The Indian Gaming Regulatory Act and Its Effects on American Indian Economic Development

Author(s): Randall K. Q. Akee, Katherine A. Spilde and Jonathan B. Taylor

Source: The Journal of Economic Perspectives, Summer 2015, Vol. 29, No. 3 (Summer 2015)

2015), pp. 185-208

Published by: American Economic Association

Stable URL: https://www.jstor.org/stable/43550127

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at https://about.jstor.org/terms



is collaborating with JSTOR to digitize, preserve and extend access to $\it The\ Journal\ of\ Economic\ Perspectives$

The Indian Gaming Regulatory Act and Its Effects on American Indian Economic Development[†]

Randall K. Q. Akee, Katherine A. Spilde, and Jonathan B. Taylor

he Indian Gaming Regulatory Act (IGRA), passed by the US Congress in 1988, was a watershed in the history of policymaking directed toward reservation-resident American Indians. IGRA set the stage for tribal government-owned gaming facilities. It also shaped how this new industry would develop and how tribal governments would invest gaming revenues. Since then, Indian gaming (the casinos and bingo halls owned by tribal governments in the United States are also sometimes referred to as tribal gaming or tribal government gaming) has approached commercial, state-licensed gaming in total revenues. Gaming operations have had a far-reaching and transformative effect on American Indian reservations and their economies. Specifically, Indian gaming has allowed marked improvements in several important dimensions of reservation life. For the

■ Randall Akee is an Assistant Professor of Public Policy, University of California at Los Angeles, Los Angeles, California. He is a Research Fellow, Harvard Project on American Indian Economic Development, Harvard Kennedy School of Government, Cambridge, Massachusetts; Faculty Affiliate, Center for Effective Global Action (CEGA), University of California, Berkeley, California. Katherine Spilde is an Associate Professor of Hospitality and Tourism Management and Endowed Chair of the Sycuan Institute on Tribal Gaming, San Diego State University, San Diego, California. Jonathan B. Taylor is President of the Taylor Policy Group, Sarasota, Florida. He is also a Research Affiliate, Harvard Project on American Indian Economic Development, Harvard Kennedy School of Government, Cambridge, Massachusetts, and Senior Policy Associate, Native Nations Institute, Udall Center for Studies in Public Policy, University of Arizona, Tucson, Arizona. Akee is the corresponding author. The authors' email addresses are rakee@ucla.edu, kspilde@mail.sdsu.edu, and jonathan@taylorpolicy.com.

[†] To access the Data Appendix, visit http://dx.doi.org/10.1257/jep.29.3.185

doi=10.1257/jep.29.3.185

first time, some tribal governments have moved to fiscal independence. Native nations have invested gaming revenues in their economies and societies, often with dramatic effect. Table 1 provides selected characteristics of American Indian social and economic conditions over the past two decades: incomes for American Indians grew at six times the US rate; female labor force participation rose; unemployment fell; and reservation housing quality improved. Relative improvement across a range of census indicators was particularly strong in the 1990s, the first census decade after IGRA's passage, and continued in the 2000s, albeit at a slower pace.

While on average there have been large improvements, the effect of Indian gaming varies tremendously across tribes. Some tribes have had spectacular successes; others have found gaming to be a small part of their economic portfolio and of limited importance to their tribal government revenues and communities. Annual Indian gaming revenues increased from about \$100 million in 1988 to \$28 billion dollars in 2013 (National Indian Gaming Commission 2014; Senate Committee on Indian Affairs 1988). The number of tribal gaming operations went from fewer than 30 to about 450 across 31 states. Tribal gaming affects reservations with fewer than 100 residents to those with populations that number in the tens of thousands. In addition to the variation arising from differential access to markets, corporate governance, and managerial skill, there are instances where state-tribal conflict has held Indian gaming below its potential.

The focus of this paper is on Indian Country, a broad term often used to describe tribal lands in the United States. The term also has specific meaning in US law (18 USC §1151). In 2012, the contiguous 48 states held 324 reservations (or trust lands or joint use areas) in 32 states, home to more than 300 federally recognized tribes (Osier 2012) and 540,000 people self-reporting that they were American Indian or Alaska Native alone (that is, not in combination with other races) (US Census 2011a). An additional 33 federally recognized tribes were affiliated with 33 census tribal statistical areas in California, New York, Oklahoma, and Washington. After the reservations themselves, it is typical to find the next-highest concentration of members of a tribe living in the reservation environs or in nearby cities: say, Navajo living in Flagstaff, Arizona, or Oglala Lakota in Rapid City, South Dakota. Of course, many American Indians maintain civic, economic, social, and cultural ties with reservation communities regardless of where they live. The discussion here focuses on conditions in the contiguous 48 states and does not characterize distinctive Native Hawaiian and Native Alaskan histories, policies, or conditions.

