LANDSCAPES OF DISADVANTAGE:
THE STRUCTURE OF AMERICAN INDIAN POVERTY FROM THE RESERVATION TO THE METROPOLIS IN THE EARLY 21ST CENTURY

A Dissertation

Presented to the Faculty of the Graduate School

of Cornell University

In Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

by

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May 2014

LANDSCAPES OF DISADVANTAGE:
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Cornell University 2014

The cycle of American Indian disadvantage and deprivation has been linked to the removal and relocation of American Indian peoples to reservations, entrenching cycles of poverty within reservation boundaries. Yet a growing number of American Indians live in metropolitan areas, the result of a demographic shift that began in the wake of World War II. This project examines American Indian poverty, recognizing that trends in poverty outcomes may be influenced by American Indian land tenure and governance, tribal economic development, and American Indian migration.

To disentangle the dimensions of poverty as experienced by American Indians in different social and territorial environments, this dissertation is composed of three distinct, yet parallel analyses of place-level poverty and its determinants, using data from the American Community Survey, Five-Year Dataset 2006-2010. The first analysis examines the determinants of American Indian poverty rates at the county-level within the contiguous 48 states. The second similarly structured analysis occurs at the level of federal American Indian reservations and trust lands. And in the final analysis, American Indian poverty rates in metropolitan counties are analyzed, including parallel analyses of poverty rates of other racial groups.

The findings of the analyses collectively indicate that the most influential determinants were indicators of local opportunity structure. Yet the determinants of

poverty were not identical in their effects on poverty rates across different places of measurement. At the county level, higher poverty rates were associated with a lack of work opportunities and income inequality, while the presence of federal American Indian lands was associated with lower rates of poverty. On American Indian lands, poverty rates were predominantly determined by work opportunities, with the presence of a gaming compact associated with lower poverty rates. At the metropolitan level, American Indian poverty rates were determined primarily by the degree of income inequality in the locale, work opportunities, and the percentage of youth. Additionally, the pattern of poverty determinants varied by race within metropolitan counties.

BIOGRAPHICAL SKETCH

K. Whitney Mauer is a member of the Piscataway Nation and grew up in Tulsa, Oklahoma. She graduated from the University of Puget Sound in Tacoma, Washington with a Bachelor of Science in Natural Sciences, with an emphasis in geology. She holds two Master of Science degrees: in Environmental Sciences from Miami University of Ohio and in Development Sociology from Cornell University. Prior to her graduate study at Cornell, Whitney worked as a planner and environmental specialist the Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians in Coos Bay, Oregon.

She has held numerous research and teaching assistantships at Cornell and has been the recipient of a SUNY Graduate Diversity Fellowship, Cornell Provost's Diversity Fellowship, Lynn Reyer Award from Tribal Community Development, American Association of University Women doctoral fellowship, and a Cornell Center for Teaching Excellence Graduate Teaching Assistant Fellowship. She is married to Michael Mauer of Coos Bay Oregon, and they have two daughters, Eliot and Marlowe.

for Lela, Sipiqua, and Ilaonetu

yesterday lives in today and tomorrow

ACKNOWLEDGMENTS

The writing of this dissertation has been one of the most significant academic achievements and challenges that I have ever faced. I am grateful to my many supporters without whose guidance and patience this dissertation would not have been completed. It is to them that I owe my deepest gratitude.

First, I would like to thank Professor Max Pfeffer, who undertook the role of my committee chair despite his many academic and professional commitments. His persistence and relentless scrutiny of my work paired with his steadfast confidence in my abilities is perhaps the greatest academic and professional gift I could ever receive.

Many thanks to committee member and friend, Professor Angela Gonzales, who pushed me to ensure that my work was both academically rigorous and engaged in pressing, contemporary issues in Indian Country. I am so grateful for her willingness to provide both professional and personal support throughout the dissertation process. I would also like to thank Professor David Brown, whose commitment to the highest standards motivated and inspired me. Through his example, I have seen that great scholarship and great teaching can indeed walk hand-in-hand.

I gratefully acknowledge American Association for University Women for financially supporting the writing portion of this project.

I offer special thanks to the administrative support of Renee Hoffman and Tracy Aagard for all the unseen work and effort that both supplied over the years. Without their support, I would never have been able to complete the dissertation.

I am ever grateful to Kathy Halbig and the American Indian program staff who have been a second family to me throughout my graduate school days. The completion of this dissertation is in no small part due to their unwavering dedication to their emotional, academic, and professional support.

Finally, I want to thank my family who stood by me through the good times and bad.

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CHAPTER 1

Introduction

> *Poverty doesn't give you strength or teach you lessons about perseverance. No, poverty only teaches you how to be poor.*
>
> *(Alexie and Forney 2007)*

As a discipline, sociology has long been concerned with issues race, racism, and racial inequality. In the tradition which originated with W.E.B. Du Bois and the Chicago School who sought to understand the racial dimensions of 'social problems' such as crime and poverty, I too intend to begin with a social problem and examine its antecedents with particular attention to the racial dimensions therein. The cycle of American Indian disadvantage and deprivation has been an issue of concern, at least in American Indian communities since the colonial era, exacerbated by the removal and relocation of American Indian peoples to reservations. The complexity of American Indian segregation coupled with the fact that American Indians are part of distinct cultural communities has perhaps made 'American Indians' as a social group less than attractive for sociological investigation. How do you deal with issues of poverty and segregation, when in many ways American Indian communities today desire recognition as distinct political communities with territorial land bases over which they have autonomy? The first step is not to ignore this history, nor is it to

leave it to political scientists, legal scholars, and anthropologists. While each of those disciplinary traditions can and has revealed the complexity of American Indian oppression as well as resistance and agency in the face of such oppression, sociologists are uniquely positioned to contribute to an understanding of how social problems such as poverty operate in the context of oppression, discrimination, segregation. In fact, I believe it is our duty as sociologists to try to identify and reveal the underlying structures that pattern the contemporary social experiences of different social groups, including American Indians. It is not enough to document that American Indians have been dispossessed and disenfranchised, but to examine what this looks like through the lens of a particular social problem. In this project, that lens is poverty.

American Indians are one of the most understudied populations in sociology. The legacy of American Indian research situated in ethnographic, anthropological studies focused on rural Indian communities rather than in sociology whose domain was considered to be the urban sphere of social life (Lobo 2001). Those sociologists, whose work has centered on rurality, have often focused on agriculture and agricultural economies, of which American Indian reservations and communities have not been heavily involved (Snipp 1992). Additionally, American Indian populations are small, making consistently reliable estimates on surveys or public opinion polls problematic (Snipp 1992).

There is also wide variation in cultural and linguistic characteristics of American Indian groups (not to mention other indigenous groups). Problems with generalizability are further exacerbated by the differences in American Indian historical experiences of social organization and time and manner of European contact (Hall 1989). Nonetheless, there are trends in the sociopolitical experiences of American Indians, despite cultural and historical differences. I contend that it is precisely these commonalities of experience that justify further *sociological* research. Snipp (1992) suggests that growing populations of American Indians, particularly in urban areas, along with improved political visibility of American Indians has increased sociological interest in American Indian issues. I would argue that high visibility and controversial economic development projects, such as the successful Mashantucket Pequot's Foxwood Casino which propelled the expansion of tribal government gaming, has also brought attention to the changing socioeconomic position of American Indians. These changes point to a need for further information about American Indians, not simply to improve sociological understandings of the intersection of race, oppression, and deprivation, but also for the benefit of American Indian peoples' in that better and more comprehensive information on patterns of American Indian social conditions can help inform policies at federal and local levels that affect American Indian peoples' social and material lives.

Macrohistory and American Indian Lands

The unifying characteristic of the American Indian experience is the colonial history of the U.S., which has produced a specific political and social identity associated with 'Indianness,' different from identities associated with other racial or ethnic groups situated within the U.S.'s continental territory. The racial formation of 'Indianness' and capitalist development of the United States created historical conditions of land exploitation and identity politics whose legacy is likely to affect not only the material conditions of American Indian peoples, but has tied American Indian identity and access to resources to specific locations.

For American Indian groups, the macrohistorically coupling of race and land may help shed light on contemporary determinants of economic conditions such as poverty. I am certainly not the first to suggest that examining racial groups in light of their political and economic history can help us understand contemporary social and economic conditions of those groups. It was none other than W.E.B. Du Bois who situated African American social and economic history within the context of U.S capitalist development, explaining the exploitation of black labor essentially as a process of primitive accumulation:

> Out of the exploitation of the dark proletariat comes the Surplus Value filched from human beasts…. The emancipation of man is the emancipation of labor and the emancipation of labor is the freeing of that basic majority of workers who are yellow, brown and black. (Du Bois 1935/1976:15-16).

Of course, Du Bois' project was to reframe the history of Reconstruction that had

been distorted by whites in popular literature, academic texts, and history books (Parfait 2009). Du Bois' historical analyses of slavery, the Civil War, and Reconstruction not only elucidate the agency of black peoples in the reshaping of U.S. politics and economy, it also underscores the effects of those historical processes on the then contemporary material position of black and white laborers. As such, Du Bois historicism was not simply a retelling of history, but a purposeful and successful reframing that continues to inform how we understand contemporary racial, political, social, and economic conditions and dynamics. Du Bois' work was frequently criticized or ignored at the time, but today his work is widely recognized as the definitive story of the rise of the modern American state through the political domination of its workers, by way of racism and oppression. Yet we must remember that as comprehensive and influential as *Black Reconstruction* is in explaining the exploitation of labor in the capitalist development of the U.S., it is only part of the story of America's racialized capitalist development.

Similarly, Wilson's (1978) examination of the constraints imposed on blacks through production systems and the polity describes the intersection of race, economy, and polity but he refrains from Du Bois' Marxian analysis, never invoking the term capitalism or referencing systems of production explicitly. Yet, *implicitly*, Wilson addressed one specific factor of production—labor—as he explained the historical patterning of race relations within a *capitalist* society. He

detailed the historical coupling of race and labor in emergence of U.S. political economy, tracing production systems from slavery into the modern era (as of the late 1970's). Focusing on the labor side of the political economy allowed Wilson to develop an historical picture of U.S. economic relations painted with an eye toward the black experience in America. Explaining the historical aspect of his work, Wilson stated:

> My central argument is that different systems of production and/or different arrangements of the polity have imposed different constraints on the way in which racial groups have interacted in the United States, constraints that have structured the relations between racial groups and that have produced dissimilar contexts not only for the manifestation of racial antagonisms but also for racial group access to rewards and privileges. (Wilson 1978:3).

Viewing Wilson's work as an extension of Du Bois' framing of race and capitalism, *The Declining Significance of Race* then suggested, without definitively concluding, that the specific ways that race and the factors of production are intertwined will determine the effect of race on life chances and access to social opportunities. The implication for other races is that to understand their contemporary social and economic dynamics, we must first traverse the historical ground of their specific racial political history.

In the American Indian experience, 'race' has been and continues to be a political category with tangible consequences tied to the recognition (or lack thereof) of that identity (Garroutte 2001). American Indian identity has been constructed at two levels both of which are associated with distinct and tangible consequences: 1) collective identity and 2) individual identity. Although I

differentiate the two levels of identity, it is important to note that they overlap, with individual identity attached to, arguably derived from, collective identity. I separate them here because the distinction points to potential importance of *place* in the distribution of American Indian social opportunities. Collective identity is linked to a specific locale with distinct, politically recognized territorial boundaries within which the collective unit may exert some degree of autonomy (or not). Because of the territoriality of this collective identity, the social opportunities may be formally coupled with identity and place in a way that does not races. Individual identity, though generally linked to membership in an American Indian nation[1], carries with it the consequences of Indianness from place-to-place. Yet the majority of Indian-specific services, whether intended for individual or collective benefit, are place-specific, administered by tribal government programs, federal services, or non-profit agencies targeting American Indians and tribal nations. Thus for individuals who identify as American Indian but do not reside within the territorial boundaries of tribal nation, the factors affecting social and economic conditions may be different than for those residing within tribal nation boundaries. The effects of these identity differences are important because they suggest that the material and tangible consequences for American Indians living within designated American Indian lands may be different than for those living outside of those lands. This point

becomes even more salient when you consider the macrohistorical circumstances affecting American Indian lands and their residents.

The linking of Indian identity and land is the product of the exploitation of Indian lands, rather than Indian labor, in the capitalist development of the U.S. The social position of American Indians has always been a matter of both race and legal status since Indian tribes were first acknowledged as nations with European contact. The separate political status of American Indians was later used by the U.S. to justify the political domination of tribes, making the position of American Indians unique and not analogous to the position of other races living in the U.S. This is a critical difference between black history and American Indian history that results in a different form of racial and economic coupling for American Indians than for blacks. For American Indians, land was the key element in political and economic domination by the U.S. as the federal government undertook political actions formally coupling American Indian membership and land, while narrowing and restricting tribal sovereignty and individual freedom. In early American history, the accumulation of land for capitalist development was made possible through treaty cessions of large tracts of American Indian lands to the U.S. and the removal of Indian peoples from their ancestral lands to smaller tracts left after cession. Lands acquired or taken from the indigenous groups of the U.S. have been exploited for a variety of purposes, including the establishment of plantations on which blacks were

enslaved. The reservation lands, often located in marginal areas not viewed as useful for agricultural production, were set aside for exclusive use by American Indian tribes, thereby demarcating racialized territorial boundaries.

Over the centuries, various solutions to the 'Indian problem' were imposed and though the phrase 'Indian problem' eventually dropped out of public discourse, the policies that have been created to deal with American Indian social problems have been overwhelmingly assimilationist, varying only in the degree to which assimilationist expectations were imposed. These policies were also directed at differing levels, targeting the institutional arrangements of Native governance as well as the individual behavior, beliefs, values, and choices. The solutions to American Indian social problems were essentially to remove the Indian. Initial attempts to eradicate American Indians occurred through the physical removal of American Indians from their homelands via the Indian Removal Act of 1830 and the Indian Appropriations Act of 1851. The 1830 act targeted Eastern tribes and nations, while the 1851 act, enabled and prompted the creations of reservations targeting western tribes. Both acts facilitated the dispossession of Native peoples' collectively held lands, displacing them to geographically isolated reservations, opening lands to white settlement and economic development. As the U.S. government increasingly became involved with territorial matters, so too did they become interested in tribal membership, not only identifying Indians, or mixed races on the census, but also requiring

written records of tribal membership rosters, especially during the establishment of tribal reservations. American Indians, subject to enumeration and geographic isolation, generally remained engaged in traditional forms of economic activity including hunting, while simultaneously losing large tracts of land and access to natural resources through treaty cessions, removal to reservations, and through the allotment process (Snipp 1986).

Indian populations dwindled in the wake of European colonialism and it was assumed that eventually Indians would cease to exist. Removal and relocation may have been thought to be a temporary measure until the disappearance of Indians altogether. However, in the late 19th century it was clear that American Indians not only persisted, but that they were able to maintain traditional ways of life despite removal and reservation, albeit in impoverished conditions. The U.S. then began to try to dismantle tribal-federal relationships including federal trust responsibilities that required federal support of tribes and maintained tribal territorial boundaries. Removal efforts gave way to assimilation practices as the government began converting and 'civilizing' Indians and breaking-up collectively held Indian lands through allotment. Allotment resulted in the transfer of about two-thirds of the remaining tribal landholdings into non-Indian ownership (Prucha 1984). Allotment policies intended to decouple land and race were presumed to facilitate American Indian assimilation but were largely unsuccessful. American Indians maintained a

separate political status even when U.S. citizenship was conferred to them in 1924. Additionally, removal and placement on reservations left American Indians in rural, economically unproductive areas with little opportunity for engagement in industrial or other economic enterprises. In 1934, the federal Indian Reorganization Act of 1934 (also known as the IRA or the Indian New Deal) put a stop to allotments and halted sales of allotted lands. During this era, federal policy pushed for the dismantling of traditional forms of governance in favor of constitutional government and shifted fiduciary responsibilities from the federal government to the tribes themselves. With the end of allotment, the coupling of race and land was once again politically sanctioned and reinforced as the government recognized the authority of tribal governments over their members and lands. The establishment and maintenance of the reservation system thereby not only isolated American Indian peoples from mainstream American social, cultural, and political systems, but also entrenched a cycle of poverty and deprivation (Sandefur 1989).

Demographic Change and Indian Places

The macrohistory of American Indian politics and economy, however, does not begin and end with political domination. In the last half-century, American Indians have experienced significant political changes affecting their social and economic lives. These changes have altered the landscape of Indian

Country, affecting governance structures and economic development practices on tribal lands and facilitating the urbanization of the American Indian population. World War II created an opportunity for American Indian agentic action that changed the trajectory of the American Indian experience. American Indian participation in the war effort, both abroad and domestically, familiarized many American Indians with urban life. Upon returning home from service, many veterans had difficulty readjusting to reservation life and the abject poverty that characterized it. Additionally, policy-makers viewed American Indian participation in the war effort as an opportunity to mainstream American Indians while also addressing issues of reservation poverty. Federal policy of the 1950s to 1970s included 'direct employment' programs intended to relocate reservation Indians to cities and legislation terminating reservations and tribal governments. These policies facilitated the demographic shift from a rural Indian population to an urban one, with estimates of 100,000 American Indians participating in the relocation program (Sorkin 1978). By 1980, 49% of the American Indian population resided in metropolitan areas (Snipp 1989). Today, according to the latest U.S. Census data, 64% of those who identify as American Indian or Alaska Native alone live in metropolitan places (U.S. Census Bureau 2010).

The unexpected consequences of Indian urbanization was that American Indians were not simply absorbed into mainstream, urban America. Instead, an

urban Indian retribalization occurred as American Indians from various tribal backgrounds found commonalities of cultural tradition and sought ways to contend with the hardships of urban life (Strauss and Valentino 2001). During the Civil Rights era, American Indian activism led to the implementation of Indian Civil Rights Act of 1968 and the creation of policies to support American Indian self-determination, reconfirming the autonomy of American Indian nations. Activism that began in urban places took a decidedly nation and place-based focus, emphasizing that the social and economic condition of urban and reservation Indians was a product of policies and activities affecting tribal nations on American Indian lands. Following the implementation of self-determination policies intended to shift some control of tribal functions from federal agencies to tribal government, Indian tribes began to reassert authority and tried to tackle rampant poverty in their nations, often undertaking commercial development projects. As Indian lands became increasingly open to development, various commercial interests, especially natural resource development interests, attempted to gain access to Indian lands. The institutional relationship between the federal government and tribes (known as the trust relationship) meant that the government retained power as an intermediary in the economic development of Indian lands. According to Snipp, the self-determination policies of the 1970's opened American Indian lands to external commercial interests whereby the federal government gained increasing

control over American Indian economies and natural resources. In the meantime, the social and economic position of urban Indians was all but forgotten under the assumption that improved economic conditions on American Indian lands would reverse the demographic as urban Indian returned to reservations to take advantage of new work opportunities.

Organization of the Study

The post-World War II demographic shift in the American Indian population has created somewhat of a quandary for understanding poverty in the American Indian population. Researchers interested in American Indian poverty typically focus on reservation poverty, leaving issues of urban poverty to sociologists interested in urban *minority* poverty. However, despite the increasing urbanization of the American Indian population, the total proportion of Indians within the urban population remains quite small. As a result, they are often omitted from urban research or included within the broader category of 'racial/ethnic minorities.' When American Indians are included in research, the uniqueness of 'Indian' as a category is rarely considered pertinent to the studies.

This project is an attempt to examine American Indian poverty, recognizing that American Indians are not a monolithic group, but that trends in poverty outcomes may be influenced by the system of federal Indian policy that affects American Indian land tenure and governance, tribal economic

development, and American Indian migration. As such, this project attends to the ways that American Indian peoples' material outcomes may stem from American Indian embeddedness in place—whether those places are American Indians lands or non-tribally governed, metropolitan places. I therefore approach the project from three different directions in an effort to capture the places where American Indians live and discern patterns in poverty outcomes.

To truly discern difference within the American Indian population, it is important to acknowledge and contend with variation within the population. But rather than trying to identify groups of American Indians who share common social characteristics and find out why they are more or less likely to be in poverty, I have opted to take a place-centered approach given the prominence of places in the political and economic history of American Indians. This is perhaps uniquely appropriate for American Indians not only because of the federal policies linking 'Indianness' to place, but also because indigeneity by definition is rooted in places.

The purpose of this study, therefore, is to move the discussion away from what makes Indians more or less likely to be in poverty and toward a discussion of what makes Indian places more or less likely to be in poverty. In an effort to disentangle the dimensions of poverty as experienced by American Indians in different social and territorial environments, the study is composed of three distinct, yet parallel analyses of place-level poverty and its determinants, using

data from the American Community Survey, Five-Year Dataset 2006-2010. Although the analyses are treated separately, it is important for the reader to understand that the geographic units overlap. Thus the analyses are not intended to be compared head-to-head, but rather as distinct analyses informed by the way the place-unit is understood and conceptualized. Each analysis has a similar structure, but the variables of interest are defined with respect to the particular unit of analysis and question that guides the inquiry for each chapter. Specific analytical strategies are covered in greater detail within each chapter.

In Chapter 2, the first of the three analyses, I seek to ascertain a baseline picture of the determinants of American Indian poverty rates of counties across the United States, including the impact of the presence of American Indian lands. Although there are considerably high numbers of Native peoples in Alaska, the legal and institutional policies associated with Alaska Native land tenure has a different history than the lower 48 in which treaty-making and removal and relocation to reservations and trust lands shape the territorial boundaries and authority of American Indian governments and communities. As a result the nationwide analysis in the second chapter is limited to the contiguous 48 states. I begin the chapter with a discussion of the different approaches to place poverty and racialized poverty and how they may inform the study of concentrated American Indian poverty. I model American Indian poverty rates at the county-level across the contiguous United States using place-rates of demographic and

opportunity structure variables as well as an indicator of American Indian lands status.

In Chapter 3, I focus on the determinants of poverty at the American Indian lands level, limiting the data to federally recognized American Indian reservations and trust lands in the contiguous U.S. In this chapter, I attempt to capture the place-based structures and potential poverty determinants that are unique to territories governed by American Indian tribal nations. In an effort to understand how the political context of American Indian reservations might affect poverty, I examine some changes in the legal underpinnings of American Indian governmental authority in the late 20th and early 21st centuries, recent trends in American Indian economic development, and theoretical approaches to understanding the relative position of American Indian communities in American society before building and analyzing an Indian lands model. In this analysis, I model place-based poverty rather than limiting the outcome to place-based *Indian* poverty because I wanted to capture the determinants of the high poverty rates on American Indians lands, not simply American Indian poverty. As such, the model uses demographic indicators, *reservation-specific* opportunity structure indicators, and factors related to tribal government operations to predict poverty rates.

In Chapter 4, I discuss the presence of American Indians in urban environments and the historical processes shaping that demographic shift. I also

review how social change amongst urban American Indians shaped the trajectory of federal Indian policy, subsequently shifting the focus of poverty programs toward reservations. As a result, American Indians living in cities do not necessarily have access to the Indian-specific programs and services. This portion of the study therefore seeks to examine how patterns in the determination of American Indian poverty rates in metropolitan counties compares to those of other races. I conduct four parallel analyses, modeling race-specific poverty rates (American Indian, black, and white) and total poverty rates on demographic and opportunity structure indicators to ascertain which determinants most influenced racialized poverty of places and how and whether the influence of those determinants were the same across racialized poverty models.

Finally, Chapter 5 summarizes the findings of the study. Also included in this chapter are potential implication for policy and future research.

Notes

[1] This is not always the case. A person may be recognized by the federal government as 'Indian' based on blood quantum in a federally recognized tribe or tribes, but may not necessarily be enrolled as a member of a federally recognized tribe.

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CHAPTER 2

Racial-Spatial Poverty Concentration of American Indians: A County-Based Analysis Of Indian Poverty In The Contiguous U.S.

> *To be a poor man is hard, but to be a poor race in a land of dollars is the very bottom of hardships.*
>
> *(Du Bois 1903)*

As stated in Chapter 1, the purpose of this project is to investigate how macrosocial and economic factors embedded within places affect the collective American Indian experience of poverty in places. This chapter builds upon the work of scholars of place-based approaches to poverty to help identify how trends in the geographic concentration of American Indian poverty are affected by demographic and economic attributes of places as well as by the presence of American Indian (AI) trust and reservation lands as a marker of American Indian segregation.

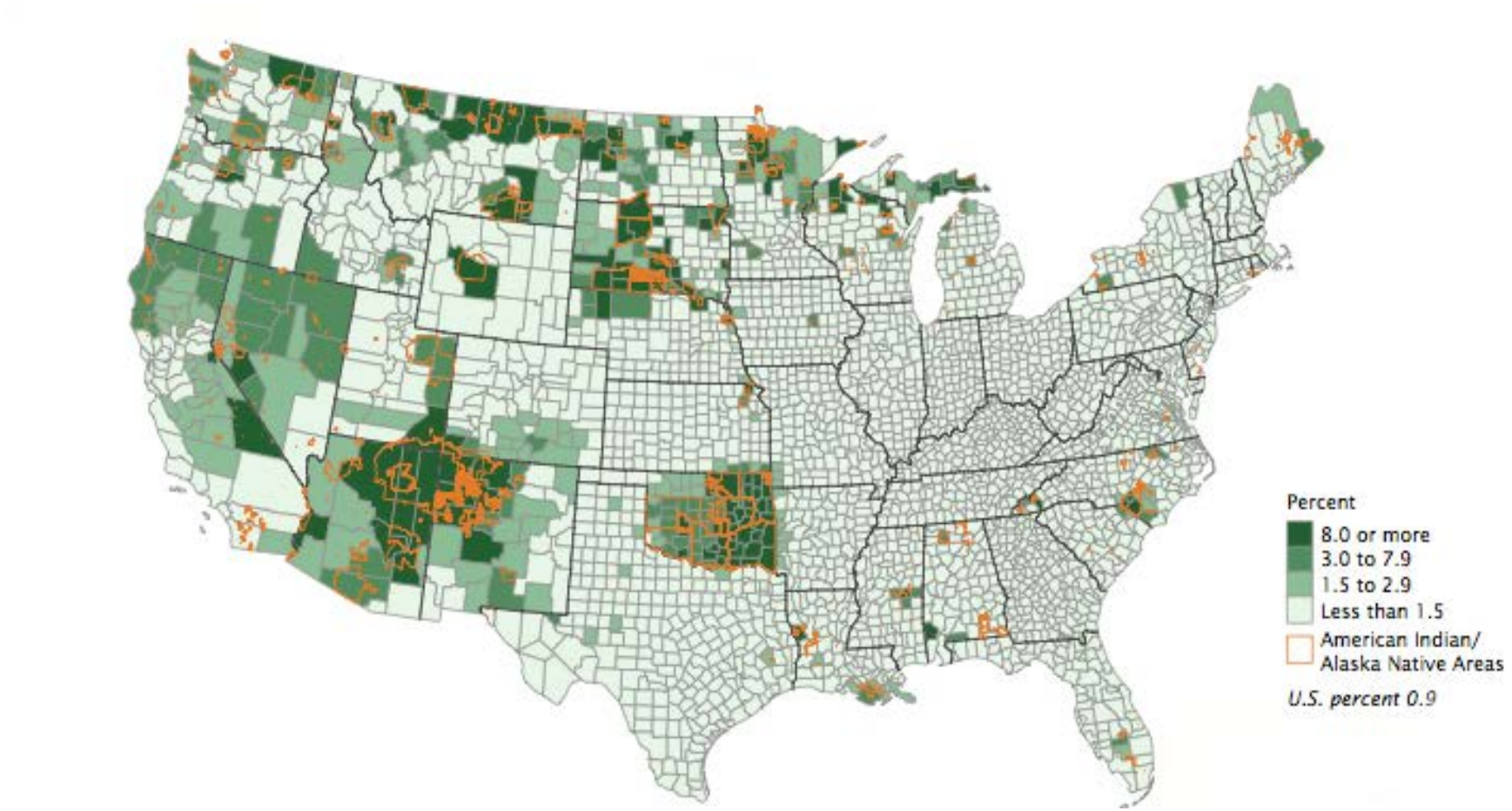
Concentrated American Indian poverty is a recognizable, documented phenomenon that shares characteristics of both black urban poverty and concentrated regional poverty. The forced relocation of American Indians to geographically isolated, often rural reservation lands resulted in the residential segregation of American Indians from non-Indians in much the same way that blacks in the inner city were segregated from whites. In addition, although the literature on neighborhood effects allowed for the examination of blacks' social

isolation and its effects on social outcomes such as poverty, the analytical approach associated with neighborhood effects does not transfer to the study of American Indian poverty because American Indian segregation has typically occurred outside of urban locales and at spatial scales larger than that of the neighborhood. Place-based approaches to poverty in the rural sociology literature, however, are oriented toward the structural determinants of poverty that are patterned by local political and economic institutions. Using a place-based approach to poverty, I examine the demographic and opportunity characteristics of places for their effects on Indian poverty and thus account for the isolating nature of AI lands.[1]

American Indian people have experienced poverty at nearly double the rate of the total U.S. population, with 28.4% of all American Indians[2] living in poverty, compared to 15.3% of all Americans living in poverty (U.S. Census 2010, Summary File 1). This shockingly high poverty rate is not new; the persistence of Indian poverty and, in particular, *reservation* impoverishment and deprivation has been an issue since the establishment of the reservation system that dislocated and displaced American Indian peoples (Sandefur 1989). Yet, this high rate of poverty is not strictly a reservation phenomenon. Since at least the 1950s when the federal government instituted an urban relocation program administered through the Bureau of Indian Affairs (BIA), a large portion of American Indians has been moving off-reservation in hopes of alleviating their experiences of poverty.

As of 2010, of the 2,932,248 American Indians in the U.S., 64.9% lived outside of reservation and trust lands and outside of Oklahoma (Figure 2.1). Only approximately one-quarter of American Indians (24.1%) lived on federal Indian lands, excluding Oklahoma. Eleven percent of American Indians were concentrated in counties in and around the historic reservations in Oklahoma.[3] If so many Indians have moved out of the places historically associated with high and concentrated Indian poverty, what explains the high rate of American Indian poverty? To answer this question, I interrogate the effects of various space-specific factors on the concentration of American Indian poverty. To do so, I turn to urban and rural sociological approaches that examine spatial inequality to gain insight into the racial-spatial concentration of poverty.

FIGURE 2.1
American Indian Population by County



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Urban and Rural Approaches to Racial-Spatial Inequality

A key feature of and difference between the spatial inequality literature rooted in urban sociology and the literature rooted in rural sociology is how the two traditions operationalize the concept of space. In the urban inequality literature arising out of Wilson's (1987) and Massey's and Denton's (1993) seminal works, social isolation and segregation are the key terms of the debate on the concentration of urban poverty. Wilson, Massey, Denton, and the scholars following their leads take an interactional approach to space, seeking to specify the interactions between and mechanisms that link racial-spatial segregation and income segregation. In the urban sociological approach to concentrated poverty, questions surrounding the production of *racial and class inequality* fuel the research. Space and spatiality have been integrated as part of the effort to understand how that particular inequality is created and maintained. Additionally, urban researchers have directed their attention toward inequalities *within* urban space, with some of the most significant contributions of urban inequality research happening at the scale of the neighborhood. Conversely, in rural sociology, *spatial* inequality and uneven development across geographic space motivate the research. From this perspective, the intersection of spatial patterns of development and inequalities in race, class, and gender help to explain geographic concentrations of poverty. Rural research, recognizing that places are sites of economic and political processes that affect local growth, has tended toward a structural approach focusing on

how the nature and type of economic structures of places create patterns of inequality *between* places.

