

**Solving the Growth Puzzle:
Understanding Variation in Socioeconomic Change
on American Indian Reservations**

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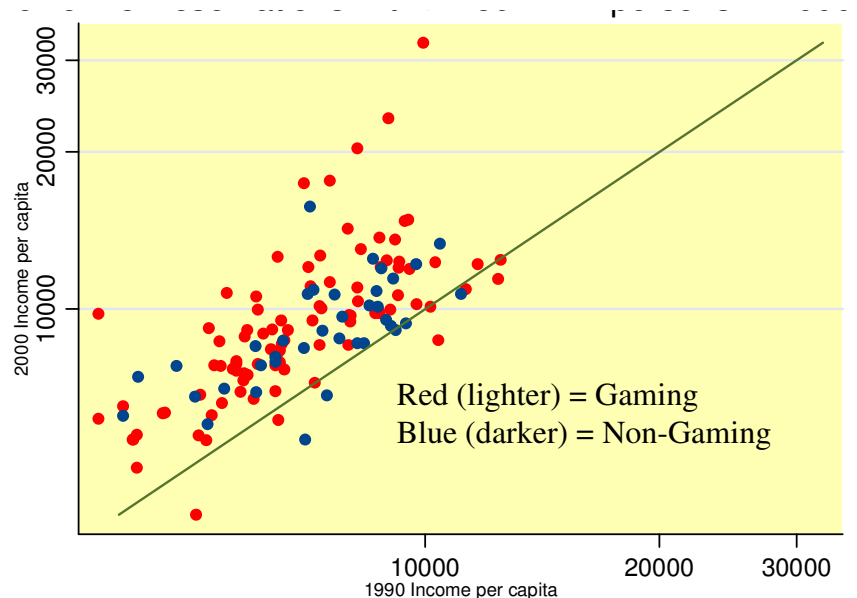
Abstract

Preliminary Findings

The 2000 US Census showed that American Indians living on Indian lands continued to experience substantially below average socioeconomic conditions. Yet, the data also show significant improvement across a host of indicators. In other words, the story emerging from the 1990s was one of mixed results—there was a great deal of improvement, but still a large gap to be closed.

One aspect of these mixed results has been, as yet, little discussed. It is the great variability in *who* achieved gains across the many Census-based indicators of wellbeing. For example, Indians living on reservations with casinos opening by the end of the 1990s experienced slightly higher rates of per capita income growth than did those in nations without gaming, but only on average. As shown in the Figure 1 below, which plots real per capita incomes in 1990 against incomes in 2000 (so that those whose incomes were the same in both years would appear as points on the diagonal), there were gaming and non-gaming nations at both ends of the statistical spectrum.

Figure 1. Per Capita Income 1990-2000, lower-48 reservations with AIAN population > 150 in 1990



