and present our findings, concentrating on parity ratios and occupational segregation for American Indians in key states.

In the United States, an estimated 2.9 million people self-identify under official 2010 US Census categories as American Indian and Alaska Native (AI/AN) alone (also referred to as “AI/AN single race”), while another 2.3 million people self-identify as AI/AN or in combination with another race (also referred to as “AI/AN multiple race”). Our study follows the former Census category and thus, our investigation is limited to those people self-identifying as American Indian and Alaska Native alone. This single race category is consistent with the corresponding race category in the Equal Employment Opportunity Commission (EEOC) data used for this study. Approximately 1.9 million AI/ANs live on reservations (“Indian country”) or in Alaska Native villages, while 3.3 million AI/ANs live outside Indian country and Alaska Native villages.¹³

Whether living in or outside of Indian country, AI/ANs continue to grapple with historic socioeconomic deficits.

According to the U.S. Census Bureau, a greater percentage of American Indians and Alaskan Natives were unemployed between 2007 and 2011 than any other U.S. racial group. For this group, the poverty rate during the period was 27 percent—13 percentage points higher than the poverty rate for the total U.S. population. At the same time, 48.3 percent of Native Americans in South Dakota and 41.6 percent of those in North Dakota were living in poverty.¹⁴

The Great Recession, which officially lasted from December 2007 to June 2009, began with the puncture of an eight-trillion-dollar housing market bubble, resulting in a sharp loss of consumption, a collapse in business investment, and massive unemployment rates not experienced since the Great Depression.¹⁵ In 2008 and 2009, the US labor market lost 8.4 million jobs.¹⁶ American Indians and Alaska Natives experienced some of the sharpest declines in employment in both private and public employment sectors,¹⁷ and continue to experience the deleterious financial, among many other, effects of the Great Recession.¹⁸

Historically, American Indians in Indian country are less likely than others in the United States to work in the private sector, further limiting employment opportunities.¹⁹ In a recent study of AI/AN workforces in the private sector, Wise, Liebler, and Todd use a dissimilarity index—a calculation/method used to find a percentage of the proportion of workers needed to change occupations in order to make one group’s representation on par with another group—and found that, compared to white workers, AI/AN workers are greatly underrepresented in highly skilled occupations

and overrepresented in low-skill jobs, and further, that these trends are more prevalent in single race AI/ANs compared to those identifying as multiple race.²⁰

Despite other researchers' findings supporting improved socioeconomic conditions for American Indians,²¹ in order to gain a more complete understanding of employment conditions and whether those conditions are improving or deteriorating, we need to examine American Indians employed in the *public* sector. In addition, this analysis enables us to assess AI/AN access to managerial-level positions in state and local governments.

Numerous empirical studies demonstrate the underrepresentation of traditionally marginalized groups (e.g., African Americans, Latinos) employed in local, state, and federal government bureaucracies at the highest organizational levels and in certain agency types.²² Existing studies find overrepresentation of traditionally marginalized groups in the lower ranks of government bureaucracies, regardless of level of government.²³

Although we have a clear picture of the distribution of government jobs among the two largest minority groups (Latinos and African Americans) in the United States, little is known about the distribution of American Indians in government jobs. In fact, so little is known about the socioeconomic status of AI/ANs that they are often referred to as the "Asterisk Nation," because instead of a data point specific to AI/ANs, an asterisk appears in data presentations, reporting, and publications on issues related to the composition, health, wealth, and welfare of racial and ethnic groups in the United States.²⁴ This designation is due to various and complex issues ranging from small sample sizes and increased margins of error, to the difficulty in decoupling multiple race census categories.²⁵ More to the point, a few studies of employment patterns and bureaucratic representation report levels of occupational segregation or proportional representation for American Indians; however, these studies focus on non-Latino whites, Latinos, and African Americans, rather than American Indians.²⁶ In addition, these studies do not examine American Indian public-sector employment or segregation using state-by-state analysis.²⁷ The "state" is the preferred unit of analysis because there is wide variation in the percentages of American Indians relative to their own state populations. Accordingly, this variation will have an impact on the ability of American Indians to lay claim to a proportional (or increasing) share of upper-level bureaucratic positions in their states.

HYPOTHESES

Based on our literature review and our replication and extension of the study by Hunt and colleagues, we propose the following three hypotheses: (1) American Indian parity ratios should be lowest in managerial level job categories (i.e., administrators and professionals); (2) the ratios for American Indians should approach or surpass parity in the nonmanagerial job categories—and should be much higher than the parity ratios for managerial positions; and (3) we expect very little increase over time in parity ratios at both the nonmanagerial and managerial levels.

RESEARCH DESIGN: DATA, MEASURES, AND METHOD

Much of the data for our analysis was obtained from the publicly available biennial reports of the US Equal Employment Opportunity Commission (EEOC). The EEOC publishes information for each odd-numbered year on workforce compositions in state, county, city, township, and most special district units of government.²⁸ These “EEOC Form 164 reports” or “EEO-4 reports” allow analysis of the state and local workforce disaggregated by job category. Job categories include administrators, professionals, technicians, protective service workers, paraprofessionals, administrative support, and service and maintenance. We are particularly interested in managerial positions, as these jobs tend to pay better than jobs that afford more job security and political power than nonmanagerial jobs. These managerial positions include broad policy-making and supervisory power, as in these EEOC form descriptors:

Administrators: Occupations in which employees set broad policies, exercise overall responsibility for execution of these policies, or direct individual departments or special phases of the agency’s operations, or provide specialized consultation on a regional, district or area basis. Includes: department heads, bureau chiefs, division chiefs, directors, deputy directors, controllers, wardens, superintendents, sheriffs, police and fire chiefs and inspectors, examiners (bank, hearing, motor vehicle, warehouse), inspectors (construction, building, safety, rent-and-housing, fire, A.B.C. Board, license, dairy, livestock, transportation), assessors, tax appraisers and investigators, coroners, farm managers, and kindred workers.