Urban Poverty Research

The study of urban poverty was largely abandoned in the years following the release of the controversial Moynihan report in 1965. The report, authored by Assistant Secretary of Labor Daniel Patrick Moynihan, claimed that the history of slavery and Jim Crow laws created a "tangle of pathologies," including the decline of the nuclear family, crime, and poor education, which created a cycle of concentrated urban black poverty. Moynihan suggested that economic conditions prompted the creation of a self-sustaining culture of poverty in which the values and attitudes of the poor were insufficient for upward economic mobility. As a result, because of the blame-the-victim explanation for minority poverty that was inherent in the culture of poverty approach, urban poverty research fell out of favor with sociologists. Nonetheless, when William Julius Wilson penned *The Truly Disadvantaged* (1987), the discussion of urban black poverty gained traction in sociology. Unlike Moynihan, Wilson explicitly addressed the structural obstacles facing black inner-city residents, favoring an interactional view of structure and culture. This view acknowledged that cultural behaviors respond to the constraints and opportunities of social structures, but it did not imply that such traits are self-perpetuating. Examining social isolation as a defining characteristic of ghetto life, Wilson reframed the conversation to focus attention on the structural constraints that potentially affect cultural traits, rather than on the traits themselves.

Wilson's research was motivated by a desire to understand how shifts in the economic system, including city deindustrialization and middle class out-migration, affected inner city blacks. After his controversial book *The Declining Significance of Race*, which argued that economic shifts created a growing cleavage between middle- and lower-class blacks (Wilson 1978), Wilson turned his attention in *The Truly Disadvantaged* (1987) to impoverished blacks in urban ghettos. He explained, "concepts such as social buffer, concentration effects, and social isolation are used to describe the social and institutional mechanisms that enhance patterns of social dislocations originally caused by such developments as the class transformation of the inner city and changes in the urban economy" (Wilson 1987:137). Wilson's primary argument was that inner-city black racial segregation (ghettoization) creates social isolation, which both structures access to opportunities and patterns behaviors that reinforce social dislocations.

With a similar focus on inner-city racial segregation and urban black poverty, Massey and Denton (1993) found that racial segregation, higher rates of minority poverty, and income segregation within race are responsible for highly concentrated and persistent urban black poverty. The authors argued that the segregation of blacks in urban ghettos is reinforced by discriminatory housing practices and contributes to the cycle of concentrated urban black poverty. Unlike Wilson, who focused on the interaction of culture and structure, Massey and Denton emphasized the interaction of segregation and local economies, explaining that the negative feedback loop of poverty concentration makes neighborhoods susceptible to housing decay and abandonment, disinvestment, and withdrawal of commercial institutions, and they claimed that this

process furthers the cycle of poverty and concentrates other social problems associated with impoverishment.

Urban sociologists, largely responding to the theses presented by Wilson, Massey, and Denton, actively engage the link between race and space to examine how racialized social isolation acts as a mechanism by which poverty and disadvantage accumulate. These sociologists regard neighborhoods as the organizing spatial feature of urban social life. This focus has sprouted an entire offshoot of urban research dedicated to disentangling the effects of neighborhood on socioeconomic outcomes and stratification (Leventhal and Brooks-Gunn 2000; see reviews by Sampson, Morenoff, and Gannon-Rowley 2002; Small and Newman 2001). The neighborhood effects literature has extended beyond poverty to consider other social problems, including crime (Krivo and Peterson 1996; Krivo, Peterson, and Kuhl 2009; Peterson and Krivo 2005; Peterson and Krivo 2010; Sampson, Raudenbush, and Earls 1997), violence (Frye and O'Campo 2011; Leventhal and Brooks-Gunn 2011; Morenoff, Sampson, and Raudenbush 2001; Parra 2002), educational outcomes (Coulton and Pandey 1992; Crane 1991; Leventhal and Brooks-Gunn 2004; Leventhal, Fauth, and Brooks-Gunn 2005), adolescent sexual behaviors (Browning, Leventhal, and Brooks-Gunn 2004; Browning et al. 2008), child maltreatment (Coulton, Korbin, and Su 1999; Manabe 2004; McDonell and Skosireva 2009), and developmental outcomes (Avan and Kirkwood 2010; Boardman and Saint Onge 2005; Brooks-Gunn et al. 1993; Fauth, Roth, and Brooks-Gunn 2007; McBride Murry et al. 2011). The neighborhood effects literature demonstrated that neighborhoods are the milieu of the cultural tool kit, structure

opportunities such as access to education, jobs, and healthcare, and provide sources of information, networks, and norms. Within urban sociology, there is a tendency to demonstrate how neighborhood residential patterns and dynamics transmit and maintain inequality within urban space. In rural sociology, the focus is nonmetropolitan space, with a tendency to examine inequality across geographies. I now turn to this literature.

Rural Poverty Research

In roughly the same time period in which Wilson, Massey and Denton were writing about spatial and social isolation and poverty in cities, the notion of spatial inequality was also reemerging in rural sociology. Lobao (1993) suggested that the sociological preoccupation with a spatial grand theory was called into question in the wake of the economic transformation from preindustrial to industrial development, the accompanying shifts in farm economies, and the capital accumulation crises of the 1980s. Just as urban researchers were recognizing how economic transformation contributed to persistent, black inner-city poverty, rural researchers were recognizing how those very economic shifts were exacerbating rural economic distress (Brown and Hirschl 1995; Duncan and Tickamyer 1988; Duncan 1992; Lobao 1990; Tickamyer and Duncan 1990).

Rural inequality research, greatly informed by geography and regional science, emphasizes the intersection of structure and territory as a basis of spatial difference (Lobao and Saenz 2002). Rural research, which has increasingly recognized the

perspective that places are sites of competing political and economic interests that manifest in local structures and affect local growth (Logan and Molotch 1987), has adopted a structural approach to poverty that considers demographics and local economic characteristics as predictors of local poverty rates (see review by Weber et al. 2005). Although debates persist over the appropriate scale of "community," rural researchers have frequently looked to subnational units such as the county or labor market area as the unit of analysis for examining the link between macroeconomic processes and social outcomes. Like urban sociologists, rural sociologists recognize that places of residence structure access to opportunities. Rural researchers typically look to middle-range territorial units that allow for comparison across space rather than at microscale units such as neighborhoods. Lobao (2004) advocated the use of middle-range territorial units, particularly in nonmetro areas, to avoid urban bias in development research and to understand how spatial difference manifests across the national landscape.

Using place-based methods, rural poverty research has yielded insights into how economic structure affects local poverty rates. The industrial restructuring of the 1980s called into question the stability of farm economies and brought renewed attention to the economic well-being of rural areas. In response to the reluctance of policy makers to acknowledge and confront the persistence of rural poverty, Weinberg (1987) gathered data that confirmed the existence of poverty pockets in rural America. As rural economies shifted away from agricultural production, demographic factors, educational deficits, and industrial mix contributed to higher rates of unemployment and

underemployment in rural areas as compared to metro areas (Lichter and Costanza 1987). The industrial and occupational structures of rural communities implicated in higher poverty included resource-intensive economies (Duncan and Tickamyer 1988; Humphrey 1990; Peluso, Humphrey, and Fortmann 1994; Tickamyer and Duncan 1990) and manufacturing (Weinberg 1987). Additionally, the remoteness of rural places affected the overall labor market opportunities of places, which further intensified economic distress (McGranahan 1988). The intensification of rural poverty has also been linked to the overall feminization of poverty via shifts in the gender structure of the labor force and the resulting increase in female heads of household and higher rates of female working poor (Albrecht and Albrecht 2000; Albrecht and Albrecht 2007; Lichter and McLaughlin 1995).

As sociologists have increasingly recognized that one's place in the spatial order is largely a product of social structure, rural researchers have focused on the interaction of racial and spatial patterns of inequality. One important finding is that despite overall decreases in rural poverty in the 1990s, pockets of deep poverty persisted in nonmetro areas, particularly in areas with a history of minority population concentration, with the characteristics of impoverishment and income distribution varying across regions and minority groups (Beale 2004; Beale and Gibbs 2006; Lichter and Johnson 2007). In rural places, the concentration of minority populations has been linked to lower overall socioeconomic conditions of places and to larger differentials between the socioeconomic conditions of minorities and whites (Albrecht, Albrecht, and Murguia 2005). Research has found differences in poverty not only between rural minority and

white populations but also between different minority groups. For instance, Saenz and Thomas (1991) found that the ways in which individual, household, and economic structure characteristics affected minority poverty in nonmetro Texas differed between minority groups.

High and persistent concentrations of minority poverty are unevenly dispersed across regions in the U.S. The Mississippi Delta and the southern coastal plain have high rates of concentrated poverty within black populations (Beale 2004; Beale and Gibbs 2006; Lee and Singelmann 2006; Parisi et al. 2005). The legacy of racial discrimination, segregation, and economic disadvantage continues to have repercussions for black communities of the rural South (Albrecht, Albrecht, and Murguia 2005; O'Connell 2012; Tomaskovic-Devey and Roscigno 1996). Concentrated poverty among Latino/a populations has been found in the Southwest and in rural counties of Florida, Georgia, Missouri, and Washington (Beale 2004). Although the Latino/a population is largely urban, the concentration of Latino/a people in rural America increased rapidly beginning in the 1990s and has outpaced the growth of Latino/a populations in urban areas (Kandel and Cromartie 2004), as immigrants seek employment in the meatpacking, food processing, and construction industries (Broadway 2007; Carr, Lichter, and Kefalas 2012; Dalla, Ellis, and Cramer 2005; Donato and Bankston III 2008). Since the recession of the 2000s, spatially and racially concentrated poverty has intensified and is characterized by the reemergence (or perhaps increased visibility) of a minority underclass and by increasing income-based segregation, especially among black and Latino/a populations (Lichter, Parisi, and

Taquino 2012). These racial-spatial differences suggest that particular racial and ethnic populations are differentially embedded in rural places. Examining the historical context that has embedded minorities in particular places might help to clarify the structural determinants of place-based minority poverty.

Concentrated American Indian Poverty

Sociological interest in the economic condition of American Indians also grew in the late 1970s and early 1980s because of the economic transformations that were altering the rural landscape. Between the 1960s and 1980s, American Indians were experiencing economic gains and improvement in poverty rates, yet like poverty amongst other minority populations, American Indian poverty was still deep, persistent, and unevenly distributed spatially. The depth and history of reservation poverty prompted sociologist Gary Sandefur to call American Indian reservations the first underclass areas in the U.S., based on his finding that half of the 36 largest reservations had poverty rates of 40% or higher in 1980 (Sandefur 1989). He implicated removal, forced relocation, and the resulting geographic, social, and economic isolation of American Indian peoples from mainstream society in the impoverishment of American Indian communities, and he described how historical policies and processes located and concentrated American Indian territories and peoples on marginal lands, distant from major population centers and transportation routes that would later became part of the modern system of metro areas, highways, and railroads.

Similarly, in a case study of the Cherokee in Oklahoma, Anders (1981) described their impoverishment and welfare dependence as a product of colonialism, which undermined their Native institutions. Anders described how, before removal to Indian Territory (later Oklahoma), the Cherokee were innovative and were successfully adapting and integrating white technology into their traditional ways of life. This

allowed them to economically integrate with settlers through trade and to incorporate constitutional governance structures into Native institutions. Removal and relocation of the Cherokee to Indian Territory disrupted their economic and political systems, but in time, they were able to rebuild their institutions, construct and operate schools, and establish farming and ranching. Nonetheless, as Anders demonstrated, the U.S. government's pattern of ignoring treaties with the Cherokee, using select members from the Cherokee elite to facilitate land cessions, and the institution of policies abolishing Cherokee land tenure, institutions, and sovereignty undermined the social, cultural, political, and economic bases of the Cherokee. Although Anders did not specifically reference cultural behaviors, he implied the Swidlerian cultural tool kit (Swidler 1986) in his argument that the organization of mainstream society and economy deprived the Cherokee of the ability to innovate white technologies for their own benefit. The argument that structural change affected cultural behavior is reminiscent of Wilson's (1987) argument that the black ghetto subculture tool kit shapes behaviors and limits access to rewards and privileges in response to the societal organizations of economy, policy, and technology that stratify access to resources.

The historical context of American Indian poverty and economic deprivation is unique compared to that of other minority groups in the U.S. The labor of black and Latino/a populations has been integral to national and regional economic processes and development. African slave labor was the foundation of the plantation economy. Subsequently, urban industrial development relied on the low-wage black labor pool that resulted from the end of slavery. Seasonal agricultural labor and, more recently,

labor in the meatpacking and food-processing industries have come to characterize the U.S. reliance on Latino/a labor. Indian labor, however, has never been a primary component in the capitalist relations of the U.S. and has not been historically integrated into regional economies (Cornell 1990). Yet, for American Indians, whose land but not their labor has been crucial to American capitalist development, civil rights-era gains were tempered by policies that have facilitated the exploitation of American Indian resources.

American Indians were politically mobilized, especially during the 1960s, for Indian individual and collective rights. The legislative changes of the civil rights era came for both blacks and American Indians in the form of civil rights, protective union legislation, and American Indian self-determination. The changes altered processes for hiring, labor management, and dispute resolution, which benefited blacks in the inner city and enabled the creation of a black middle class (Wilson 1978). The political changes aimed at workers—to create access to opportunities and diminish barriers to higher-wage jobs—did little to benefit American Indians because compared with the issues of discrimination and access to more prestigious jobs within the labor market, the place-based structure of the economy was more relevant to American Indian development and socioeconomic success.

In the late 1960s, the Indian Civil Rights Act was passed, and young, urban Indians formed the American Indian Movement to militarily urge the U.S. to redress grievances against American Indians. This culminated in what is known as the self-determination era beginning in the late 1960s in which federal policy supported tribal

political, economic, social, and cultural self-sufficiency (Snipp and Summers 1992). Self-determination coupled with increasing demands for American Indian natural resources in the 1960s and 1970s brought hope for socioeconomic improvements on AI lands. Natural and energy resources such as timber, agriculture, oil, gas, and coal resources were in demand by commercial interests, but a tangle of jurisdictional authority over commerce and trade with American Indians complicates economic development. The potential economic gains for resource-rich American Indian communities have been crippled by exploitive lease agreements with large corporations, facilitated through the BIA, that extracted raw resources for external production rather than using reservation-based labor (Snipp 1986a). Moreover, the land bases and available resources are unevenly distributed across Indian Country, and even those tribes with natural amenities often lacked the infrastructure and technical expertise to negotiate leases (Snipp 1986a). Snipp (1986a; 1986b) argued that the increase in resource-dependent economies has harmed rather than benefited American Indian communities by facilitating American Indian economic dependence on external interests. In the past two to three decades, American Indian economic development on Indian lands has diversified, most notably in the rise of American Indian gaming and related ventures such as recreation and hospitality. One high profile example is, of course, the Mashantucket Pequot Tribal Nation, which operates a gaming facility, two golf courses, several hotels and inns, a cultural museum and research center, and a travel center. Nevertheless, as of 2010, American Indian poverty remained considerably high at 28.4%, compared to 15.3% nationally (U.S. Census 2010).

The literature on American Indian economic dependence stresses the embeddedness of American Indians in place, yet we know relatively little about how places themselves affect Indian poverty in places. American Indian embeddedness in place is unique in that it is somewhat analogous to the ghettoization of blacks in the inner city. To quote Massey and Denton (1993), "a 'ghetto' is a set of neighborhoods that are exclusively inhabited by members of one group, within which virtually all members of that group live. By this definition, no ethnic or racial group in the history of the United States, except [blacks], has ever experienced ghettoization, even briefly." In fact, what we know about the forced relocation of American Indians to reservations is that it not only segregated virtually all American Indians but did so through federal policy that set aside territorial bases for "the exclusive use of Indians" (Cohen 1945). The urban poverty literature has shown that segregation and group poverty interact to produce concentrated poverty in urban neighborhoods. Yet, American Indian segregation does not occur in the context of the neighborhood but rather in the context of the reservation or trust lands, which vary widely in population size, land area, and fragmentation of land bases.[4] Additionally, the focus on neighborhoods is not transferrable to the study of places where neighborhoods are not a primary site of social organization. This is especially true of rural communities where "persistent poverty among minority populations is driven by political and economic processes rather than narrowly defined neighborhood dynamics" (Lichter, Parisi, and Taquino 2012:368). Nowhere is this more pronounced than on AI lands, where insular boundaries are concretized in a complex

system of federal Indian law and where the history of economic development has been shaped by dependence and exploitation.

One critical difference between American Indians and other minority groups is that the Indian-specific policies of relocation to places with more work opportunities pre-date the "Moving to Opportunity" social experiments of the 1990s that randomly relocated families from high-poverty urban neighborhoods to low-poverty neighborhoods. In the 1950s, federal policy became oriented toward assimilation of American Indians and the dismantling of AI reservations. Indians were "mainstreamed" through the termination of the trust relationship between tribes and the federal government, the closing of tribal membership rolls, and the liquidation and distribution of tribal assets. Simultaneously, American Indian urban relocation was institutionalized through a BIA direct employment program purported to improve American Indian social outcomes by relocating Indians, mostly males, to urban areas. The program was intended to benefit individuals who relocated to cities for employment and vocational training and to improve reservation communities by reducing "surplus labor" (Sorkin 1969).

These policies had major effects on American Indians and tribal governments but did not fully assimilate Indian peoples or collapse reservation communities. Termination and the transfer of jurisdiction to states were applied in limited cases, which had major impacts on the individual tribes involved but not on American Indians more generally, as the majority of tribal governments and lands remained intact. The urban relocation programs, however, had more widespread effects on American

Indians. It is estimated that approximately 100,000 American Indians were relocated into urban centers between 1952 and 1968 (Sorkin 1969), resulting in significant Indian concentrations in several U.S. cities, including L.A., Dallas, Chicago, Tulsa, and Oklahoma City (Snipp 1989). Nevertheless, although some American Indian individuals and families moved to cities, the urban relocation programs were counterbalanced by residential inertia influenced by obligations, ties, cultural barriers (Hodge 1971) as well as the geographic and social isolation of reservations that limited residential mobility. As of 2010, 64.9% of American Indians lived outside of AI trust and reservation lands and outside of Oklahoma Tribal Statistical Areas (OTSAs) (U.S. Census 2010, Summary File 1). Unfortunately, most sociological research on American Indian poverty has failed to address the considerable size of the American Indian population that lives outside of AI lands; instead the research has tended to focus on tribes and reservation communities with the largest populations.

This paper asks, what contributes to the high rates of Indian poverty? Are AI lands so socially, geographically, and economically isolated that their mere presence causes high rates of Indian poverty? Or do the characteristics of people or of the places themselves predict relative rates of poverty? To disentangle these possible predictors of poverty, I ask a series of related questions: Do characteristics of people in places predict poverty—do the demographic make-up, gender structure, age structure, and educational attainment of American Indian residents of counties predict Indian poverty rates? Does the structure of opportunity in places, as reflected in occupational structure, industry mix, work status, and unemployment of places, predict Indian poverty rates?

Of these possible explanations for Indian poverty rates, which ones carry the greatest degree of predictive power?

American Indian Poverty and Geography

To ascertain the ways in which racial and spatial inequality interact, I begin with broad strokes to try to tease out spatial patterns in American Indian poverty. In a previous study comparing income variation across counties with and without AI lands, unemployment, educational attainment, and age structure were found to explain per capita income variation in counties with AI lands, whereas local infrastructure and industrial and occupational characteristics played a limited role (Leichenko 2003). Leichenko's study, however, used measures for total populations of counties containing AI lands rather than measures limited to American Indians in those counties. The limitation of this approach is that even when controlling for places with higher rates of American Indians, the measures were unable to capture the American Indian-specific nuances of income variation, opportunity structures, and demographic characteristics. Additionally, the author's definition of AI lands included state-recognized tribal areas and was thus somewhat broader than it is defined in this study. State-recognized tribal governments and their members do not share the same political identity as governments and members of federally recognized tribes. As Garroutte has shown, the recognition (or lack thereof) of Indian identity has tangible effects. Thus, there may be important, tangible differences between areas that contain the territories and

communities of federally recognized American Indians and those that are limited to state-recognized Indians.

Taking a cue from the rural sociologists and considering American Indian forced relocation, segregation, and federally recognized identity, I examine American Indian poverty at the place-based level by using county-based rates of *Indian* poverty and *Indian-specific* economic and demographic characteristics as predictors, inasmuch as these specific place-based data are available. For the purpose of this study, AI lands refer to American Indian trust and reservation lands that have been set aside as permanent tribal homelands for the exclusive use and occupancy of specific tribes and tribal members under treaty or other agreement with the U.S., executive order, federal statute, or administrative action and where the federal government holds title to the land in trust on behalf of the tribe. A marker of the presence of Indian lands is conceptually useful because AI lands as defined above not only indicate a degree of residential segregation but also mark physical space in which American Indian tribal governance structures are present, which might affect a place's ability to attract commercial interests and industries and might also affect the mix of industries present. Because not all reservation and off-reservation trust lands are large, this approach allows for the consideration of county dynamics in which reservation and trust land communities might be embedded and accounts for the potential effects of the presence of Indian lands.

Within the U.S., 2,932,248 individuals identified as exclusively American Indian as of 2010, comprising 0.9% of the total population. The geographic distribution of

American Indians was uneven, with the highest concentrations living in the South and the West (see Table 2.1). Because of the way that census geography is set up and the complexity of American Indian reservation boundaries that sometimes cross the jurisdictional boundaries of counties and states, we cannot neatly compare data on AI lands to data on places without AI lands. Despite the existence of census geography for AI lands, there is no corollary for geography that is *not* AI lands. Through consultation with regional offices of the BIA, I was able to identify the locations of AI trust and reservation lands across the contiguous 48 states.[5] Using this information, I constructed an Indian land status variable that allowed me to indicate whether a county contains Indian lands. For the construction of this variable, counties that included OTSAs have been coded as containing AI lands.

TABLE 2.1
Regional Distribution of the
American Indian Population

	Northeast	Midwest	South	West	Total
American Indian Population*	7.3%	15.6%	31.5%	45.6%	100%

*Expressed as percentage of total American Indian Population

Source: American Community Survey, Five-Year File, 2006-2010.

Based on estimates of the American Indian population from the American Community Survey (ACS) five-year data (2006-1010), just over half (56.5%) of the American Indian population lived on or near AI lands[6] located in the contiguous 48 states, whereas the remaining 43.5% lived in counties that do not contain AI lands. Perhaps not surprisingly, this contrasts sharply with overall population trends in which 81.2% of the total population of the contiguous 48 states lived in counties that do not contain AI lands. Although the population of American Indians had only a slight majority currently living on and near Indian lands, these counties had the highest

TABLE 2.2
Distribution of Population in Counties in the Contiguous 48 States by Presence/Absence of American Indian Lands

	County Land Status		
	Does not Contain Federal American Indian Lands	Contains Federal American Indian Lands	Total
American Indian Population	43.50%	56.50%	100%
Total Population	81.90%	18.10%	100%

Notes: Figures have been rounded.
Source: American Community Survey, Five-Year File, 2006-2010.

concentrations of American Indians, whereas counties that do not have AI lands had higher concentrations of non-Indians, thereby diluting the presence of nearly half of the American Indian population. This result was clearly reflected in the proportion of the county populations that were American Indian, as shown in Table 2.2. The percentage of American Indians in the total populations of counties that contain AI lands was 2.5%.

That is more than double 0.9%, the percentage of American Indians in the total population of the U.S. In counties with non-Indian lands, however, the proportion of American Indians was 0.4% of the population, which is less than half the national proportion.

Figure 2.1 reveals that the highest proportion of American Indians was concentrated in counties around the OTSAs. The 321,687 American Indians who lived in Oklahoma accounted for 11% of the total American Indian population, although census geography does not allow us to determine the proportion of that population who lived on federal Indian lands within OTSAs. By examining poverty and socioeconomic conditions at the county level rather than limiting the data to AI lands, we can capture the American Indian populations such as those in OTSAs who lived on and near AI lands.

In the remainder of this section, I examine the American Indian demographic and opportunity structures to compare county-level rates in counties that contain AI lands to those that do not contain AI lands. I use descriptive data to outline the major differences between the county types. I found that not only were there differences in American Indian poverty rates between counties, with higher poverty rates in counties that contain AI lands, but there were also differences in family structure, as evidenced by rates of female householders and the percentage of children under the age of 15 years. There were also marked differences in educational attainment, unemployment, and work status, with counties that contain AI lands demonstrating higher rates of

American Indians with a high school education or less, more unemployment, and higher rates of workers who worked less than full time.

The county-level rates revealed that American Indian poverty rates also varied between counties with and without AI lands. Counties that contain AI lands, for instance, had Indian poverty rates of 29.4%, whereas Indian poverty for counties without AI lands was slightly lower at 23.0%. Demographic characteristics and occupational structures also varied between counties with and without the presence of AI lands, as shown in Table 2.3. American Indian family structures also varied across geography, with notably higher rates of female-headed households and children under the age of 15. In counties with AI lands, 23.9% of American Indian households were headed by females, compared to 17.7% of American Indian households in counties that do not contain AI lands. The proportion of children under the age of 15 was 26.8% in counties with AI lands, whereas in counties without AI lands the proportion was 20.7%. Counties that do not contain AI lands also had higher educational attainment, with 15.4% of American Indians with a college degree or higher. In counties with AI lands, a smaller proportion (11.4%) of the American Indian population held a college degree. Counties without AI lands also had higher residential mobility, with 21.3% of American Indians reporting having lived elsewhere in the previous year. In counties with AI lands, 17.0% of the American Indian population reported having moved in the prior year. Rates for measures of occupational structure varied only slightly between counties with and without AI lands. The rates of unemployment and less than full-time

TABLE 2.3
American Indian Demographic and Occupation Rates for Counties by Presence/Absence of American Indian Lands

	County Land Status	
	Does ***not*** Contain Federal American Indian Lands	Contains Federal American Indian Lands
American Indians*	0.4%	2.5%
Below poverty	23.0%	29.4%
Female-headed households	17.7%	23.9%
Under 15 years old	20.7%	26.8%
65 years and older	7.2%	6.8%
High school education or less	53.7%	55.7%
College education or higher	15.4%	11.4%
Moved residences in the previous year	21.3%	17.0%
Did not work Full-Time in the past 12 months	64.7%	66.9%
Unemployed	12.5%	14.6%
Natural Resource, construction, and maintenance occupations	14.5%	13.2%
Production, transportation, and taterial moving occupations	15.3%	13.3%

*Shown as the percent of American Indians in the total population of counties. American Indians comprise 0.9% of the total U.S. population.
Source: American Community Survey, Five Year File, 2006-2010

employment in the prior year were high for counties with and without AI lands, with counties with AI lands reporting slightly higher rates of American Indians who had not worked in the previous year and who were unemployed, at 66.9% and 14.6%, respectively. In counties without AI lands, the rate of American Indians who had not worked in the previous year was 64.7%, and the unemployment rate was 12.5%. Rates of employment in different occupational categories were similar between counties with and without AI lands: Compared to counties with AI lands (13.2%), counties without AI lands reported slightly higher proportions of American Indians employed in natural-resource, construction, and maintenance occupations (14.5%). Likewise, counties without AI lands reported slightly higher rates of employment in production, transportation, and material moving occupations (15.3%), compared to counties with AI lands (13.3%).

Methods and Variables

Focusing on the place-based poverty of American Indians presents several challenges, the largest of which is the small size of the American Indian population relative to the total population. The number and proportion of American Indians living in any single county in the contiguous U.S. varied widely, ranging from 0 to 68,540 with a mean of 765 and a median of 112. Despite the obvious challenges that small populations present for statistical analysis, I feel it is important to attempt to produce a nationwide picture of American Indian poverty in places in an effort to examine the variation that exists among American Indians.

For poverty data and analytical purposes, I relied on estimates from the ACS multiyear 2006-2010. The ACS is the only comprehensive nationwide sample of social data available for examining national trends, patterns, and differences amongst American Indians. The ACS is a survey conducted by the Census Bureau and collects demographic, housing, economic, and social data from samples of the U.S. population. The survey is conducted over the telephone and occurs continuously throughout the year on independent monthly samples of addresses, and it is accumulated into one-year, three-year, and five-year estimates. Yearly accumulated ACS estimates are limited to areas with populations of 65,000 or more. Nonetheless, the ACS also accumulates samples over three-year and five-year intervals to produce estimates for smaller geographic areas. The five-year files produce estimates for geographies as small as census tracts and block groups, whereas the three-year file is limited to areas with populations of at least 20,000. Period estimates represent an area's characteristics for the specified period of time.

To define poverty, the Census Bureau compares income with a threshold that varies by family size and composition; in 2010, that threshold was $22,113 for a family of two adults and two children. For this analysis, I used the county to represent the community-level but recognize that place and community exist at multiple levels both more and less micro than the county and that the bounds of community are not necessarily dictated by legal boundaries. Nonetheless, following the tradition of other sociologists who investigate poverty and place, I contend that counties are heuristically useful for investigating community-level social and economic phenomena because

counties (and their corresponding equivalents) are typically places of residence and work (Partridge and Rickman 2006) and are governmental units that have administrative control over a range of redistributive services implemented throughout the county (Benton 2002; Craw 2006). Additionally, the ubiquity of counties and their equivalents from state to state affords us the opportunity to examine how place-based characteristics result in divergent economic realities for their respective residents.

For this analysis, I limited the data selection to counties in the contiguous 48 states. Although there are considerably high numbers of Native peoples in Alaska, the legal and institutional policies associated with Alaska Native land tenure has a different history than that of tribal nations in the lower 48 states where treaty-making, removal, and relocation to reservations shape the territorial boundaries and authority of American Indian governments and communities. The outcome of interest was the place-based poverty rate of American Indians. Poverty was measured using the definition specified by the U.S. Office of Management and Budget (OMB). American Indian poverty rates for counties were calculated by dividing the total number of American Indian individuals in poverty by the total population of American Indians for whom poverty is calculated. Persons living in military group quarters, institutions, and college dormitories as well as unrelated individuals who are under 15 years old were not included in the poverty calculations.

The independent variables fell into three categories: demographic, opportunity structure, and geographic indicators. The range of variables used in this chapter's analyses has been identified as potentially predictive of place-based poverty. Table 2.4

lists and defines the explanatory variables used in this analysis. Additionally, I used estimates for the total population and the American Indian population to control for both the size of the county and the size of the American Indian population within the county. Demographic indicators were used to identify the characteristics of people who live in places in order to assess how collective individual-level attributes contribute to local poverty. Demographic variables were based on rates within the American Indian population of educational attainment of high school completion or less, educational attainment of college or higher, dependent children under the age of 15, adults 65 years and older, female householders, and geographic mobility defined as having lived elsewhere in the previous year.

The variables used to capture the opportunity structure were comprised of both American Indian-specific measures and total population measures.[7] American Indian-specific indicators of economic opportunity included unemployment,[8] employment in less than full-time work,[9] employment in natural-resource occupations, and employment in production occupations. The total population-based indicators included the proportion of all individuals employed in agricultural industries and professional industries. Additionally, the final total population-based measure was the county Gini index used as a measure of general community-level inequality.

TABLE 2.4
Explanatory Variable List and Definitions

Variable	Definition of Explanatory Variables
Demographic Characteristics	
Educational Attainment: High School or Less	Percent of the American Indian population age 25 and older whose highest level of education is a high school diploma/equivalent of less.
Educational Attainment: College or More	Percent of the American Indian population age 25 and older whose highest level of education is a college degree or higher.
Youth	Percent of the American Indian population who are under the age of 15.
Older Population	Percent of the American Indian population who are age 65 years or older.
Female Householders	Percent of households that are headed by a female (no husband present).
Mobility	Percent of the American Indian population who lived in a different house within the previous 12 months.
Opportunity Structure	
Work Status: Less than Full-Time	Percent of the American Indian population age 16 and older who were employed 35 hours per week or less, based on the usual number of hours works in the majority of weeks worked during the previous 12 months or who worked less than 1 week in the 12 months prior to the survey.

