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# Property institutions and business investment on American Indian reservations☆

Randall Akee [a,b,*], Miriam Jorgensen [c,d]

[a] UCLA Luskin School of Public Affairs, 3250 Public Affairs Building, Los Angeles, CA 90095-1656, United States
[b] IZA, Bonn, Germany
[c] Native Nations Institute for Leadership, Policy and Management, University of Arizona, 803 E. 1st Street, Tucson, AZ, United States
[d] Harvard Project on American Indian Economic Development, Harvard University, 79 John F. Kennedy Street, Cambridge, MA 02138, United States

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ABSTRACT

We test the hypothesis that property institutions are responsible for the persistent low levels of business and economic development on American Indian reservations. American Indian lands are held in trust by the US Federal government and may not be used as collateral. We exploit the uniform and equal distribution of land between the Agua Caliente tribe and non-Indians in Palm Springs, CA in our analysis. Due to the General Allotment Act of 1887, the land was divided in a checkerboard pattern with even-numbered parcels provided to Agua Caliente government or individual tribal members and odd-numbered parcels (held in fee-simple status) were sold to non-Indians. Because of this, we overcome the usual land quality selection problem between the two types of property institutions. We find that holding local amenities and other characteristics of the parcel constant, there is no difference in the level of business investment on trust and fee simple properties. These results indicate that the inability to use American Indian land as collateral does not drive the low levels of observed business investment; other mechanisms and institutions may be the culprit.



## 1. Introduction

Why extraordinarily high levels of poverty and unemployment persist on American Indian reservation lands – especially when surrounding counties or states often have better economic outcomes – remains an open question. Real per capita income for American Indians living on reservations was less than half that of the US average for the census years 1970–1990 and declined to almost one third the US average for the years 2000 and 2010. Over the past three decades, the average unemployment rate on American Indian reservations has hovered around 20%, while it ranged between 6 and 9% for the US as a whole. Family poverty rates on American Indian reservations decreased over the period of 1990–2010 (falling from highs of 50% to recent lows of 30%), but these rates are still three times the national average (Kalt and Taylor, 2005; Akee and Taylor, 2013). Observers have noted that business investment on American Indian reservations is similarly poor (Harrington, 2012; Miller, 2012).

A variety of mechanisms have the potential to explain the low levels of economic development observed on American Indian reservations. One such mechanism is the lack of legitimacy of many existing American Indian political institutions (Cornell and Kalt, 2000; Akee et al., 2013). Another is the complex jurisdictional environment within reservation boundaries, in which civil and criminal authority are allocated among federal, state, county and tribal governments, and which vary from reservation to reservation (Goldberg and Champagne, 2006; Anderson and Parker, 2008; Dimitrova-Grajzl et al., 2012). Additionally, the lack of educational infrastructure and human capital in Native American communities has been well documented (Kalt and Taylor, 2005; Akee and Taylor, 2013). Finally, access to and rights for land and mineral resources are not always well defined. Additionally, property institutions on reservations often differ from non-reservation lands (Grogan et al., 2011); we will discuss these differences at length in later sections of the paper.

The highly endogenous nature of institutions complicates rigorous investigation of many of these mechanisms. In this paper, we focus on a single mechanism — land tenure institutions on American Indian

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* Corresponding author at: UCLA Luskin School of Public Affairs, 3250 Public Affairs Building, Los Angeles, CA 90095-1656, United States. Tel.: +1 310 825 6934.
*E-mail addresses:* rakee@ucla.edu (R. Akee), mjorgens@u.arizona.edu (M. Jorgensen).

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reservations. We are able to overcome the usual endogeneity problem by focusing on a single American Indian reservation (the Agua Caliente reservation in Palm Springs, CA) and on a plausibly exogenous assignment of land and property institutions by the US Federal government due to the General Allotment Act of 1887 (also referred to as the Dawes Act). In this research environment, we are able to clearly identify the effect of land tenure on business investment both on and off the American Indian reservation. Our research provides the first evidence that the particular land tenure common to *all* American Indian reservations – trust land status – is not responsible for the low levels of current business investment.

Trust land status may serve as an obstacle to business development because it precludes the use of land as collateral in traditional mortgages. All American Indian reservation lands are held in trust by the US Federal government and cannot be seized or foreclosed upon by lending institutions.[1] The individually and tribally owned Agua Caliente reservation lands are all held in trust by the US Federal government. Because of this characteristic, the land does not function exactly as fee simple property and makes acquiring financing for business investment much more difficult.[2] Many commentators and scholars believe that trust land status is a leading cause for underdevelopment on American Indian reservations.[3] However, our results suggest that given long-term leasing options and an equalization of land quality and location, the trust land status does not pose a significant obstacle to business development and investment. Given appropriately structured incentives trust lands function much the same as fee-simple parcels in land markets.

Our research concurs with previous research on the importance of property institutions for economic development. Findings such as those by Iyer and Do (2008), Banerjee and Iyer (2005), De Soto (2000) and Besley (1995) affirm that property ownership conditions investment incentives for the poor in developing countries and gives them access to additional financial capital resources (Field and Torero, 2004). On American Indian reservations, private property already exists both at the individual and tribal government levels, and our analysis takes the existence and benefits of private property ownership as a given. We differ from previous research by examining a sub-set of private property ownership – trust land status – and investigate whether this alternate form of the private property institution is as detrimental for business development as some pundits, policy analysts and scholars suggest.