Professionals: Occupations which require specialized and theoretical knowledge which is usually acquired through college training or through work experience and other training which provides comparable knowledge. Includes: personnel and labor relations workers, social workers, doctors, psychologists, registered nurses, economists, dieticians, lawyers, systems analysts, accountants, engineers, employment and vocational rehabilitation counselors, teachers or instructors, police and fire captains and lieutenants, librarians, management analysts, airplane pilots and navigators, surveyors and mapping scientists, and kindred workers (EEOC Form 164).²⁹

The lack of data across varied disciplines has made it difficult to isolate and evaluate improvements in the economic status of American Indians.³⁰ A contributing factor may be the multiple racial categories introduced in the 2000 US Census data allowing individuals to choose more than one race, and, as a result, it has become difficult, if not impossible, to gather data specific to, and exclusive of, American Indians alone.³¹ Accordingly, and consistent with both the racial category used in the EEOC data and the study by Hunt, et al., we limit our census data to those self-identifying as American Indian and Alaska Native alone.³²

Our objectives are to ascertain by state (1) whether American Indians are over- or underrepresented in various job categories; and (2) whether American Indians have experienced either a decrease or increase in professional or administrator employment proportions between 1991 and 2015. We conduct analysis on data from 1991 through

2015, using 1990 census data to calculate the representative proportion ratios for 1991 through 1997, 2000 census data to calculate the proportion ratios for 1999 through 2005, and 2010 census data to calculate the proportion ratios for 2007 through 2015. Because we are aware of the constraints in accurately capturing the AI/AN population through decennial census data alone, we supplement our analysis with data for all eight states from the one-year estimates of the American Community Survey for the years 2007, 2009, 2011, 2013, and 2015.³³ Because these surveys are taken every year, we anticipate that these estimates of select socioeconomic conditions (e.g., population, educational attainment, employment rate, and poverty rate) will aid in our study's examination of key states before, during, and after the Great Recession, as well as help to interpret our findings.

Following Hunt, et al., we calculate a proportion ratio for each of the eight job categories.³⁴ For each state and year, the American Indian proportion ratio equals the percentage of American Indians employees in the job category divided by the percentage of American Indians in the overall state's population. Note that ratios less than one indicate underrepresentation of American Indians in a particular year, while ratios greater than one indicate that American Indians are overrepresented in a given year. To determine if American Indian job shares have increased or decreased over time within a particular job category, we calculate the size and direction of the change by subtracting the 1991 American Indian Proportion Ratio from the ratio for 2015.

FINDINGS

In table 1, we report parity ratios and their differences over time for the state of Alaska. As expected, over the years for which we have data American Indians do not approach parity in the two top job categories, administrators and professionals. Ratios are generally less than 0.50 for administrators and 0.30 for professionals. The parity ratios for the Alaska public-sector professional cadres demonstrate a slight increase, from 0.22 in 1991 to 0.34 in 2015. However, the parity ratio for administrative positions decreased from 0.53 in 1991 to 0.48 in 2015, indicating that American Indian progress toward obtaining a greater share of managerial positions has not occurred in Alaska state and local government bureaucracies in our twenty-four-year time span.

The indicators in nonmanagerial ranks are also consistent with our hypothesis, showing parity ratios much higher than those for management positions and with a majority reaching and surpassing 0.50. Consistent with the findings of Hunt and colleagues, we observe protective service worker job shares decline from 1.39 in 1991 to 0.46 in 2015, representing a -0.93 change over time. This decline is cause for concern. Protective service workers, although not considered managers exercising broad policy-making power, do exercise discretion in the course of their duties, and, as street-level bureaucrats, may embody symbolic and policy significance in their interactions with others.³⁵

In table 2, we report the parity indicators for Arizona state and local governments. As predicted, among administrative personnel we find very low levels of representation for American Indians, ranging from 0.19 in 1991 to 0.41 in 2015. While American

TABLE 1
PARITY INDICATORS FOR STATE AND LOCAL GOVERNMENT JOB CATEGORIES
IN ALASKA

Job Category	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	Change
Administrators	0.53	0.37	0.35	0.43	0.44	0.51	0.48	0.32	0.30	0.43	0.41	0.50	0.48	-0.06
Professionals	0.22	0.21	0.21	0.18	0.24	0.25	0.24	0.24	0.31	0.30	0.33	0.34	0.34	0.13
Technicians	0.39	0.30	0.30	0.31	0.31	0.29	0.35	0.35	0.42	0.45	0.47	0.56	0.53	0.14
Protective Services	1.39	1.13	0.72	0.71	0.47	0.47	0.50	0.50	0.60	0.47	0.50	0.45	0.46	-0.93
Paraprofessionals	0.87	0.86	0.76	0.76	0.65	0.61	0.59	0.62	0.59	0.77	1.09	0.88	0.86	0
Admin Support	0.71	0.74	0.72	0.67	0.77	0.80	0.69	0.71	0.70	0.75	0.82	0.74	0.84	0.13
Skilled Craft	0.62	0.56	0.63	0.60	0.67	0.65	0.57	0.61	0.67	0.60	0.77	0.89	0.81	0.19
Service /Maintenance	0.93	1.04	0.80	0.92	0.66	0.75	0.79	0.92	0.83	0.83	0.84	0.80	0.85	-0.08
Total (all categories)	0.66	0.60	0.52	0.51	0.49	0.49	0.47	0.48	0.49	0.51	0.56	0.56	0.56	-0.10

Note: For all tables in this article, “administrative support” (e.g., clerical, administrative assistant) is a *non-managerial* category while “administrators” is a *managerial* category. The American Indian proportion ratio (for each year and each state) = the percentage of American Indians employed in the job category divided by the percentage of American Indians in the state’s population. Ratios greater than one indicate that American Indians are overrepresented in a particular job category within a state in a given year. Ratios of less than one indicate underrepresentation of American Indians in a given year. In order to determine if American Indians have increased or decreased their job shares over time within a particular job category, we subtract the American Indian Proportion Ratio for 2015 from the ratio for 1991 to calculate the direction and size of the change.