TABLE 2.4 *continued*

Variable	Definition of Explanatory Variables
Opportunity Structure	
Unemployed	Percent of the civilian labor force (age 16 and older) who were not at work during the reference week of the survey, were available for work, and were actively seeking employment during the previous four weeks. This figure also includes those who were not working due to temporary illness and those who had been laid off from work but were waiting to be called back to work.
Agriculture	Percent of the American Indian population age 15 and older who worked in the previous five years and who were employed in agriculture and related occupations.
Natural Resources	Percent of the American Indian population age 15 and older who worked in the previous five years and who were employed in natural resource and related occupations.
Production	Percent of the American population age 15 and older who worked in the previous five years and who were employed in production and related occupations.
Manufacturing	Percent of the county population age 15 and older who were employed in manufacturing and related industries.
Professional	Percent of the county population age 15 and older who were employed in professional, scientific, and technical services industries.
Geographic Characteristics	
American Indian Land Status	A dummy variable that takes the value of 1 if the county contains federally recognized American Indian reservation or trust lands and the value of 0 if there were no American Indian lands present as of 2006.

Last, I used a binary dummy variable to indicate Indian land status defined as the presence or absence of AI trust or reservation lands and/or the presence of OTSAs within the county. Given that American Indian reservations typically have high rates of poverty, this measure was used to help disentangle the effects of Indian places from the demographic and opportunity structure variables. If higher rates of poverty on AI lands are due to demographic and opportunity structures, then the presence of AI lands within a county should provide no additional explanation for Indian poverty.

Ideally, I would use American Indian-specific place-based rates for each predictor given that I am trying to gauge the effects on American Indian poverty rates for places. Nonetheless, because of the small size of the American Indian population, not all indicators for which data are collected through the ACS at the county level are available for American Indians. The ACS does not report data that could be identified with specific individuals, and given the small size of the American Indian population at the county level, many of the missing indicators would pose anonymity issues for American Indian individuals, if reported. These indicators for the total population include 1) Industry, 2) Work Status comprised of Full Time, Part Time, and No Work in the Last 12 Months, and 3) a Gini index for income inequality within the American Indian population of a place. In the case of Industry, available data include rates of participation in various industrial categories for the total population, but participation by race is not available. The ACS provides Work Status indicators for American Indians who worked full-time, but the remainder is not further categorized into Part Time and No Work, as is available for the total population. In the interest of identifying those

indicators that are most likely to affect American Indian rates of poverty, I opted to use the collapsed Work Status indicator that is specific to American Indians, rather than alternative of using separate No Work and Part-Time variable that are only available for the total population. I also used the Gini index for each county, which is a measure of inequality constructed from income data. Detailed income data for American Indians was not available to construct a Gini index restricted to this population. Nonetheless, the advantage of using a total population Gini index is that, although we do not get a sense of inequality *within* the American Indian population of a place, the use of a Gini constructed from the total population data of a place has potential explanatory value because the Gini provides a measure of community income inequality (Lobao 1990).

In the following section, I explain the process used to analyze the sensitivity of the dependent variable (American Indian poverty rate) to the inclusion of the total population and American Indian-specific indicator variables. I also tested the model's sensitivity to varying degrees of case-selection inclusivity.

Sensitivity Analysis: Model Comparison

This section describes how I selected a model to use in the final regression analysis, the results of which are described in the next section. Given the limitations of the data and the low proportion of American Indians in many counties, I first limited my selection of cases to places (counties) that contained American Indians. I then conducted a sensitivity analysis to determine the most effective way of selecting

amongst those cases to conduct regression analyses of American Indian poverty rates. This analysis used regression models to compare the sensitivity of the American Indian poverty rate to predictor variables based on place-level data, using only those predictor variables for which American Indian data were available, all predictor variables based on total population data, and a combination of those predictor variables available for American Indian data combined with total population data for variables that are unavailable for American Indians.

This sensitivity analysis compared three regression models that each used the Indian poverty rate of counties as the dependent variable. The independent variables included demographic rates for educational attainment, dependents, gender of householders, and mobility. Opportunity structure variables for each model related to work and employment opportunities and included full-time work status, unemployment, rates for key occupational and industrial categories, and the county Gini index. For each model, the dependent variable was the county-level rate of American Indian poverty calculated by dividing the total number of American Indians in poverty by the total number of American Indians for whom poverty was calculated for each county. Model comparisons appear in Table 2.5, which shows the variables

TABLE 2.5
Comparison of Models Used for Sensitivity Analysis

Variables		Model 1	Model 2	Model 3
Control				
Total American Indian Population		✓	✓	✓
Geographic Variable				
American Indian Land Status	Presence of Federal Indian land or Oklahoma Tribal Statistical Area	✓	✓	✓
Demographic Characteristics				
Educational Attainment	High school education or less, %	Total*	AI*	AI
	College degree or higher, %	Total	AI	AI
Age Structure	Under 15 years of age, %	Total	AI	AI
	Age 65 years and older, %	Total	AI	AI
Gender of Householder	Female householders, %	Total	AI	AI
Mobility	Lived Elsewhere in the previous year, %	Total	AI	AI
Opportunity Structure Indicators				
Work and Employment Status	Did not work full-time, %	Total	AI	AI
	Unemployed in the civilian labor force, %	Total	AI	AI
Occupational Employment	Agriculture and related, %	Total	AI	AI
	Natural Resources and related, %	Total	AI	AI
	Production and related, %	Total	AI	AI
Industrial Employment	Manufacturing, %	Total	--	Total
	Professional, %	Total	--	Total
Inequality	Gini index	Total	--	Total

*Total refers to data based on total estimates for the county. AI refers to estimates based on the American Indian population of the county.

Notes: Each model was tested consecutively using the following three data selection criteria:

0% < American Indian Poverty Rate < 100%

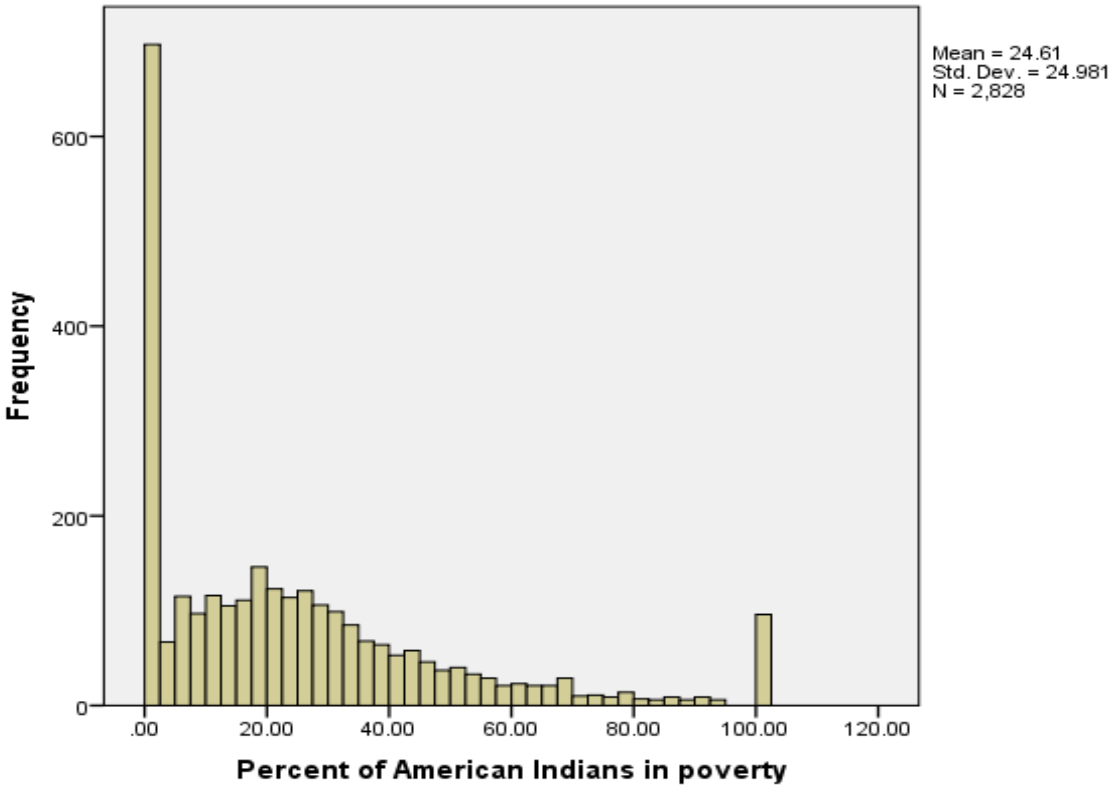
0% < American Indian Poverty Rate < 100% and American Indian Population ≥ 100

0% < American Indian Poverty Rate < 100% and American Indian Population ≥ 1000

included in each model and the case selection criteria tested for each set of variables. Model 1 was based only on American Indian data and did not include predictors for Industry and Gini because those variables were constructed from total population data. Model 2 was based on total population and used all the demographic and opportunity structure variables calculated from total population estimates, including those for Industry and the Gini index. Model 3 combined the variables available for the American Indian population with those variables that were available only for the total population. Thus, the demographic variables, full-time work status, occupation participation, and unemployment rates were based on American Indian data, whereas those for Industry and Gini were based on the total population in Model 3. Each model also contained a binary indicator for the presence or absence of AI land within the county.

For each model, I tested the sensitivity of the model to varying levels of data inclusivity. First, for each model, data were limited to places where the American Indian poverty rate was higher than 0% and lower than 100%. This was to limit the analysis to places where there was measurable Indian poverty.[10] The distribution of poverty skewed slightly to the right, with spikes at 0% and 100%, as shown in Figure 2.2. This might indicate that poverty processes operated differently in places with absolute or zero Indian poverty or that there might have been errors in data collection or the estimation of Indian poverty in these places. Thus, I limited the models to greater than 0% and less than 100% American Indian poverty and hoped to elucidate the factors that determined place-based Indian poverty within this range.

FIGURE 2.2
Histogram of County-Level American Indian Poverty Rates
in the Contiguous United States



Beyond the initial data restriction of measurable but not 100% American Indian poverty, the next level of restriction was to limit the data to counties with estimated American Indian populations of 100 or more in addition to poverty rates between but not inclusive of 0% and 100%. The third data restriction limited the selection to places with the highest numbers of American Indians, selecting places where there were 1000 or more American Indians and American Indian poverty rates were higher than 0% and less than 100%.

The overall fit of each model is presented in Table 2.6. The three models were compared for each case-selection criteria. Please note that in all models for all levels of case restriction, each model was statistically significant. When the most inclusive case-selection strategy was used, out of 3109 counties in the contiguous U.S., 2062 counties had between but not inclusive of 0% and 100% American Indian poverty. Using total population data to explain the Indian poverty rate yielded an adjusted R-square of 0.084. Restricting the data to American Indian data increased the R-square to 0.165, whereas combining American Indian data with the data for Industry and Gini increased the R-square even more to 0.202. Although these numbers were still fairly low, the R-square for the combined model (Model 3) provided approximately two-and-a-half times more explanatory value than using total population variables when case selection was limited to any county with American Indian poverty rates greater than 0% and less than 100%. Additionally, although the increase in the R-square going from the American Indian model (Model 2) to the combined model (Model 3) was small, the theoretical value of including measures for industry and income inequality justified using a combined model in the remainder of the analysis.

When the case selection was further restricted based on the size of the American Indian population, the advantages of using either the American Indian model or the

combined model were somewhat more pronounced. When the data were restricted to places with American Indian populations of 100 or more and where American Indian poverty was between but not inclusive of 0% and 100%, the *n* was reduced from 2062 counties to 1474 counties. With this case-selection restriction, the

TABLE 2.6
Comparison of Models for Sensitivity to Variables and Case-Selection Criteria

Selection Criteria	Model	n	R-sq Adj	F	Sig
0 < Indian Poverty Rate < 100	**Model 1:** Total Population Data	2062	0.084	12.116	0.000
	Model 2: American Indian Alone Data*		0.165	32.407	0.000
	Model 3: American Indian alone + Industry Data and Gini based on Total Population		0.202	31.705	0.000
0 < Indian Poverty Rate < 100; American Indian population > 99	**Model 1:** Total Population Data	1474	0.096	10.201	0.000
	Model 2: American Indian Alone Data*		0.234	35.553	0.000
	Model 3: American Indian Alone + Industry Data and Gini based on Total Population		0.275	33.907	0.000
0 < Indian Poverty Rate < 100; American Indian population > 999	**Model 1:** Total Population Data	416	0.338	14.272	0.000
	Model 2: American Indian Alone Data*		0.477	30.132	0.000
	Model 3: American Indian Alone + Industry Data and Gini based on Total Population		0.535	29.045	0.000

adjusted R-square using only total population data was 0.096, up slightly from when no population thresholds were applied. There was also a marked increase in the adjusted R-square when only American Indian data were used, to 0.234. This result was more than twice as high as the Model 1 that used total population data when the same case-selection criteria were applied. This number was almost one-and-a-half times higher than when the population was unrestricted and applied to the American Indian data (Model 2). In the combined model (Model 3) using this population restriction, the R-square was .275, slightly higher than when American Indian data alone were used and a little more than 40% greater than when the population was not restricted.

When the data were restricted to only those places with the highest numbers of American Indians (1000 or more), only 416 counties remained in the analysis. Limiting to this degree yielded the highest adjusted R-square for all models. Total population data yielded an R-square of 0.338, approximately four times greater than when the population was unrestricted. The model that used only American Indian data produced an adjusted R-square of 0.477, almost three times greater than when the American Indian data model (Model 2) was applied to data with no minimum population threshold. Similarly, the combined model produced an adjusted R-square of 0.535, more than two-and-a-half times greater than when there was no minimum American Indian population restriction.

Ultimately, I selected Model 3, the combined model that included American Indian-specific predictor variables along with the predictor variables not available for the American Indian population, with minimal population restrictions. I chose the

combined model because using American Indian data for counties yielded more explanatory value than when only total population data were used. As the table shows, the addition of industry and income inequality data had only a small effect, but given the theoretical utility of including place-based measures for industrial mix and income inequality, I opted to retain the variables for the full analysis. The final analysis will reveal whether and to what degree these variables contributed to place-based Indian poverty rates.

I opted not to restrict the selection of counties any further than the Indian poverty rate restriction, which omits counties with 100% and 0% Indian poverty. Further restricting the population to counties with populations of 100 or more American Indians reduced the number of data points by approximately 29%, excluding almost 588 counties with measurable Indian poverty under 100% while increasing the explanatory value of the regression only from .202 to .275. I feel that it is important to capture as much of the American Indian population as a population to obtain a broader view of American Indian place-based poverty. Restricting the data for this initial examination might have risked overly determining the model without an empirically justifiable or theoretically informed rationale for the restriction. In the following chapter, I look exclusively at reservation-based poverty and place-based determinants therein. In Chapter 4 I examine a subset of counties for the express purpose of capturing metropolitan places with large numbers of American Indians in order to compare American Indian poverty to that of other racial groups.

The data was also tested for spatial autocorrelation using Moran's I. Finding significance, the final regression models included a spatial lag variable to control for spatial autocorrelation.

Results

This analysis consisted of a series of three nested linear regression models focusing on the Indian poverty rate as the outcome measure of interest. The initial model included only American Indian demographic and social indicators as predictors, whereas the second model also included measures relating to opportunity structure. Finally, the third linear regression model incorporated an additional measure relating to American Indian segregation and isolation as indicated by the presence of AI lands in a county.

First, the ANOVA tests conducted in relation to these three models indicated statistical significance in all three cases. The nested models are compared in Table 2.7, which reports standardized and unstandardized coefficients, the significance of the predictors, adjusted R-square values, the F-statistics, and the F change with each subsequent model. The results indicated that in all three models, the predictors were found to be collectively significant with respect to the effect on the Indian poverty rate. Additionally, the adjusted R-square measure associated with the first model was found to be .081, whereas the adjusted R-square for the second model was equal to .201. The F change statistic also indicated a significant difference (at the .01 level) when variables

TABLE 2.7

Regression of Demographic Characteristics, Opportunity Structure, and Presence of American Indian Lands on American Indian County Poverty Rate

	Model 1	**Model 2**	**Model 3**
Intercept			
	(17.249)	(-21.163)	(-18.658)
Control Variables			
Total American Indian Population	-0.040	-0.019	-0.005
	(0.000)	(-9.54E-05)	(-2.24E-05)
Spatial Lag	0.007	-0.024	-0.026
	(0.016)	(-0.051)	(-0.056)
Demographic and Social Characteristics			
Educational Attainment (less than High school)	0.156***	0.131***	0.131***
	(0.139)	(0.116)	(0.117)
Educational Attainment (college or higher)	-0.056**	-0.021	-0.024
	(-0.074)	(-0.028)	(-0.032)
Dependents (children under 15)	0.081***	0.071***	0.080***
	(0.113)	(0.099)	(0.112)
Dependents (over age 65)	0.004	-0.066***	-0.066***
	(0.007)	(-0.113)	(-0.114)
Female Householders	0.119***	0.093***	0.097***
	(0.123)	(0.096)	(0.100)
Mobility	0.131***	0.080***	0.075***
	(0.039)	(0.024)	(0.022)

Notes: Unstandardized coefficients are in parentheses.

* p < .10 level **p < .05 p < .01

TABLE 2.7 *continued*

	Model 1	Model 2	Model 3
Opportunity Structure			
Unemployment		0.119***	0.116***
		(0.027)	(0.026)
Work Status (not Full-time)		0.245***	0.243***
		(0.322)	(0.319)
Occupation: Natural Resources		-0.018	-0.019
		(-0.018)	(-0.019)
Occupation: Production		-0.024	-0.027
		(-0.024)	(-0.026)
Industry: Agriculture		0.064**	0.066**
		(0.197)	(0.205)
Industry: Manufacturing		-0.016	-0.028
		(-0.045)	(-0.078)
Industry: Professional		-0.140***	-0.150***
		(-0.865)	(-0.930)
Gini		0.107***	0.102***
		(0.608)	(0.583)
Indian Lands Status			
Presence of American Indian Lands			-0.056**
			(-2.723)
R-square adj	0.077	0.199	0.201
F-value	22.560	32.976	31.492
N	2062	2062	2062
Significance F Change		0.000***	0.012**

Notes: Unstandardized coefficients are in parentheses.

* p < .10 level **p < .05 ***p < .01

were added to the first model. The adjusted R-square for the third model was .201, and the F change was statistically significant at the .05 level. These results indicated that the second regression model that added predictors relating to opportunity structure produced a substantially greater amount of predictive power compared with the initial model conducted, whereas the addition of the indicator of American Indian segregation/isolation in the third regression model provided significant but not substantial improvement in predictive power.

With regard to demographic and social characteristics, the percent of the American Indian population with a high school education or less was found to have a statistically significant and positive impact in all three models, whereas the percent of the American Indian population with a college degree or higher was found to approach significance only in the first model, with this measure having a negative impact on the Indian poverty rate. Following this, the percentage of American Indian child dependents (under the age of 15) was found to achieve significance in all three models, with a greater percentage of dependents associated with a higher Indian poverty rate. Next, the percentage of the American Indian population aged 65 or above was found to achieve significance in the second and third models conducted, with a higher percentage *negatively* associated with the Indian poverty rate. Finally, the percentage of the American Indian population that consisted of female householders and the percentage of the American Indian population that lived in a different house both achieved statistical significance in all three models, with both of these measures associated with significantly higher Indian poverty rates in all three cases.

In the model that used only demographic variables, the percentage of the AI population with high school education or less had the greatest impact on the rate of poverty relative to other statistically significant variables, with a standardized coefficient of .155. In terms of absolute impact, the AI high school education or less rate also had the most influence on the AI poverty with a 1% increase in the rate of the AI population with a high school education or less associated with a .139% higher AI poverty rate. The next most influential predictor relative to other predictors was the percentage of the AI population who had moved in the previous year with a standardized coefficient of 0.131. The unstandardized coefficient (.039) indicated that a 1% increase in the percentage of the AI population who had moved in the previous year was associated with a 0.039% increase in the AI poverty rate. The rate of AI female householders was slightly less influential relative to AI mobility rates and AI rates of high school education or less, with a standardized coefficient of .119. The unstandardized coefficient indicated that a 1% higher rate of AI female householders was associated with .123% higher rate of AI poverty. The percentage of the AI population under the age of 15 with a standardized coefficient of .081 had a relatively low impact in AI poverty rates compared to other statistically significant predictors. In terms of direct impact on the AI poverty rate, a 1% increase in the percentage of dependent children was associated with a .113% higher rate of poverty. Also, in this model, the percentage of the AI population with a college degree or higher was associated with lower rates of AI poverty, but had the least impact relative to other predictors in the model a standardized coefficient of -0.056, and was significant at

the .05 level. The rate of AI college education had a similarly low absolute impact on the AI poverty rate with a 1% increase in the percentage of the AI population with a college education associated with a 0.074% decrease in the AI poverty rate.

When opportunity structure indicators were added to the model (Model 2), the relative influence of demographic indicators noticeably decreased. According to the values of the standardized coefficients, the following opportunity structure variables had relatively more influence than any of the demographic variables, with the exception of the percentage of the AI population with high school education or less (.131): percentage of the AI population not employed full-time (.245), AI unemployment rate (.119), percentage of the total population employed in professional industries (-.140), and the measure of a county's income inequality (.107). The absolute impact on AI poverty rates were also more pronounced for many of the statistically significant opportunity structure variables. A 1% increase in the percentage of the AI population employed less than full-time was associated with a .322% increase in the AI poverty rate. A 1 unit increase in the Gini index was associated with .608% higher AI poverty rate. A 1% increase in the percentage of the total population was associated with a .865% lower rate of AI poverty. The percentage of the AI population employed in natural resource occupations and in production occupations were not statistically significant. Nor was the percentage of the population employed in manufacturing industries. The percentage of the total population employed in agriculture contributed to higher rates of poverty, but less so relative to other predictors with a .064 standardized coefficient. The absolute impact of agricultural employment on AI poverty

rates was more pronounced with a 1% increase in the total population employed in agricultural industries associated with a .197% increase in AI poverty.

With regard to measures of opportunity structure, the statistical significance/non-significance and the direction of the effect of these measures on the Indian poverty rate were found to be identical when the second and third linear regression models were compared. First, higher percentages of the American Indian population that was unemployed and the percentage that had anything other than full-time employment over the past year were both associated with a higher Indian poverty rate. In both the second and third models, work status has the greatest impact on Indian poverty rates relative to other statistically significant predictors in the model with standardized coefficients of 0.245 and 0.243 respectively. The absolute impact of work status was similar in the second and third model as well. When Indian land status was added to the model, a 1% higher percentage of workers employed less than full-time was associated with a .319% increase in the rate of Indian poverty, whereas in the model without Indian land status was associated with .322% increase.

Additionally, the percentage of the total population employed in agriculture continued to be associated with higher rates of AI poverty with the addition of AI land status to the model, with both the standardized and unstandardized coefficients similar to the previous model. Similarly, in the third model a 1% higher rate of the total population working in a professional industry was associated with a .930% lower rate of Indian poverty. It's relative impact (-.150) was higher than that of demographic indicators. Furthermore, the influence of the Gini index was slightly dulled moving

from the second to third models, with a 1 unit increase associated with .583% higher rates of Indian poverty in the third model. It's influence relative to other predictors was lower than that of AI rates of less than full-time work status, AI rates of educational attainment of high school or less, percentage of total population employed in professional industries, and AI unemployment rates. The remaining opportunity structure measures, which consisted of the percentage of the American Indian population working in the natural resource, construction, and maintenance fields, the percentage working in production, transportation, and material moving occupations, and the percentage working in manufacturing, had no significant impact on the Indian poverty rate.

The third and final model incorporated the presence or absence of AI lands in the county. Statistical significance was indicated with respect to the presence or absence of AI lands in the county. Specifically, *lower* rates of poverty were associated with the presence of AI lands in the county. In terms of absolute impacts, the presence of American Indian lands in a county was associated with a 2.723% *lower* rate of AI poverty. However, relative to other predictors, its influence was the lowest with a standardized coefficient of -.056.

Discussion

Despite high rates of American Indian poverty across the U.S. and in all geographies, American Indian poverty is not homogeneous across the U.S. When American Indian poverty across counties in the contiguous U.S. is examined, the

pattern that emerges is that demographic characteristics, opportunity structure variables, and, to a lesser degree, the presence of AI lands in a county affect the rate of American Indian poverty in places. Although no single model explains a substantial proportion of American Indian poverty in places, what is explained is significant despite the low adjusted R-square measures for the models; each model is significant, and the addition of variables in each subsequent model significantly contributes to the explanation of American Indian poverty in counties.

The characteristics of people in places are indeed important for determining the poverty rates of places, as evidenced by the significance of the demographic variables across all the models. Aggregated individual characteristics are not, however, the main predictors of American Indian poverty rates. The inclusion of opportunity structure variables provides valuable information, as these variables double the explanatory value of the model. The significance of unemployment and less-than-full-time work confirms that the types and availability of work opportunities are significant determinants of American Indian poverty rates. The significance of a county's participation in particular types of employment is consistent with previous findings that have shown that some industries are more or less likely to contribute to underemployment. Agriculturally dependent counties, as evidenced by the percentage of workers employed in agricultural occupations, were more likely to be associated with higher rates of Indian poverty, whereas those places with more production-related industries were more likely to be associated with lower rates of American Indian poverty. These findings were expected given that the industrial restructuring of farm

economies and the seasonal nature of agriculture have been linked to chronic underemployment and poverty (Lobao 1990; Tickamyer and Duncan 1990). Nonetheless, rates of employment in natural resource-related occupations did not significantly contribute to place-based Indian poverty rates.

The most influential variable based on standardized coefficients is the percent of the American Indian population that did not work full time in the previous year. This finding supports the argument that the geographic distribution of poverty is linked to the geographic distribution of opportunities rather than to an overall lack of economic growth. Higher rates of individuals not working full time might indicate underemployment and/or an overall lack of employment opportunities. Because individuals who are actively seeking work fall into the category of unemployed, this measure might capture individuals who no longer actively seek work because of a perception that work opportunities do not exist or that they lack the ability to improve their economic and social location (Wilson 1996).

In the final model, the presence of AI land within a county *is* significantly associated with a county's American Indian poverty rate. Contrary to expectations, the American Indian poverty rates in counties with reservation and trusts lands are *lower* than in counties that do not contain AI lands. Because of the incongruity of AI land boundaries and county boundaries, there is no way to control for the size of the AI lands in terms of population or the land area relative to the size of the county. Nonetheless, despite such a control, the mere presence of AI lands regardless of size has a significant impact on American Indian poverty. The statistical significance of the

finding that there are lower rates of Indian poverty in counties that contain AI lands is worthy of note and merits further investigation. In the following chapter, I focus on reservation and trust lands, applying the place-based perspective to identify the determinants of Indian lands' poverty.

Conclusions

This chapter presented a county-based analysis of American Indian poverty to demonstrate the place-based factors affecting American Indian poverty nationwide in the latter half of the first decade of the 21st Century. In the beginning of the chapter, I asked, which characteristics of places contribute to the high rates of Indian poverty? I hypothesized that Indian poverty might be a function of the isolating nature of Indian lands and that places that contained Indian lands would have higher rates of Indian poverty. The results, however, suggest that the mere presence of AI lands does not explain *high* rates of American Indian poverty but rather seems to help ameliorate it. I also asked whether Indian poverty rates are attributable to the characteristics of the Indian populations of places, and although some characteristics such as the rate of female householders are associated with higher poverty, demographics only partially explain higher rates of Indian place-based poverty. Finally, as to the question of whether opportunity structures contribute to geographic patterns of Indian poverty, the results confirm that work opportunities of places indeed contribute to the spatial patterning of Indian poverty.

The results of this analysis also demonstrate that there is no single predictor of American Indian poverty rates in places. The constellation of population characteristics and economic opportunities of places differentially affect how American Indian populations in places experience poverty. Despite the relatively low total explanatory power of the final model, the results of this analysis contribute to our understanding of place-based poverty generally and to American Indian poverty specifically. These findings signify that there are important racial/ethnic dimensions of place-based poverty beyond the correlation of the concentration of minorities with the concentration of poverty, specifically in places of higher minority poverty, in this case American Indian poverty. Although demographic and social factors such as educational attainment might limit access to job opportunities, the larger issue is that the prevailing opportunity structure of places limits the work opportunities that are available. The lack of work in high poverty places can translate to patterns of behavior that reinforce social dislocations and further concentrate poverty (Wilson 1996). Yet, as Gans (2009) suggests, it is not behaviors of the poor that should be of concern, but exclusion from the formal economy, which results in chronic poverty.

I caution the reader not to confuse the association of Indian lands and lower rates of Indian poverty with a causal relationship between Indian segregation and lower Indian poverty. Because we are unable to determine whether American Indians in any given county live on or off of reservation lands, we cannot definitively ascertain the impact of segregation and isolation on county-based Indian poverty rates. This result might very well indicate that tribal government-based efforts at social and economic

development coupled with policies reinforcing tribal sovereignty are having positive impacts on American Indian social outcome within and around reservation/trust land communities. Thus, the lower rates of poverty might indicate increased economic integration between American Indian tribal development projects and external economic relations. In terms of policy, the impact of opportunity structure contributing to higher Indian poverty rates indicates a need for programs and policies aimed at improving the place-based economic structures.

The results of this chapter closely mirror arguments about the life chances of urban blacks in the 1980s made by Wilson (1987) in *The Truly Disadvantaged*, in which he argued that the main predicament of the urban underclass population was joblessness exacerbated by what he observed as growing social isolation. American Indian reservations are also sites of an underclass population (Sandefur 1989). They are by definition socially isolated, and as this analysis shows, the greatest predicament in facing American Indian poverty is joblessness, specifically a lack of full-time employment opportunities. The association of overall joblessness and poverty might help to explain the surprising finding that the rate of employment in natural resource-related industries does not significantly affect place-based Indian poverty rates. Although previous research shows that local dependence on natural-resource and extraction-related industries is linked to persistent rural poverty (Duncan and Tickamyer 1988), asymmetrical power relations that benefit external corporations (Nord 1994; Peluso, Humphrey, and Fortmann 1994), and are largely determined by macroeconomic relationships to resource use (Nord 1994).

American Indian reservations and trust lands are uniquely positioned for the development of the poverty-reduction policies recommended by Duncan (1999) in her multi-method analysis of persistent rural poverty. As sites of both tribal governmental programs and tribally run economic enterprises, reservation and trust land communities have the potential to develop public works employment and private sector employment along with fortified income safety nets for families, amongst other social programs. Self-determination policies are intended to make tribes more self-sufficient in these areas, but given the federal government's trust responsibility to tribes, the way that opportunities are structured in areas where AI lands are located should be considered when development assistance programs to benefit tribes.

A substantial amount of the American Indian poverty rate remains unaccounted for in this analysis. In contrast to Leichenko's conclusion that there is nothing inherent in American Indians lands that affects income variation, my findings indicate otherwise. County context does have some effect on American Indian poverty, but county-level characteristics are unable to provide a complete explanation for American Indian poverty rates in those places. This finding indicates a need for closer inspection of places where American Indians live to try to tease out the place-based characteristics of American Indian poverty rates. The implication is that to obtain better understanding of how places affect American Indian poverty, we need to look more closely at where Indians live. In the following two chapters, I examine two different types of Indian places: 1) federal Indian lands that are defined by the conscripted boundaries of race

and tribal governmental authority and 2) urban places that have high populations of American Indian people but are not legally bounded along racial lines.