We begin with an overview of policymaking leading up to the political and legal fights for Native self-determination, of which Indian gaming is an outgrowth. We consider the steps, starting in the late 1980s with a key US Supreme Court decision

¹ In all 50 states, the population reporting American Indian or Alaska Native (AIAN) alone was 2,932,248, and the number of Americans reporting AIAN alone or in combination with one or more races was 5,220,579 (US Census 2011a).

Table 1
Selected Indicators of Social and Economic Condition
(Indians on reservations in the contiguous 48 states in bold vs. US all-races averages in parentheses)

	Amount (in percent unless indicated as \$)			Change (in percentage points unless indicated as %)		
	Census 1990	Census 2000	ACS 2006–10	1990s	2000s	Both decades
Real per capita income	\$7,673 (\$24,951)	\$10,227 (\$ 27,798)	\$11,406 (\$ 26,893)	33.3% (11.4%)	11.5% (-3.3%)	48.6% (7.8%)
Real median household income	\$21,201 (\$52,001)	\$28,689 (\$54,077)	\$28,298 (\$51,076)	35.3% (4.0%)	-1.4% (-5.5%)	33.5% (-1.8%)
Child poverty	55.6 (18.3)	44.3 (16.6)	43.9 (19.2)	-11.4 (-1.7)	-0.4 (2.6)	-11.8 (0.9)
Family poverty	47.7 (10.0)	35.7 (9.2)	32.2 (10.1)	-12.0 (-0.8)	-3.5 (0.9)	-15.4 (0.1)
Unemployment	25.7 (6.2)	21.9 (5.7)	18.9 (7.9)	-3.9 (-0.5)	-3.0 (2.1)	-6.9 (1.6)
Labor force participation	50.9 (65.3)	51.5 (63.9)	52.4 (65.0)	0.6 (-1.3)	0.9 (1.1)	1.5 (-0.3)
Male labor force participation	57.4 (74.4)	54.7 (70.7)	54.1 (70.9)	-2.7 (-3.7)	-0.6 (0.2)	-3.3 (-3.5)
Female labor force participation	44.8 (56.8)	48.5 (57.5)	50.8 (59.4)	3.7 (0.8)	2.3 (1.9)	6.0 (2.6)
Overcrowded homes*	16.1 (4.7)	14.7 (5.7)	8.2 (3.1)	-1.4 (1.1)	- 6.5 (-2.6)	- 7.9 (-1.6)
Homes without complete plumbing	20.9 (0.8)	13.7 (0.6)	8.6 (0.5)	-7.2 (-0.1)	- 5.1 (-0.1)	-12.4 (-0.3)
Homes without complete kitchens*	11.1 (1.1)	10.9 (1.3)	10.7 (2.7)	-0.2 (0.2)	-0.2 (1.4)	-0.4 (1.6)
High school degree only	29.3 (30.0)	31.2 (28.6)	35.0 (29.0)	1.9 (-1.4)	3.8 (0.4)	5.8 (-1.0)
College graduate or more	4.0 (20.3)	6.0 (24.4)	7.4 (27.9)	2.0 (4.1)	1.5 (3.5)	3.4 (7.6)

Notes: Numbers for "Indians on reservations" are in bold; numbers for "all races nationwide" are in parentheses underneath. Dollars are 2009 dollars.

and the Indian Gaming Regulatory Act of 1988, which led to the expansion of Indian gaming. We then turn to a discussion of how the growth of Indian gaming has affected Native Americans living on or near reservations, and how it has affected nearby localities and regions. We conclude with thoughts about the future of Indian gaming and the research agenda in this area.

^{*} Due to data limitations, the reservation figures for overcrowded homes and homes without complete kitchens are the all-races, rather than Indian, statistics (Akee and Taylor 2014).

A Brief Policy History of Indian Country

Most American Indian reservations were established by treaties and executive orders in the 19th century. Since then, Indian policy has oscillated between policies seeking to dissolve American Indian communities and tribes, and policies supportive of American Indian self-rule under duly constituted governments (for overviews, see American Indian Lawyer Training Program 1988, pp. 8–15; Cornell 1988, p. 14; Wilkins 2002, p. 105).

Under the "Allotment Era" inaugurated in 1887 by the Dawes Act, federal law privatized reservation lands (for example, apportioning 160 acres per household) and marked large portions of reservation lands as "surplus" suitable for sale to private citizens. As with many laws, the Dawes Act was supported by a coalition of well-intentioned, as well as opportunistic, political forces (Carlson 1981), but the underlying idea was that individual ownership would usher Indians (and their land) into the mainstream economy. By 1934, 86 million acres of reservation land—62 percent of the total—had transferred out of Indian ownership via sale, foreclosure, lien, and fraud (Wilkinson 1988, p. 20). As a result of the impoverishing effects of the Dawes Act (for example, as documented in Meriam et al. 1928), the Indian Reorganization Act of 1934 (IRA) ushered in a "New Deal for Indians." The law ended land allotment on American Indian reservations, promoted constitutional self-government, and pointed to federally chartered tribal corporations as the primary vehicles for stimulating American Indian economic progress (Wilkins 2002). By the 1950s, policy for American Indians shifted again, to the "Termination Era," which was marked by legislation disbanding particular tribes and by passage of PL 83-280, which transferred certain tribes' criminal (and limited civil) jurisdiction to state governments.