TABLE 2
PARITY INDICATORS FOR STATE AND LOCAL GOVERNMENT JOB CATEGORIES
IN ARIZONA

Job Category	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	Change
Administrators	0.19	0.20	0.14	0.18	0.20	0.19	0.18	0.27	0.22	0.23	0.32	0.40	0.41	0.23
Professionals	0.27	0.39	0.31	0.29	0.33	0.29	0.37	0.37	0.44	0.40	0.46	0.42	0.42	0.15
Technicians	0.32	0.30	0.31	0.36	0.33	0.42	0.45	0.46	0.44	0.45	0.55	0.53	0.51	0.19
Protective Services	0.18	0.17	0.21	0.21	0.24	0.26	0.26	0.27	0.32	0.26	0.32	0.31	0.31	0.14
Paraprofessionals	0.48	0.36	0.44	0.45	0.45	0.85	0.58	0.66	0.79	0.67	0.74	0.61	0.81	0.33
Admin Support	0.46	0.49	0.50	0.54	0.53	0.55	0.52	0.54	0.53	0.48	0.55	0.54	0.50	0.04
Skilled Craft	0.85	0.76	0.74	0.71	0.72	0.80	0.93	0.91	0.81	0.95	1.14	1.11	1.09	0.24
Service/ Maintenance	0.65	0.73	0.80	0.77	0.77	0.81	0.87	0.87	0.86	0.88	1.15	1.07	1.12	0.47
Total (all categories)	0.38	0.41	0.39	0.39	0.40	0.44	0.45	0.47	0.49	0.46	0.55	0.51	0.52	0.14

Indian parity ratios are slightly higher for professional cadres, none approach 0.50 from 1991 through 2015. Unlike Alaska, Arizona’s ratios for protective service workers are low and show little change over time, ranging from 0.18 in 1991 to 0.31 in 2015. Consistent with our hypothesis, the remaining nonmanagerial category parity ratios are generally higher than those for managerial ranks—with the exception of the critically important category of protective service workers. Since 2007, three of the six nonmanagerial job categories were consistently above 0.50, with the skilled-craft and service/maintenance worker indicators surpassing 1.0 from 2011 through 2015.

Table 3 reports American Indian parity ratios for Montana. Our indicators in the managerial ranks in Montana’s state and local bureaucracies show vast underrepresentation of American Indians, from lows of 0.16 in 1991 and 0.17 in 1997 and 2005 for administrators, to a high of 0.34 among professionals in 2007 and 2009, reaching a peak of 0.42 in 2015. As predicted, the parity indicators show higher numbers for nonmanagerial ranks; however, the parity statistics rarely surpass the 0.50 mark, with the exception of skilled craft workers. In the paraprofessional workforce, American Indians in Montana experienced declining shares of public-sector jobs (-0.22); no change in the technicians job category; and slight improvement in all other job categories. Service/maintenance workers experienced the greatest increase in job shares, moving upward from 0.27 in 1991 to 0.83 in 2015.

TABLE 3
PARITY INDICATORS FOR STATE AND LOCAL GOVERNMENT JOB CATEGORIES IN MONTANA

Job Category	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	Change
Administrators	0.16	0.21	0.20	0.17	0.19	0.22	0.21	0.17	0.20	0.29	0.28	0.31	0.41	0.25
Professionals	0.23	0.23	0.21	0.21	0.19	0.18	0.22	0.30	0.34	0.34	0.34	0.34	0.42	0.19
Technicians	0.28	0.25	0.26	0.32	0.30	0.37	0.32	0.35	0.31	0.24	0.25	0.28	0.28	0
Protective Services	0.27	0.22	0.21	0.16	0.20	0.27	0.27	0.34	0.35	0.31	0.11	0.24	0.31	0.03
Paraprofessionals	0.57	0.44	0.43	0.43	0.28	0.36	0.35	0.48	0.27	0.64	0.40	0.38	0.35	-0.22
Admin Support	0.28	0.33	0.27	0.28	0.32	0.21	0.21	0.29	0.31	0.34	0.23	0.33	0.44	0.16
Skilled Craft	0.40	0.67	0.71	0.57	0.63	0.58	0.59	0.55	0.51	0.54	0.54	0.57	0.62	0.22
Service/ Maintenance	0.27	0.30	0.23	0.14	0.31	0.29	0.24	0.32	0.29	0.32	0.29	0.36	0.83	0.56
Total (all categories)	0.29	0.30	0.28	0.26	0.27	0.27	0.28	0.32	0.33	0.35	0.30	0.34	0.41	0.12

In table 4, we present parity indicators for the state of New Mexico. Administrator ratios for American Indians in New Mexico are extremely low, as they peak at 0.25 in 2015. Further, parity ratios in the professional cadres never reach 0.30. Although

TABLE 4
 PARITY INDICATORS FOR STATE AND LOCAL GOVERNMENT JOB CATEGORIES
 IN NEW MEXICO

Job Category	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	Change
Administrators	0.11	0.12	0.14	0.16	0.18	0.15	0.17	0.18	0.20	0.20	0.24	0.25	0.24	0.13
Professionals	0.21	0.23	0.22	0.21	0.20	0.25	0.27	0.25	0.29	0.26	0.28	0.27	0.29	0.07
Technicians	0.27	0.23	0.22	0.22	0.24	0.30	0.30	0.26	0.27	0.31	0.41	0.40	0.51	0.24
Protective Services	0.31	0.32	0.34	0.31	0.29	0.31	0.28	0.30	0.40	0.40	0.45	0.55	0.56	0.25
Paraprofessionals	0.31	0.28	0.25	0.26	0.26	0.26	0.26	0.47	0.44	0.48	0.52	0.51	0.47	0.16
Admin Support	0.35	0.31	0.35	0.37	0.36	0.40	0.37	0.43	0.46	0.50	0.56	0.49	0.54	0.19
Skilled Craft	0.28	0.35	0.37	0.40	0.41	0.42	0.38	0.41	0.43	0.42	0.60	0.57	0.70	0.42
Service/ Maintenance	0.33	0.49	0.53	0.44	0.43	0.50	0.46	0.48	0.51	0.57	0.62	0.57	0.54	0.21
Total (all categories)	0.27	0.29	0.30	0.29	0.29	0.32	0.31	0.32	0.35	0.37	0.43	0.45	0.47	0.20

American Indian parity ratios indicate greater levels of representation among job categories in nonmanagerial positions, the percentages of American Indians relative to their numbers in the population are extremely low. The parity indicators for nonmanagerial positions in New Mexico generally range from between 0.22 and 0.70; only the service/maintenance and skilled-craft worker categories consistently reach and surpass the 0.50 mark.

Table 5 presents the parity ratios and changes in ratios for the state of North Dakota. The administrator parity ratios are even lower than those of New Mexico and decline from 0.19 in 1991 to 0.13 in 2015. In 1993, 2001, and 2003, the professional ranks never surpass 0.25. Nonmanagerial parity ratios vary: all six ratios are higher than the administrator ratio, and four ratios (technicians, protective services, paraprofessionals, and service/maintenance) are higher than the professional ratio. The service/maintenance category peaks at 0.61 in 1991, then declines -0.34 to reach 0.28 in 2015. Notably, these ratios never approach 0.50 and in five of eight categories from 1991 to 2015, job shares held by American Indians drop.