Notes

[1] Indian lands refers to American Indian federal trust and reservation lands. These are areas of land reserved as permanent tribal homelands by the federal government for a tribe or tribes under treaty or other agreement with the U.S., executive order, federal statute, or administrative action and where the federal government holds title to the land in trust on behalf of the tribe.

[2] When referencing U.S. Census and American Community Survey data, the term American Indian refers to any individual who has self-identified as exclusively American Indian or Alaska Native. It does not include any individuals who identify as American Indian in combination with other races.

[3] For statistical purposes, the U.S. Census Bureau uses Oklahoma Tribal Statistical Areas (OTSAs), which include trust lands and non-trust and non-reservation lands located within the historical reservation boundaries of Oklahoma tribes. These areas correspond to the former reservations in Oklahoma that were established between 1900 and 1907, except where modified by agreements with neighboring tribes for statistical data presentation purposes. These areas are not the same as reservations or trust lands because they are not fully under the authority or jurisdiction of the tribal nation or the BIA, although they might contain some trust lands. They are important in that they represent a significant historical and contemporary residential presence of American Indians in Oklahoma.

[4] Approximately 56.2 million acres are held in trust by the U.S. for various Indian tribes and individuals. There are approximately 326 Indian land areas in the U.S. administered as federal Indian reservations (i.e., reservations, pueblos, rancherias, missions, villages, communities, etc.). The largest is the 16 million-acre Navajo Nation Reservation located in Arizona, New Mexico, and Utah. The smallest is a 1.32-acre parcel in California where the Pit River Tribe's cemetery is located. Many of the smaller reservations are less than 1,000 acres. Some reservations are the remnants of a tribe's original land base. Others were created by the federal government for the resettling of Indian people forcibly relocated from their homelands. Not every federally recognized tribe has a reservation. Federal Indian reservations are generally exempt from state jurisdiction, including taxation, except when Congress specifically authorizes such jurisdiction.

[5] Although there are considerably high numbers of Native peoples in Alaska, the legal and institutional policies associated with Alaska Native land tenure has a different history than that of tribal nations in the lower 48 states where treaty-making, removal, and relocation to

reservations shape the territorial boundaries and authority of American Indian governments and communities.

[6] This is based on residence within a county that contains all or a portion of Federal American Indian reservation or off-reservation trust lands. This also includes counties in Oklahoma that contain tribal nations with trust lands and/or jurisdictional authority over land bases as confirmed through consultation with regional offices of the BIA that serve Oklahoma tribes.

[7] No Indian-specific measures for employment in different industrial categories are available. To capture the industry mix of the county, I used total population-based measures of employment in different industrial categories.

[8] Unemployment rates include all civilians 16 years old and over who (1) were neither "at work" nor "with a job but not at work" during the reference week, (2) were actively looking for work during the last four weeks, and (3) were available to start a job. Unemployment statistics also include those who did not work at all during the reference week, were waiting to be called back to a job from which they had been laid off, and/or were available for work except for temporary illness.

[9] The category less than full-time work includes those who reported having worked part time and those who reported having worked less than one week the previous 12 months. Reporting "did not work" is differentiated from unemployment in that those who are considered "unemployed."

[10] A total of 96 counties have 100% American Indian poverty rates, with a population range of 1-158 American Indians. Most of these counties have very small American Indian populations, with only 13 of these 96 counties having an American Indian population of 50 or higher.

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CHAPTER 3

Poverty in American Indian Places: Reservations and Trust Lands

> *Economic deprivation is among the most serious of Indian problems. Unemployment among Indians is ten times the national average; the unemployment rate runs as high as 80 percent on some of the poorest reservations. Eighty percent of reservation Indians have an income which falls below the poverty line; the average annual income for such families is only $1,500. As I said in September of 1968, it is critically important that the Federal government support and encourage efforts which help Indians develop their own economic infrastructure.*
>
> *(Nixon 1970)*

Since the institution of the reservation system, American Indian (AI) lands, American Indian peoples, and the federal government have grappled with how to tackle the needs of Indian nations. Of course, defining the "needs" of American Indian communities depends not only on the perspective and interests of the person or group defining them but also on the historical context in which they are produced as well as the political, economic, and social contexts in which they presently exist. Federal Indian policy has changed over the past 200 years, with varying effects on the social, cultural, and economic conditions of American Indian communities. It is not surprising that, as federal policies and American Indian social, economic, and cultural conditions have changed, so have American Indian tribal government strategies for meeting the needs of their communities. In recent decades, American Indian communities have focused on locally controlled economic development as a means to improve community social and

economic conditions. Nonetheless, despite political and institutional changes that seem to favor local control, American Indian trust and reservation lands remain sites of high and persistent poverty. Yet, as discovered in the previous chapter, with regard to county rates of poverty, the presence of AI lands is associated with *lower* rates of Indian poverty.

Nationally, American Indian poverty rates have been exceedingly high at 28.4%, much higher than the average poverty rate for the total U.S. population of 15.3% (U.S. Census 2010, Summary File 1). In the previous chapter, I examined American Indian poverty rates at the county level and found that the opportunity structures of counties and a lack of full-time work amongst American Indians significantly contributed to higher American Indian poverty rates within counties. As mentioned, I also found, in a somewhat surprising twist, that the presence of AI reservation and trust lands was significantly associated with *lower* rates of American Indian poverty in counties. This finding is surprising because the depth and history of American Indian reservation impoverishment is so profound that it prompted sociologist Gary Sandefur to call Indian reservations the "first underclass areas" (1989). This finding is unexpected also because the presence of Indian lands[1] indicates the presence of racialized residential segregation, which has been shown to contribute to concentrated minority impoverishment (Massey and Eggers 1990; Massey and Denton 1993; Massey and Fischer 2000; Quillian 2012; Wilson 1987). I therefore expected to find that AI lands, as segregated racial spaces, would contribute to higher rates of poverty. The finding that

this was not the case is intriguing and calls for further inquiry into Indian places to examine how the context of AI lands affects place-based poverty rates.

Make no mistake, the poverty on reservations and trusts lands has still been very high, much higher than the national poverty rate. According to the American Community Survey (ACS) five-year data for 2006-2010, 27.4% of people residing on federal AI trust and reservations lands[2] were in poverty, which is slightly less than double the rate of national poverty. Although the finding from the previous analysis is surprising and intriguing, the high rates of poverty on Indian lands motivate the question that drives this study: *What explains poverty on American Indian lands?* Rather than looking at why American Indian *people* are in poverty (which is itself a worthy question), this chapter focuses on Indian places, specifically AI lands, and examines the factors that explain how poverty is experienced in Indian places. To investigate this question, I again use a place-based approach to poverty to try to identify characteristics of AI reservations and trust lands that contribute to the rates of poverty within those places. First, however, we will take a look at what is unique about AI lands.

Indian Identity, Sovereignty, and Development

One of the main differences between American Indian segregation and the segregation of other minority groups is the political nature of American Indian segregation. It is more than merely residential separation based on race; American Indian residential segregation on federal Indian lands corresponds to the territorial delineation of tribal sovereignty. Sovereignty refers to the autonomy that American

Indian governments have retained since European colonization of the Americas. The extent of tribal autonomy over AI lands and over American Indian peoples is determined by a complex system of federal Indian law that has arisen out of treaties between colonial nations and American Indian tribes, federal statutes and regulations, and Supreme Court rulings. The interpretations of this body of law and the concept of sovereignty more generally vary widely among individuals and groups, which makes sovereignty an elusive, contested concept that nonetheless lies at the heart of many American Indian issues, including those related to American Indian social opportunities, deprivation, and development. Therefore, in an effort to understand how the political context of American Indian reservations might affect poverty, I will examine some changes in the legal underpinnings of American Indian governmental authority in the late 20th and early 21st centuries, recent trends in American Indian economic development, and theoretical approaches to understanding the relative position of American Indian communities in American society.

The social and economic position of American Indians is linked to the distinctive racial formation of American Indianness, which binds racial, ethnic, and political identities together as *federally recognized* Indianness, individually and collectively. I emphasize federal recognition because this particular recognition of one's individual identity as Indian and of a community as a "legitimate" tribal nation is what differentiates American Indianness from other racial and ethnic identities. As such, American Indian identity—and whether it is legally recognized—is associated with distinct and tangible consequences (Garroutte 2001). Although I differentiate individual

and collective identity, it is important to note that they overlap, with individual identity attached to and arguably derived from collective identity. I separate them here because the distinction may be important for understanding place-based social opportunities. Individual identity, although generally connected to a collective American Indian identity through membership in a particular tribe or nation,[3] carries with it the consequences of Indianness from place to place. Collective identity, however, is linked to a specific locale within which the collective unit may exert some degree of autonomy (or not). Because of the territoriality of this collective identity, the social opportunities may be circumscribed by place in a way that does not occur for other races. Specifically, tribal sovereignty--albeit limited[4]--patterns how (and whether) American Indian communities and individuals receive certain social and economic services.

This status as a racial and political identity makes the position of American Indians unique and not analogous to the position of other races living in the U.S. Moreover, it makes Indian places unique because AI lands, programs that directly affect Indian housing, financial assistance (welfare), schools, health care, law enforcement, and more are often administered by federal agencies or by tribal government programs frequently funded by direct or indirect federal allocations rather than by counties or municipalities.

The theoretical autonomy that tribal governments retain over their lands and members, however, is circumscribed by a vast (and contested) body of federal Indian law arising out of a problematic colonial history. Since European contact, Indian populations dwindled, and it was assumed that eventually Indians would cease to exist.

The removal of American Indians from their homelands and their subsequent placement on reservations, which were generally geographically isolated, small tracts of land compared with their original homelands, might have been thought to be a temporary measure necessary only until the eventual disappearance of Indians altogether. In the late 19th century, however, it became clear that American Indians not only had survived but also had been able to maintain traditional ways of life and economies despite their removal and relocation to reservations and trust lands.

The U.S. then began to try to reverse the policies that had imposed the racialized territorial boundaries of reservations. Removal efforts gave way to assimilation practices as the government began converting and "civilizing" Indians and using allotment to break up collectively held Indian lands. Allotment resulted in the transfer of approximately two-thirds of the remaining tribal landholdings into non-Indian ownership (Prucha 1986). Allotment was the federal government's attempt to force American Indian assimilation by removing American Indians from Indian places, but it was largely unsuccessful even after U.S. citizenship was conferred to American Indian individuals in 1924 because the legacy of removal and placement on reservations left American Indians in primarily rural, geographically isolated, economically unproductive areas with little opportunity for engagement in industrial or other economic enterprises. In 1934, the federal Indian Reorganization Act of 1934 (also known as the IRA, or the Indian New Deal) put a stop to allotments and halted sales of allotted lands. During this era, federal policy pushed to dismantle traditional forms of governance in favor of constitutional government and shifted fiduciary responsibilities

from the federal government to the tribes themselves. With the end of allotment, the coupling of race and land was once again politically sanctioned and reinforced as the government recognized tribal governments' authority over their members and lands.

The push for tribal governments to adopt "Western" forms of government did little to combat poverty and joblessness on AI lands. In the 1950s, efforts to combat joblessness and poverty were part of a renewed effort to assimilate American Indians by breaking their ties with their homelands and the Native institutions located therein. Indians were "mainstreamed" through the termination of the trust relationship between tribes and the federal government, the transfer of jurisdiction over Indian lands from the tribes to state governments, and direct employment programs designed to absorb Indians into urban labor markets. These policies had major effects on American Indians and tribal governments, especially those individual tribes affected by termination. Nevertheless, the majority of tribal governments and lands remained intact, and the urban relocation programs were counterbalanced by obligations, ties, cultural barriers, and other forces of influence that kept American Indian individuals on their lands (Hodge 1971). Even when Indians were being moved into cities, tribal governments remained intact, and the overall economy of tribes remained unchanged, meaning they continued to be based in traditional activities of hunting, fishing, and trapping. Nonetheless, federal policies, treaty violations, and environmental change affected not only Indian access to natural resources but also the availability of resources on which to subsist. As a result, tribes and reservations became increasingly impoverished. By 1980,

reservations were so impoverished that half of the reservations with populations of 2000 or more could be characterized as underclass (Sandefur 1989).

In the second half of the 20th century, as tribes plunged deeper into poverty, an institutional shift began to occur. For American Indians, institutional differentiation through formal mechanisms of political and geographic separateness provided a platform for political mobilization. In the late 1960s, the Indian Civil Rights Act (1968) was passed, and the American Indian Movement was formed by young, urban Indians to militarily urge the U.S. to redress grievances against American Indians. This culminated in what is known as the self-determination era beginning in the late 1960s in which federal policy supported tribal political, economic, social, and cultural self-sufficiency (Snipp and Summers 1992). The institutional changes allowed for unprecedented changes in the economic base of American Indians. With self-determination came a decreased reliance on the federal government for services and financial support and incentive for tribes to become involved in economic development for the benefit of their members.

Beginning with the Indian Civil Rights Act of 1968, the federal government began creating policies to support American Indian self-determination, which reconfirmed the autonomy of American Indian nations. In 1970, President Nixon delivered a Special Message to Congress, which directed federal Indian policy to emphasize American Indian self-determination. Self-determination policies were intended to facilitate American Indian self-rule, cultural survival, and economic development. His policy recommendations were formalized with the passage of the

Indian Self-determination and Education Assistance Act of 1975, which shifted administrative control of many programs to tribal governments through contracts with federal agencies.

In 1988, Congress expanded on self-determination policies by enacting a tribal self-governance demonstration project. In 1994, the Tribal Self-Governance Act (TSGA), made self-governance a permanent program within the Bureau of Indian Affairs (BIA) and the Indian Health Service. The TSGA in some ways expands the scope of self-determination by including programs that operate outside of the BIA, including programs that benefit tribal interests rather than only the programs that benefit tribal members, and by expanding tribal options for managing land and natural resources (King 2007). The program, however, is optional and requires the negotiation of compacts outlining the responsibilities of the tribe and the trust responsibilities retained by the federal government. For tribes to be selected for self-governance, they must meet specific criteria for fiscal management and stability and must also prepare comprehensive organization, program, and budget planning. Self-determination contracting does not require a compact or comprehensive planning but instead operates through individual contracts between tribes and federal agencies for the administration and funding of specific programs.

Strategies for American Indian reservation development in the self-determination era are characterized by pragmatic approaches to economic development that address the severe poverty and deprivation of reservation life and emphasize cultural and political sovereignty. In the late 1980s and 1990s, both popular and

scholarly attention focused on American Indian development practice, which was likely emboldened by the relative economic prosperity of the U.S. at the time. During this period, tribal governments struggled with how to maintain cultural integrity while supporting economic growth (Smith 1994).

One notable development strategy that has emerged and gained widespread popularity with many tribal governments over the past 30 years is tribal government gaming (or Indian gaming, as it is known in public discourse). Gaming is one of the fastest growing and most profitable industries in much of rural America today (Borden, Harris, and Fletcher 1997; Siegel and Anders 2001). Gaming emerged as a de facto[5] mode of sovereignty with the Seminole tribe in Florida through the establishment of a high-stakes bingo hall in 1978. Quickly thereafter, other tribes followed suit, opening bingo houses, cards tables, and other gaming activities. As the popularity of tribal government gaming grew, so too did the opposition, particularly from state officials and residents who wanted more local regulation of gaming and a share of gaming revenues. This opposition culminated in the passage of the (still contested) Indian Gaming Regulatory Act (IGRA), which formally imposes three layers of institutional control on tribal governments who want to establish gaming operations: the tribe, the federal government, and the state. The IGRA was enacted to establish an independent, federal regulatory authority for gaming. The act also explicitly states that gaming is intended for tribal self-sufficiency and economic development and that tribes and the federal government maintain regulatory responsibility for gaming. The extent to which tribes actually retain regulatory control depends, however, on the type of gaming

operation they intend to establish. Class III gaming, the casino-style gaming that is often considered the most potentially lucrative, may be directly prohibited by the federal government and is permissible only under the provisions of a state-tribal compact. In other words, tribes must negotiate the terms of gaming with the state, including regulation and revenue sharing. Thus, tribal government gaming is a contradiction because it is predicated on tribal sovereignty, yet that sovereignty is severely compromised by the regulations of the IGRA, which give states the power to approve and restrict the location and operation of a tribal gaming facility (Light and Rand 2005). In a recent study of tribal government gaming in South Dakota, compacts were found to be restrictive and prohibitive (Ackerman 2009). Although the IGRA requires states to act in good faith in negotiating compacts, since the landmark decision in *Seminole Tribe v. Florida*, which held up the state's sovereign immunity, there has been little recourse for tribes if a compact cannot be negotiated. In other words, if a tribe feels that a state has not acted in good faith, they cannot sue unless the state grants permission to be sued. This level of state power over tribal affairs is unprecedented in any other area of American Indian tribal governance.

The destitute conditions of American Indian reservations coupled with gaming's perceived advantages have enabled these restrictions on American Indian sovereignty. Some of the more famous success stories, such as those of the Seminole of Florida and the Mashantucket Pequot, who have parlayed their economic success into cultural revitalization, poverty reduction, employment, health care services, educational improvements, environmental protection, and infrastructure improvement, among

other community investments, have popularized the idea of gaming as a solution for community ills. For some communities, tribal government gaming enterprises have become an important source of income and revenue and are popular venues for rural and suburban leisure. In 2005, the Indian gaming industry nationwide produced an estimated $22.7 billion in annual tribal revenues, provided over 310,000 full-time jobs to predominantly non-Indian employees, paid $10.5 billion in employee wages, and accounted for $6.9 billion in tax revenues (Trenkle 2006). By 2009, the National Indian Gaming Association estimated that Class III gaming facilities, operated by 237 tribal governments in 28 states, produced $26.2 billion in gaming revenues, created an additional 204,000 jobs in gaming facilities, and contributed $6.2 billion in federal tax revenues and an additional $100 million in local tax revenues (NIGA 2009). The use of tribal gaming as a strategy for community development represents part of the tribal governments' continuing efforts to overcome the pervasive effects of reservation poverty, racism, and structural violence as well as assert to tribal sovereignty and political, economic, and cultural autonomy (Cattelino 2004; Connelly, et al. 1995; and O'Neill 2004).

The changing face of American Indian development and the rise of gaming might help to explain why counties that contain reservation and trust lands have slightly lower rates of Indian poverty compared with counties without reservations. But are the changes in American Indian development reflected in the factors that determine Indian land-based poverty? For this question, I am guided by the place-based approaches as discussed in the preceding chapter.

Causes of Reservation[6] Poverty

The literature on American Indian poverty and development does not provide concrete answers to the causes of poverty on AI lands. Moreover, research on American Indian economies, development, social opportunities, and social ills crosscut several disciplines and literatures. Nonetheless, a few approaches to American Indian poverty and economic development stand out. In the years after the passage of the first self-determination policies, there was an emphasis on dependency theory to explain the causes and historic structuring of American Indian persistent poverty and the underdevelopment of AI lands. As the popularity of dependency theory ebbed and as some tribal governments began to make economic improvements in the 1990s, there was increased attention to tribal institutional capacity and social capital building as an approach to poverty reduction and economic development. Yet, although these approaches dominated the American Indian poverty and development literature, place-based approaches were gaining traction, especially amongst rural sociologists. I advocate for a regional approach informed by the dependency literatures and the capacity literatures to shed light on how the context of American Indian places affect local poverty outcomes.

Dependency, Underdevelopment, and Internal Colonialism

The big push for American Indian self-determination in the 1960s and 1970s occurred at approximately the same time as the emergence of dependency theory. Dependency theory arose largely out of the work of Latin American scholars who were

trying to explain the dire socioeconomic conditions, including persistent poverty, of their underdeveloped, post-colonial nations. Dependency theorists' critiques of the assumptions and failures of modernization theory influenced social and political movements and revolutions. Although the body of literature comprising dependency theory is quite diverse, Angotti (1981) described the four main theoretical propositions shared by the diverse perspectives: (1) the critique of the dualism of modernization theory (modern vs. backward), (2) core/periphery theory, (3) unequal exchange, and (4) the dependent bourgeoisie. Latin American scholars and many subsequent scholars have used these theoretical propositions to examine inequality and underdevelopment globally and transnationally.[7] One variation of dependency theory, internal colonialism, has been used to describe the internal structure of nations and to explain the internal inequalities and differences in development within national boundaries (González Casanova 1969). It is not surprising that scholars who wanted to understand and explain the relative economic position of American Indian nations in the U.S. often gravitated toward dependency theory and internal colonialism. The political gains of self-determination were tempered by what many scholars described as an historic structuring of economic dependence and political subjugation that tribes were virtually powerless to alter.

Jorgensen (1971; Jorgensen et al. 1978) argued that mid-twentieth century urban growth was nourished by the expropriation of Indian land and resources, which was facilitated by federal Indian and economic policies. He relied on Paul Baran's and Andre Gunder Frank's metropolis-satellite political economy approach to explain that

American Indian reservations (satellites) suffered from poverty, cultural damage, and population decline, among other social ills, due to the concentration of capitalist development in the metropolis (sites of political power and influence). Testing his hypothesis by examining historical and then-contemporary data on poverty and employment in Western reservations, he concluded that American Indians, at the time of his writing, were locked into poverty because of the exploitation of American Indians that had occurred in the 19th century. In a later study at the Uintah and Ouray reservation, Jorgensen (1986) found what he described as a roller coaster of economic development, with periods of economic improvement followed by periods of increased deprivation. Examining changes in household incomes, access to capital, commercial enterprises, and disputes over sovereignty over approximately four decades, he concluded that the rise and fall of economic conditions was beyond the control of the Ute and rather at the behest of the federal government and external commercial developers.

Anders (1981) used an ethnohistorical case study of the Cherokee Nation to argue that earlier colonial processes usurped tribal sovereignty and disintegrated traditional social structures, thereby facilitating the economic subjugation of the Cherokee. He further suggested that the depth of Cherokee economic deprivation as evidenced by employment rates, incomes, and public assistance payments might render the policies supporting self-determination ineffectual. Page (1985) similarly concluded that tribes were locked into a system of powerlessness, but her argument did not locate power in the federal government. Instead, she faulted the dynamics of the larger world

economy. Using world systems theory, she explained that as the U.S. economic system becomes more closely articulated with the world economy, the prospect of reservation-controlled development becomes less likely.

Anders's concerns about self-determination were not without merit. With federal policy supporting self-determination and the economic development of Indian lands, Indian tribal nations began to reassert authority and tried to tackle rampant poverty in their nations, often undertaking commercial development projects. Many rural reservations possessed potentially lucrative natural resources, and self-determination policies made the development of these resources possible via contracts and leases negotiated between external commercial interests and the federal government. Writing just a few years after Anders, sociologist and demographer C. Matt Snipp (1986a; 1986b) offered a damning assessment of the effects of self-determination policies. He pinpointed the opening of American Indian economies through self-determination policies that maintain unequal power relations as the pivotal moment in which American Indian nations became internal colonies. He argued that, despite the presumption that self-determination policies would increase tribal control, the policies enabled *external* control over American Indian economies and natural resources as Indian lands were opened to commercial development, and contracts and leases with outside commercial interests were negotiated by BIA employees rather than by tribal nations' representatives. Snipp explained that in many cases, particularly in natural resource-dependent economies, American Indian nations have become "exporting colonies" that supply non-Indian interests with agricultural commodities, forest

products, water, energy, and mineral resources and seldom profit from the sale of these resources (Snipp 1986a). This economic shift to increased extraction and production of American Indian natural resources, Snipp contended, marked a transition from political domination, which he called captive nationhood, to economic exploitation, or internal colonialism (Snipp 1986b).

Although these authors differed in their interpretation of the moment and processes through which American Indian tribes became dependent communities, they nevertheless agreed that the relationship between American Indians and non-Indian society was characterized by the political and economic subjugation of Indian tribes for the benefit of non-Indian interests outside of American Indian territories. These dependency analyses, however, were conducted in the 1960s, 1970s, and 1980s, a period that predates more recent trends in American Indian development. Since that time, new tribal government development strategies and institutional processes have emerged that affect the ways in which tribes implement development strategies. In the next section, I examine researchers' responses to these trends.

Institutional Capacity and Social Capital Approaches

In the 1980s and 1990s, the scholarly focus on American Indian economic development shifted. Dependency theory was no longer at the forefront of the academic discussion of American Indian socioeconomic conditions. Instead, there was increased attention to American Indian institutions and social capital. Witnessing improvements in socioeconomic conditions of some reservations, Cornell and Kalt (1990) critiqued

dependency perspectives, arguing that such perspectives were unable to cope with the variations in economic success that had occurred since the beginning of the self-determination era. Institutional proponents attributed these variations not to sociohistorical factors but to differences in the effectiveness of tribal institutions (Cornell and Gil-Swedberg 1995).

Although dependency theory has pointed out the limitations of tribal control, institutional approaches have emphasized the locally manageable factors believed to affect local economic outcomes. Cornell and Kalt (1995a) argued that tribes might lack the ability to alter sovereignty or their territory's endowment of natural resources but that they possess the ability to exercise control over tribal institutions and economic development programs and policy. One identified obstacle to reservation poverty reduction was a "structure of employment that does not exist" and dependence on public assistance and transfers from tribal and federal governments (Cornell and Kalt 1990). Institutions have been viewed as the key structures responsible for job production, preparation and education of a workforce, and facilitation of job participation (Cornell 2002).

Similarly, Bee (1999) argued that tribal governments should look for immediate ways to remodel their internal institutions rather than waiting for large-scale institutional reform. Using the example of the Mashantucket Pequot's economic success in gaming, he explained that their government stability was necessary for them to prevail despite external challenges to their gaming operation. Many tribal governments have bifurcated or competing governance structures that incorporate traditional and

Western systems. Under the IRA of 1934, tribes were encouraged to adopt Western forms of governance and tribal constitutions. Bee noted that this resulted in many tribes maintaining externally oriented constitutional-bureaucratic structures while using traditional forms of governance for internal processes. Yet, he warned that contemporary political and economic pressures might be too much for the dual governance systems to withstand. Thus, Bee recommended that tribes apply for the self-governance programs as a way to dismantle and reform imposed governmental institutions and to achieve governmental stability.

The major difference between these approaches is that the dependency explanations tend be retrospective, whereas the institutional capacity literature is more prescriptive. Interestingly, the two approaches are not necessarily mutually exclusive if one adheres to the belief that self-determination policies or self-governance and institutional change can serve to dismantle the dependency relationship. Institutional approaches encourage change within the limited scope of the existing tribal autonomy, whereas dependency approaches detail the structural limitations of such incremental change. Using a regional approach, however, offers the opportunity to integrate the factors that both dependency theorists and institutional proponents have identified as important for determining economic outcomes on AI lands.

Rationale for a Regional Approach

Sociologists have increasingly recognized that social relations are institutionalized through places—that race, ethnicity, class, gender, politics, and

economics are linked to spatial context. Place-based approaches to poverty tend to emphasize the structural aspects of poverty that are related to economic and social opportunities (Tomaskovic-Devey 1987). Yet, previous studies of American Indian poverty, underdevelopment, and economic development have paid little attention to locational factors, although some important locational factors are embedded within the literatures. The dependency literature has pointed to the role of natural-resource endowments and the exploitation thereof as important for explaining reservation poverty. In contrast, the institutional capacity and social capital literatures have tended to explain differences among American Indian reservations and communities in terms of educational attainment and tribal governance structures (Cornell and Kalt 1995b; Kingsley et al. 1996). A regional approach can account for these factors and more. Geographic patterns of poverty reflect not simply a lack of economic growth but an unequal distribution of opportunity. In developing a regional approach to reservation/trust land poverty, it is important to consider how the claims of American Indian dependency theorists and institutional proponents relate to factors identified as important determinants of regional poverty in contemporary analyses of place-based poverty.

Although multivariate, regional approaches to American Indian poverty and income are relatively rare, a recent study concluded that regional poverty analyses shed light on the determinants of low-income levels in places with AI lands. Leichenko (2003) found that unemployment, educational attainment, and age structure significantly explained per capita income variation in counties with AI lands. The study also

concluded that local infrastructure and industrial and occupational characteristics played a limited role. This study, like the one in Chapter 2, was conducted at the county level.

At the reservation level, evidence suggests that *reservation-specific* opportunity structures might contribute to local poverty. As mentioned in Chapter 2, regional approaches to poverty emphasize the labor market as a locus of opportunity that links the institutional processes of places to individual-level outcomes (Tickameyer and Duncan 1990). Given the emphasis that scholars and tribal government officials have placed on institutions and on self-determination/self-governance for altering institutions, a place-based approach might help to clarify how the institutional conditions of reservation and trust land communities translate to community poverty.

Studies of rural spatial inequality from the late 1980s and 1990s examined the ways in which the economic restructuring of the 1980s affected rural communities. These studies found that chronic poverty pockets were often associated with local labor markets characterized by seasonal and part-time work, particularly in resource-intensive economies (Duncan and Tickamyer 1988; Humphrey 1990; Peluso, Humphrey, and Fortmann 1994; Tickamyer and Duncan 1990) and manufacturing (Weinberg 1987). In the 1970s and 1980s, as American Indian self-determination policies were instituted to give tribal governments more control over development, natural-resource extraction became a widespread development strategy. Thus, for American Indian communities, heavy economic dependence on natural-resource extraction might be problematic both for failing to provide full-time work opportunities, as suggested by the regional poverty

studies, but also because of the potential for such economic activity to be expropriatory. As Snipp (1986a) noted, many of the resource-related development activities occurring on AI lands have involved resource extraction, with production occurring outside of reservation communities, thereby depriving American Indian communities of production-related jobs.

Nonetheless, in the last 20 or so years, natural-resource development has ebbed, and we have seen an upsurge in new self-determined development strategies such as gaming, which tribal governments often look to as an exertion of tribal sovereignty and to combat their socioeconomic troubles. Numerous studies have documented the positive effects of gaming both for American Indian communities and for surrounding counties. Gaming has helped to alleviate persistent poverty and unemployment, has reduced welfare dependency, created jobs, and raised per capita income (Alesch 1997; Carmichael, Peppard Jr., and Boudreau 1996; Cartensen et al. 2000; Cornell 2008; Vinje 1996).

Nonetheless, the types of occupations and industries located on AI lands are not the only characteristics of labor markets. Unemployment and underemployment have been frequently identified as obstacles to poverty reduction on AI lands. Frantz (1999) reported that insufficient numbers of jobs for American Indian populations on reservations in the 1980s created the perception that job seeking was hopeless. The author suggested that, in contrast to unemployment rates alone, the numbers of individuals without work and not actively seeking work might better indicate local labor market conditions. Similarly, Cornell and Kalt (1990:14) implicated "the structure

of the employment that does not exist" and reliance on governmental transfers as a cause of persistent reservation poverty.

Cornell (2002) suggested that institutional change would bring changes in both employment opportunities and in human capital, including educational attainment and training of tribal workforces. The evidence suggesting that institutions have effects on human capital outcomes has been supported by findings that compare American Indians on reservations to those living outside reservations. For instance, in an examination of place effects on the earnings of American Indians, Larriviere and Kroncke (2004) found that human capital endowments such as educational attainment not only differ between American Indians residing on reservations and those in urban areas but that such endowments also have differential earnings rewards. On reservations, college education affects earnings less than it does in urban areas. Additionally, reservation residents were found to be more likely to change their place of residence, compared with those living in urban areas.