By the late 1960s and early 1970s, American Indian assertions of tribal sovereignty via litigation and political action heralded the contemporary "Self-Determination Era," in which the federal government delegated powers and responsibilities to tribal governments. This era provided greater autonomy to tribal governments in the determination of their political institutions, economic activities, and development (Wilkins 2002). One example of this increased autonomy arose from the Indian Educational Assistance and Self-Determination Act of 1975. Under that act and successive amending legislation, Native nations tailored federal programs (such as education services) to tribal cultures and reservation conditions by contracting to deliver the federal program services directly or by compacting with the US government to operate multiple programs under multifunction arrangements similar to federal block grants to states.

Over the last few decades, executive orders from presidents of both parties have consistently supported principles of Indian self-government and a government-to-government relationship between the federal and tribal governments (Nixon 1970; Carter 1979; Reagan 1983; Bush 1991; Clinton 1994, 2000; Bush 2004; Obama 2009). In addition, federal policy increasingly treats tribes like states, or otherwise gives Indian governments latitude in crafting policies for housing, healthcare, education,

workforce development, crime, and natural resources.² In this period, many tribes sued the US government to defend property rights in salmon, oil, water, and timber that had been weakened by non-Indian encroachment or mismanagement by federal officials and agencies.

Through all of the various federal policy approaches toward American Indians, there is consensus that federally directed development has failed to produce sustained economic growth on reservations. Economic bright spots in Indian Country had been few (Cornell and Kalt 1992, p. 3). American Indians residing on reservations have regularly been among the poorest people in the United States. In the 1970 US Census, the per capita income of Indians on major US reservations was 32 percent of the US average. It rose to 41 percent of the national average in 1980 but fell to 32 percent again by 1990 (Akee and Taylor 2014). The decline in the 1980s has been attributed to the pronounced retreat of federal funding directed toward Indian Country in that decade (Trosper 1996).

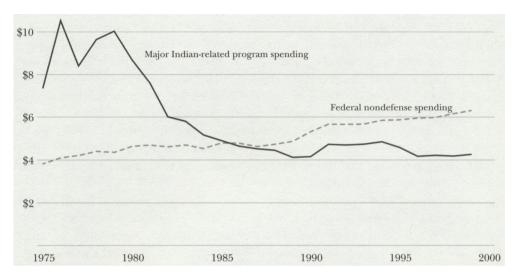
A number of obstacles to effective political rule and economic development help explain the persistence of reservation poverty. The historical legacy of Indian Country involves a loss of indigenous culture and language, the isolation of tribal communities on marginal lands, and the destruction of traditional tribal government structures (Cornell and Kalt 1995, p. 406). Potential investors confronted unfamiliar (or nonexistent) courts, laws, and commercial codes on American Indian reservations. Property interests were often unclear or held in federal trust, hindering transactions. In particular, inheritance rules often led to fractionated ownership, so that sometimes approval had to be sought from scores of owners—some of whom owned only a few square feet—before a property could be bought or sold (GAO 1992; Russ and Stratmann 2013).

Tribal governments were poorly equipped in the 1970s and 1980s to meet these challenges. Weak institutions of self-governance resulted in increased opportunism and corruption in some places. To make matters worse, tribal governments did not generally have the ability to raise revenues via taxation as most states and counties do (Fletcher 2004). For example, tribal governments cannot tax tribal lands held in trust by the federal government (McCullough 1994). Historically, issuing bonds was also prohibitively difficult (Clarkson 2007, p. 1015), although a few tribes have now managed to do so (Brashares and O'Keefe 2013).

Federal programs did not put things right. Expenditures in the "major programs affecting the nation's Indian population, particularly those programs targeting Indians in federally recognized tribes" totaled \$4.4 billion in 1999 (Walke 2000), but as shown in Figure 1, this funding had decreased dramatically in the 1980s on a per capita basis (per service-eligible Indian), and did not keep pace with

² For example, amendments to the Clean Air Act and Clean Water Act explicitly established rules under which tribes can attain "treatment as state status" for making and enforcing environmental standards. More recently, Title XI of the Wall Street Reform and Consumer Protection Act of 2010 (better-known as the Dodd–Frank Act) defines tribes as states in the definition: "the term "State" means any State, territory, or possession of the United States . . . or any federally recognized Indian tribe, as defined by the Secretary of the Interior under section 479a-1(a) of title 25."