In table 6, we observe that the American Indian parity ratios in Oklahoma continue to be much higher than those of other states in both managerial and nonmanagerial job categories, as was the case in Hunt, et al.'s study. By 2015, the parity ratios for managerial positions are 0.69 for administrators and 0.92 for professionals. As predicted, American Indians were overrepresented in the nonmanagerial ranks in Oklahoma; however, the disparity between managerial and nonmanagerial ranks is far less than other states: not only do all nonmanagerial categories well exceed 0.50, many approach or even surpass parity. These results suggest that rather than

TABLE 5
 PARITY INDICATORS FOR STATE AND LOCAL GOVERNMENT JOB CATEGORIES
 IN NORTH DAKOTA

Job Category	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	Change
Administrators	0.19	0.21	0.23	0.21	0.21	0.11	0.11	0.08	0.17	0.15	0.13	0.13	0.13	-0.06
Professionals	0.19	0.25	0.22	0.17	0.19	0.25	0.25	0.22	0.23	0.21	0.22	0.22	0.21	0.02
Technicians	0.24	0.28	0.24	0.28	0.30	0.30	0.23	0.27	0.23	0.24	0.18	0.26	0.26	0.02
Protective Services	0.26	0.26	0.29	0.22	0.30	0.30	0.24	0.38	0.24	0.29	0.22	0.34	0.25	-0.01
Paraprofessionals	0.20	0.16	0.19	0.23	0.17	0.26	0.17	0.30	0.40	0.30	0.25	0.13	0.39	0.19
Admin Support	0.27	0.20	0.17	0.18	0.24	0.22	0.19	0.22	0.15	0.12	0.15	0.17	0.17	-0.10
Skilled Craft	0.24	0.44	0.49	0.39	0.34	0.30	0.21	0.23	0.23	0.21	0.17	0.17	0.20	-0.04
Service/ Maintenance	0.61	0.33	0.10	0.09	0.15	0.15	0.29	0.16	0.29	0.28	0.28	0.26	0.28	-0.34
Total (all categories)	0.25	0.27	0.25	0.22	0.24	0.25	0.22	0.24	0.22	0.21	0.20	0.22	0.23	-0.03

TABLE 6
 PARITY INDICATORS FOR STATE AND LOCAL GOVERNMENT JOB CATEGORIES
 IN OKLAHOMA

Job Category	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	Change
Administrators	0.57	0.56	0.52	0.63	0.72	0.64	0.70	0.64	0.55	0.69	0.77	0.87	0.69	0.12
Professionals	0.54	0.56	0.59	0.63	0.68	0.72	0.72	0.73	0.72	0.70	0.89	0.90	0.92	0.38
Technicians	0.69	0.75	0.69	0.78	0.74	0.78	0.68	0.74	0.64	0.78	0.92	0.86	0.90	0.21
Protective Services	0.67	0.73	0.81	0.87	0.93	0.86	0.86	0.85	0.69	0.81	1.04	1.07	1.19	0.52
Paraprofessionals	0.62	0.62	0.58	0.73	0.83	0.79	0.75	0.74	0.57	0.77	0.87	0.91	0.98	0.36
Admin Support	0.65	0.70	0.79	0.81	0.81	0.81	0.83	0.80	0.74	0.79	0.96	1.01	1.06	0.41
Skilled Craft	0.84	0.84	0.87	0.97	0.97	0.94	0.85	0.92	0.83	0.81	1.17	1.07	1.37	0.52
Service/ Maintenance	0.75	0.73	0.89	0.96	0.94	0.86	0.94	0.86	0.76	0.78	1.06	1.10	1.20	0.46
Total (all categories)	0.65	0.67	0.72	0.78	0.81	0.79	0.79	0.78	0.68	0.76	0.95	0.98	1.03	0.38

Note: = EEOC Data Reporting Error; we averaged 2005 and 2009 to smooth the line for Oklahoma

TABLE 7
 PARITY INDICATORS FOR STATE AND LOCAL GOVERNMENT JOB CATEGORIES IN
 SOUTH DAKOTA

Job Category	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	Change
Officials/Admin	0.04	0.11	0.05	0.05	-	0.02	0.02	0.04	0.03	0.08	0.06	0.07	0.14	0.10
Professionals	0.25	0.22	0.20	0.17	0.16	0.18	0.20	0.17	0.16	0.14	0.12	0.13	0.18	-0.07
Technicians	0.12	0.11	0.14	0.11	0.09	0.19	0.24	0.11	0.06	0.06	0.08	0.07	0.07	-0.04
Protective Services	0.24	0.30	0.27	0.16	0.16	0.23	0.21	0.15	0.13	0.16	0.13	0.15	0.16	-0.08
Paraprofessionals	0.27	0.22	0.17	0.07	0.10	0.13	0.10	0.17	0.14	0.17	0.09	0.13	0.11	-0.16
Admin Support	0.54	0.20	0.18	0.18	0.16	0.17	0.23	0.15	0.17	0.19	0.24	0.23	0.19	-0.35
Skilled Craft	0.49	0.17	0.13	0.10	0.13	0.09	0.09	0.17	0.12	0.09	0.11	0.10	0.08	-0.40
Service/ Maintenance	0.75	0.37	0.30	0.23	0.21	0.23	0.33	0.30	0.28	0.35	0.36	0.40	0.41	-0.34
Total (all categories)	0.37	0.23	0.20	0.15	0.15	0.17	0.20	0.16	0.15	0.16	0.15	0.16	0.18	-0.19

experiencing occupational segregation, American Indians are distributed somewhat evenly throughout the ranks of Oklahoma state and local bureaucracies. Consistent with Hunt, et al.'s findings, American Indian job shares in Oklahoma grew in all job categories between 1991 and 2015.

We do not yet understand the reasons for the extent and consistency of growth in these particular job shares for American Indians working in Oklahoma, nor why they far exceed the job shares in other states. We suspect, however, that, American Indians working in these Oklahoma occupations comparatively benefit from its rather sizable population of American Indians (approximately 9 percent in 2011)—as well as from the relatively high percentage of American Indians who have earned a bachelor's degree or higher (24.8 percent by 2015).