Reservation-based educational attainment might also be a key for economic success given the specific history of American Indian education and the changes brought about by self-determination policies. American Indian educational policy prior to self-determination was largely paternalistic, with boarding schools oriented toward assimilation and acculturation rather than toward the building of skills and knowledge (see Adams 1995; Ellis 1996; Hoxie 1984; Szasz 1974). Self-determination policies and funds have been directed specifically toward improving educational opportunities in American Indian communities and decreasing BIA involvement in tribal schools. Frantz

(1999) showed that although educational attainment has improved on reservations since the onset of self-determination policies, the educational attainment of American Indians on reservations lags behind those not on reservations. There has also been a push for more tribal control over activities that occur on tribal lands, resulting in legislation that allows tribes to apply for self-governance status—in which the tribe itself has control over how finances are allocated and how government programs are managed, rather than having to rely on the BIA.

Methods

To specify poverty, the basic equation that has been informed by the various literatures on regional poverty is as follows:

$$POVERTY_i = BX_i + e_i$$

Where POVERTY RATE is the percent of the population below the poverty threshold in the i^{th} reservation/trust land in the 2006-2010 ACS; B is a vector of coefficients; e_i is an error term, and X_i is a vector of demographic, structural, and tribal factors for the ith American Indian reservation/trust land as defined in Table 3.1. For this analysis, I used the ACS reported poverty estimates, which are derived from the Office of Management and Budget in Statistical Policy Directive 14. To determine who is in poverty, the Census Bureau measures poverty for families by using a set of dollar-value thresholds that vary by family size and composition. For each family whose income in the previous 12 months is below the poverty threshold, that family and the individuals within it are

considered to be in poverty. For unrelated individuals, poverty is determined by that individual's total income for the previous 12 months.

Using nested regression, I added blocks of predictors to the regression model in separate regression analyses. The blocks of predictors included 1) demographic composition, 2) work possibilities (indicators of part-time work status and not working), 3) employment in extractive industries and occupations related to extraction, and 4) tribal factors.[8] As I moved through the sequence of regressions, I tested the significance of each model and of the change when adding blocks of predictors.

The first model, focusing on demographics only, served as a baseline model. I used this model to gauge the extent to which the characteristics of the people living in places predicted the area's poverty rate. The variables in this model were indicators of a place's degree of educational attainment, age structure, and gender composition. The percentage of the population with a college degree or higher was used for educational attainment. The percentage of children under the age of 15 was used as a measure of the area's relative degree of dependents. Additionally, the percentage of female householders was used as a measure of gender given that intensification of rural poverty has been linked to the overall feminization of poverty via shifts in the gender structure of the labor force and the resulting increase in female heads of household

TABLE 3.1
Explanatory Variable List and Definitions

Variable	Definition of Explanatory Variables
Demographic Characteristics	
College	Percent of the population age 25 and older whose highest level of education is a college degree or higher.
Youth	Percent of the population who are under the age of 15.
Female Householders	Percent of households that are headed by a female (no husband present).
Opportunity Structure	
Work Possibilities	
Part-Time	Percent of the population age 16 and older who were employed 35 hours per week or less, based on the usual number of hours works in the majority of weeks worked during the previous 12 months.
No Work	Percent of the population age 16 and older who worked less than 1 week in the 12 months prior to the survey.
Unemployed	Percent of the civilian labor force (age 16 and older) who were not at work during the reference week of the survey, were available for work, and were actively seeking employment during the previous four weeks. This figure also includes those who were not working due to temporary illness and those who had been laid off from work but were waiting to be called back to work.
Natural Resources Activity	
Natural Resources	Percent of the population age 15 and older who worked in the previous five years and who were employed in natural resource and related occupations.
Production	Percent of the population age 15 and older who worked in the previous five years and who were employed in production and related occupations.
Tribal Factors	
Gaming	A dummy variable that takes the value of 1 if the tribal government for the reservation/trust land had an approved compact for Class III gaming as of 2006. It takes the value of 0 if there was not an approved compact as of 2006.
Self-Governance	A dummy variable that takes the value of 1 if the tribal government for the reservation/trust lands had an approved compact with the BIA and/or Indian Health Service (IHS) for self-governance.

(Albrecht and Albrecht 2000; Albrecht and Albrecht 2007; Lichter and McLaughlin 1995). Finally, the total population of a place was used to control for the relative size of the reservation/trust lands because populations of these places vary greatly.

To account for the specific context of American Indian places, I looked at the elements of the opportunity structure that are most relevant to Indian places. The next two blocks of predictors added to the model included opportunity structure variables that related first to work opportunities and second to the types of work in which residents of AI lands were employed. The regional poverty literature typically includes measures of unemployment to capture work possibilities, but in this case I added part time and no work to assess both underemployment and the lack of work that Frantz (1999) has suggested characterizes reservation communities. I therefore used a block of work possibilities predictors that include rates of part-time work, no work, and unemployment.

Although, Cornell and Kalt (1990) emphasized that tribal economies dependent on transfer payments are more likely to be in poverty, I did not use a measure of transfer payments as a predictor. The ACS questions about public assistance had limited application for measuring a transfer economy on AI lands. The question used the phrase "public assistance." For some tribal members, transfers come as per capita payments or other transfers from tribal or federal governments, which are not public assistance per se. Compared with a measure of public assistance, the measures of part-time employment, not working in the last 12 months, and unemployment better

captured a structure of non-existent employment, or rather, a lack of work opportunities.

The third block of predictors added to the model represented the involvement of AI lands in natural-resource extraction and in production-related employment. Place-based rural poverty studies also typically include industry measures for rural places; nonetheless, I opted to include measures of concentration in occupations associated with natural resources and production given the extensive literature on the predominance of natural-resource extraction in American Indian places. Given Snipp's (1986a; 1986b) suggestion that such economic activity is associated with the outward flow of resources and external financial gain, I expected that higher rates of employment in natural-resource occupations would be associated with higher poverty. Additionally, Snipp argued that tribal economic dependence increases when natural-resource extraction occurs in the absence of the production of such resources. Thus, I expected lower rates of employment in production to be associated with higher rates of poverty.

The last block of predictors included two measures to account for specific tribal government factors. These included a variable representing contemporary American Indian development and governance strategies: 1) the existence of an approved Class III gaming compact and 2) the existence of a self-governance compact. I constructed a dummy, binary indicator of whether the tribe associated with each reservation/trust land had an approved Class III gaming compact as per IGRA regulations, which allows for casino-style gaming facilities. Similarly, I constructed a dummy, binary variable to

indicate whether the tribal government associated with each reservation/trust land had an approved self-governance compact with either the BIA or with the Indian Health Service. When constructing both variables, I used 2006 as the date for approval of compacts to ensure consistency in the data given that the ACS data used in this study were averaged for the period 2006-2010. Any tribe or nation who finalized a compact after 2006 was recorded as having no compact. Although there are two types of compacts, the Indian Health Service and the BIA, I recorded compacts with either or both of these organizations as having a compact. Tribes with compacts were coded as 1, and tribes with no compacts were coded as 0.

In the absence of data that would capture the percent of the population employed specifically in gaming and related occupations and that could reliably capture gaming revenues,[9] I opted for a measure that indicated whether the operation of a casino likely existed on the reservation/trust lands. Given that successful gaming operation revenues are often used for services and enterprises that might create non-gaming jobs, the existence of approved gaming might be a predictor of socioeconomic outcomes, such as poverty. I used BIA records to determine which tribal governments had an approved compact for Class III (casino style) gaming at the time the survey was conducted.[10] A binary variable was then constructed to indicate the presence or absence of a Class III gaming compact. The caveat with this measure is that gaming operations might have opened and closed in the years during which the data were collected. The measure reflects legal approval for gaming, not whether a gaming facility was operating.

The variable representing the existence of a self-governance compact was included to test whether locally controlled institutions were associated with poverty rates. The self-governance compacts variable is an indicator of tribal autonomy because self-governance gives tribal governments more leeway in governmental and program administration than do self-determination-based grants and contracts. It therefore presumably indicates the least amount of federal governmental control over tribal operations. Department of Interior, Office of Self-Governance records were used to construct a binary variable for the presence of a self-governance compact as of 2006. Following Cornell and Kalt's (1990) assertion that economic development will follow sovereignty, I expected the presence of a self-governance compact to be associated with lower rates of poverty. Moreover, self-governance was intended as a means to gain local control to effectively tackle social problems. Therefore, I expected tribes with self-governance compacts to have lower rates of poverty, compared with tribes that rely on the federal government for the administration of programs.

Observable Characteristics

The means and standard deviations of these variables (except for gaming) along with poverty rates are reported in Table 3.2 for all AI lands as well as for gaming and self-governance compact statuses. An examination of the table reveals that the highest mean poverty rate was found on AI lands that are associated with tribal governments who do not have an approved gaming compact. The mean poverty rate for all AI lands was 29.2%, whereas the mean for lands without associated gaming compacts was 35.4%.

Tribal lands with associated gaming compacts showed a mean poverty rate of 26.2%. AI lands without gaming compacts also seemed to have lower mean rates of college-educated residents (9.2%), higher mean rates of female householders (37.3%), individuals without work (19.2%), unemployment (17.6%), and employment in natural-resource and related occupations (14.3%), compared to AI lands associated with tribal government gaming compacts.

The general trend was similar when I compared characteristics between AI lands associated with self-governance compacts and those without such compacts. Nonetheless, the differences were less pronounced than the differences between tribal lands with and without gaming compacts.

TABLE 3.2
Means and Standard Deviations of Select Explanatory Variables by Tribal Factors

	All		Gaming Compact		No Gaming Compact		Self-Governance Compact		No SG Compact	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
INDEPENDENT VARIABLE:										
Poverty Rate	29.2	(16.3)	26.2	(13.0)	35.4	(20.2)	26.4	(14.7)	29.8	(16.6)
EXPLANATORY VARIABLES:										
Demographic Characteristics										
College	11.8	(8.1)	12.8	(8.5)	9.7	(6.5)	14.3	(7.6)	11.3	(8.1)
Youth	25.7	(9.7)	26.2	(8.3)	24.7	(12.1)	25.2	(8.2)	25.8	(10.0)
Female Householders	34.0	(18.8)	32.3	(15.8)	37.3	(23.4)	29.5	(15.6)	34.9	(19.3)
Structural Factors										
Work Possibilities										
Part-Time	27.6	(9.7)	27.6	(9.2)	27.6	(10.8)	29.4	(8.2)	27.2	(10.0)
No Work	16.1	(11.5)	14.6	(9.2)	19.2	(14.7)	14.3	(9.1)	16.5	(11.9)
Unemployed	15.8	(11.9)	14.9	(9.8)	17.6	(15.3)	15.2	(9.3)	15.9	(12.4)
Natural Resources Activity										
Natural Resources	12.7	(11.8)	11.8	(8.2)	14.3	(16.5)	13.2	(11.9)	12.6	(11.8)
Production	11.1	(10.9)	10.7	(8.0)	11.9	(15.0)	9.8	(7.4)	11.4	(11.6)
N	190		128		62		37		153	

Source: American Community Survey, Five-Year File, 2006-2010.

Results

Table 3.3 displays the results of the nested regression models. In Model 1, the demographic model, the percent of the population with a college education or higher, the percent of children under age 15, and the percent of female householders were all found to be statistically significant at the .01 level when I controlled for the total population size of the reservation/trust land. Lower rates of poverty were associated with a higher percentage of the population with educational attainment of college education or higher, whereas higher rates of poverty were associated with a greater percentage of female householders and a greater percentage of dependent children under age 15. The adjusted R-square for this model was found to be .217; in other words, only 21.7% of the variation in poverty rates was found to be explained by the demographic characteristics of the reservation/trust land.

Model 2 added each place's work possibilities (part time, no work, and unemployment) to the explanatory variables. In this model, the percentage of female-headed householders, part-time workers, and those who did not work in the previous 12 months significantly predicted the poverty rate at the .01 level, whereas educational attainment at the college level was a significant predictor at the .05 level. Specifically, higher poverty was associated with greater percentages of part-time workers, individuals who did not work in the previous 12 months, and female-headed households, whereas higher rates of individuals with an educational attainment of college or higher were associated with lower rates of poverty. In a departure from the

TABLE 3.3

Demographic and Occupational Structure Effects on Poverty on American Indian Lands: Regression Model Comparison

	Model 1	Model 2	Model 3	Model 4
(Constant)				
	(18.963)	(0.517)	(0.423)	(1.964)
Total Population	0.023	0.007	0.006	0.017
	(3.2E-05)	(9.6E-06)	(8.3E-06)	(2.3E-05)
Demographic Characteristics				
Educational Attainment, college or higher	-0.211***	-0.082**	-0.084**	-0.072*
	(-0.459)	(-0.178)	(-0.182)	(-0.157)
Dependent children, under 15	0.184***	0.056	0.056	0.071*
	(0.308)	(0.094)	(0.094)	(0.119)
Female Householders	0.291***	0.165***	0.166***	0.158***
	(0.253)	(0.143)	(0.144)	(0.137)
Opportunity Structure				
Part Time		0.195***	0.210***	0.206***
		(0.327)	(0.352)	(0.345)
No Work		0.743***	0.742***	0.720***
		(1.056)	(1.055)	(1.024)
Unemployment		-0.018	-0.011	-0.014
		(-0.025)	(-0.015)	(-0.019)
Gini		-0.027	-0.032	-0.017
		(-0.051)	(-0.062)	(-0.032)
Natural Resource Occupations				
Natural Resources			-0.062*	-0.070*
			(-0.093)	(-0.105)
Production			0.050	0.045
			(0.080)	(0.072)
Tribal Factors				
Gaming Compact				-0.111***
				(-3.830)
Self-Governance Compact				0.006
				(0.257)
R-square adj	0.217	0.651	0.655	0.663
F-Change	18.708***	79.321***	2.486*	4.098**
N	257	257	257	257

Notes: Unstandardized coefficients appear in parentheses.

* 0 <.10 **p < .05 *** p < 0.01

results of Model 1, which used only demographic characteristics, the percentage of children under the age of 15 did not significantly predict a place's poverty rate in this model. The unemployment rate was not statistically significant. The adjusted R-square for the model was .651, meaning that the model explained 65.1% of the variation in poverty rates for reservations/trust lands. The inclusion of measures for a place's work possibilities resulted in a notable improvement from the previous model's R-square of .217. Additionally, the F Change statistic was significant at the .01 level, indicating that the observed change in the adjusted R-square value was statistically significant.

Model 3 added variables for a place's involvement with natural-resource extraction and production occupations, using the percentage of those employed in natural-resource occupations and those employed in production occupations as indicators. Within this model, results similar to those of Model 2 were found for each of the predictor variables. Female householders, part-time work status, and no work in the previous 12 months were significant at the .01 level, whereas educational attainment at the college level was significant at the .05 level. Again, a greater percentage of those with educational attainment of college or higher was associated with lower poverty rates, whereas higher percentages of female-headed households, part-time workers, and those who did not work in the previous 12 months were associated with greater poverty.

Unemployment rates were not significantly associated with poverty rates, as in the previous models. Neither rates of natural-resources employment nor rates of production employment significantly predicted poverty in this model. The adjusted R-

square for this model was .655, which was similar to the results for the previous model. Although the F change statistic was significant at the .10 level, the lack of significance of each of the added predictors' indicated that including indicators for natural-resource extraction and production occupations contributed little to the explanatory power to the model.

The final regression model added variables to account for tribal factors related to how tribes operate in the contemporary context, namely, tribal government gaming and self-governance. As in the previous models, lower rates of poverty were significantly associated (at the .01 level) with higher rates of female-headed households, part-time workers, and no work in the previous 12 months. Additionally, the presence of a gaming compact was also associated with lower poverty at the .01 level. Educational attainment continued to be significantly associated with lower rates of poverty, this time at the .10 level, whereas the unemployment rate remained insignificant. In contrast to the previous model, in this model, the rate of children under 15 was significantly associated with higher poverty at the .10 level, and the rate of employment in natural-resource occupations was associated with *lower* poverty at the .10 level. The presence of a self-governance compact had no significant impact on poverty rates. The inclusion of tribal factors increased the adjusted R-square from 0.655 to 0.663, a change that was significant at the .05 level.

The most influential predictor relative to other predictors in each of the models was the percentage of the population who did not work in the previous 12 months. This predictor had the highest standardized coefficient in all the models that included

the "no work" variable. In the final model, the coefficient for no work was relatively large at 0.720, compared to the other variables. Part time had the next highest coefficient at 0.206 in the final model. This result means that the percentage of the population who did not work had more than triple the effect on poverty rates than did the percentage of the population who worked part time. Gaming compact status had the greatest negative standardized coefficient in the final model (-0.111) and was the only statistically significant predictor with a negative coefficient. This means that of the statistically significant predictors, gaming compact status was the only predictor associated with *reduced* poverty, yet its impact was still relatively lower than that of the rates of part-time workers and those who had not worked in the previous year.

In Model 1, which includes only demographic variables, a 1% change in percentage of the adult population with a college degree or higher reduced the poverty rate by 0.459%. An increase in the percentage of children under the age of 15 by 1% was associated with an increase in the poverty rate of .308%, while a 1% increase in the rate of female-headed household increased poverty by .253%.

When opportunity structure variables were included in the model (Model 2), the percentage of children under the age of 15 was no longer statistically significant. A 1% increase in the percentage of the adults with a college education was associated with a reduction in poverty rates by .178%, and a 1% increase in the rate of female-headed households increased poverty by .143%. Of the opportunity structure variables added to the model, only the work status variables were significant predictors of poverty rates. A 1% increase in the percentage of part-time workers was associated with a .327%

increase in the poverty rate, while a 1% increase in those who had not worked in the previous year was associated with a 1.056% higher poverty rate.

In Model 3, the added predictors to account for occupations related to natural resources extraction activities were not significant. Thus, the unstandardized coefficients of significant predictors were almost identical to those in the second model. A 1% higher percentage of the adults with a college education was associated with .178% lower poverty rate. A 1% increase in the rate of female-headed households was associated with a .144% higher rate of poverty. Among the significant opportunity structure variables, a 1% increase in the percentage of part-time workers was associated with a .352% increase in the poverty rate, while a 1% increase in those who had not worked in the previous year was associated with a 1.055% higher poverty rate.

The standardized coefficients in Model 4, which added indicators of gaming compact status and self-governance status, were similar in value to the results in model, except that educational attainment was no longer a statistically significant predictor. In this model, female-headed households was the only demographic characteristic to significantly predict poverty rates, with a 1% increase in the rate of female-headed households associated with a .137% higher poverty rate. Although the absolute impact of the percentage of female householders living on American Indian lands did not have a dramatic direct effect on the poverty rate in this model, it was the third most influential predictor relative to other predictors in the model. The coefficients of opportunity structure variables were similar to the results in Model 3, with a 1% increase in the percentage of part-time workers associated with a .345% increase in the

poverty rate. An increase in the rate of those who did not work in the previous year of 1% produced a 1.024% increase in the rate of poverty. The only statistically significant tribal factor indicator was gaming compact status. The presence of a compact for tribal government gaming was associated with a 3.830% lower rate of poverty.

The adjusted R-square measures illustrated the percentage of the variation in the dependent variable, the percentage living in poverty. The first model had an R-square of .217, whereas the subsequent models had R-square values that ranged from .651 to .663. The ANOVA tests associated with all four regression models were statistically significant, indicating that in all cases, the predictors were collectively significant with respect to the outcome measure.

Discussion

These data confirm that poverty rates on reservations and trust lands are primarily linked to opportunity structure in places, especially those elements of the opportunity structure that affect work possibilities and underemployment. Within the work possibilities variables, the proportion of the population who did not work stood out as having the largest impact on place-based poverty rates, whereas unemployment had no effect on poverty. This finding supports Frantz' (1999) assertion that no work might be a better indicator of labor market opportunities than unemployment because a persistent lack of work might cause reservation residents to stop seeking work altogether. When examining which characteristics of reservations and trust lands make them more or less likely to have high poverty, it appears that work-related

opportunities likely explain the differential experiences of poverty across American Indian places. Moreover, the relatively small impact of demographic variables compared to the greater impact of opportunity structure variables on the explanation of variation in poverty across places suggests that place-based poverty is not merely a characteristic of the people living in places but a product of the institutional political and economic arrangements that structure employment and work possibilities.

The lone standout amongst the demographic variables in the full model was the significance of the rate of female householders in contributing to higher rates of poverty on American Indian lands, though it was not substantially high relative to other demographic variables. It is not surprising, however, that the rate of female-headed households contributes to higher rates of poverty given the research that has shown the feminization of poverty and the increasing propensity for female-headed households to be impoverished nationwide (Goldberg 1990; Jones and Kodras 1990; Zopf 1989). This finding dovetails with previous research showing that American Indian women suffer from multiple forms of socioeconomic disadvantage, including a large gap in educational attainment between Native women and white women as well as a gap in income and employment between Native women and men (Chadwick and Bahr 1978).

One interesting finding is that the extent of involvement in natural-resource activities from place to place does not explain the variation in poverty rates across Indian lands. In the final model, where natural-resource employment was significant in explaining poverty, its impact was small but was also in an unexpected direction. Rather than being associated with higher rates of poverty, it was associated with *lower*

rates of poverty. This does not necessarily imply, however, that tribal government involvement in natural-resource extraction is not exploitive. Rather, this finding might be more related to an overall availability of work contributing to lower poverty rates on Indian lands. Another possibility for this curious result is that tribal governments might have become more savvy or effectual in managing development on their lands since the early years of the self-determination era, when scholars were writing about dependency and the exploitation of Indian lands.

As expected, the presence of a gaming compact was associated with lower poverty. This might not be surprising given the reported success of some gaming operations. Gonzales (2003) asserted that many Indian communities have used the gaming industry to reverse historical cycles of marginalization and impoverishment and that the industry has enabled Native people to experience sustained prosperity and political empowerment not known since colonization. Does this mean that gaming is dismantling dependent relationships? Perhaps, but taken in isolation, this evidence is unable to demonstrate that. Nonetheless, Jorgensen (1998), who originally criticized gaming's potential to overcome the economic subjugation because tribes would not control gaming enterprises and revenues, amended his position upon discovering that the successes of gaming outpaced his initial expectations. He has since stated that even marginal successes created jobs and increased incomes and that casino revenues could be economic multipliers. The results showed that presence of a gaming compact had a relatively lower effect on poverty than the opportunity structure variables. This finidng is consistent with a recent study that indicated that the magnitude of gaming effects is

reduced when other tribal features are controlled (Conner and Taggart 2013). The lower rates of poverty associated with the presence of gaming compacts might be a result of direct job creation and/or the economic multipliers that were reported by Jorgensen. Yet, we should be careful to conclude from these results that gaming is responsible for reducing poverty given the weight of other variables and that previous research has shown regarding the effects of gaming. The economic gains of gaming have been shown to be uneven across communities and over time. Although some small improvements with poverty are evident, these results are unable to show the extent to which gaming does or does not allow outside economic penetration and the flow of resources to outside interests. What I can say is that gaming appears to serve as a buffer against poverty. Yet, given its relatively small impact compared to other variables, it might be that we are seeing the effects of gaming as part of a larger strategy to provide work opportunities on Indian lands, rather than gaming as a singular solution to socioeconomic ills.

It is interesting that the self-governance results indicate that the presence of self-governance institutional forms is not a panacea for poverty reduction in the contemporary context. It could be that it is too early for results to be seen or that these institutional arrangements are not sufficient to address the underlying issues of work possibilities. If the latter is the case, this lends credence to the development theorists' assertion that the gains of self-determination are too limited to contend with the historical processes of political subjugation and economic exploitation. This does not necessarily mean that Cornell and Kalt (1990) were wrong to argue that economic

development will follow sovereignty. Rather, it might be a mistake to assume that self-governance is equivalent to sovereignty.

Nevertheless, the collective results of this analysis suggest that a place-based approach to understanding and combatting poverty on Indian lands might help to delineate the contours of economic dependency and institutional effectiveness as they relate to poverty outcomes. Native people are challenging and redefining what development means in their communities and how it is pursued (Cattelino 2004; O'Neill 2004; and Rosenthal 2004). Gaming and self-determination strategies are offering unprecedented opportunities for tribes to realize "de facto" economic and political sovereignty and self-determination, to overcome place-based poverty and underdevelopment, and to access the U.S. and state political institutions that have long influenced the everyday lives of Indian people without their consent and against their best interests. Given the explanatory power of work status on poverty rates across Indian country, this work suggests that we can interrogate work possibilities and the sociopolitical arrangements that undergird them as key contemporary sites for poverty reduction in Indian places. Thus, we need to examine the points of entry for altering those arrangements and to identify the ways in which tribal governments and American Indian peoples have been successful in challenging those arrangements. In this process, we also need to recognize and respect that American Indian peoples have deep connections to their communities and attachments to place.

Notes

[1] American Indian lands refers to American Indian trust and reservation lands that have been set aside as permanent tribal homelands for the exclusive use and occupancy of specific tribes under treaty or other agreement with the U.S., executive order, federal statute, or administrative action and where the federal government holds title to the land in trust on behalf of the tribe.

[2] This figure excludes tribal statistical areas defined by the Office of Management and Budget for data collection purposes. Although these areas represent places where American Indians live, the boundaries of these areas do not correspond to the legal and jurisdictional areas of tribes. Because ACS/census data for Oklahoma are available only as Oklahoma Tribal Statistical Areas, Oklahoma has been excluded from the analysis. Alaska Native lands are also excluded because their census boundaries do not necessarily correspond to the legal and jurisdictional areas of Alaska Native groups. Native Hawaiian and indigenous groups in Puerto Rico do not share the same legal status as American Indians; thus, their lands do not fall under the scope of "American Indian lands."

[3] This is not always the case. A person may be recognized by the federal government as "Indian" based on blood quantum in a federally recognized tribe or tribes but may not necessarily be enrolled as a member of a federally recognized tribe.

[4] The extent of and limitations on sovereignty is a rich and complex subject that is beyond the scope of this dissertation. For a starting place in understanding the often-shifting contours of tribal sovereignty, see (Deloria and Lytle 1984, Wilkins 1997).

[5] De facto sovereignty is enacted authority rather than de jure sovereignty, which is authority that has its foundation in law.

[6] I am using the term "reservation" as shorthand to denote American Indian land bases. This is typically the terminology used by scholars who address economic development, poverty, income, and related issues that pertain to the areas in which American Indian peoples live and over which tribal governments have authority.

[7] Some of the major approaches in dependency theory and the scholars who initially advanced them include Raul Prebisch on the liberal reformist approach, Andre Gunder Frank on Marxist theories of imperialism, and Immanuel Wallerstein on world systems theory.

[8] During data exploration, numerous variables in each model were tested to examine their effects on the place-based poverty rates. For each model, I identified those variables that represented 1) demographic composition, 2) work possibilities, 3) an area's involvement in natural-resource extraction), and 4) how tribal governments operate. For the first two models, there were several potential predictor variables that could have been included in the models. Rather than including them all, however, I included those variables that had the most predictive

power for each of the models and that also represented the categories of predictors as informed by the literature. For the final two models (involvement in natural-resource extraction and how tribal governments operate), I included the predictors that could most comprehensively represent those categories, regardless of significance.

Variables tested for demographics included alternate measures of educational attainment, age structure, and gender. The variables that were tested and ultimately excluded include percentage of the population with a high school diploma or less, percentage of the population age 65 or older, median age, and percent of females in the population. For the work possibilities model, variables that were tested and excluded include unemployment rates and percentage of particular classes of worker in an area. Variables for state and region were also tested but were not significant in any model and were thus excluded from the final models. The Gini coefficient was tested for the effect of income inequality on poverty status but was not found to be significant in any model.

[9] As noted by Conner and Taggart (2013), gaming effects data have been limited in nature and scope--based on small sample sizes, cased studies, anecdotal examples.

[10] Although the number, size, and length of the operation of gaming operations would have been ideal, neither the BIA nor the National Indian Gaming Commission (NIGC) keeps complete and comprehensive records of tribal government gaming operations. NIGC notes that gaming operations are continually opening and closing.

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CHAPTER 4

The *Other* Indian Places: Metro-Based Analysis of American Indian Poverty with Comparison to Other Races

> *Nothing in her upbringing on a remote Indian reservation in northern Minnesota prepared Jean Howard for her introduction to city life during a visit here eight years ago: an outbreak of gunfire, followed by the sight of people scattering.*
>
> *She watched, confused, before realizing that she should run, too. "I said: 'I'm not living here. This is crazy,' " she recalled.*
>
> *But not long afterward, Ms. Howard did return, and found a home in Minneapolis. She is part of a continuing and largely unnoticed mass migration of American Indians, whose move to urban centers over the past several decades has fundamentally changed both reservations and cities.*
>
> *(Williams 2013)*

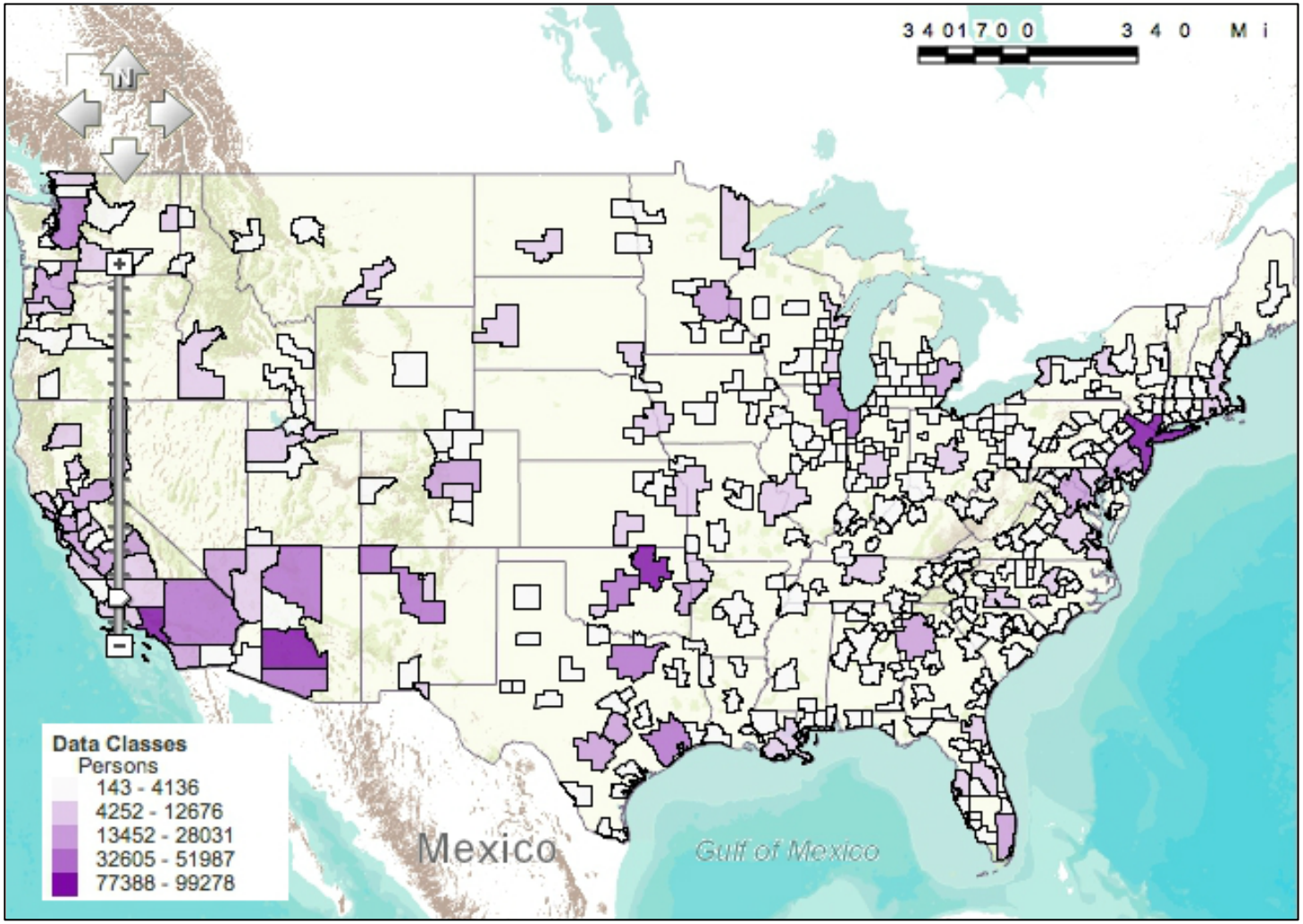
Urban poverty research is already highly engaged in issues of race and inequality having grown largely in response to seminal works on urban, Black economic conditions and segregation by Wilson (1978; 1987) and Massey and Denton (1993). Moreover, there is a popular, yet mistaken perception of American Indians as a rural population confined to reservations, which has limited the scope of American Indian poverty research. The purpose of this chapter is thus twofold: 1) to extend the place-based analysis of American Indian poverty to the other, now dominant site of American Indian residence—the metropolis; and 2) to examine whether and how the context of place differentially affects racialized poverty within those places.