Figure 1
Federal Spending on Major Indian Programs per Capita (thousands of 2014 dollars)



Source: Walke (2000); and FRED (2014) for deflating nominal dollars.

Notes: Per the Congressional Research Service (CRS), Indian-related includes program spending directed at "American Indian and Alaska Native tribes and their members because of their political status as Indians, not because of their racial classification or simply because they are citizens" (Walke 2000, p. 199). It includes the Bureau of Indian Affairs, the Office of Special Trustee for American Indians, the Indian Health Service (IHS), the Administration for Native Americans (Department of Health and Human Services), the Office of Indian Education (Department of Education), the Indian housing development program (Department of Housing and Urban Development), and the Indian and Native American Training Program (Department of Labor). The American Indian population denominator is the Indian Health Service's tabulation of service-eligible Indians—a population smaller than the nationwide American Indian and Alaska Native population but larger than the on-reservation population—both as recorded by the Census Bureau. Federal nondefense excludes both national defense expenditures and interest on the federal debt and is divided by intercensal population estimates (Walke 2000, p. 203, 207).

national per capita nondefense spending thereafter. The US Commission on Civil Rights (2003, p. iii) found federal spending for Indians "not sufficient to address the basic and very urgent needs of indigenous peoples." For example, per capita federal Indian healthcare spending was half what the federal government spent on prisoner health care at the time (p. 44).

Given these issues, external and internal investors often fled the scene (Cornell and Kalt 1998). The few extant instances of successful economic development in Indian Country were primarily confined to natural resource extraction industries and federal grant-funded projects. Tribes with confirmed treaty rights and large land bases were able to extract resource rents from low-cost, low-sulfur coal (Crow), old-growth timber (Warm Springs), hydropower (Salish & Kootenai), trophy elk (White Mountain Apache), and other resources. Tribes were sometimes able to move downstream: for example, they could collect fees on the right to harvest lumber or to use hydropower or coal, and then invest the proceeds in sawmills, power

plants, and other value-adding segments. Prior to vigorous self-determination, such resource development took place under federal supervision and was often limited in scale and efficiency (Krepps and Caves 1994, p. 134).

Tribal governments sought capital where they could, but often found that federal grants for economic development were the only viable option. Some tribes were able to build motels, industrial parks, and malls with federal grants. But such projects depended upon the grant-making trends of the day and were often poorly matched to competition, labor force, or demand (Cornell and Kalt 2007). These projects typically received only a single cycle of investment and left a swath of white elephants still visible in Indian Country.

Against this backdrop, some tribal governments asserted that they had the right to offer high-stakes bingo or legal card games on reservations in states where such activity was not expressly prohibited to everyone and that state and county gambling regulations did not apply on the reservation. Tribes in the vanguard sometimes sought and received federal approval of their gaming ordinances, as well as federal loans and loan guarantees to underwrite facilities: for an example, see Cattelino's (2008) discussion of the experience of the Seminole tribe in Florida.

Cabazon v. California and the Indian Gaming Regulation Act

As American Indian tribal governments began developing gaming establishments in the late 1970s and early 1980s, local and state officials asserted jurisdiction, and arrests and lawsuits followed. Several court decisions in the 1970s distinguished between criminal/prohibitory and civil/regulatory authority on American Indian reservations. For example, the US Supreme Court held in Bryan v. Itasca County (426 US 373 [1976]) that a state could not impose a tax on property (specifically, on a mobile home) located on an Indian reservation. As this legal doctrine evolved, the general rule emerged that if an activity is considered criminal and is prohibited by state laws, then those state prohibitions apply on Indian reservations in the 16 states where Congress had transferred criminal jurisdiction in the Termination Era under PL 83-280.3 By contrast, if states merely regulate an otherwise legal activity-such as gambling-then the activity is a matter of civil regulatory authority and the state's jurisdiction does not generally extend onto Indian reservations. In 1982, the Supreme Court clarified this distinction when it declined to hear an appeal of a lower court ruling holding that Florida's gaming statute was civil/regulatory rather than criminal/prohibitory and therefore did not apply to the Seminole Tribe's high-stakes bingo operation (Seminole Tribe of Florida v. Butterworth 658 F. 2d 310 [US Court of Appeals, 5th Circuit 1981]).

³ Six states were required by the act to assume jurisdiction over American Indians residing on reservations in their states: Alaska, California, Minnesota (except Red Lake), Nebraska, Oregon (except Warm Springs), and Wisconsin. Ten other opted to do so: Arizona, Florida, Idaho (subject to tribal consent), Iowa, Montana, Nevada, North Dakota (subject to tribal consent), South Dakota, Utah, and Washington (Goldberg, n.d.).