In table 7, we report American Indian parity ratios and changes in ratios for South Dakota. The pattern of parity ratios we observe in the South Dakota data resemble those of other poorly performing states such as Montana and North Dakota, but the South Dakota ratios are even lower. Of the managerial positions, the administrative ranks in South Dakota included few American Indians. The parity ratio is 0.14 in 2015 and from 1991 to 2015 the professional ratios decrease from 0.25 to 0.18. Consistent with our hypothesis, we observe higher American Indian representation in nonmanagerial cadres than in managerial ranks; however, these parity ratios are rarely above 0.30. An exception is service and maintenance workers (reaching 0.75 in 1991, but decreasing to 0.41 in 2015). Most alarming, American Indian shares of public-sector state and local jobs declined significantly in seven of eight categories from 1991 through 2011, with the greatest declines in skilled craft workers (-0.40) and administrative support workers (-0.35). If state and local government employment

TABLE 8
 PARITY INDICATORS FOR STATE AND LOCAL GOVERNMENT JOB CATEGORIES
 IN WYOMING

Job Category	1991	1993	1995	1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	Change
Administrators	-	-	-	-	-	-	-	0.04	0.08	0.16	0.18	-	0.04	0.04
Professionals	0.12	0.14	0.03	0.06	0.06	0.01	0.03	-	0.02	0.03	0.01	0.01	0.03	-0.08
Technicians	0.23	0.17	0.13	0.13	0.19	0.19	0.05	0.09	0.06	0.05	0.07	0.05	0.15	-0.08
Protective Services	0.09	0.07	0.25	0.16	0.13	0.18	0.14	0.18	0.20	0.08	0.05	0.12	0.17	0.08
Paraprofessionals	0.20	0.09	0.08	-	0.14	1.05	0.40	0.17	0.51	0.41	0.24	0.03	0.13	-0.08
Admin Support	0.18	0.08	0.13	0.17	0.24	0.03	0.03	0.04	0.04	0.02	0.08	0.06	0.06	-0.12
Skilled Craft	0.21	0.17	0.10	0.16	0.16	0.04	0.06	0.04	0.02	0.02	0.11	0.14	0.16	-0.05
Service/ Maintenance	1.39	1.06	1.01	1.24	1.56	0.07	0.06	0.03	0.03	0.08	0.11	0.16	0.28	-1.11
Total (all categories)	0.35	0.25	0.23	0.26	0.29	0.09	0.06	0.05	0.07	0.06	0.08	0.07	0.11	-0.24

is an indicator of American Indians' abilities to gain access to better jobs, mobility, and political power, the future of American Indians working and residing in South Dakota appears particularly troubling.

In table 8, we report American Indian parity ratios and change for the state of Wyoming, which of all eight states studied has the lowest patterns observed, both in managerial and nonmanagerial ranks. One of two job categories not in decline (administrators) remained flat between 2005 to 2015 (at 0.04), but consider that no American Indian ever held this managerial position before 2005. Moreover, the ratios for professionals never surpass 0.14 and between 1991 and 2015, American Indian shares decreased from 0.12 to 0.03. Most of the nonmanagerial ranks rarely approach 0.20. The service maintenance worker category surpassed 1.0 from 1991 through 1999, but Wyoming also experienced the greatest decline from 1991 to 2015 of all our study states (-1.11). In sum, Wyoming experienced very little disparity between managerial and nonmanagerial ranks. The data also show a decrease in six of eight job categories. We do not know the reasons for these dramatic and troubling American Indian public-sector employment patterns. We suspect one reason may be the relatively low number of American Indians living in Wyoming when compared to other states in our study. Although this parallels our analysis of parity ratios in Montana, North Dakota, and South Dakota, if state and local government employment is an indicator of the American Indians' ability to break out of the cycle of poverty, the future of American Indians working and residing in Wyoming is particularly bleak.

TABLE 9
SELECTED INDICATORS OF SOCIAL AND ECONOMIC CONDITION
AMERICAN INDIAN AND ALASKA NATIVE ALONE (AI/AN)
AND WHITE, NON-HISPANIC, OR LATINO
IN OKLAHOMA, NEW MEXICO, ALASKA, AND ARIZONA

	OKLAHOMA						NEW MEXICO					
	number or percentage of population				change pre- vs. post- recession		number or percentage of population				change pre- vs. post- recession	
	2007		2011		AI/AN	White	2007		2011		AI/AN	White
	AI/AN	White	AI/AN	White			AI/AN	White	AI/AN	White		
Population	245,716	2,593,289	260,733	2,584,748	6%	0%	177,515	829,766	190,825	834,209	7%	1%
Educational Attainment												
<i>Less than High School Diploma</i>	18.8	12.6	15.1	10.9	-20%	-13%	26	7.3	23.5	5.8	10	21
<i>High School Graduate</i>	36.7	32.8	36.3	31.7	-1%	-3%	36.7	24.3	34.9	21.7	-5	11
<i>Some College or Degree</i>	44.4	54.6	48.7	57.2	10%	5%	37.3	68.5	41.6	72.5	12	6
<i>High School Completion or Higher</i>	81.1	87.4	85	88.9	5%	2%	74	92.8	76.5	94.2	3	2
Employment Rate	60.5	62.7	61.9	61.4	2.3%	-2%	53.8	62.1	53	60.1	-1	-3
Below Poverty Rate	19.7	8.9	17.7	9.5	-10%	7%	24.6	7.3	30.5	6.9	24	-5

	ALASKA						ARIZONA					
	number or percentage of population				change pre- vs. post- recession		number or percentage of population				change pre- vs. post- recession	
	2007		2011		AI/AN	White	2007		2011		AI/AN	White
	AI/AN	White	AI/AN	White			AI/AN	White	AI/AN	White		
Population	92,058	451,084	102,293	459,836	11%	2%	281,096	3,728,592	289,812	3,713,340	3%	0%
Educational Attainment												
<i>Less than High School Diploma</i>	22.6	5.2	19	4.6	-16%	-12%	28.5	7.7	24.5	6.5	-14	-16
<i>High School Graduate</i>	46.6	27.7	41.1	25.8	-12%	-7%	34.6	26	32.3	23.6	-7	-9
<i>Some College or Degree</i>	30.8	67.1	40	69.6	30%	4%	36.9	66.3	43.3	69.9	17	5
<i>High School Completion or Higher</i>	77.4	94.8	81.1	95.4	5%	1%	71.5	92.3	75.6	93.5	-7	-9
Employment Rate	60.5	73.2	58.7	72.2	-3%	-1%	55	61	54.3	58.8	-1	-4
Below Poverty Rate	17.2	3.9	17.7	4.7	3%	21%	29.2	5.1	36.9	7.8	26	53

Note: 2007 is pre-recession; 2011 is post-recession.