This perception is so widely held that Devon Mihesuah addressed it directly it in her 1996 book dedicated to dispelling myths and popular stereotypes about American Indians. Mihesuah pointed out that the assumption that American Indians are rural reservation dwellers is tied to stereotypes of Indians as having long, braided hair and living in tipis. This "Indian" image, which is so popular in the public imagination, is a relic of the dichotomization of savage vs. modern, Indian vs. American that justified federal policies of Indian removal, relocation, and assimilation (Berkhofer 1978). Discourses of dominant culture often frame indigenous culture and identity as being at odds with the modernity of city life, which in urban environments results in the dismissal of indigenous peoples as inauthentic or assimilated (Lucero 2013). Even within the American Indian population, there is a strong discourse claiming that urban life has a negative impact on cultural identity, yet over generations of urban residence, urban American Indians continue to maintain and negotiate Indian identities (Lucero 2013). Nonetheless, there is an implicit assumption that Indians who do not live on reservations are assimilated or inauthentic, a notion held by many non-Indians and Indians alike (LaGrand 2002; Strauss and Valentino 2001). This notion is so strong that it has dominated not only federal Indian policy but also much of the literature on American Indian history and social position in the U.S.. The majority of the literature on American Indians' social position and opportunities has focused on reservations and the consequences of removal and relocation. Even scholars who are sympathetic to American Indian communities and peoples have often dichotomized reservation and urban Indians in a way that assumes urban Indians are assimilated into city life.

So ingrained is the idea that being Indian signifies life on a reservation that socioeconomic research tends to focus only on American Indians on reservations, despite the fact that reservation life is simply not the reality for the majority of individuals who identify as American Indian today. American Indians have increasingly moved into cities and urban places to seek better opportunities for themselves and for their children, and they have been a highly urbanized population. As of 2010, 64.4% of all individuals who identified as exclusively American Indian[1] (1,889,770 individuals) lived in metro counties (U.S. Census 2010, Summary File 2).

American Indian urban populations have been neither randomly nor evenly distributed. As Figure 4.1 demonstrates, as of 2010 the highest numbers of American Indians living in metro counties of the contiguous 48 states were located in the southwest, Oklahoma, and the northeast. Some of the metro residences of American Indians might be accounted for by the designation of counties as urban, according to which reservations located within counties containing cities are labeled as metropolitan. Nevertheless, the urbanization of American Indians has been less a product of the re-designation of surrounding counties as metro than a process of urban migration, which has occurred primarily since World War II. Policies intended to dismantle American Indian reservations and tribal governments and to absorb American Indians into mainstream American culture facilitated Indian urbanization. Termination policy formally dissolved tribal governments and the federal government's trust responsibilities for the terminated tribes. At the same time, Direct Relocation was

FIGURE 4.1
American Indian Population by Metropolitan County



Source: U.S. Census Bureau, Census 2010, Summary File 2, generated using American FactFinder <http://factfinder2.census.gov>; Nov. 1, 2013.

implemented to move American Indians off reservations into cities, where urban labor markets would presumably absorb them.

There is considerable disagreement amongst scholars about the direct demographic effects of the urban relocation programs on the urbanization of Indian peoples. Peroff (1990) noted that urban life was often seen as an advantage, with greater availability of jobs in urban areas, but also because some federal services were more readily attainable in cities than on reservations. Other scholars, however, have cited direct relocation as the major factor in the rapid urbanization of the American Indians. Although we might not be able to ascertain an exact correlation between program relocatees and contemporary urban Indian populations, Snipp (1989) noted that it is not accidental that the largest urban Indian populations are located in cities with urban relocation programs. Table 4.1 shows cities with the highest number of American Indian residents, many of which had direct relocation programs, including Los Angeles, Houston, Tulsa, Oklahoma City, and Chicago.

Today, many American Indians are third- and fourth-generation urban residents as well as migrants who have moved from reservation locales (Snipp 2013). Yet, conversations about poverty and deprivation often omit this portion of the American Indian population, as American Indian poverty policy and economic development is directed toward improving tribal government economic development and reservation economies.

TABLE 4.1

Ten Cities With the Largest Number of American Indians and Alaska Natives:[2] 2010

City	American Indian Population
New York, NY	57,512
Phoenix, AZ	32,366
Los Angeles, CA	28,215
Albuquerque, NM	25,087
Tulsa, OK	20,817
Oklahoma City, OK	20,533
Houston, TX	14,997
Tucson, AZ	14,154
Chicago, IL	13,337
San Antonio, TX	11,800

Source: U.S. Census Bureau, Census 2010, Summary File 2

The Urbanization of American Indians

The urbanization of the American Indian population has followed a pattern of federal policy that has oscillated between supporting and withdrawing federal services and trusteeship of American Indian communities. In the contemporary era, self-determination and self-governance might represent a challenge to federally controlled tribal decision-making, but the basic legal framework of American Indian nations as nations-within-a-nation remains unchanged, with tribal autonomy limited by federal law and the maintenance of the federal government's trust responsibilities for protecting American Indian resources. Yet, the self-determination era was ushered in with the civil rights era and followed on the heels of policies aimed at dismantling

federal-Indian relationships and assimilating American Indians into mainstream American society. These policies also spurred the mass relocation of American Indians into urban areas and the transition of Indians from a largely rural population to the predominately urban population that exists today.

The relocation program profoundly affected the American Indian population, resulting in significant Indian concentrations in numerous U.S. cities, including Los Angeles, Dallas, Chicago, Minneapolis, Tulsa, and Oklahoma City. The Bureau of Indian Affairs (BIA) direct relocation program launched in 1950, and the first placement of individuals in cities began in 1952. Given the dire socioeconomic conditions of reservation life, many reservation residents were eager to take advantage of the relocation programs, especially veterans who were already accustomed to city life. Nonetheless, for many American Indians, the lack of reservation resources also meant a lack of educational and vocational training. Because so many of the applicants for the relocation program lacked any occupational skills, the Indian Vocational Training Act was enacted in 1956 to provide vocational training assistance to relocatees. Demand for the relocation and training programs was high, with applicants outnumbering available spots in the program. The relocation program is considered a major cause of the American Indian demographic shift, with an estimated 100,000 participants relocating to urban areas through the program between 1952 and 1972 (Sorkin 1978).

In contrast to American Indian urbanization, black urbanization followed a different pattern and began much earlier, but there are important parallels between American Indian and black political-economic history that might suggest similar

material outcomes for both American Indians and blacks in cities. The collective economic positions of both groups have shifted since the 19th century. For black Americans, race and labor, initially linked through slavery in the South, shifted beginning in the late 19th century and throughout World War I. These changes facilitated the first major migration of blacks into cities. After the Civil War, freed blacks were reluctant to return to the plantation farm system, expecting that former slaves would receive shares of appropriated farms. Black codes were established to restrict blacks' migration from areas where cotton was less profitable to areas where cotton prices were higher. These efforts were largely unsuccessful, and when southern Reconstruction governments guaranteed the rights of blacks, plantation farmers could no longer coerce labor. As a result, the plantation economy plunged into chaos, facilitating a shift into tenant farming, sharecropping, and crop lien credit. Yet, when the price of cotton dropped in the 1870s and 1880s, farmers went further into debt, and many lost their land. This financial crisis of the South fueled increasing white resentment of blacks, which resulted in the disenfranchisement of blacks and the passing of the Jim Crow laws. Black landownership was threatened, and many blacks sought relief in the North. (See Fligstein 1986 and Pfeffer 1983 for a discussion of this transition.) Economic deprivation and a depressed economy in the South as well as a growing northern industrial economy created a southern push and northern pull for black labor, leading to the first major wave of black urbanization (Gregory 2005; Lemann 1991). During the same period, Indian socioeconomic conditions were dire, like those of blacks. American Indians were living in poverty, making less than one-quarter

of the income of white Americans, largely as a result of federal policy that undermined American Indian social and political systems and created Indian deprivation and economic dependency on the U.S. (Anders 1981; Sandefur 1989; Snipp 1986; White 1988). Nonetheless, despite the dire socioeconomic conditions of reservations, American Indians did not experience a push and pull for Indian labor and remained largely rural, with only 8% of the Indian population residing in cities prior to World War II.

The economic changes associated with World War II affected both blacks and American Indians and are associated with the second wave of black urban migration and with the onset of American Indian urban migration. For the black population, the war economy improved job prospects in both southern and northern cities and prompted not only migration from rural to urban locations but also urban-to-urban migration as blacks moved from southern to northern cities and to cities on the west coast (Gregory 2005). During this same period, American Indians experienced a peak of urban migration. The Indian New Deal of the 1930s had reinforced American Indian territorial life, with Indian policy and resources focused on improving the economic conditions of reservations. World War II, however, was a pivotal moment in American Indian political and economic history because it marked a shift away from a strictly territorially based Indian life. An estimated 25,000-45,000 American Indians enlisted during World War II, most having left reservations for the first time (Johnson 1996). Not only were American Indians participating in the war effort as soldiers, but they also participated domestically, with approximately 40,000 men and women working in defense industries and creating tent villages around airplane industries and defense

plants (Bernstein 1991). At the end of the war, some veterans chose to remain in urban areas, whereas others returned to the reservations. When reservation life proved a difficult adjustment for veterans who had become accustomed to the accoutrements of urban life, many veterans and their relatives relocated to cities after the war. American Indian participation in World War II not only resulted in the voluntary migration of some American Indians to cities, but policymakers also viewed their service in the war and on the home front as a sign that American Indians could be fully integrated and assimilated into American society.

As a result, federal policy shifted again under the guise of "desegregation," as the federal government reasserted assimilation policies through the termination of the trust relationship between tribes and the federal government, the transfer of jurisdiction over Indian lands from the tribes to state governments, and relocation programs patterned on the Japanese internment camps of World War II (Fixico 2000). The programs, intended to dismantle Indian reservations, cultures, and communities, had major effects on American Indians and tribal governments, particularly the urbanization of Indian people. The passage of House Concurrent Resolution 108 terminated nearly all reservations in California, Oregon, Nebraska, Minnesota, and Wisconsin. Termination policy coupled with the urban relocation program was intended to dissolve Indian governments, creating conditions that would dismantle reservation communities such that Indian people would abandon former reservation lands in favor of urban life (Johnson 1996). The rhetoric of termination and urban relocation was, however, couched in equality, mirroring the language of abolitionists:

> With the aim of "equality before the law" in mind our course should rightly be no other. Firm and constant consideration for those of Indian ancestry should lead us all to work diligently and carefully for the full realization of their national citizenship with all other Americans. Following in the footsteps of the Emancipation Proclamation of ninety-four years ago, I see the following words emblazoned in letters of fire above the heads of the Indians-THESE PEOPLE SHALL BE FREE! (Watkins 1957:55)

The irony was that, despite the rallying cry of freedom and equality by the proponents of termination, the policy was driven and imposed by non-Indians, forced upon many tribes without the consent of tribal members, and viewed by many American Indian leaders as a mechanism through which the federal government could breach treaty provisions (Berkhofer 1978).

When coupled with the termination policies, the Direct Relocation programs take on the character of imposed, assimilationist policy. Nonetheless, although the programs were oriented toward the assimilation and absorption of Indian peoples into urban labor markets, it would be a mistake to assume that American Indians were without agency in the process of urbanization. In fact, American Indians have a history of urban residence that predates the relocation program. In the 1930s, there was a wave of migration to Los Angeles as people sought relief from depressed, rural areas, primarily dustbowl Oklahoma (Price 1968). Also in the 1930s, the BIA reached an agreement with the Santa Fe railroad that granted rights-of-way across the Laguna Pueblo lands in exchange for jobs with the railway. As Laguna peoples were called in to replace striking workers, populations of Indians boomed in terminal yard cities, including Atchison, Topeka, Sante Fe, and Richmond, CA. The demands of World War II increased job opportunities with the railroad for American Indian men and women, resulting in

major concentrations of urban Indian populations in the urban sites along the railroad routes. Yet, these early urban migrations, particularly the urbanization associated with the railroad, differed in character from the large-scale relocation program implemented by the BIA. For instance, Peters described the Laguna colonies that emerged along the railroad route as satellite communities of the Laguna Pueblo, where workers were not assimilated and cultural traditions were maintained.

Many workers chose to relocate through the BIA relocation programs, leaving reservations in the hope of finding work and escaping the lack of jobs and high poverty that characterized reservation life. Johnson (1996) noted that government studies of Indian relocation found that young American Indian men, especially those with military backgrounds, were interested in seeking alternate employment opportunities outside of their home communities. Yet, agency notwithstanding, individuals who participated in the relocation program faced numerous challenges. Unemployment, frequent moves, and hardship were commonplace for relocatees, as the majority were employed in unskilled and semiskilled positions and were highly susceptible to the prevalent layoffs in the urban job market (Johnson 1996). For relocatees who had never lived off the reservation, their cultural toolkits did not contain the tools necessary for urban survival. The demands of urban life often clashed with the cultural values and actions associated with reservation life. Relocatees were not accustomed to the pace, noise, and crowded spaces of city life, and they were not prepared to navigate the mass transit and technology that characterized urban "modernity" (Fixico 2000). Moreover, relocation assistance was limited and temporary, often lasting only approximately one

month, after which relocatees were expected to be self-sufficient. Johnson (1996) described these effects as "crises of relocation" that produced an urban climate of cultural destruction and alienation.

The alienation and isolation experienced by urban Indians echo the isolation felt by blacks in urban ghettos. Exclusion from city politics hindered black political efficacy, whereas Indian political power was circumscribed to their limited lands, while individual Indians were excluded from state politics, and urban Indians were isolated from tribal social and political networks. Racialized labor practices that affected both American Indians and blacks heightened racial difference and strife. Not only were American Indians employed in low-skill positions with little job security, but there was also frequent and overt job discrimination, with employers citing Indian absenteeism as an excuse for not hiring Indian workers (Fixico 2000). Similarly, urban blacks were hired as strikebreakers and employed in undesirable, low-paying, unskilled, or semi-skilled positions that were rejected by white workers (Wilson 1978).

Retribalization, Red Power, and Civil Rights

In the 1950s and 1960s, as American Indians relocated to cities, they maintained a sense of Indianness despite dislocation from their cultures. The alienation and isolation felt by many urban American Indians was a catalyst for what became a pan-Indian movement, as urban Indians increasingly sought ways to connect with other Indians despite tribal and cultural differences. Pan-Indianism and pan-Indian social institutions emerged in cities with large populations of American Indians. Price, an anthropologist,

described the development of these institutions as occurring in four stages, beginning with the growth of bar culture as a place of socialization, then the development of friendship networks facilitated by Indian centers, followed by the growth of athletic leagues, and finally the development of professional organizations. Similarly, Sorkin (1978) described three stages of urban Indian institutional development, also beginning with bar culture and the friendship networks associated with Indian centers, but rather than viewing athletic leagues and professional associations as separate stages, Sorkin stated that when such associations come together under an umbrella organization or institution, the third stage—pan-Indian institutional development—has been achieved.

Indian enclaves developed in cities, as urban residents who met at work or in other social gatherings began to create neighborhoods of Indian peoples from various cultural backgrounds (Fixico 2000). One study of Navajo migrants in Denver noted that unlike other minority or ethnic enclaves, Indian enclaves were unique because of the BIA's provision of relocation services, including some of the technical and economic functions often attributed to ethnic enclaves (Snyder 1971). Yet, relocation programs were also poorly administered, often by non-Indians who did not understand the cultures of the relocatees (Fixico 2000). Consequently, many American Indians escaped reservation poverty only to find impoverishment and deteriorated housing conditions in urban Indian enclaves.

Because the conditions of urban life were difficult and BIA programs failed to meet the needs of American Indians adjusting to life in the city, non-governmental American Indian centers were established, many with religious or social service

components. These centers, which continue to operate in numerous cities across the country, provide space for social interaction and serve as the locus for creating community in the city. In the 1950s and 1960s, as social interaction among urban residents identifying as Indian occurred in Indian centers, tribal boundaries dissolved and allowed a common pan-Indian identity and culture to emerge (Strauss and Valentino 2001). The sharing and borrowing of cultural traditions and practices from various tribes emboldened this growing sense of Indian identity as a cross-tribal cultural identity. In these spaces of cultural retribalization, American Indians in urban environments found common ground and pride in their cultural identities but also a shared discontent with the social conditions of American Indians in cities and on reservations.

The development of pan-Indian social institutions and networks in cities provided the foundation for Indian political mobilization. It was within cities and in pan-Indian organizations and institutions that the Red Power movement emerged. Pan-Indian activists were responding not only to joblessness and the hardship of urban life but also to dire conditions on reservations, termination policy, and other federal policies that prohibited tribal autonomy over reservations. Cities were the milieu that allowed not only individual Indians to find common ground but also various tribes to build and work toward common goals that would benefit Indian individuals and reservation communities. In Chicago in 1961, at a meeting of the National Congress of American Indians, delegates from 70 tribes met and collectively expressed frustration with termination policy and the failures of the urban relocation programs; they called for

improvements in the relocation program and better economic conditions on reservations to curtail the need for urban relocation (LaGrand 2002). It was through this meeting that self-determination over tribal lands, members, and governance structures become a collective imperative for tribes across the country. Thus, whereas pan-ethnic Indian identity was forged in cities, so too was a call for the increased self-determination and autonomy of tribal governments, so that the growing urban Indian population was simultaneously proudly pan-Indian and loyal to individual tribes (Johnson 1996).

Although the character of Indian civil rights activism had a distinctively American Indian and tribal focus, Indian political mobilization did not happen in isolation but gained momentum from the black civil rights movement. Blacks and other ethnic groups were challenging assimilation, segregation, and the identity politics of the country in an effort to improve the social and economic conditions of their community members. Urban blacks experienced not only discrimination in housing and the workforce but also chronic unemployment resulting from structural changes in the economy that facilitated shifts from central-city production to more diffuse systems of production outside of central cities (Wilson 1980). Like urban black activists, American Indian activists were also responding to racial discrimination, lack of work, the conditions of urban housing projects, and low-quality education in city schools. Nonetheless, many American Indian activists distinguished their goals from those of other civil rights activists, advocating not for *equal* rights but for protection of *tribal* rights guaranteed through treaties and through the sovereign status of Indian

nationhood (LaGrand 2002).

Wilson has argued that the political and economic changes of the 1950s and 1960s produced conditions that facilitated the rise of the black middle class. Specifically, the shift in the economy from industrial production to corporate industry along with protective union legislation and civil rights legislation arising from black political mobilization provided the necessary circumstances to decouple the race-labor market stratification. The new legislation and accompanying institutional changes altered processes for hiring, labor management, and dispute resolution and were applied to all laborers of all races. The civil rights era resulted in the formal opening up of the labor market to black workers. Equal opportunity laws, labor laws, and affirmative action policies created unprecedented opportunities for blacks with skills and education as they were no longer forced into low-wage, low-skill positions. In essence, these changes resulted in the decoupling of race and labor such that race itself, Wilson has argued, was no longer the major predictor of black life chances because blacks were no longer barred from higher-paid positions. Instead, as skilled and educated blacks began to access new employment opportunities, the variability in black life chances became more pronounced. In other words, simply being black was no longer the predominant predictor of one's socioeconomic future, but rather one's position in the labor market, and consequently social class, came to heavily influence a black individual's life chances. Although many have disputed Wilson's claims, which he has clarified in recent years, there is no doubt that a black middle class emerged in the 1950s and 1960s, despite the continued and persistent overrepresentation of blacks in the urban

underclass.

Similarly, American Indians experienced a growth in the middle class, particularly in urban, or rather suburban, environments. As American Indian access to higher education increased, formal education served as a path to social mobility and entry into the middle class. Educated Indians, primarily a subgroup of American Indians living in suburban environments, were at the center of the Indian middle class and were key actors in reshaping cultural values and traditions, "modernizing" them to adapt to their contemporary, urban lives and reorienting them to include pan-Indian elements (Fixico 2000). The emergence of middle-class Indians is also associated with rifts between what are often seen as oppositional traditional and modern values and identities, with many members of the Red Power groups, such as the American Indian movement, drawn from young, progressive, urban Indian populations.

Forgetting Urban Indians

Despite the urban origins of the Indian civil rights movement and the dual focus on urban hardships and tribal self-determination, Indian activism during the 1960s and 1970s increasingly focused on tribal autonomy and reservation social and economic conditions. Additionally, even gains made during this era caused strife and competition between urban Indians and reservation residents. For instance, after the Civil Rights Act of 1964, American Indians received renewed policy attention, including funding through the War on Poverty programs. The majority of funds for Indian poverty, however, were directed to reservation programs, whereas urban Indians viewed funds

in cities as disproportionately benefiting urban blacks (LaGrand 2002). Additionally, the black civil rights movement received fairly widespread attention from mainstream white America, but the American Indian rights movement had never received the same degree of public attention. One reason for the minor attention was that the American Indian population, although growing especially in urban areas, remained small, only a fraction of the size of the black population. The increased focus on self-determination and improvement of reservation conditions has also directed research on American Indian social and economic conditions to emphasize reservations and tribal communities. As a result, American Indians living in urban places have received relatively little attention, particularly in the realm of poverty research.

Research on urban Indians peaked in the 1970s along with the peak of Indian social mobilization (see Graves 1974; Jorgensen 1971; Sorkin 1978; Waddell and Watson 1971). Yet, since that time, research on the contemporary economic conditions of American Indians has focused on reservation economic development. For instance, one prominent center dedicated to research on American Indian economic development is the Harvard Project on American Indian Economic Development. The stated goal of the project is "to understand and foster the conditions under which sustained, self-determined social and economic development is achieved among American Indian nations through applied research and service" (The Harvard Project on American Indian Economic Development 2010). Because the aim of the project centers on the economic development of American Indian nations, it is not surprising that the research is similarly focused on economic conditions within the bounded territories of Indian

nations. Yet, this means that for the most part, urban American Indians are either subsumed under the "minority" category in urban studies of economic conditions or are left out entirely. In other empirical studies, when American Indians have been included as a separate category, there has been little if any consideration of how the historical positioning of American Indians in U.S. society might affect outcomes or explain observed results. For example, scholars have tested Wilson's thesis on the declining significance of race by looking at American Indians, Asian Americans, and Latinos to test for the significance of race in the labor market (Sakamoto and Tzeng 1999; Sakamoto, Wu, and Tzeng 2000), but the studies did not consider whether such a test was warranted given the different racial histories of the groups and the extent to which Wilson's original thesis was built on the macrohistorical context of urban *black* experiences.

That is not to say, however, that the different historical underpinnings of racial oppression produce entirely different trajectories of economic life for groups living within the same place. In fact, given the similarities between urban Indian and black social and political experiences, there is reason to believe that the economic position of urban Indians might be analogous to that of urban blacks, or at least more similar to the black than to the white experience. Wilson (1978) argued that political and economic changes in the mid-twentieth century shifted the socioeconomic position of blacks from one of racial oppression to economic oppression, as laws and regulations that prohibited racially biased and discriminatory workplace practices began to decouple race and labor. That is not to say that black workers were not subject to the

consequences of racial history. As Wilson pointed out, despite the emergence of a black middle class, blacks are nevertheless overrepresented in the underclass. Similarly, despite the rise of an American Indian middle class, poverty and deprivation are still prevalent amongst urban American Indians. In *The Truly Disadvantaged*, Wilson (1987) argued that inner-city racial segregation and social isolation limit black social opportunities, thereby maintaining the black underclass. Subsequent research has shown that both racial segregation and income segregation contribute to persistent poverty and deprivation within the urban black population (Massey and Denton 1993; Massey and Fischer 2000; Quillian 2012). Despite the many differences between the urban black and American Indian populations and histories, the commonalities of a racialized urban experience lend credence to the hypothesis that the factors affecting American Indian urban poverty might parallel those affecting black urban poverty.

Contemporary data for American Indians, blacks, and whites in metro counties reveal that, although metro life for American Indians might have represented a form of "desegregation" to policy makers, it certainly has not produced equality of social conditions. In fact, Table 4.2 demonstrates that as of 2010, compared to the white population, American Indians have had more than double the rate of poverty, with 10.6% and 23.5%, respectively, and more closely matched the rate of blacks at 23.7%. Additionally, Indian unemployment at 13.2% was again similar to the black unemployment rate of 13.9%, while far exceeding the white unemployment rate of 6.9%. Moreover, compared with the white population, the American Indian population had higher rates of geographic mobility and children under the age of 15 and lower

TABLE 4.2

Poverty, Demographics, and Opportunity Structure by Race in Metropolitan Counties*

	American Indian	Black	White	Total
Percent of the Population	0.7%	14.1%	68.3%	100%
Poverty Rate	23.5%	23.7%	10.6%	13.6%
Demographic Characteristics				
Educational Attainment, High School Diploma/Equivalent or less	52.5%	48.1%	37.5%	40.2%
Educational Attainment, College degree or higher	14.8%	19.6%	33.8%	31.7%
Dependent Children, under 15 years of age	23.1%	23.2%	18.3%	20.4%
Older Adults, 65 years and older	6.4%	8.5%	14.0%	11.4%
Female Householders	20.6%	29.3%	9.9%	13.4%
Geographic Mobility, moved in the past 12 months	20.9%	19.9%	15.1%	16.4%
Opportunity Structure				
Less than Full Time	63.5%	60.7%	57.8%	57.4%
Unemployed	13.2%	13.9%	6.9%	8.1%
Employed in:				
Management Occupations	25.4%	29.3%	39.8%	37.1%
Production Occupations	13.9%	13.5%	9.6%	10.8%
Manufacturing Industries**	N/A	N/A	N/A	9.6%
Professional Industries**	N/A	N/A	N/A	12.0%

*Selected counties had a minimum population of 800 for each racial category: American Indian alone, Black alone, and White alone.

**Race-specific data unavailable for these measures.

Source: U.S. Census Bureau, American Community Survey, Five-Year File, 2006-2010.

rates of older adults. Again, in these areas, the rates closely resemble those of the black population. Additionally, more than half (52.5%) of the metro American Indian population had an educational attainment level at or below the high school level, with only 14.8% of the population holding college degrees or higher. Rates were similar within the black population, with 48.1% with a high school degree or less and a slightly higher percentage with college degrees (19.8%) compared with the American Indian population. Educational attainment in the white population, however, was more dispersed, with 37.5% having educational attainment at the high school level or below and 33.8% with college degrees or higher. In some areas, American Indian population characteristics diverged from both black and white population characteristics. For instance, the rates of female-headed American Indian households (20.6%) were more than twice as high as the rate of female-headed white households (9.9%) but considerably lower than female-headed black households (29.3%). The lower rate of female households among American Indians compared with blacks might be a relic of the relocation programs that targeted Indian males but does not explain the difference from the white population. The data in the table nevertheless provide some preliminary evidence supporting the hypothesis that urban American Indian social conditions have been more similar to those of urban blacks than to those of urban whites.

Although urban poverty research is already highly engaged in issues of race and inequality, racialized poverty and inequality research on urban areas has largely grown in response to seminal works on urban, black economic conditions and segregation by Wilson (1978; 1987) and Massey and Denton (1993). As a result, urban research that

considers the contextual effects of places typically focuses on the effects of social isolation and segregation at the neighborhood level (Leventhal and Brooks-Gunn 2000; see reviews by Sampson, Morenoff, and Gannon-Rowley 2002; Small and Newman 2001), whereas the contextual effects of places at the middle range have been overlooked (Lobao 2004). Given that the metro poor are highly segregated within counties (Jargowsky 2003) and that county-level poverty research cannot capture sub-county-level patterns of poverty concentration (Lichter, Parisi, and Taquino 2012), the small populations of American Indians in metro counties make comprehensive and comparative research on urban Indian poverty at the sub-county level virtually impossible short of conducting extensive qualitative research across all metro places where American Indians live. Nonetheless, county-level metro research on American Indians does have a function—to examine patterns of place-based poverty within the urban American Indian population. By examining place-based inequality at the metro county level, we can begin to reveal the determinants of urban Indian poverty, provide a baseline for future analyses of urban Indian poverty, reveal similarities and differences with other races, and indicate directions for in-depth research to augment our understandings of urban Indian poverty so that we can better inform policy affecting Indian residents of cities.

Therefore, I used a middle-range approach to examine the place-based structuring of racialized poverty, employing a multivariate analysis that accounts for important demographic and human capital characteristics likely to contribute to poverty (Becker 1964; Coulton and Pandey 1992; Hong and Pandey 2007) as well as

characteristics of local opportunity structures that link the institutional processes of places to individual-level outcomes (Tickameyer and Duncan 1990). In the next section, I outline the methods used to test the determinants of urban Indian poverty and to examine how those determinants compare to those for black and white urban poverty.

Methods

Following the processes used in previous chapters, I again employed a place-based analysis of poverty. In this part of the study, I was interested not only in how the context of places affected the place rates of poverty but also in how (or whether) place context differentially affected racial groups, specifically how the American Indian experience of poverty in metro areas compared to the experience of poverty for other racial groups. To focus on metro places with a high population of American Indians while being able to compare the results among racial groups, locations were limited to metro counties with populations of 800 or more of each of the following racial groups: American Indians, blacks, and whites.

Place-based studies frequently address race as a factor in the spatial concentration of poverty, using the percentage of racial minorities as a predictor variable in place-based analyses. This study approached things somewhat differently by using a set of race-specific place variables that represented racial group demographic characteristics and opportunity structures of places to predict a place-based rate of racial group poverty. For the variables that represented employment in industries, race-specific variables were not available; I therefore used industry variables based on total

populations, as I did in Chapter 3. Similarly, the GINI index, which was a measure of place-based income inequality, represented income inequality in the total population of an area and was not race-specific. In other words, the GINI was the income inequality within a place rather than the income inequality within a racial group.

To specify poverty, the basic equation that has been informed by various literatures on regional poverty is as follows:

$$\text{POVERTY RATE}_i = BX_i + e_i$$

Where POVERTY RATE is the percent of the population below the poverty threshold in the ith county in the 2006-2010 American Community Surveys (ACS); B is a vector of coefficients; e_i is an error term, and X_i is a vector of demographic, structural, and tribal factors for the ith county, as defined in Table 4.3. For this analysis, I used the ACS reported poverty estimates, which were derived from the Office of Management and Budget in Statistical Policy Directive 14. The Census Bureau measures poverty for families by using a set of dollar value thresholds that vary by family size and composition to determine who is in poverty. For each family whose income in the previous 12 months is below the poverty threshold, that family and the individuals within it are considered to be in poverty. For unrelated individuals, poverty is determined by that individual's total income for the previous 12 months.