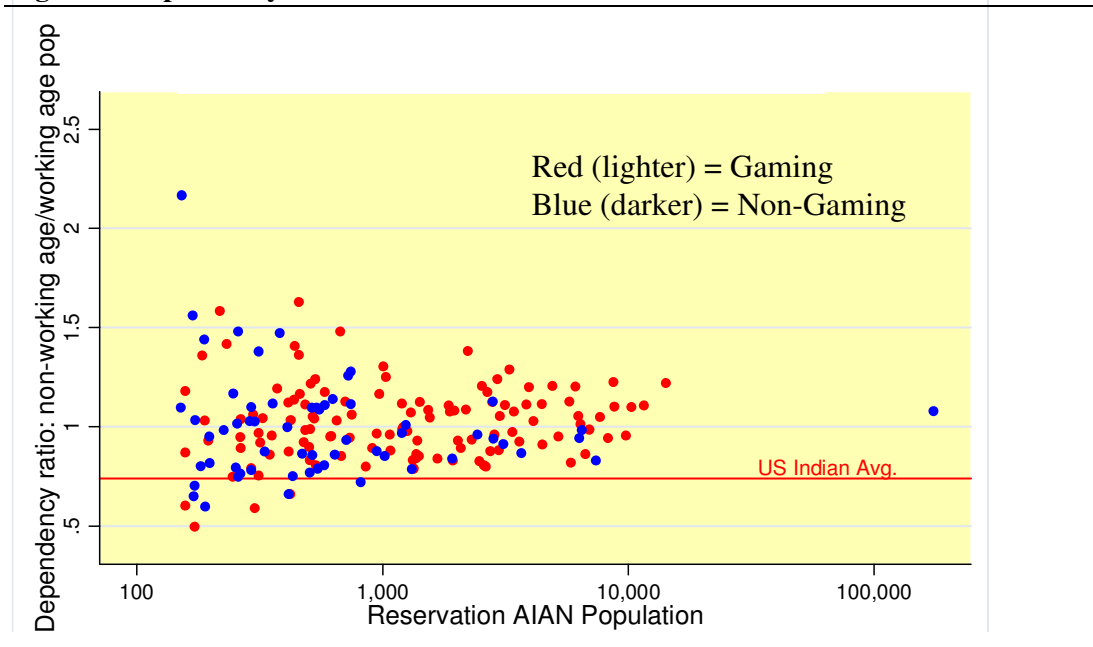
The variation raises a more fundamental question than “Did your nation enter the casino gaming industry in the 80s and 90s?” Instead, the relevant question seems to be “How did both gaming nations and non-gaming nations achieve positive progress?” This research refines the questions and explores possible answers in two steps. First, it uses exploratory data analysis to illustrate two things: (1) the diversity in the extent and nature of change across Indian nations, and (2) the relationship between, on the one hand, per capita incomes, unemployment, and other socioeconomic indicators and, on the other, regional economic activity, initial socioeconomic conditions, the advent of casino gaming, and measures of self-government. Second, it uses econometric tools to quantify and test patterns of change over the decade.

Preliminary analysis reveals a variety of important differences between the nations making substantial and less substantial gains in the decade of the 1990s, and challenges some common assumptions. For example, neither gaming nor reservation population size explain income growth. Gaming tribes, non-gaming tribes, tribes with small populations, and tribes with large populations can all be found in both the high- and low-growth groups (Figure 1).

The analysis also points to some factors that receive insufficient attention in many discussions of Native nation development, such as the labor supply. High rates of unemployment in Indian Country typically lead observers to describe the reservation labor supply as “large.” But a more important issue may be whether the labor force is large enough relative to the number of dependents (those who are not part of the labor force because they are too young, too old, or disabled). Where the number of dependents per worker (the dependency ratio) is low, more of the income workers generate can be spent on improving quality of life or invested for economic growth. But where the number of dependents per worker is high, proportionately more worker income has to be spent just to maintain current conditions. In effect, the society has to run faster just to stay in place, let alone grow.

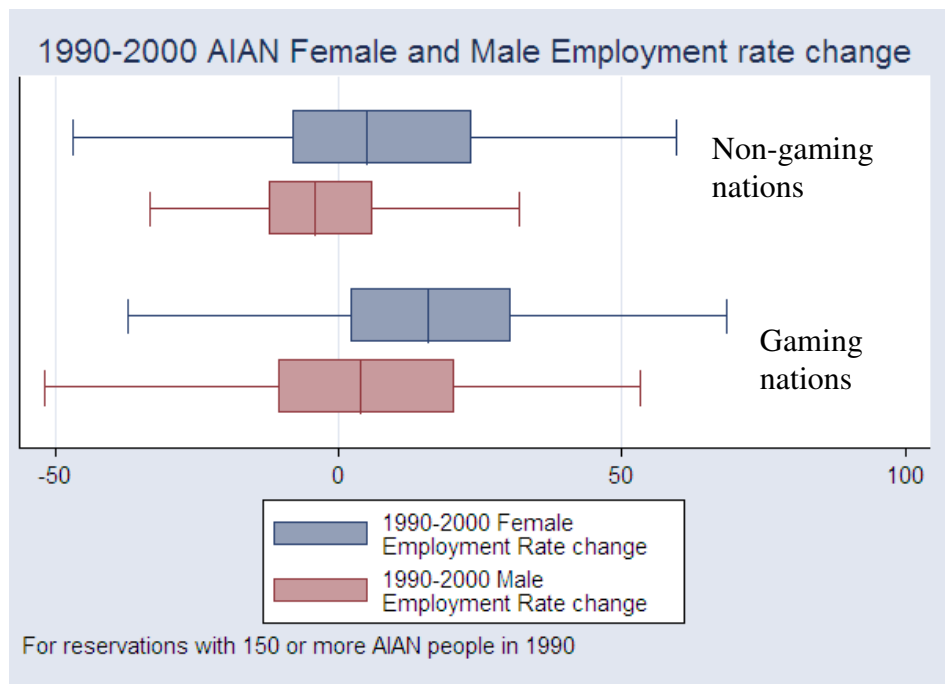
Figure 2 shows a simplified version of the dependency ratio on lower-48 reservations having populations of at least 150 AIAN persons (“simplified” refers to the fact that the calculation excludes information on the disabled, which is unavailable). Clearly, there is a very different dependency ratio on-reservation than off: almost all the points plotted for Native nations’ dependency ratios lie above the “all Indians” average. In part, the pattern shows “brain drain”—the residency of working-age Indians in metro and other off-reservation areas with employment. But Figure 2 also shows substantial variation in Indian nations’ ability to create incentives which retain productive workers in the community. The relationship between these factors (labor migration, incentives to work in-community, etc.) and economic growth are worth exploring.