Source: US Census Bureau, American Community Survey 1-Year Estimates: 2007, 2011

The Great Recession and AI/AN Parity Ratios

To help explore the possible effects of socioeconomic characteristics on parity observations, we use the US Census Bureau's American Community Survey (ACS) 1-Year Estimates for 2007 and 2011. In table 9, comparing 2011 outcomes to 2007, a period that includes the 2007–2009 Great Recession, we examine changes in selected indicators of social and economic well-being of AI/AN in four states: Oklahoma, New Mexico, Alaska, and Arizona.³⁶

Educational attainment (the highest level of education an individual has completed) increased in all four states for the AI/AN population twenty-five years and older. The percentage of the population with less than a high school diploma decreased by 15 percent and the proportion of the population with at least a high school diploma increased by 2 percent. Adults with some college or a postsecondary degree increased by 17 percent, ranging from 10 percent in Oklahoma to 30 percent in Alaska.

As of 2009, all states had reached a level of at least 40 percent of AI/ANs with some college or with a bachelor's or advanced degree, an average 6-percent increase. This descriptive analysis suggests that the Great Recession, a period of high unemployment, is associated with changes in AI/AN educational attainment, notably a sharp increase in secondary and postsecondary education. This finding is broadly consistent with previous research that demonstrates that large-scale economic downturns motivate individuals to enroll in college.³⁷ Because higher levels of education renders individuals with the opportunity to pursue upper-echelon jobs, we expected a rise in the number of AI/ANs in the professional ranks.

The employment rate, as measured by the percentage of the population 16 years and over in the labor force, declined in all states but Oklahoma. AI/AN in Oklahoma experienced a 1.4 percentage point increase in the proportion of the population employed, while the other three states faced an average 1.1 percentage point decline. In 2011, an average of one in four (25.7 %) AI/AN families were living in poverty, an increase of 3 percent of the population since 2007. AI/ANs in Alaska suffered a 3-percent increase in poverty rates, while New Mexico and Arizona encountered a surge in poverty, with rates increasing 24 and 26 percent, respectively. AI/ANs in Oklahoma experienced a 10-percent decrease in poverty, possibly explained by the increase in employment. Disaggregating state and local data reveals contrasting and significant poverty levels across states that otherwise would be obscured and minimized when combining data.

Comparison of Select Socioeconomic Factors between AI/ANs and Whites (Non-Hispanic/Latinx)

In table 10, we used US Census Bureau 2011–2015 American Community Survey 5-Year Estimates to compare basic and socioeconomic information of AI/AN and white, non-Hispanic or Latino populations in the eight states with the greatest percentages of AI/AN populations—Alaska, Arizona, Montana, New Mexico, North Dakota, Oklahoma, South Dakota, and Wyoming. The descriptive analysis exposed disparities across all measures between the two groups. AI/AN population as a

TABLE 10
 SELECTED INDICATORS OF SOCIAL AND ECONOMIC CONDITION
 AMERICAN INDIAN AND ALASKA NATIVE ALONE (AI/AN)
 AND WHITE, NON-HISPANIC, OR LATINO
 (NUMBER OR PERCENTAGE OF POPULATION)

	Wyoming		South Dakota		Oklahoma		North Dakota	
	AI/AN	White	AI/AN	White	AI/AN	White	AI/AN	White
Population	12,658	489,665	72,619	701,699	279,276	2,591,292	38,286	628,158
Educational Attainment:								
<i>Less than High School Diploma</i>	15.5	5.9	21.5	7.1	15.2	10.2	17.5	7.4
<i>High School Graduate</i>	31.7	29.0	32.1	31.6	35.3	31.9	25.3	27.7
<i>Some College or Degree</i>	52.8	65.1	46.3	61.3	49.4	58.0	57.2	64.9
<i>High School Completion or Higher</i>	84.5	94.1	78.5	92.9	84.8	89.8	82.5	92.6
Employment Rate	60.5	68.0	56.5	69.9	60.5	60.9	56.0	70.6
Poverty Rate	24.3	6.3	43.4	5.8	18.6	9.3	37.5	5.0

	New Mexico		Montana		Alaska		Arizona	
	AI/AN	White	AI/AN	White	AI/AN	White	AI/AN	White
Population	190,528	817,048	65,693	882,585	101,313	457,470	294,721	3,752,853
Educational Attainment:								
<i>Less than High School Diploma</i>	21.6	5.7	16.4	6.5	18.5	4.4	24.1	6.1
<i>High School Graduate</i>	33.8	21.5	34.4	29.8	43.1	24.9	32.6	23.5
<i>Some College or Degree</i>	44.6	72.9	49.2	63.7	38.4	70.7	43.4	70.4
<i>High School Completion or Higher</i>	78.4	94.3	83.6	93.5	81.5	95.6	75.9	93.9
Employment Rate	55.0	58.3	57.2	64.3	58.3	72.0	54.5	57.5
Poverty Rate	30.7	7.8	35.4	8.1	18.7	4.1	33.2	7.2

Source: US Census Bureau, 2011–2015 American Community Survey

proportion of the total state population ranges from 2 to 14 percent, all exceeding the total US AI/AN population of 0.9 percent.³⁸ In comparison, whites represent 39 to 87 percent of the state population.

On average, 81 percent of AI/ANs have a high school diploma or some post-secondary experience, versus 93 percent of whites. Oklahoma (84.8 percent) and Wyoming (84.5 %) have the highest levels of educational attainment among AI/ANs. South Dakota (78.5 %), New Mexico (78.4 %), and Arizona (75.9 %) have the lowest proportion of AI/ANs with a high school diploma, some college, or a college degree. These states also have the largest gap in educational attainment between AI/ANs and whites, an average difference of 16 percentage points. Interestingly, Wyoming has one of the lowest parity ratios, yet one of the highest levels of educational attainment.

Likewise, Arizona has the lowest level of educational attainment and the third-highest parity ratio.

AI/ANs similarly have lower rates of employment, the percentage of the population sixteen years and over that are in the labor force. Fifty-seven percent of AI/ANs are employed versus 65 percent of whites. South Dakota and North Dakota have some of the greatest relative differences between working AI/ANs and whites. These states have the lowest parity ratios. Likewise, the smallest gaps in white-AI/AN employment exist in Oklahoma, Arizona, and New Mexico. These states have the highest parity ratios. Provided that all other factors are equal, proportionately fewer AI/ANs in the workforce would dilute the parity ratio.