To gauge the place effects of poverty, I conducted a series of four regression analyses using the poverty rate as the outcome variable. In the analyses, I based the models on 1) the total population, 2) the American Indian, 3) black, and 4) white population data for metro counties containing at least 800 individuals in each of the

TABLE 4.3
Explanatory Variable List and Definitions

Variable	Definition of Explanatory Variables
Controls	
Total Population*	Total Population of the county
Presence of American Indian Lands	Binary variable that indicates the presence of American Indian trust or reservation lands within the county, coded as 1. If no American Indian lands are present, it is coded as 0.
Demographic Characteristics	
High School*	Percent of the population age 25 and older whose highest level of education is a high school diploma/equivalent degree or less.
Youth*	Percent of the population who are under the age of 15.
65+*	Percent of the population age 65 or older.
Female Householders*	Percent of households that are headed by a female (no husband present).
Geographic Mobility*	Percent of the population age 1 and older who moved homes in the previous 12 months.
Opportunity Structure	
Work Possibilities	
Less than Full-Time*	Percent of the population age 16 and older who were employed less than 35 hours per week, based on the usual number of hours worked in the majority of weeks worked during the previous 12 months. This includes individuals who worked less than one week in the 12 months prior to the survey.
Unemployed*	Percent of the civilian labor force (age 16 and older) who were not at work during the reference week of the survey, were available for work, and were actively seeking employment during the previous four weeks. This figure also includes those who were not working due to temporary illness and those who had been laid off from work but were waiting to be called back to work.
Manufacturing	Percent of the population age 15 years and older who worked in the previous five years and who were employed in manufacturing industries.
Professional	Percent of the population age 15 years and older who worked in the previous five years and who were employed in professional and related industries.
Income Inequality	
GINI	GINI index of income inequality. Based on income data for the county.

*For these variables, figures are calculated based on data for the population used in each regression model: total population; American Indian population; Black population; White population.

racial categories. I included a series of demographic and opportunity structure predictors within these models to reflect the indicators typically used in place-based poverty analyses. In the total population model, I implemented a nested model to test the effects of including the rates of American Indians and blacks as predictors. I used linear regression analysis, including a series of procedures to test the assumptions of the linear regression. The data was tested for spatial autocorrelation using Moran's I. Finding significance, the final regression models included a spatial lag variable to control for spatial autocorrelation.

I also tested for multicollinearity, using measures of tolerance and variance inflation factors (VIF) as well as tests of normality of the residual errors and partial regression plots constructed to test for outliers and linearity. The following section details issues that arose regarding multicollinearity in the models and how I resolved the issues.

Multicollinearity

After specifying an initial set of variables, I tested the model in four different ways with variables constructed from 1) the total population, 2) the American Indian population, 3) the black population, and 4) the white population. In the results for the models based on the total population and white data, I found problems with multicollinearity, particularly with educational attainment and in occupational categories.These multicollinearity issues, however, were not present when the data were restricted to the American Indian and black populations. Note the VIFs and

tolerance associated with the measures of educational attainment and the occupational categories in Tables 4.4 and 4.5. Notably, in both regressions, the VIF and tolerance numbers appeared most problematic for educational attainment measured as a percentage of the total population/white population who had college degrees or higher. They were also somewhat more problematic for the management occupation category than for the production occupation. To examine how these variables might affect the overall regression model, I first dropped the measures of the occupational categories to see how the regression model was affected. The removal of the occupational categories somewhat improved the multicollinearity, with only a minor reduction in the explanatory value of the full model. Table 4.7 shows that the adjusted R-square value changed from .856 to .853 when occupational categories were removed. When the same adjustments were made for the model based on the white population data, the results were similar, as shown in Tables 4.8 and 4.9. Again, for the white population, the VIF and tolerance related to educational attainment were improved compared to the model that contained the occupation variables; however, the numbers remained problematic, indicating continued multicollinearity issues. On the upside, the omission of the occupation variables for the white population model had only a small effect on the adjusted R-square, changing from .836 in the full model to .829 in the model without the occupation variables. Given that multicollinearity remained an issue, I tested the effects of removing the educational attainment variable defined as the percentage of college-educated individuals. This set of regression models indicated that in urban places,

educational attainment, specifically college education, within the white population was highly correlated with other predictor variables.

TABLE 4.4
Collinearity Statistics for Total Population Regression Model

Model	*Variable*	*Collinearity Statistics*	
		Tolerance	VIF
Total Population	(Constant)		
	Total population	0.762	1.312
	Presence or absence of American Indian Lands in the county	0.794	1.26
	Percent of the population with a high school education or less	0.102	9.843
	Percent of the population with a college degree or higher	0.044	22.936
	Percent of the population under 15	0.361	2.771
	Percent of the population age 65+	0.250	4.007
	Percent of householders who are female	0.279	3.582
	Percent of the population who moved in the last year	0.486	2.057
	Percent of the population who did not work full-time year round	0.242	4.132
	Percent of civilian labor force unemployed	0.284	3.519
	Percent in Management Occupations	0.065	15.388
	Percent in Production Occupations	0.103	9.670
	Percent Manufacturing	0.193	5.188
	Percent Professional	0.206	4.859
	GINI	0.332	3.012

TABLE 4.5
Collinearity Statistics for White Population Regression Model

Model	*Variable*	*Collinearity Statistics*	
		Tolerance	VIF
White Population	(Constant)		
	Race: White alone	0.745	1.343
	Presence or absence of American Indian Lands in the county	0.793	1.262
	Percent of White population with high school education or less	0.104	9.577
	Percent of White population with college education or higher	0.039	25.778
	Percent of White population under age 15	0.322	3.105
	Percent of the White population age 65+	0.237	4.219
	Percent of White householders who are female	0.332	3.011
	Percent of White population who have moved in the last year	0.476	2.101
	Percent of White population who did not work full-time year round	0.263	3.807
	Percent of White civilian labor force unemployed	0.338	2.960
	Percent of Total White population in Management Occupations	0.059	16.956
	Percent Total White population in Production Occupations	0.105	9.508
	Percent Manufacturing	0.241	4.145
	Percent Professional	0.206	4.846
	GINI	0.365	2.741

TABLE 4.6
Collinearity Statistics for Total Population Regression, Occupational Category Measures Omitted

Model	*Variable*	*Collinearity Statistics*	
		Tolerance	VIF
Total Population	(Constant)		
	Total population	0.778	1.285
	Presence or absence of American Indian Lands in the county	0.794	1.259
	Percent of the population with a high school education or less	0.115	8.719
	Percent of the population with a college degree or higher	0.064	15.526
	Percent of the population under 15	0.376	2.661
	Percent of the population age 65+	0.259	3.860
	Percent of householders who are female	0.289	3.464
	Percent of the population who moved in the last year	0.496	2.016
	Percent of the population who did not work full-time year round	0.243	4.118
	Percent of civilian labor force unemployed	0.290	3.450
	Percent Manufacturing	0.620	1.613
	Percent Professional	0.236	4.236
	GINI	0.345	2.900

TABLE 4.7
Model Summary for Total Population Regression, Full Model, and Model with Occupational Categories Removed

Model	*R-square*	*Adjusted R-square*	*Std. Error of the Estimate*
All variables	0.863	0.856	1.802
Occupation variables removed	0.859	0.853	1.818

TABLE 4.8
Collinearity Statistics for White Population Regression, Occupational Category Measures Omitted

Model	*Variable*	*Collinearity Statistics*	
		Tolerance	VIF
White Population	(Constant)		
	Race: White alone	0.751	1.332
	Presence or absence of American Indian Lands in the county	0.810	1.235
	Percent total White population with high school education or less	0.126	7.961
	Percent total White population with college education or higher	0.061	16.272
	Percent of White population under age 15	0.340	2.937
	Percent of the White population age 65+	0.252	3.976
	Percent of White householders who are female	0.335	2.985
	Percent of White population who have moved in the last year	0.486	2.058
	Percent of White population who did not work full-time year round	0.264	3.786
	Percent of White civilian labor force unemployed	0.343	2.914
	Percent Manufacturing	0.624	1.604
	Percent Professional	0.223	4.481
	GINI	0.370	2.700

TABLE 4.9
Model Summary for White Population Regression, Full Model, and Model with Occupational Categories Removed

Model	*R-square*	*Adjusted R-square*	*Std. Error of the Estimate*
All variables	0.844	0.836	1.721
Occupation variables removed	0.837	0.829	1.758

Therefore, the use of college education rates was problematic. Educational attainment was nevertheless an important potential indicator of poverty, particularly minority poverty. Thus, I wanted to retain some measure of educational attainment given its theoretical importance but did not want to sacrifice the usefulness of the regression model. I therefore tested the total population and white population regression models again with educational attainment measured as high school education or less. Tables 4.10 and 4.11 report the results for the total population regression. The removal of the rate of college-educated individuals in the total population showed marked improvement in the multicollinearity issues. In fact, with the removal of the college education rates, the VIFs and tolerance figures no longer indicated any serious issues of multicollinearity in the model. Moreover, as compared to Table 4.8, the adjusted R-square did not change when college education rates were removed from the model.

When the adjustments were made to the white population regression model, the results were similar. Multicollinearity, as evidenced by VIFs and tolerance figures shown in Table 4.12, were no longer an issue when college education was removed from the white population regression model. For the white population, the omission of college education rates was somewhat evident in the decrease of the adjusted R-square from .829 to .822. Nonetheless, the .007 difference in explanatory value meant little when issues of multicollinearity clouded the model. It is also worth noting that .822 is still a very high adjusted R-square.

TABLE 4.10
Collinearity Statistics for Total Population Regression Model

Modeled using High School Diploma/Equivalent or less to measure Educational Attainment

Model	*Variable*	*Collinearity Statistics*	
		Tolerance	VIF
Total Population	(Constant)		
	Total population	0.783	1.278
	Presence or absence of American Indian Lands in the county	0.810	1.235
	Percent of the population with a high school education or less	0.282	3.547
	Percent of the population under 15	0.425	2.351
	Percent of the population age 65+	0.307	3.259
	Percent of householders who are female	0.296	3.378
	Percent of the population who moved in the last year	0.639	1.565
	Percent of the population who did not work full-time year round	0.245	4.080
	Percent of civilian labor force unemployed	0.294	3.407
	Percent Manufacturing	0.622	1.608
	Percent Professional	0.305	3.284
	GINI	0.520	1.924

TABLE 4.11
Model Summary for Total Population Regression

Modeled using High School Diploma/Equivalent or less to measure Educational Attainment

Model	*R-square*	*Adjusted R-square*	*Std. Error of the Estimate*
Both Educational Attainment Measures	0.859	0.853	1.818
Rate of High School Education or Less (Does NOT include rate of college education)	0.859	0.853	1.821

TABLE 4.12
Collinearity Statistics for White Population Regression Model

Modeled using High School Diploma/Equivalent or less to measure Educational Attainment

Model	*Variable*	*Collinearity Statistics*	
		Tolerance	VIF
White Population	(Constant)		
	Race: White alone	0.761	1.314
	Presence or absence of American Indian Lands in the county	0.820	1.220
	Percent total White population with high school education or less	0.261	3.834
	Percent of White population under age 15	0.390	2.566
	Percent of the White population age 65+	0.303	3.299
	Percent of White householders who are female	0.342	2.922
	Percent of White population who have moved in the last year	0.605	1.654
	Percent of White population who did not work full-time year round	0.264	3.785
	Percent of White civilian labor force unemployed	0.357	2.800
	Percent Manufacturing	0.624	1.603
	Percent Professional	0.301	3.319
	GINI	0.617	1.620

TABLE 4.13
Model Summary for White Population Regression

Modeled using High School Diploma/Equivalent or less to measure Educational Attainment

Model	*R-square*	*Adjusted R-square*	*Std. Error of the Estimate*
Both Educational Attainment Measures	0.837	0.829	1.758
Rate of High School Education or Less (Does NOT include rate of college education)	0.829	0.822	1.794

Results

When the final variables were specified, I proceeded with four regression analyses for the 1) American Indian population, 2) the black population, 3) the white population, and 4) the total population. The fourth model used a nested regression analysis using the variables specified in Table 4.11 for the first part of the regression (Model 4a). I then added variables to account for the percentage of American Indians and blacks in the total population to test for the effects of race on place-based poverty for the total population (Model 4b). The race-specific analyses used only the variables specified in Table 4.11 and used race-specific data where appropriate and available.

American Indian Poverty

The results pertaining to each regression analysis are summarized in Tables 4.14-4.17. Table 4.14 shows the results of the first regression analysis conducted, which examined the American Indian poverty rate as the outcome measure of interest. In this model, statistical significance was found for the percentage of American Indian child dependents under the age of 15, the percentage of the American Indian population with a high school education or less, the percentage of American Indian female householders, the percentage of American Indians who did not work full time in the previous 12 months, the percentage of the American Indian civilian labor force who were unemployed, the percentage of the population employed in professional industries, and the GINI index. All significant predictors were found to have a positive impact on the percentage of American Indians in poverty, with the exception of the

percentage employed in professional industries measure. In the American Indian regression model, the GINI index produced the highest positive standardized coefficient, whereas the next highest positive standardized coefficient was for the percentage of the American Indian labor force that was unemployed. The smallest negative standardized coefficient was found to be associated with the percentage of individuals employed in professional occupations, with the second smallest negative standardized coefficient found to be associated with the percentage of individuals working within manufacturing, but this predictor was not significant. This regression model was found to be statistically significant, with 45.8% of the variation in the outcome explained based on all predictors included in the model.

TABLE 4.14
Model 1: Poverty Rate, American Indians

Variable	*Unstd. Coef.*		*Std. Coefs.*		*Collinearity*		
	B	*Std. Error*	*Beta*	*t*	*Sig.*	*Tol.*	*VIF*
(Constant)	-40.102	8.216		-4.881	.000		
Controls							
Total Population*	-2.519E-05	.000	-.017	-.364	.716	.829	1.206
Spatial Lag	.123	.074	.078	1.656	.099	.844	1.185
Presence of American Indian Lands	-.209	1.143	-.009	-.183	.855	.751	1.332
Demographic Characteristics							
Youth*	.351	.091	.194	3.877	.000	.738	1.354
65+*	.054	.166	.016	.328	.743	.814	1.228
High School*	.166	.047	.164	3.499	.001	.847	1.181
Female Householders*	.264	.055	.227	4.806	.000	.834	1.198
Geographic Mobility*	.130	.053	.113	2.435	.016	.859	1.165
Opportunity Structure							
Work Possibilities							
Less than Full Time*	.002	.017	.005	.104	.917	.893	1.119
Unemployed*	.488	.075	.298	6.509	.000	.885	1.130
Manufacturing	-.153	.108	-.068	-1.427	.155	.808	1.238
Professional	-.626	.168	-.193	-3.721	.000	.687	1.456
Income Inequality							
GINI	.833	.151	.269	5.498	.000	.774	1.292

Notes: $F(13, 305) = 18.976$, $p < .001$; Adjusted $R^2 = .458$.

Black Poverty

The results of the black population model showed similarities to the American Indian model. The results indicated that the percentage of the black population under 15 years of age, the percentage of the population with a high school education or less, the percentage of the population with female householders, the percentage of the population who moved in the last year, the percentage of the population who did not work full time, the percentage of individuals employed in professional industries, and the GINI index were significant predictors of black poverty rates. As shown in Table 4.15, all significant predictors were found to contribute to higher rates of black poverty, with the exception of the percentage of individuals employed in professional industries. For the black population, the two highest positive standardized coefficients were associated with the percentage of blacks under the age of 15, followed closely by the percentage of blacks not working full time. The lowest negative standardized coefficient was found to be associated with the percentage of the total population employed in professional occupations, with the second lowest negative standardized coefficient associated with the percent of the total population employed in manufacturing, although this predictor was not significant. The black poverty model was statistically significant and explained 59.8% of the variation in the black poverty rates.

TABLE 4.15
Model 2: Poverty Rate, Black

Variable	*Unstd. Coef.*		*Std. Coefs.*		*Collinearity*		
	B	*Std. Error*	*Beta*	*t*	*Sig.*	*Tol.*	*VIF*
(Constant)	-65.067	6.543		-9.944	.000		
Controls							
Total Population*	-2.869E-06	.000	-.048	-1.109	.268	.703	1.422
Spatial Lag	.048	.067	.031	.713	.476	.706	1.416
Presence of American Indian Lands	.949	.827	.047	1.147	.252	.789	1.267
Demographic Characteristics							
Youth*	.621	.095	.296	6.546	.000	.645	1.549
65+*	-.018	.156	-.006	-.117	.907	.456	2.193
High School*	.130	.042	.158	3.058	.002	.497	2.013
Female Householders*	.200	.061	.167	3.258	.001	.499	2.005
Geographic Mobility*	.295	.063	.254	4.671	.000	.446	2.240
Opportunity Structure							
Work Possibilities							
Less than Full Time*	.348	.067	.295	5.154	.000	.403	2.482
Unemployed*	.178	.093	.089	1.914	.057	.616	1.624
Manufacturing	.060	.091	.030	.659	.511	.622	1.607
Professional	-.377	.139	-.132	-2.715	.007	.553	1.807
Income Inequality							
GINI	.785	.127	.289	6.192	.000	.607	1.647

Notes: $F(13, 305) = 35.881$, $p < .001$; Adjusted $R^2 = .598$.

White Poverty

The next regression analysis (Table 4.16) examined the percentage of the white population living in poverty. For the white population, the percentage of the white population aged 65 or above, the percentage of the white population with a high school education or less, the percentage of white households headed by females, the percentage of the white population who moved in the last year, the percentage of the white population who did not work full time, the percentage of the white civilian labor force that was unemployed, and the GINI index were all statistically significant. In this model, the percentage of the white population age 65 and older and the percentage of the white civilian labor force that was unemployed were associated with *lower* rates of white poverty. No similar trend was found for the American Indian population. The remaining significant predictors were found to contribute to higher rates of white poverty. Within this model, the highest standardized coefficient was found to be associated with the percentage of whites not working full time, with the second highest standardized coefficient found to be associated with the percentage of whites with a high school education or less and with the percentage of whites who moved in the past year. The smallest negative standardized coefficient was found to be associated with the percentage of whites age 65 or above, followed by the percentage of the white labor force that was unemployed. The regression model for the white population was also found to be statistically significant, with 82.5% of the variation in the outcome explained based on all predictors included within the regression model.

TABLE 4.16
Model 3: Poverty Rate, Whites

Variable	*Unstd. Coef.*		*Std. Coefs.*		*Collinearity*		
	B	*Std. Error*	*Beta*	*t*	*Sig.*	*Tol.*	*VIF*
(Constant)	-40.833	3.149		-12.968	.000		
Controls							
Total Population*	-2.651E-07	.000	-.029	-1.071	.285	.760	1.315
Spatial Lag	.091	.040	.064	2.265	.024	.714	1.401
Presence of American Indian Lands	.455	.256	.047	1.775	.077	.805	1.242
Demographic Characteristics							
Youth*	-.026	.055	-.019	-.471	.638	.369	2.710
65+*	-.342	.055	-.274	-6.261	.000	.301	3.327
High School*	.176	.021	.394	8.395	.000	.261	3.834
Female Householders*	.576	.078	.306	7.394	.000	.336	2.977
Geographic Mobility*	.378	.032	.376	11.794	.000	.566	1.767
Opportunity Structure							
Work Possibilities							
Less than Full Time*	.360	.041	.414	8.788	.000	.259	3.865
Unemployed*	-.179	.089	-.081	-2.009	.045	.355	2.817
Manufacturing	-.003	.029	-.003	-.103	.918	.619	1.616
Professional	.067	.059	.050	1.141	.255	.301	3.319
Income Inequality							
GINI	.383	.040	.297	9.694	.000	.613	1.633

Notes: $F(13, 305) = 111.347$, $p < .001$; Adjusted $R^2 = .825$.

Total Poverty Models

The results pertaining to the total population models are summarized in Tables 4.17 and 4.18. In Models 4a and 4b, the percentage of the total population living in poverty was the outcome measure of interest. Numerous predictors were found to be statistically significant in both models. In Model 4a, the percentage of the population age 65 or above, the percentage of the population with a high school education or less, the percentage of female householders, the percentage of the population who moved in the past year, the percentage of the population who did not work full time, the percentage of the civilian labor force population who were unemployed, and the GINI index were all statistically significant. The percentage of the population with a high school education or less, the percentage of female householders, the percentage of the population who lived in a different house, the percentage of the population who did not work full time, and the GINI index were found to contribute to higher rates of poverty, whereas the percentage of the population age 65 or above and the percentage of the civilian labor force population who were unemployed both significantly contributed to *lower* rates of total poverty. Within this model, the highest positive standardized coefficient was associated with the percentage of the population not working full time, followed by the percentage of the population with a high school education or less. The lowest negative standardized coefficient was associated with the percentage of the population age 65 or above, followed by the percentage of civilians who were unemployed. This model was explained with 85.4% of the variation in the outcome explained based on all predictors included in the model.

TABLE 4.17
Models 4a: Total Population, All Individuals

Variable	*Unstd. Coef.*		*Std. Coefs.*		*Collinearity*		
	B	*Std. Error*	*Beta*	*t*	*Sig.*	*Tol.*	*VIF*
Model 4a: Total Population							
(Constant)	-49.224	3.292		-14.951	.000		
Controls							
Total Population*	-2.23E-07	0.000	-0.038	-1.54	0.125	0.783	1.278
Spatial Lag	.066	.036	.043	1.813	.071	.854	1.171
Presence of American Indian Lands	.546	.260	.051	2.097	.037	.809	1.235
Demographic Characteristics							
Youth*	.040	.061	.022	.650	.516	.411	2.434
65+*	-.356	.063	-.225	-5.681	.000	.307	3.262
High School*	.184	.022	.341	8.275	.000	.282	3.551
Female Householders*	.509	.060	.343	8.503	.000	.295	3.391
Geographic Mobility*	.398	.032	.336	12.252	.000	.636	1.572
Opportunity Structure							
Work Possibilities							
Less than Full Time*	.461	.045	.460	10.349	.000	.242	4.127
Unemployed*	-.348	.089	-.158	-3.908	.000	.293	3.414
Manufacturing	.046	.029	.044	1.594	.112	.621	1.610
Professional	.000	.060	.000	.007	.994	.303	3.304
Income Inequality							
GINI	.453	.044	.315	10.318	.000	.515	1.941

Notes: Model 4a: $F(13, 305) = 138.085$, $p < .001$; Adjusted $R^2 = .854$

TABLE 4.18
Models 4b: Total Population, All Individuals, Race Variables Included

Variable	*Unstd. Coef.*		*Std. Coefs.*		*Collinearity*		
	B	*Std. Error*	*Beta*	*t*	*Sig.*	*Tol.*	*VIF*
Model 4b: Adding the % of Racial Minorities							
(Constant)	-47.820	3.299		-14.495	.000		
Controls							
Total Population*	-2.369E-07	.000	-.041	-1.652	.100	.764	1.309
Spatial Lag	.054	.036	.035	1.503	.134	.841	1.188
Presence of American Indian Lands	.280	.268	.026	1.045	.297	.736	1.358
Demographic Characteristics							
Youth*	.011	.062	.006	.183	.855	.386	2.588
65+*	-.317	.063	-.200	-5.058	.000	.295	3.386
High School*	.174	.022	.322	7.857	.000	.275	3.633
Female Householders*	.593	.075	.399	7.884	.000	.181	5.539
Geographic Mobility*	.405	.032	.343	12.633	.000	.630	1.588
Opportunity Structure							
Work Possibilities							
Less than Full Time*	.412	.047	.411	8.691	.000	.207	4.828
Unemployed*	-.252	.092	-.115	-2.747	.006	.266	3.758
Manufacturing	.054	.029	.051	1.876	.062	.616	1.624
Professional	.026	.059	.017	.435	.664	.298	3.358
Income Inequality							
GINI	.456	.043	.317	10.580	.000	.515	1.942
Concentration of Minorities							
American Indian	.103	.037	.068	2.768	.006	.759	1.318
Black	-.031	.015	-.080	-2.033	.043	.296	3.374

Model 4b: $F(15, 305) = 124.606$, $p < .001$, Adjusted $R^2 = .859$.

Model 4b implemented a nested model to account for the effects of race on the total poverty rates. The results found in relation to the nested model produced similar results. The two additional variables in this model consisted of the percentage of the population that is American Indian and the percentage of the population that is black. The addition of these two predictors produced a regression model that was significantly improved: ΔF (2, 290) = 6.036, p = .003. The percentage of the population that is American Indian was found to have a **positive** impact upon the percentage of the population in poverty, whereas the percentage of the population that is black was found to contribute to *lower* rates of poverty. Within this model, the highest positive standardized coefficient was associated with the percentage of the population not working full time, followed by the percentage of the population with a high school education or less. The lowest negative standardized coefficient was associated with the percentage of the population age 65 or above, followed by the percentage of civilians who were unemployed. The nested model was also statistically significant, with 85.8% of the variation in the outcome explained based on all predictors included in the model.

Discussion

Examining these results side by side demonstrates how the relative impact of predictors varies among the analyses of the racialized poverty rates. Table 4.19 provides an overview of the most influential indicator variables in each of the models relative to other indicators in each model. Detailed side-by-side results are reported in Table 4.20.

The table reveals some similarities and, more notably, differences among the models. The three most influential indicators within the American Indian model include income inequality, unemployment, and the proportion of children under the age of 15, in that order. Income inequality and the rate of youth are also in the top three predictors for the black poverty model, but the rate of children under the age of 15 has a relatively higher impact than income inequality within the black poverty model. Additionally, for the American Indian model, unemployment has the second highest relative impact on unemployment, but within the black poverty model, the rate of less than full-time work occupies this position.

Comparing the American Indian poverty model to the white and the total population models reveals more differences than similarities. None of the top three predictors of the American Indian poverty rates is found in the top three predictors of the white poverty model or the total population model, as shown in Table 4.19. Table 4.20 provides more detailed reporting of the magnitude and significance of the standardized coefficients. The results of the white population mirror the total population results. In these results, the relatively highest predictors include only one opportunity structure variable followed by two demographic variables: the proportion of the population that is not working full time, the rate of the population with a high school education or less, and the percentage of female householders. In terms of relative impacts, these results indicate a degree of similarity between the determinants of the American Indian poverty rates and those of the black poverty rates and an obvious

dissimilarity when compared with the predictors of the white and the total poverty rates.

TABLE 4.19
Comparison of Poverty Rate Analyses by Race:
Top 3 Most Influential Predictors*
Relative to Other Predictors in the Model

	American Indian	Black	White	Total Population**
1	Income Inequality: Gini (+)	Youth: Children under the age of 15(+)	Work Status: Not Full Time (+)	Work Status: Not Full Time (+)
2	Unemployment (+)	Work Status: Not Full Time (+)	Educational Attainment: High School or Less/Geographic Mobility (+)	Educational Attainment: High School or Less (+)
3	Youth: Children under the age of 15 (+)	Income Inequality: GINI (+)	Female Householders (+)	Female Householders (+)

*Based on Standardized Coefficients

**Using the model that does NOT contain race variables

Key

Demographic Variable

Opportunity Structure Variable

TABLE 4.20

Comparison of Poverty Rate Analyses by Race:

Standardized Coefficients

	American Indian	Black	White	Total Population**
Demographic Characteristics				
Youth*	.194a	.296a	-.019	.022
65+*	.016	-.006	-.274a	-.225a
High School*	.164a	.158a	.394a	.341a
Female Householders*	.227a	.167a	.306a	.343a
Geographic Mobility*	.113b	.254a	.376a	.336a
Opportunity Structure				
Work Possibilities				
Less than Full Time*	.005	.295a	.414a	.460a
Unemployed*	.298a	.089c	-.081b	-.158a
Manufacturing	-.068	.030	-.003	.044
Professional	-.193a	-.132a	.050	.000
Income Inequality				
GINI	.269a	.289a	.297a	.315a

*Based on race-specific data

** Based on regression that does not contain race as indicator

a indicates significance at the .01 level

b indicates significance at the.05 level

c indicates significance at the .10 level

Demographic Indicators

Turning to a discussion of the unstandardized variables, we can directly compare the degree impacts of various predictors across the models. The models show some similarities with respect to the demographic indicators of poverty, with the race-specific and total poverty measures of the percentage of female householders, the percentage of individuals with a high school education or less, and the percentage of those who

moved in the previous 12 months all significant indicators of the race-specific and the total poverty rates. Table 4.21 shows a side-by-side comparison of the unstandardized coefficients (B) that have the greatest absolute impact on the poverty rates for each model. The side-by-side results somewhat mirror the patterns of the standardized coefficients, with more similarities among the most influential predictors of the American Indian model and the black model than among those of the American Indian, white, and total poverty models. Again, the opportunity structure indicators are the most influential in determining the American Indian and black poverty rates, whereas the demographic predictors are more influential in the white and the total poverty models.

Table 4.22 provides a more detailed side-by-side reporting of the unstandardized coefficients for each model. As the table shows, in all the models, the percentage of the population with a high school education or less, the percentage of female householders, the percentage of the population who had moved in the previous 12 months, less than full-time work, and unemployment are significant predictors of poverty. Yet, the impact of these predictors varies between the models. The age structure of the population differs among the models, with similarities between the American Indian and black populations and notable differences for the white population and the total population models. The percentage of the population under 15 is a significant predictor for both the American Indian and black poverty rate models, whereas the percentage of the population age 65 and older is significant for the models based on the white population and the total population data. A 1% increase in the percentage of American Indian child

dependents under the age of 15 is found to be associated with a .351% increase in the percentage of American Indians in poverty. For the black population, the impact of the proportion of youth is slightly higher, with a 1% increase in the black population under 15 associated with an increase of .621% in the black poverty rate.

TABLE 4.21
Comparison of Poverty Rate Analyses by Race:
Top 3 Most Influential Predictors*

	American Indian	Black	White	Total Population**
1	Income Inequality: GINI (+)	Income Inequality: GINI (+)	Income Inequality: GINI (+)	Female Householders (+)
2	Industry: Professional (-)	Industry: Professional (-)	Female Householders (+)	Geographic Mobility (+)
3	Unemployment (+)	Work Status: Not Full Time (+)	Geographic Mobility (+)	Income Inequality: GINI (+)

*Based on Unstandardized Coefficients

Key
Demographic Variable
Opportunity Structure Variable

TABLE 4.22

Comparison of Poverty Rate Analyses by Race:

Unstandardized Coefficients

	American Indian	Black	White	Total Population**
Demographic Characteristics				
Youth*	.351a	.621a	-.026	.040a
65+*	.054	-.018	-.342a	-.356a
High School*	.166a	.130a	.176a	.184a
Female Householders*	.264a	.200a	.576a	.509a
Geographic Mobility*	.130b	.295a	.378a	.398a
Opportunity Structure				
Work Possibilities				
Less than Full Time*	.002	.348a	.360a	.461a
Unemployed*	.488a	.178b	-.179b	-.348a
Manufacturing	-.153	.060	-.003	.046
Professional	-.626a	-.377a	.067	.000
Income Inequality				
GINI	.833a	.785a	.383a	.453a

*Based on race-specific data

** Based on regression that does not contain race as indicator

[a] indicates significance at the .01 level

[b] indicates significance at the.05 level

[c] indicates significance at the .10 level

The proportion of youth is not a significant predictor of poverty for the White population or for the total population. Nonetheless, in both the White and the total population models, the percentage of the population age 65 is associated with lower rates of poverty. For every 1% increase in the older White population, there is a decrease of .342% in the White poverty rate. Similarly, a 1% increase in the proportion

of the population who are over 65 in the total population is associated with a .356% decrease in the total poverty rate. For the model that includes the percentage of American Indians and blacks in the total population, a 1% increase in the older population yields a decrease in poverty of .317%. Yet, in the American Indian and black models, the percentage of the older population is not a significant predictor.