Three prior economic studies consider the effect of trust land status on economic development. Anderson and Lueck (1992) find that there is lower overall agricultural investment and productivity on American Indian land relative to non-Indian lands, a result they attribute to the trust status of reservation lands. However, they are unable to control for either land quality or the potential endogenous selection of American Indian versus non-Indian parcel ownership. Alcantara (2005) looks at housing investment on six Canadian reserves and finds that a non-fee simple property right (that is similar to the trust land property rights that exist on American Indian reservations) can, with alternative collateralization options, lead to substantial home building. Akee (2009) examines residential housing investment in Palm Springs, CA and finds in ordinary least squares regressions that there is little evidence of the effect of the trust land status on housing investment.[4] Unfortunately, none of these studies provides any insight into the effect of trust land status on business investment.

Section 2 of this paper provides a brief history of American Indian policy with regard to land ownership and describes the situation for the Agua Caliente Band of Cahuilla Indians in particular. The Agua Caliente provides an ideal research environment in which to control for land quality and selection issues. Section 3 introduces our data and measures. In Section 4 we present a basic theoretical framework for the effect of property rights on land investment. Section 5 provides the empirical strategy and results. Section 6 concludes.

## 2. Brief history of Agua Caliente and American Indian reservations

American Indian reservations took their modern form in the late 19th century. Prior to that the territories and regions of many American Indian tribes and communities had not been explicitly defined in legal and jurisdictional terms. However, beginning in the mid-19th century as American westward expansion continued, the US government required a means to open up existing American Indian territories to homesteaders and mineral prospectors. American Indians were assigned to well-defined territories and areas (Miller, 2008). Eventually, there was a concerted effort to open up even these reservation lands to additional non-Indian settlement and development. In 1887, the US Congress authorized the Dawes Act (25 U.S.C.A. 331), also known as the General Allotment Act, which assigned American Indian household heads 160 acre plots of reservation lands. If the total reservation area contained more land than necessary for these individual American Indian allotments, the US government sold the remaining "surplus" lands to non-Indians. The Dawes Act resulted in a loss of two-thirds of the lands under American Indian control; the land base had declined from 138 million acres in 1887 to 48 million acres by 1934 (Canby, 1998).

The Agua Caliente Band of Cahuilla Indians underwent a similar process of allotment as other American Indian reservations. President Ulysses S. Grant established the Agua Caliente reservation by an executive order in 1876 (Tiller, 1996). The reservation totaled over 31,000 acres in this desert environment and included an important source of water — the eponymous palm springs. As a result of the Dawes Act, the reservation was divided into large, consecutively numbered, one-mile by one-mile square blocks (Kray, 2004).[5] Fig. 1 provides an overview of the initial land assignment. The US Federal government gave the odd-numbered blocks to the Southern Pacific Railroad (Kray, 2004). These odd-numbered parcels were eventually sold, and the land developed for housing and resorts.

The even-numbered blocks were sub-divided into smaller parcels and assigned to individual Agua Caliente tribal members (citizens). Additional lands were reserved for the Agua Caliente tribal government. Tribal members contested the original assignment of land parcels, arguing that a few individuals received the most valuable land parcels within the reservation (nearest to the central business district). In order to

[1] American Indian reservation lands are held in trust by the US Federal government unless parcels within the reservation have been sold to non-Indians and they have converted to fee simple lands. Technically these converted fee lands are still within the existing American Indian reservation boundaries, however, their jurisdiction and land tenure status have changed dramatically and are not strictly considered to be a part of the tribal government lands.

[2] However, the trust land status provides some important protections and benefits that do not exist for fee simple lands. First, trust lands are exempt from local property taxes. Second, income earned on these trust lands by individual American Indians is tax-exempt. These benefits represent permanent transfers and originate from the unique political relationship between American Indians and the US Federal government and the history of land purchases, seizures and treaties.

[3] Lance Morgan, CEO of Ho-Chunk, Inc. has been a vocal opponent of trust land status. See for instance Morgan (2005). In Canada, Manny Jules has been an advocate of private property on First Nations' lands. See for instance First Nations Property Ownership Initiative, http://fnpo.ca/Home.aspx.

[4] There is a convergence in housing investment over time between trust and fee lands in Palm Springs. There is a residual difference of about 8%, which is small compared to the initial difference of 81% in the 1960s. At least part of this remaining difference can be explained by the residential mortgage income tax deduction that is allowed on fee simple land but not for leased land (Akee, 2009).

[5] Not all reservations had such equitable division of land (in terms of quality and location) between the American Indian owners and non-Indians. In many other instances, officials from the Department of the Interior reserved the highest quality land for non-Indians. In fact, the US Federal government did not need the agreement of tribal governments to allot them or to determine which lands would be assigned to American Indians or non-Indians. The Supreme Court in Lone Wolf v. Hitchcock (1903) ruled that the Department of the Interior could determine whether and how the allotment process was to occur (Shoemaker, 2003).