Across the country in southern California, the Morongo and Cabazon Bands built card room facilities that local and state governments sought to shut down, a controversy that eventually reached the US Supreme Court in California v. Cabazon Band of Mission Indians (480 US 202 [1987]). The federal government filed an amicus brief on behalf of the tribes in the Cabazon case, demonstrating that these businesses were supported by federal loans and loan guarantees, that the US Department of Interior had approved the tribal gaming ordinances, and that there was a significant federal interest in the success of these operations. The Court reasoned that because California's gambling laws in general were civil/regulatory—allowing charitable bingo nights and regulating card rooms, for example—rather than criminal/prohibitory, then state statutes could not be applied to tribal gaming operations. Moreover, the Court noted (p. 203):

The federal interests in Indian self-government, including the goal of encouraging tribal self-sufficiency and economic development, are important, and federal agencies, acting under federal laws, have sought to implement them by promoting and overseeing tribal bingo and gambling enterprises. Such policies and actions are of particular relevance in this case since the tribal games provide the sole source of revenues for the operation of the tribal governments and are the major sources of employment for tribal members.

Thus, the Court ruled that the federal and tribal interests in tribal self-government and economic self-determination outweighed California's stated interest in preventing infiltration of tribal gaming by criminal elements. The state could also not forbid non-Indians from participating in high-stakes bingo and commercial card games on the reservation.

As the Cabazon claims wound toward the Supreme Court ruling in 1987, Congress began to discuss legislation that would apply to Indian gaming. The resultant Indian Gaming Regulatory Act passed in 1988. It created a National Indian Gaming Commission (NIGC) and established a three-class structure that delineated the roles of tribal, state, and federal governments. Class I gaming comprises traditional American Indian games of chance, which is considered social gambling for low stakes. Tribal governments regulate Class I exclusively, applying their own customs and traditions. Class II gaming encompasses bingo, pull-tabs, and nonbanked card games such as poker. Tribal governments and the NIGC jointly regulate Class II games, with tribal governments as the primary regulators. Finally, Class III gaming includes all other games, including house-banked card games and casino-style slot machines. Because the Class III games were perceived to be the biggest competitive threat to commercial casino jurisdictions and to hold the most potential to attract gambling customers, before a tribe can offer Class III gaming, it must negotiate a compact governing the scope and regulation of gaming with the state within whose borders the facility will be located.

Congress aimed to design an arrangement that would encourage states—some of which already possessed gaming regulatory expertise—to negotiate Indian gaming regulation in good faith, without diminishing tribal sovereignty or weakening tribal

bargaining power. While it might appear that states should have welcomed tribal gaming since it could potentially bring additional tax revenue, the law forbids states from requesting a share of tribal gaming revenue as a condition of signing a compact. The Indian Gaming Regulatory Act does allow tribal reimbursement of state regulation of Indian gaming and permits voluntary tribal contributions to local governments but does not allow revenue sharing or other indirect state taxation.

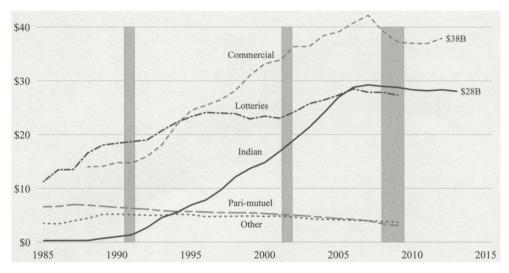
Of course, states could block Class III gaming entirely by refusing to agree to tribal government requests for compact negotiations, but the Indian Gaming Regulatory Act (IGRA) also allowed tribes to sue states for failing to negotiate in good faith. The most common reason a state would refuse to negotiate with a tribe was a disagreement on the permitted scope of gaming in the state, and this conflict delayed compacting for over a decade in a number of states, including California and Florida. However, the power of tribes to sue states under IGRA was ultimately ruled unconstitutional in *Seminole Tribe of Florida v. Florida* (517 US 44 [1996]), making ambiguity and litigation the order of the day in many states. Matters were further complicated in states like South Dakota that had substantial non-Indian gaming that would compete with tribes.

The negotiations between states and tribes over compacts to govern the scope of permitted gaming and the regulation of Class III gaming proceeded smoothly in some states and in some cases yielded results better than the tribes might have expected. In Michigan, for example, the state agreed to defer to tribal regulatory commissions so long as Indian casinos displayed signs explaining that Michigan did not regulate them (GAO 1998). The tribes of Minnesota and Mississippi negotiated compacts without an expiration date, virtually eliminating the "hold-up problem" that makes it more difficult to attract investment funds for casinos if the state leaves open the possibility of revisiting the compact in the future a problem that continued to affect tribal casino development elsewhere. From 1991 to 1995, new compacts between tribes and states were successfully negotiated at a pace of about two dozen per year. By the end of the 1990s, compacts concerning Class III operations had been agreed for about 140 reservations that were home to about half of the population of American Indians living on reservations in 2000 (Taylor and Kalt 2005). As of 2010, reservations that were home to more than 90 percent of Indians living on reservations had gaming operations (Akee and Taylor 2014).