Considerably more AI/AN families live in poverty. As a proportion of the population, 30 percent of AI/AN households have income below the poverty line as compared to 7 percent of white families. The intersection between poverty and employability matters. Economic disadvantage is inextricably linked to negative life consequences, including large impacts on educational outcomes and attainment. Generally, alleviating poverty to boost educational success has the greatest potential for strengthening employment rates. The impact of the poverty rate on parity ratios should be examined for a cross section of a study population—state by state—at a point in time, rather than a span of time. In 2011, the post-recession period, we observe that states with the highest rates of AI/ANs living below the poverty line also have the lowest parity ratios. In 2011, AI/ANs in North Dakota and South Dakota had poverty rates of 37.5 and 43.5 percent and parity ratios of .2 and .1, respectively. Likewise, Wyoming had the lowest parity ratio of .08 and one of the highest rates of poverty, 24.3 percent. The confluence of a number of factors (lower levels of education, gender differences, residence on tribal lands and reservations, lower facility in speaking English, racial discrimination, higher rates of people with disabilities, among others) may explain the lower employment rates of AI/ANs in the public sector and is worthy of further research. These patterns of disparate effects of race on joblessness, poverty, and higher education nonetheless underscore the limited socioeconomic trajectory of AI/ANs and highlight the opportunity to improve the economic circumstances of AI/ANs.

SUMMARY AND DISCUSSION

Our analysis of the eight states with the highest percentages of American Indians/Alaska Natives (Alaska, 14.8%; Arizona, 4.6%; Montana, 6.3%; New Mexico, 9.4%; Oklahoma, 8.6%; South Dakota, 8.8%; North Dakota, 5.4%; and Wyoming, 2.4%)³⁹ did not provide compelling evidence for overall improvement in American Indian levels of representation in management positions in US state and local government bureaucracies.

Figure 1 illustrates the twenty-four-year trend of parity indicators for state and local administrative government jobs. Among administrative ranks we observed decreases in American Indian levels of representation in Alaska (-0.06) and North Dakota (-0.06); slight positive change in New Mexico (0.13), Oklahoma (0.12), South Dakota (0.10), and Wyoming (0.04); and important increases in Arizona (0.23) and Montana (0.25).

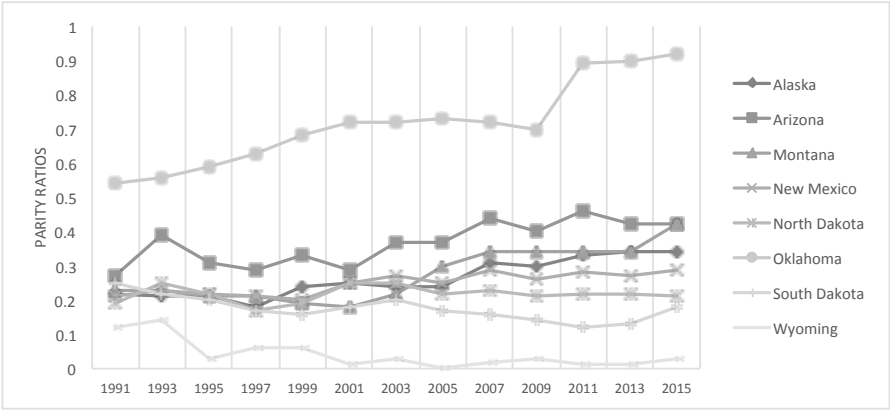


FIGURE 1: Parity Indicators for State and Local Professional Government Jobs

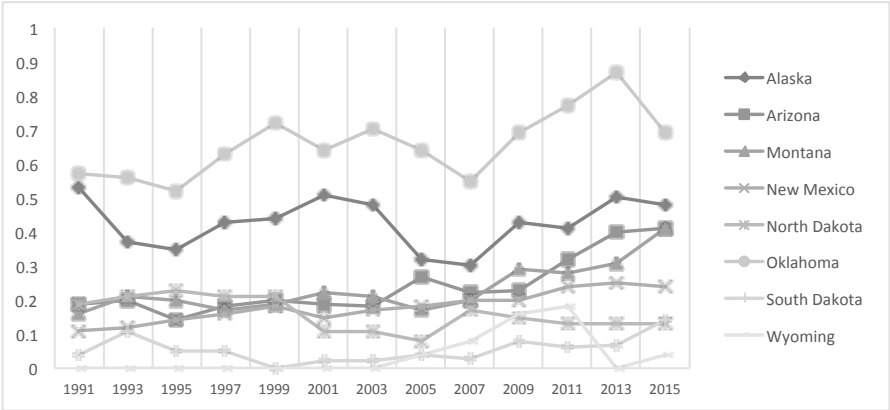


FIGURE 2: Parity Indicators for State and Local Administrative Government Jobs

Despite improvement in six of the eight states we examined, administrative-level employment patterns for American Indians remain low in seven of the eight states we examined—Alaska, Arizona, Montana, New Mexico, North Dakota, South Dakota, and Wyoming. Although AI/ANs in Oklahoma have the highest parity ratio (at 0.69), and, in the twenty-four years examined, have made positive gains in the direction of parity, AI/ANs in Oklahoma still have not achieved an equitable proportion of administrative public sector jobs.

Figure 2 illustrates the twenty-four-year trend of parity indicators for state and local administrative government jobs. We report decreases in AI/AN levels of representation in Wyoming (-0.08) and South Dakota (-0.07); nominal positive change in New Mexico (0.07) and North Dakota (0.02); and positive improvements in Montana (0.19), Arizona (0.15), Alaska (0.13). The most significant change occurred in Oklahoma with a 0.38 increase, resulting in a ratio nearing parity (at 0.92). Looking at

the other seven states, Wyoming has a near-zero parity ratio (0.03) and Montana and Arizona have ratios on the top end of the range (0.42). Notwithstanding the advances made in nearly a quarter of a century, AI/ANs have yet to break a 0.50 parity ratio in any state except for Oklahoma.

In sum, with the exception of Oklahoma, we found persistently low levels of descriptive representation in the administrative and professional-level ranks in our study states, positions with the greatest amount of policymaking and policy-implementing authority. In some states, AI/ANs are far better represented in less-desirable positions, like administrative support, skilled craft, and service/maintenance; however, it is quite rare that these indicators approach parity. Administrative support, skilled craft, and service/maintenance positions do offer a level of job security and benefits, but they are typically characterized by low pay. Even in these less-desirable positions, the job shares of American Indians are strikingly low in Montana, New Mexico, North Dakota, South Dakota, and Wyoming. Furthermore, in these states it is not uncommon to observe sharp declines in the shares of public-sector jobs held by American Indians.