Figure 2. Dependency Ratio on US Reservations with 150 or More AIAN Persons



As a last example, we report an intriguing result about where change is occurring in reservation employment. Figure 3 is a “box plot” that presents the entire range of results for the sample (the extremes of the graphed lines), the 25th and 75th percentile cut-offs (the ends of each “box” or rectangle graphed), and the mean of the data (the center line). Especially as one category is compared to another, these charts are useful in showing both mean and distribution changes in the data. Across the board, there were some very large increases from 1990 to 2000 in the percentage of the population that was working. But in both gaming and non-gaming communities, the change in the percentage of females working was greater than the change in the percentage of males working. In Native nations with gaming, this difference may be attributable to the dominance of women in service industry jobs. In Native nations without gaming, it is much more difficult to speculate about drivers, particularly because the results are so sobering: on average, a lower percentage of AIAN men living on reservations were employed in 2000 than were employed in 1990.

Figure 3. Female and Male Employment Rate Changes



The research reported in this presentation is part of a much larger, more comprehensive, ongoing project to draw practical conclusions by observing changes in Indian Country over the decade of the 1990s (and when Census 2010 is released, we intend to be well-prepared to extend the analysis). The project aims to understand the relative roles that such things as self-determination, quality of governance, education, and other factors have played in Indian nations’ efforts to improve the situations of their peoples. Ultimately, our population focus also will include tribal citizens living near but not on tribal land, since this group is an important contributor to many Native nations’ overall economies.

Practical Implications of the Research for Tribal Communities

Certainly, Native nations located near large metropolitan markets that operate a gaming facility do well economically. And yet, preliminary data analyses suggest that the variables account for a fraction of the overall variation in progress experienced by American Indian reservation residents in the 1990s. More variation needs to be explained. What other factors are tightly associated with socioeconomic recovery? Which are under tribal control? Knowledge gleaned from this research project will help Native nations focus their efforts and know which particular self-governance issues to prioritize.

Policy or Practical Relevance of the Research

The practical implications for tribal communities will at the same time be policy implications for policymakers elsewhere. For federal policymakers, the lesson from the 1990s seems to be that self-determination, not gaming alone, is the socio-economic development strategy with the most traction in Indian Country. Reservation income growth and collapse has been decoupled from federal spending fluctuations for the first time in at least three decades. By examining the variation in socioeconomic outcomes, we also hope to be able to highlight the role that self-governance compacting and other federal investments in capable government have in socioeconomic recovery.

A Thank You to Tribal Leaders

The opportunity to present to a public audience of Indian leaders is of great benefit. Our research has always been improved when it has been analyzed and critiqued by people solving the practical problems of Indian self-governance in their daily work. *Thank you.*