Among the tribes that have not signed a compact, some chose not to develop casinos for internal reasons such as religious or moral opposition to gaming industries. For instance, the Hopi Tribe has chosen repeatedly to reject casino development. Seneca, Navajo, and others chose not to pursue gaming compacts for a long period and then reversed course later. In some instances, tribes opened casinos and then closed them due to low consumer demand (for example, the Lummi Nation, the Hualapai Tribe, and the La Posta and Santa Ysabel Bands).

In states with permitted gaming, tribes could generally open Class II gaming operations without a compact. Class III gaming, however, involves a significant house advantage in card games and electronic gaming devices, more employment, and therefore more governmental revenue for tribes. These revenues are

Figure 2
Indian Gaming Revenues in Comparison to Other Sectors' (billions of 2013 dollars)



Sources: National Indian Gaming Commission (2014); American Gaming Association (2014); International Gaming and Wagering Business (various years); Christiansen (1999); Christiansen (2001); National Bureau of Economic Research (2012); US Census (2011c); FRED (2014); GAO (1997).

Notes: "Lotteries" are state lotteries. "Pari-mutuel" wagering most commonly takes the form of horse and dog racing. "Other" includes charitable gaming, charitable bingo, legal bookmaking, and card rooms. The grey areas represent recessions.

the ultimate goal for many tribes. As the owners of the gaming facility, tribal governments generally earmark gaming revenues for specific tribal budget items, offsetting federal funding shortfalls across myriad programs. Tribal governments are obligated by the Indian Gaming Regulatory Act of 1988 to invest 100 percent of net gaming revenues in ways that improve tribal welfare. Section 11 of IGRA requires that net revenues from "any tribal gaming" be used for five primary purposes: 1) to fund tribal government operations or programs; 2) to provide for the general welfare of the Indian tribe and its members; 3) to promote tribal economic development; 4) to donate to charitable organizations; or 5) to help fund operations of local government agencies. Consistent with IGRA's requirements, tribal governments are investing gaming revenues into a variety of tribal programs and services (health, law enforcement, and education, to name a few) and promoting economic diversification in ways that seek to benefit tribal citizens.

In the aftermath of the 1988 legislation, Indian gaming revenues grew at a rapid pace, as shown in Figure 2. By 1992, the revenues from Indian gaming eclipsed charitable bingo and other charitable gambling (not independently displayed). Three years later, Indian gaming revenues overtook those of pari-mutuel wagering, which most commonly takes the form of horse and dog racing. In 2006, Indian gaming outpaced state lotteries. More recently, revenues have plateaued both for

commercial gaming and Indian gaming. At present, revenues from Indian gaming are roughly three-quarters of the size of commercial gaming.

While the tribal gaming industry has grown substantially, the political requirements imposed by the Indian Gaming Regulatory Act, specifically the tribal-state compact process, have meant that more than 25 years later, the tribal gaming industry has not grown to meet market demand in all locations. Tribal-state disputes have concerned the types of allowable games (Washington), demands for revenue sharing (New Mexico), the terms of intergovernmental gambling competition (South Dakota), and conflict over the permitted scope of games (Florida). Compacts in states like California and South Dakota placed binding constraints on the number of electronic gaming machines, and the experience of tribes nationwide suggests that tribes in those states could have developed bigger facilities earlier.

Perhaps the biggest constraint is that the Indian Gaming Regulatory Act required tribal governments to locate the facilities exclusively on tribal trust lands. While section 20 of IGRA specifies a process for tribal, state, and federal approval of gaming facilities on subsequently acquired lands (in recognition of the complex history of Indian land claims), it has proven arduous to do so. As of 2013, only eight tribes had applied for and received approval from the US Secretary of the Interior to have such lands taken into trust ownership status by the federal government for tribal government gaming. Consequently, the geographic distribution of Indian gaming reflects the historic contingencies of American Indian land cessions and federal reservation-making, not the market demand for an early 21st century leisure industry.

As of year-end 2013, one commercial directory identified 468 open Indian gambling establishments in 31 states. Their sizes ranged from the Forest County Potawatomi Community's 780,000 square-foot Potawatomi Hotel & Casino in Milwaukee, Wisconsin, to very small travel-mart slot rooms of only a few hundred square feet (Casino City 2013). As the range in sizes implies, the ability of tribes to reach customers varies widely. The National Indian Gaming Commission (2014) publishes data on the distribution of tribal gaming revenue. For fiscal year 2013, the 252 tribal gaming facilities that earned \$25 million or less represented 56 percent of all operations but only 7.4 percent of all Indian gaming revenue. By contrast, the 78 operations that took in \$100 million or more represented 17 percent of the facilities but 71 percent of the sector's revenues. A skewed distribution is not surprising, arising as it does from access to urban population centers. It is similarly unsurprising that some populous reservations have large casinos (for example, the Gila River Indian Community in Chandler, Arizona, near Phoenix) and others have small ones (for example, the Pine Ridge Reservation in South Dakota). The converse is true too. Small reservation communities are located across the market spectrum; some have access to urban areas (the San Manuel Band in California) and some are in remote locations (the Campo Band in California).