The overall impact of the female-headed household rates on the poverty rates also differs among the models. For the American Indian population, a 1% increase in the proportion of households headed by females increases the American Indian poverty rate by .264%. The impact of the black female household rates on the black poverty rates is similar, with a 1% increase in black female-headed households increasing the black poverty rates by .201%. Nonetheless, in the White population and in the total population, the impact of the female-headed household rates is approximately two and a half times greater. Within the White population, a 1% increase in the proportion of households headed by females produces a .567% increase in the White poverty rate. The results are similar when using the total population data. For every 1% increase in female-headed households in the total population, poverty rates increase by .509%.

The impact of educational attainment is similar across the models. For the American Indian population, a 1% increase in the percentage of the population with high school diplomas or less is associated with a .166% increase in the American Indian poverty rate. The effects on the black poverty rate are similar, with a 1% increase in the rate of the black population with a high school diploma or less contributing to a black poverty rate increase of .130%. For the White population, the 1% increase in this

measure of educational attainment is associated with a .176% increase in the poverty rate. Results in both total population models are similar as well, with a 1% increase in the rate of the population with at most a high school diploma contributing to a poverty rate increase of .184%. When the total population model accounts for the proportion of American Indians and blacks in the population, the impact of educational attainment at the high school level is slightly less pronounced, with a 1% increase producing a poverty rate increase of 0.174%.

Another similarity among the models is that the geographic mobility of the population measured as a percentage of the population who moved in the previous 12 months is a significant predictor of poverty rates. The impact of mobility, however, is the least significant in the American Indian model, with a 1% increase in mobility contributing to only a .130% increase in the Indian poverty rate. The impacts within the black and White populations are higher, producing a .295% increase in the black poverty rate and a .378% increase in the White poverty rate. In the total poverty model, a 1% increase in the percentage of the population who moved in the previous year is associated with a .398% increase in the total poverty rate. The effect is an increase of .405% on the total poverty rate when the proportions of American Indians and blacks are included in the total population model.

Opportunity Structure

In the variables measuring the opportunity structure of metro counties, income inequality as measured by the GINI index of each county significantly contributes to

poverty rates for each racial group model and for the models based on the total population. Additionally, the impact of the GINI on poverty rates is high for each of the models. Nonetheless, the impact appears to be greater for minorities, especially for American Indians. A one-unit increase in the GINI index is associated with a .833% increase in the percentage of American Indians in poverty. For blacks, the impact of the income inequality is similarly high, as a one-unit increase in the GINI is associated with a .785% increase in the black poverty rate. The effects of income inequality are less pronounced in both the White regression model and in the models of the total population poverty rates. For Whites, a one-unit increase in the GINI has less than half the impact that it does in the American Indian model, producing an increase of .383% in the White poverty rate. The total population data (Model 4a) reveal that a one-unit increase in the GINI increases total poverty by .453%. Similarly, when the percentage of American Indians and blacks are accounted for in the total population model (Model 4b), the GINI's impact is similar, with a one-unit increase producing a .456% increase in the total poverty rate.

The percentage of the population who did not work full-time is not a significant predictor of poverty for the American Indian model. However, it was significant in the models of black, white, and total poverty. Unemployment rates, on the other hand, have very different impacts between the race-specific and total population models. For American Indians, a 1% increase in the unemployed American Indian population is associated with a .488% increase in the American Indian poverty rates. Unemployment also contributes to higher poverty rates in the black population, with a 1% increase in

black unemployment associated with a .178% increase in the black poverty rate. Yet, for the White population and for the total population, unemployment rates are associated with *lower* rates of poverty. For the White population, a 1% increase in unemployment is associated with a .179% decrease in poverty. For the total population, an unemployment rate increase of 1% is associated with a .348% decrease in the poverty rate. When the proportions of American Indians and blacks are accounted for, a 1% increase in unemployment is associated with a .252% decrease in the total poverty rates.

Another interesting tendency is that the poverty rate of American Indians responds to industrial segmentation similarly to the response of the black poverty rate. As stated, employment information for industries is available only for the total population, not for specific races, so the models report the impacts of total population employment in industries on the race-specific and total population poverty rates. For these measures, both the American Indian and black poverty rates are significantly affected by the percentage of the total population employed in professional, scientific, management, administrative, and waste management services occupations. Moreover, an increase in the percentage of the population employed in professional and related occupations is associated with *lower* American Indian and black poverty rates. A 1% increase in professional industry employment is associated with a .626% decrease in American Indian poverty and a .377% decrease in black poverty. Yet, for the White population and for the total population models, professional industry employment is not a significant predictor. A related finding is that employment in manufacturing is *not* significant for predicting poverty rates in any of the models.

Conclusions

After World War II, the American Indian population experienced a demographic shift from being a primarily rural population to an urban one. As of 2010, over 60% of American Indians lived in metro counties, and many are third- and fourth-generation non-reservation residents. The policies that facilitated this demographic transition were implemented under the auspices of desegregation and the assimilation of American Indian people into mainstream American society. Yet, the data herein suggest that economic conditions as evidenced through the determinants of the American Indian urban poverty rates are anything but mainstream. Not only do urban American Indians suffer higher rates of poverty than do Whites, but they also fare worse than Whites on numerous other social indicators, including unemployment and educational attainment. Compared with the general population, urban American Indians are more geographically mobile, have higher rates of female householders, have higher rates of children under the age of fifteen, and lower rates of older adults. These differences are even more pronounced when compared with urban Whites. Moreover, urban American Indian demographic and social characteristics are much more similar to the historically disadvantaged urban black population than to the general or White populations. Yet, American Indians really differ from other populations, particularly the White population, in the determinants of poverty rates.

Dissimilarities between urban American Indian and other racial groups become apparent in the analyses of the place-based poverty rates of different racial groups. These differences indicate that place-based dynamics of poverty have racial dimensions

that are not revealed by the simple inclusion of minority rates in place-based poverty analyses. Although American Indians and blacks in urban areas share many similarities in demographic and social characteristics, which are much more similar to each other than to those of the White population, the absolute and relative impacts of these characteristics differ somewhat. These analyses indicate that opportunity structure factors largely determine the urban American Indian poverty rates and the black poverty rates. For American Indians, county-level income inequality, the proportion of children under the age of 15, and unemployment rates have the greatest absolute and relative impacts on the urban Indian poverty rates, whereas higher rates of county-level employment in professional industries offset American Indian poverty. Similarly, for blacks, income inequality and the proportion of children under 15 have high absolute and relative impacts on black poverty rates, whereas county-level employment in professional industries offsets black poverty. Nonetheless, unemployment rates have a lesser impact on black poverty rates in both relative and absolute terms. Instead, for blacks, the rates of less than full-time work indicate poverty rates more than unemployment does. For Whites, the proportion of female householders, a lack of full-time work, educational attainment (rates of high school education or less), geographic mobility, and to a lesser degree income inequality have the greatest absolute and relative influence on White poverty rates. Additionally, it should be noted that, in terms of absolute impact, income inequality has the highest impact on poverty across all racial groups but is far less pronounced for Whites than it is for either American Indians or blacks.

These analyses indicate that, although there might be differences between the characteristics of American Indians and other segments of the population, we cannot assume that those characteristics mean the same thing across racial groups. The differences between the groups indicate that poverty rates are not only the product of a specific confluence of characteristics within places but that those characteristics also differentially affect poverty *by race*. The differences observed herein suggest that although some place-based factors, such as income inequality, affect everyone, they do not affect every group in the same way.

This analysis also indicates an important finding about the relevance of race in urban places. Wilson has suggested that the civil rights policies of the 1960s opened labor market opportunities to minorities and paved the way for the emergence of a black middle class. Yet, despite the opportunities that non-discrimination legislation might have created, educational attainment impacts Indian poverty less than do measures such as local income inequality, Indian unemployment rates, county-level employment in professional industries, and the rates of less than full-time work. This suggests that poverty might be a product less of Indian work qualifications and vocational training than of the structure of work opportunities available to Indian individuals within a place.

The dissimilarity between urban American Indian poverty and urban White poverty, the similarities between the urban American Indian and the black poverty analyses, and the significance of the opportunity structure predictors all suggest that the labor market is not equally accessible to all racial groups. This might be a product of

lack of access to social and/or labor market discrimination. Moreover, the Indian poverty analysis supports the conclusion that the *historical* structuring of American Indians in urban places influences the *contemporary* dynamics of Indian poverty. Just as Wilson (1978; 1987) suggested that the overrepresentation of blacks in the urban underclass is a product of black historical oppression and exclusion from the labor market, the place-based dynamics of Indian poverty might well result from the historical exclusion of American Indians from urban places more generally. Lacking social networks for finding job opportunities or other resources to counter deprivation, new American Indian migrants to cities might be at a disadvantage when entering urban labor markets. This is particularly evidenced by the fact that unemployment contributes to higher Indian poverty rates, whereas for Whites it contributes to *lower* poverty, perhaps because compared with minority populations, Whites are better socialized to find and take advantage of resources. American Indian centers, for instance, often formed along with the rise of the Indian middle class, whereas the urban Indian core of laborers remained peripheral, and so these centers have not necessarily been accessible to all American Indian urban residents.

Moreover, this data set cannot speak to the differences between new Indian migrants to metro areas and third- and fourth-generation Indians. In the black population, the processes of isolation and segregation occurring at the neighborhood level have had negative social and economic outcomes for urban blacks (Massey and Fischer 2000; Quillian 2012; Wilson 1996; Wilson 2009). Despite policy advocates' intention for urban Indian relocation to be a process of "desegregation," the isolation

and segregation associated with the impoverished Indian enclaves and neighborhoods described by Fixico might well influence the outcomes found in this analysis. Moreover, the third- and fourth-generation Indians living in cities might not only inherit the limited social networks of their parents, but they also face new challenges in the form of longer work hours and multiple jobs, which hinder their ability to develop and strengthen community and social relationships. The studies of black neighborhood processes might provide a template for examining segregation, poverty, and neighborhood effects, but the historical and contemporary differences between the black and Indian populations as well as the results of this study suggest that American Indian-specific research is necessary to understand urban American Indian poverty and disadvantage.

The differences between the determinants of the American Indian poverty rates and those of other racial groups reflect a need for additional research on how places differentially affect the social and economic experiences of different racial groups. American Indians in urban places are an especially understudied group whose ever-growing presence in urban places and relative disadvantage call for increased attention to the factors affecting social and economic opportunities in urban places. Yet, there are several questions this analysis is unable to address. For instance, as suggested above, we do not know how American Indian residential patterns in cities might affect access to social and economic networks and opportunities. This study also does not account for the relationship of metro counties to specific reservation communities and how and whether these relationships affect the structures of work and related opportunities on

reservations and in cities. Moreover, self-determination policies, tribal government gaming, and new, diversified economic development strategies occurring within American Indian communities might impact American Indian migration choices over the life course or from generation to generation in ways that are yet unknown. Despite the obvious need for increased attention to urban Indian life chances, this study nevertheless points to an important conclusion: American Indians in cities are not experiencing opportunity equal to that of their White counterparts.

The determinants of urban Indian poverty are not limited to the range of opportunities available in cities but are characterized by a constellation of demographic and opportunity structures. The similarities between the analyses of American Indian poverty and black poverty together with the *dissimilarity* to the White poverty analysis support the idea that the social and institutional structures of places contribute to divergent economic realities for racial minorities in cities. Moreover, it seems that as blacks have inherited a legacy of structural disadvantage stemming from a specific macrohistorical context, so too have urban American Indians. As the urban Indian population continues to grow despite deprivation and inequality, there is an increased need for research on the dynamics that contribute to urban Indian poverty and the processes that influence migration, including attention to migration cycles over the life course and from generation to generation. The unique history of American Indian urbanization and urban identity coupled with the relationship between urban Indians and home communities demands individualized attention, lest the invisibility of urban

Indian reality be reinforced through policies that maintain Indian poverty and deprivation.

Notes

[1] The figure is even higher when including individuals who identify as American Indian in combination with another race.

[2] Based on respondents who identified as exclusively American Indian or Alaska Native.

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CHAPTER 5

Conclusion

> *Land has been the basis on which racial relations have been defined since the first settlers got off the boat. Minority groups, denominated as such, have always been the victims of economic forces rather than the beneficiaries of the lofty ideals proclaimed in the Constitution and elsewhere. One hundred years of persecution after Emancipation, the Civil Rights laws of the 1950's and 1960's were all passed by use of the Interstate Commerce Clause of the Constitution. Humanity, at least on this continent, has been subject to the whims of the marketplace.*
>
> *(Deloria 1988/1969)*

Racial formation is a process that occurs under a specific set of historically contingent circumstances affecting race relations, discrimination, and social and material inequalities and has differential effects according to the way various racial categories are embedded in social structures (Omi and Winant 1994). For American Indians the processes of racial formation have been codified into law such that the legal status of 'Indianness' has tangible consequences for individuals (Garroutte 2001). Yet the effects that these historically contingent categories of race have on social opportunities are not well understood, especially in the context of American Indian peoples. For example, an article appeared in a Virginia newspaper in 2008 that indicated that Democrats and Republicans, in an effort to maximize potential votes, had begun to reach out to American Indians whose political influence increased as a result of successful tribal economic development enterprises such casinos (Williams 2008). The apparent gains in visibility and political clout notwithstanding, the article pointed out

the persistent disparities in American Indian poverty, employment, and health care, despite the doors that opened after the civil rights movement. Additionally, one interviewee stressed that including American Indians within the larger category of 'racial minority' acknowledges a shared experience of discrimination but obscures differences in values. This brief news item highlighted an important assumption that sociologists are particularly well-suited to address, namely the interviewee's perception that minorities face identical forms of oppression and discrimination. This is a difficult assumption to tackle given that racial hierarchy has been embedded into U.S. institutions in ways that favor the white majority (Feagin 2006). The collapsing of American Indians into the category of 'racial minority' has been shown to be part of an interlocking system of colonial domination that erodes sovereignty by feeding the narrative that tribal nations were conquered and their members melded into American society (Steinman 2012). Although 'American Indian' fails to convey the diversity of histories, cultures, and experiences that exist within that category, it's important to try tease out those historically contingent factors that have affected American Indians, as opposed to other racial and ethnic groups, in order to better understand contemporary disparities in social outcomes. The purpose of this study was to address such shortcomings in popular and scholarly understandings of the socioeconomic position of American Indians by focusing on a particular social issue—American Indian poverty—and examining its antecedents in light of the macrohistorical racial dimensions that shape contemporary social outcomes.

Race has been implicated in the capitalist development of the U.S with a legacy that affects contemporary social outcomes, as Du Bois was one of the first to demonstrate in *Black Reconstruction* (Du Bois 1935/1976). In an effort to understand contemporary American Indian poverty, which continues to be higher than white poverty, I examined the way that Indian identity has been linked to place through processes of land exploitation and the removal and relocation of Indian peoples to demarcated tribal territories. The exploitation of Native lands and the racialization of territory has circumscribed the reach of tribal nation autonomy to the borders of federally determined tribal territories. Removal and relocation to reservations has been shown to entrench cycles of poverty within reservation boundaries (Anders 1981; Sandefur 1989). As such, American Indian lands are not only sites of physical residence to American Indians affiliated with specific tribal nations, but also social spaces in which individual and collective Indian identities coalesce in political, social, and economic activity oriented toward members of the tribal nation.

Yet while many American Indians still live on reservations and contend with reservation poverty, a growing number of American Indians live in urban areas, the result of a demographic shift that began in the wake of World War II when federal policies were oriented toward diminishing reservation poverty by relocating American Indians to urban areas, terminating tribal nations and reservations, and dismantling the trust responsibility to American Indian peoples. This demographic shift has created divergent realities for American Indians living on and off reservations. Places—whether they are American Indian lands, cities, counties, or other defined physical

areas--engage in a dialectic with social relations and structures of power in ways that produce tangible consequences for people who live in those places. Thus in this project I felt it was necessary to understand how American Indian economic activity has been historically organized in order to better discern how racial disparities, specifically in the form of poverty, has been produced and maintained.

This study contributes to the bodies of literature that have found that racial segregation and isolation is linked to persistent and concentrated poverty (Lichter, Parisi, and Taquino 2012; Massey and Eggers 1990; Massey and Denton 1993; Massey and Fischer 2000; Quillian 2012; Wilson 1987) as well as to those studies that have linked local characteristics to spatial inequality and concentrated poverty (Castle 1993; Duncan 1992; Duncan and Lamborghini 1994; Duncan 1996; Dwyer 2010; Lobao et al. 2012). The contributions that this study makes to those literatures can be summed up simply: 1) place matters; 2) segregation matters; 3) opportunities matter; and 4) race matters. Tables 5.1 and 5.2 illustrate the findings of the parallel analyses that comprise this study. Table 5.1 lists the three most influential variables for each analysis based on unstandardized coefficients, while Table 5.2 lists the three most influential indicators based on standardized coefficients. In the next section I will reference these tables as I elaborate on the four main conclusions drawn from this study.

Place Matters

This study demonstrates that poverty rates are patterned differentially depending on the characteristics of the places where American Indians live, as

illustrated in Tables 5.1 and 5.2. My use of the term 'place' here is akin to the territorialities and collections of structural and demographic variables that Gieryn (2000) would argue do not sufficiently constitute 'place.' However, space as a site of social relations does not adequately convey the mutually constitutive aspects of territorial and social rules that converge in bounded locales (Sack 1993). Indeed, in this study using social structures and aggregated characteristics as proxies for 'place' has allowed me to address the ways that social outcomes are spatially sorted.

This study shows that the determinants of poverty are not identical in their effects on poverty rates across different places of measurement. At the urban level, American Indian poverty rates are determined primarily by the degree of income inequality in the locale, unemployment, employment in professional industries, and the percentage of youth. On American Indian lands, however, poverty rates are predominantly determined by work status, whether or not a tribal nation has a gaming compact, and the rate of female householders. The difference between the significance of work status on American Indians and unemployment in metropolitan counties may be a function of the both the availability of work as well as behavioral responses to perceived and real economic conditions. For instance, if work historically has been sparse on American Indian lands, residents may give up seeking employment under the assumption that there is no work to be had (Frantz 1999). American Indians in cities, however, may have migrated with the intent of finding work, assuming more options

TABLE 5.1
Analyses Comparison
Top 3 Most Influential Predictors*

	County-Based Indian Poverty**	American Indian Lands Poverty**	Metropolitan County-Based Indian Poverty
1	American Indian Land Status (-)	Gaming Compact (-)	Income Inequality: Gini (+)
2	Industry: Professional (-)	Work Status: No Work (+)	Industry: Professional (-)
3	Income Inequality: Gini (+)	Work Status: Part-Time (+)	Unemployment (+)

*Based on Unstandardized Coefficients

TABLE 5.2
Analyses Comparison
Top 3 Most Influential Predictors
Relative to Other Predictors in the Model

	County-Based Indian Poverty**	American Indian Lands Poverty**	Metropolitan County-Based Indian Poverty
1	Work Status: Not Full-Time (+)	Work Status: No Work (+)	Income Inequality: Gini (+)
2	Educational Attainment: less than HS (+)	Work Status: Part-Time (+)	Unemployment (+)
3	Unemployment (+)	Female Householders (+)	Youth: Children under the age of 15 (+)

*Based on Standardized

**Using the Final Model

Key
Demographic Variable
Opportunity Structure Variable
Other (e.g. place attribute, tribal factor)

were available in the city. As a result, those who live in metropolitan areas and are jobless may actively seek work and therefore be classified as unemployed rather than not working which implies non-participation in the labor force. This distinction may seem irrelevant in that both groups are jobless, but it may point to the role place context and social structure play in patterning work availability and job-seeking behaviors.

The spatial difference in the determination of place-based poverty rates has relevance for tribal nation development policy and practice. The relationship between life on American Indian lands and life off-reservation is complex and not well understood. Resources are not finite and tribal nations and urban Indian residents have found themselves in competition for resources to assist their respective communities in improving social conditions (LaGrand 2002). These tensions were already of concern to American Indian activist and scholar Vine Deloria, Jr. when he penned the seminal *Custer Died for Your Sins* in the late 1960s. He wrote

> Urban Indians may very well endorse proposals of reservation people without a thought of the larger issues which are emerging in the cities. Employment is inevitably bound to housing, which in turn is bound to credit availability. Concentration of simple issues designed for upgrading reservations may not take into account the complexities of the urban situation. (Deloria 1988/1969:252).

Deloria warned that reservation programs intended to produce jobs on reservations may be out of touch with the conditions affecting migration decisions of American Indian individuals. These concerns are just as, if not more, relevant today as they were in 1969. Not only must American Indian tribal governments be concerned with how extra-local economic structures affect local economies on American Indian lands, they

must also consider how the configurations of local, national, and global economies among other factors affect the migration decision-making process.

Segregation Matters

Segregation matters, but not for the reasons one might assume. The findings of this study would seem to challenge the notion that segregation necessarily contributes to higher rates of poverty, as the presence of American Indian lands within a county was found to be associated to *lower* rates of county poverty (Chapter 2, see also Table 5.1). This finding directly counters studies of urban black poverty that have found that social isolation within segregated neighborhoods limits access to social networks and resources necessary for social advancement. But I caution the reader not to jump to the conclusion that segregation is not oppressive or isolating. For one, the presence of American Indian lands plays a relatively small role in reducing poverty as compared to other determinants (see Table 5.2). Poverty on American Indian lands remains substantially high, but it appears that characteristics other than territorial status alone account for those high rates of poverty. Second, the finding does not so much call into question the oppressive and isolating nature of segregation as it raise the question of how American Indian communities have been able to *transcend* the oppressive force of segregation. If anything the finding points to the potential for tribally determined development to ameliorate the political and economic forces that have produced and maintained reservation poverty.

The concept of segregation carries with it the ideas of race and ethnicity that do not apply to American Indian communities as they apply to other racial and ethnic groups. Conceptually, a neighborhood is not a nation or subnational unit with claims to sovereign authority. Yet we cannot entirely abandon the notion of reservations as segregated spaces because the history of the reservation system is one of oppression, violence, and forced removal based on membership in an ethnic group. What we should consider are the issues of power and authority, in particular the ways that American Indians have reclaimed those sites as spaces of American Indian authority. These political changes of the 1960s have contributed to the reconfiguration of power relations with remarkable gains for American Indian tribal nations (Champagne 2005; Wilkinson 2005).

The results of Chapter 3 provide preliminary support for the idea that self-determined development can counteract the isolation of racial segregation in that they showed that tribal government gaming operations were associated with lower rates of poverty on American Indian lands (see Table 5.1). Although Snipp (1986) critiqued the potentially exploitive force of self-determination policies that open tribal lands to external penetration, his analysis predated the widespread gaming phenomenon. Snipp was specifically calling into question natural resource development activities that literally and figuratively mined American Indian lands such that the control over and financial gains of such activities primarily occurred outside of tribal lands. The success of tribal government gaming, however, has provided tribes with the resources to pursue interest group strategies and gain leverage in the political process (Witmer and

Boehmke 2007). Nevertheless new found political clout as exercised through participation in the political process and coordination with state and federal governments has the potential to erode treaty rights (Witmer and Boehmke 2007). What remains to be seen is whether American Indian political and financial gains will prompt federal policy-makers to impose increased limitations on sovereignty, such as those associated with the provisions of Indian Gaming and Regulatory Act, to other tribal development activities. If so, tribal nations may face a shift in the flow resources and the balance of power toward external interests.

Opportunities Matter

Another finding of note is that opportunity structures matter. When examining the place-based determinants of poverty (county-based American Indian poverty rates and reservation poverty rates), the most relatively and directly influential determinants were indicators of local opportunity structure (see Tables 5.1 and 5.2). Rates of poverty on American Indian lands, of Indian poverty at the county level, and Indian poverty in metropolitan counties were less determined by characteristics of the population (demographic) as they were by the opportunities in those places. For each analysis, only one demographic indicator ranked among the top three most influential relative to other predictors, but the exact demographic variable depended on the unit of analysis (see Table 5.2). Looking across counties in the contiguous U.S., the percentage of the American Indian population with a high school degree or less was the only demographic variable associated with higher rates of poverty, whereas the percentage

of female householders contributed to higher poverty rates on American Indian lands and the percentage of youth was associated with higher poverty in metropolitan counties.

As both Tables 5.1 and 5.2 demonstrate, opportunity structure variables predominate in predicting rates of poverty across all three analyses, but the specific opportunity structures vary depending on the unit of analysis. At the county level and metropolitan county level, income inequality and industry segmentation affect American Indian poverty rates. Higher rates of income inequality and unemployment contributed to higher poverty, while higher rates of employment in professional industries contributed to lower rates of poverty. On American Indian lands, however, work status along with the tribal factor indicating the presence of a gaming compact have the most influence on poverty rates.

The collective weight of these results indicate that high rates of American Indian and reservation poverty are not simply artifacts of population characteristics, but rather a consequence at least partially attributable to the availability of and access to work opportunities. Enhancements in job training or educational improvement programs alone will make little difference in poverty rates if there are no jobs to be had. Instead social policies need to be multi-pronged to address poverty, joblessness, and the social issues associated with them. Poverty itself is problematic, but when it operates in the context of joblessness it presents a different set of challenges than those facing the working poor. Joblessness among the urban black population as a result of the removal of jobs from cities to suburbs, the departure from inner cities of a black middle class has

created intersecting social, cultural, and psychological stresses that have been linked to crime, the dissolutions of families, and social disorganization (Wilson 1996). The dynamics of American Indian urban unemployment are relatively unknown, but anecdotal evidence points to a lack of social networks and resources (Fixico 2000; Johnson 1996; LaGrand 2002). Policies must be designed to enhance access to and availability of local work opportunities, but they must also consider what types of employment are desirable in a locale and how development activities may alter social dynamics. For instance, in reservation communities, the income improvement associated with the opening of gaming operations has been concentrated primarily among low-skill workers and has been linked to an increase in high school drop-out rates and a reduction in college enrollment (Evans and Kim 2006).

In cities, historical factors, experiences, and constraints have affected races and ethnicities in different ways and shaped work-related and job-seeking behaviors (Wilson 1996). At the time, Wilson used this evidence to promote increased race-neutral programs. Wilson has since revised his position, recognizing that race-specific policies such as affirmative action are necessary to provide opportunities to minority groups and to overcome obstacles to social mobility (Wilson 2011; Wilson 2012). I would argue that the findings in this dissertation also support the need for race-specific programs that attend to the causes of race-specific outcomes and limit social mobility, as opposed to race-neutral programs that may overlook critical differences affecting racialized poverty and deprivation. Urban areas now contain third and fourth generation American Indians as well as new migrants from American Indian lands,

whose behaviors may be shaped not only by cultural beliefs, values, and traditions, but also through their experiences with a racial system that has formalized identity claims, delegitimized non-reservation Indian identity, and tied access to resources to the ability to make and act on those claims. Furthermore, we know very little about the long-term and intergenerational effects of direct or voluntary relocations. As such future research on American Indian poverty as well as those policies designed to combat poverty and increase employment opportunities should take the long view of history and consider social, cultural and spatial context.

Race Matters

Although this dissertation was not intended to explicitly test for race-effects on poverty, it nevertheless supports the conclusion that race matters in the distribution of socioeconomic opportunities. Although Wilson (1978) suggested that the significance of race declined in the post-civil rights era, opening space for minorities to climb the social ladder into the middle class, he recognized that systems of racial hierarchy embedded into the economic system created a persistent and overrepresented underclass of urban blacks. As the results of this study show, race continues to be an important factor in the distribution of poverty and opportunity. Not only was the proportion of minorities a significant predictor of total poverty rates in metropolitan counties, the pattern of poverty determinants varied by race within metropolitan counties (Chapter 4). This implies that a one-size-fits all approach to policy will be insufficient because the salient causes of poverty for whites, for example, are not the same as those for American

Indians. From the early findings in urban poverty research, research and policy became oriented toward locational redistribution, with the hopes that moving poor blacks out of segregated neighborhoods would solve the problems of racial inequality in cities. That idea is virtually identical to the motivation behind tribal termination and the urban relocation programs of the 1950s. In each case, the experiment failed. As this study shows, American Indians living in cities not only suffer from higher rates of poverty than other racial groups, the factors that contribute to those high rates of poverty are different from the factors that contribute to the poverty of other races.

Race matters because racial hierarchy is embedded in institutions that allocate resources—institutions like the system of federal Indian law that systematically dispossessed American Indian peoples of land and resources, established rules of Indian membership and identity that are literally based on the percentage of Indian blood one can prove to possess in a federally recognized tribe, and created race-based, isolated sites of residence (Garroutte 2001). Notably, tribal membership rules and the reservation/trust lands system continue to be principal features of contemporary federal Indian law. These features may be artifacts of colonial processes, but that does not mean that they are irrelevant. Indeed their relevance to tribal operations and development activities affecing the socioeconomic conditions of American Indian lands has created the complex and often uneasy relationship between American Indian reservation and urban life. Moreover, those processes continue to affect American Indians by shaping how American Indian identities are legitimized and delegitimized and how they negotiate the oppositional ideas of American and Indian that dominate

identity discourse (Steinman 2012). American Indians do not shed their identities as 'Indian' upon moving into cities or off reservation lands, regardless of whether they are viewed as authentic or legitimately 'Indian.' This study indicates that living in cities does not appear to erase the effects of Indianness. American Indians are not simply absorbed into urban labor markets subject to the identical structural opportunities and constraints as other racial and ethnic groups. Rather the assemblage of factors that determine American Indian poverty rates in cities forms a different pattern than for other races living in the same place (Chapter 4).

Final Thoughts

American Indian poverty is not a singular problem or experience with which to contend. Instead, there are poverty*ies* of places—Indian poverties of non-Indian places and poverties of Indian places. In other words, the fact of being American Indian does not alone determine poverty, but the constellation of factors of race, place, and space may affect an individual's experience of poverty. Moreover, these poverties mean that as American Indian individuals move across and between these locales, their experiences of poverty and deprivation may differ from place to place.

This study points to a need for research on the relationship between reservation and urban life. Studies of reservation/urban migration patterns can elucidate the economic interaction between reservation and urban labor markets, clarify the processes that influence migration decisions, and reveal the life-course and intergenerational effects of these migrations on individuals and communities. More

importantly, studies that recognize urban and reservation as sites of experience rather than permanent markers of identity can challenge the urban/reservation dichotomy that feeds tensions, identity politics, and competition for resources within the American Indian population.

This dissertation does not purport to be a complete picture of American Indian poverty. American Indian data in the American Community Survey is admittedly lacking with very small samples even in highly populated metropolitan counties. Within the reservation data, some tribal nations, such as the Ononadaga Nation, refuse to participate in the ACS or Census based on a principle of non-interference. The storied history of Census sampling also fuels mistrust of Census takers and surveys. As a result, the picture captured with this type of data will always be somewhat incomplete. But rather than abandon the project altogether, I interpret the limitations of the data and the patterns found in this study to be an indication of a need for more Indian-specific measurements. A return to the oversampling of the American Indian population as conducted in the 1980 census would be a start to improving American Indian data. Although quantitative sampling of these populations may be problematic, the data can be helpful for both federal and local policy making. Tribal operations and development do not occur in a vacuum. Despite the wide variety of cultural traditions and beliefs, and specific colonial histories, all tribal nations must negotiate the exercise of sovereignty within the context of an institutionalized racial system while also contending with national and global economic forces. Comprehensive data that documents socioeconomic conditions and allows for racial and spatial comparisons can

be a powerful tool for claims-making, particularly as indigenous groups increasingly politicize in national and global arenas.

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