We also hoped to see increasing shares in protective service workers (e.g., police officers) as this position carries a level of symbolic leadership in terms of the discretion necessary for these street-level bureaucrats to perform their jobs. Instead, and consistent with the findings of Hunt and colleagues, we see declines in these shares in five of our eight study states, with Alaska having the most dramatic decline (-0.92). Based on aggregation of the state and local government job-shares data across all eight job categories, we observe that Arizona, New Mexico, and Oklahoma improve slightly; Alaska and Montana get slightly worse; and North Dakota, South Dakota, and Wyoming get much worse.

Our analysis supports and extends the claim of Hunt and colleagues that American Indians suffer pervasive underrepresentation and occupational segregation. In each of our study states except Oklahoma, this is operationalized as concentration in the lower and nonmanagerial levels of bureaucratic organizations. The Oklahoma parity ratios for managerial positions are almost equal to the parity ratios for nonmanagerial positions, suggesting American Indian employees are relatively evenly distributed throughout all levels of state and local bureaucracies. Our hypotheses are generally supported in five of the remaining seven states included in our study. Typically, American Indian parity ratios in managerial ranks are significantly lower when compared to nonmanagerial ranks, and as such, provide compelling evidence that American Indians continue to suffer from high levels of occupational segregation in those states with relatively large American Indian population percentages.

In contrast, both the states we added to this updated analysis, North Dakota and Wyoming, have low (and declining) parity ratios throughout both managerial and nonmanagerial ranks and as such, our hypotheses are not supported in these two states. It seems clear that researchers should continue to include these two states in future work to better understand the reasons for these employment patterns. In addition, if we compare the managerial and nonmanagerial cadres studied by Wise and colleagues to our managerial (administrators and professionals) and nonmanagerial

workforces (the remaining six EEOC public sector categories below administrators and professionals), both sets of findings, in terms of over- and underrepresentation, are similar for single-race AI/ANs living in our eight states. In other words, an examination of our findings and those of Wise and colleagues reveals that patterns of occupational segregation in the private sector mirror those in the public sector.

This analysis and our findings raise a number of questions, but the publicly available EEOC data will not permit us to answer many of them. For example, before data is released to the public, the EEOC aggregates state, county, city, township, and most special-district employee data into single state-level pools. These aggregated data make it impossible to draw inferences regarding distinct levels of government such as comparing state governments with units of local government. In contrast to its publicly available data, the EEOC's confidential data (access to which requires an Intergovernmental Personnel Act agreement), provides both job category data and data *disaggregated* by functional policy area or agency, including fire, natural resources, parks, highways, police, and welfare. Access to this disaggregated data would offer an opportunity to examine in what type of state and/or municipal governmental agencies American Indian administrators and professionals are concentrated or absent.

Our research design and focus do not allow us to examine either tribal government employment or the gaming industry—the mandated EEOC reporting process or forms do not include these sectors—or the effect(s) of large and isolated rural populations on American Indian employment in municipal and state governments. In future research, we could hypothesize that these factors and others, such as postsecondary education levels, may affect American Indian local and state government employment patterns. For example, Oklahoma stands out both in the number of its gaming venues and its regions classified as “Tribal Designated Statistical Areas,”⁴⁰ and Oklahoma also has the second greatest share of federally recognized tribes, just behind Alaska.⁴¹ In addition, a greater percentage of Oklahoma's American Indians hold bachelor's degrees than do their counterparts in other states studied.⁴²

As the study by Hunt and colleagues extrapolates, making comparisons like these might further explain public-sector American Indian employment patterns. In Oklahoma we see higher levels of postsecondary education in tandem with relatively large numbers of gaming venues providing additional employment opportunities for American Indians. Because most Oklahoma American Indians live in Tribal Designated Statistical Areas which encompass most of the state, we cannot disaggregate changing socioeconomic conditions in the state from those in Oklahoma's Indian country.⁴³ In Wyoming, we see low and rapidly declining managerial and nonmanagerial job shares, which may or may not be attributed to low-level population density of both Wyoming's American Indians as well as state-wide.⁴⁴ However, analysis must also consider 2010 Census data showing that Wyoming's American Indian population is growing by a full 10 percent more than the total state population (24% compared to 14%).⁴⁵ Future researchers must keep such points of comparison and issues in mind.

One of the study objectives of Hunt and colleagues was to spark a discussion of these issues in a previously neglected area of study: American Indian and Alaska Native state and local government employment. In replicating and extending their

study, we hope to continue the process of building more complete explanations for the pervasive and persistent AI/AN descriptive underrepresentation and occupational segregation. Accordingly, we hope researchers will address these other factors, add additional states with increasing AI/AN populations, and add additional years as they become available. In addition, researchers should gain access to the EEOC's confidential data to disaggregate units of government, as well as to examine employment in different types of government agencies. These questions must be addressed over time. While we cannot adequately address all questions in our analysis, we can conclude that AI/AN underrepresentation is ubiquitous in seven of the eight states studied. Given the temporal patterns appearing in our findings, we are not optimistic about the ability of American Indians or Alaska Natives to secure a greater or equitable share of public-sector administrative and professional positions in state and local government bureaucracies.

Acknowledgments

We thank Larra Rucker for accessing and tabulating data for years 2013 and 2015.

NOTES

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27. Ibid.
28. Hunt, et al., "Forgotten Minority," 419.
29. Ibid., 420. See appendixes 1 and 2 for a complete list of job categories, descriptions of position types included in each job category, as well as those ethnic or racial categories used by the EEOC.
30. Tootle, "American Indians," 100.
31. The 2000 US census data employed can be divided into two broad categories: people who reported only one race and people who reported more than one of the six major race categories, i.e. white; black or African American; American Indian or Alaska Native; Asian; Native Hawaiian or other Pacific Islander; and some other race. In addition, American Indian, Eskimo, and Aleut tribes were conflated into one category, "American Indian or Alaska Native." In addition, because Hispanics may be of any race, there is some overlap with those American Indian or Alaska Native choosing one category: in the 2000 US census data, approximately 15% were Hispanic (2000 Census Special Report: "We the People: American Indians and Alaska Natives in the United States" (Washington, DC: US Government Printing Office, 2006). More detail regarding these changes is provided in Elizabeth M. Grieco and Rachel C. Cassidy, "Overview of Race and Hispanic Origin: 2000," (US Census Bureau, 2001), <https://www.census.gov/prod/2001pubs/c2kbr01-1.pdf>.
32. Hunt, et al., "Forgotten Minority," 415.
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