⁴ They are the Enterprise Rancheria of Maidu Indians (CA), Forest County Potawatomi Community (WI), Fort Mojave Indian Tribe (AZ, CA, NV), Kalispel Indian Community (WA), Kaw Nation (OK), Keweenaw Bay Indian Community (MI), Northern Cheyenne Tribe (MT), and Northfork Rancheria of Mono Indians (CA) (Hart 2014).

The Consequences of Gaming for Indian Nations

The effects of tribal gaming on American Indian nations have been profound. Kevin Washburn (2008), Assistant Secretary of Indian Affairs at the US Department of the Interior, has said, "Indian gaming is simply the most successful economic venture ever to occur consistently across a wide range of American Indian reservations." While there is considerable heterogeneity of results across different tribal communities, gaming has been welcome for the vast majority.

In contrast to grant-funded federal development efforts, Indian gaming yielded sustained revenues for almost all tribes that built facilities. This break with the past was possible for a number of reasons. First, tribes entered early in the gaming industry's growth cycle. Outside the state of Nevada and Atlantic City, New Jersey, only a few non-Indian governments had begun to allow gaming in the 1980s. Second, while a few regions witnessed multiple tribes introducing gaming, in many cases a given tribe might be the sole operator for miles. Third, tribes worked hard to capture margins by starting conservatively, sometimes with temporary buildings, to avoid overcapitalizing their businesses while assessing what was, in the early 1990s, a poorly understood opportunity. Fourth, tribes went to capital markets, retained attorneys, hired management consultants, and developed the facilities on their own initiative to exploit opportunities they themselves evaluated. Not all tribes succeeded. But in contrast to federally conceived, single-cycle, grant-funded investments in hotels, mini-malls, and other flavors-of-the-month, gaming development was self-determined and grew with internal consistency checks and market feedback.

One of the measures of achievement of the Indian Regulatory Gaming Act of 1988 is that many tribal governments now have an ample flow of revenues for the first time. Indian gaming revenues have allowed tribes to invest in new programs to address poverty and provide public goods.⁵ One of the most common investments has been in education, including school construction (for example, Mille Lacs Ojibwe), college scholarships (for example, the Osage Nation 2015), and Native language revitalization programs (Cherokee). Tribes have developed "wrap-around services" to help their citizens get jobs and keep them (Sisseton-Wahpeton Oyate). Tribes have combined conventional, traditional Native religious and non-Indian religious treatment in drug rehabilitation programs (Taylor 2006). Improvements in tribal services have resulted from an increase in government resources and employment. As a result, tribes have reduced emergency response times from hours to minutes (at Gila River Indian Community, HPAIED 2008, p. 152). Tribes have invested in their cultural lives, specifically museums, ceremonial grounds (Kalispel) (Taylor 2006, p. 36), artifact repatriation (San Carlos Apache), and arts patronage. Services have increased dramatically across reservations. There have been improvements in elder care services (Tohono O'odham), foster care (Fond du Lac), policing

⁵ Unless otherwise cited, the examples in this paragraph are drawn from the reports of Honoring Nations, an awards program for excellence in Native governance housed at Harvard's Kennedy School of Government (HPAIED 2014).

(Flandreau), endangered species management (Nez Perce), water quality (Sandia Pueblo), financial literacy (Umatilla), and public works (Lummi).

Tribal governments have also used the revenues from gaming to fund other economic development, based on the widely shared view that Indian gaming will not provide sustained economic growth indefinitely. Typically, the pattern begins with developing adjacent hotels, conference halls, amphitheaters, and other amenities that increase the drawing power and visit durations of gaming facilities. In many cases, tribes have invested in nearby retail businesses, outlet malls, and other businesses that take advantage of customer traffic. Finally, they turn toward more distinct sectors as varied as banking (Citizen Potawatomi Nation), commercial real estate (San Manuel), and federal facilities management (Winnebago), often redeploying the management experience gained in tribal gaming development.

The operation of tribal gaming facilities has also changed labor markets on reservations. Opening tribal gaming facilities increases the demand for both high- and low-skill labor on the reservation. New employment opportunities exist in management and professional positions in the gaming and tourism industries. Over time, tribes have replaced external executives with internal tribal members in those management positions as citizens have gained relevant experience and education in the industry. Cozzetto (1995) found a decline in Indian welfare dependence coincident with gaming facility openings. Others have found that a substantial fraction of American Indian employees of tribal gaming come from the ranks of the unemployed (Cornell, Kalt, Krepps, and Taylor 1998). As programs and government services have grown, so too has tribal government employment. In the past 20 years, the proportion of American Indians on reservations employed in public service (including tribal government employment) has increased by 5 percentage points, a 20 percent increase (Akee and Taylor 2014). A similar increase is not observed in other sectors of the tribal economy, nor is this duplicated in the non-Indian population in the same time period. It is also important to note that the number of gaming management contracts (often with external, non-Indian casino companies) has decreased over time, indicating that tribal employees are now managing tribal enterprises. No new external management contracts have been approved by the National Indian Gaming Commission since 2010 (National Indian Gaming Commission 2015). For instance, the San Pasqual Mission Band of Indians bought out their five-year management contract after just one year and began to manage gaming operations with their own hires (Contreras 2005), a pattern that repeats across Indian Country.

Tribal gaming affects local and regional migration patterns as well. Tribal member income and employment have increased (Reagan and Gitter 2007) and therefore helped to stop or reverse "brain drain" off of the reservation. Improving economic opportunities appear to have brought return migration as well. In the first decade after the Indian Gaming Regulatory Act of 1988, there was an increase in tribal populations (Evans and Topoleski 2002). American Indians increasingly view their tribal governments as capable of creating desirable places to live and work. There are instances of interest rates falling when these revenue-generating tribal governments choose to borrow, as well. The Squaxin Island Tribe north of

Olympia, Washington, for example, found that its cost of capital dropped several percentage points after the introduction of gaming operations (Taylor 2006, p. 44).

Reservation life has improved in measurable ways in the wake of tribal gaming. There was a relatively large convergence in the average conditions of American Indians on reservations towards that of the rest of the US population in the 1990s, as shown earlier in Table 1. Convergence continued, though more moderately in the 2000s. Real per capita income earned by Indians living on reservations in the contiguous 48 states grew by 33.3 percent in the 1990s (compared to the national average of 11.4 percent) and by 11.5 percent over the 2000s (compared to the national average of -3.3 percent). Consistent gains were made over the 1990–2010 period for educational attainment, income, and female labor participation, accompanied by similar reductions in poverty and overcrowded homes. In most instances, improvements on Indian reservations outpaced national changes over the period. Larger gains were observed for those reservations operating a casino or bingo hall by 2000 (Taylor and Kalt 2005).

Some tribal governments—typically ones without very large populations—have distributed a percentage of their gaming revenues to citizens. These per capita disbursements typically take the form of annual or semi-annual checks sent directly to tribal members above the age of 18 (or held in escrow for minors). As of 2009, 120 tribes had filed revenue allocation plans with the Bureau of Indian Affairs, a prerequisite under the Indian Gaming Regulatory Act for tribes' allocating revenue per capita in this way (Taggart and Conner 2011). The amounts distributed may vary according to the revenue in a given year. The total amount of payments is not typically disclosed publicly; however, several tribal governments announce the size of their payments, which range from a few hundred to thousands of dollars per person annually. This change in household income can have profound effects on previously poverty-stricken households. Cornell et al. (2008) provide an overview of determining eligibility and other issues confronting tribes that make these kinds of per capita payments.

A few empirical studies have examined the effects of the per capita income disbursements or casino operations on American Indian populations and adjacent non-Indian communities. For example, Akee, Copeland, Keeler, Angold, and Costello (2010) found that an increase in unearned income from per capita payments resulted in increased educational attainment for children in poverty-stricken households. For each additional \$1,000 in unearned income at the household level, there was an increase of about 6 to 7 percentage points in high school graduation rates for children from previously poverty-stricken households. Additionally, American Indian children in households with higher incomes due to the per capita transfer payments attended school about four more days per quarter. In related work examining the effect of casino operations on American Indians, Wolfe, Jakubowski, Haveman, and Courey (2012) found that casino operations are correlated with decreases in smoking by 9 percent, in heavy drinking by 5 percent, and in obesity by 2.7 percent. Evans and Topoleski (2002) found that reservations with gaming experienced increases in employment of about 26 percent and an increase in population size of about 11 percent, four or more years after casino operations began.

Although the vast majority of empirical research on Indian gaming has found benefits to those living on or near the reservations, Indian casinos have been associated with controversial and even deleterious effects in some communities. Tribal governments vary in their capacity to withstand political division, to administer programs effectively, and to produce public goods that their citizens want. One controversial outcome has been the disenrollment of tribal citizens, which has resulted in significant conflicts in a number of American Indian communities (Gonzales 2003). Reducing the size of the tribal population can potentially benefit existing tribal members if there are per capita distributions of gaming revenues. Fights over control of the gaming facility itself have also accentuated factional division in Indian communities leading, in extreme cases, to standoffs (Picayune Rancheria) and even constitutional crises (Winnebago of Wisconsin). On occasion, casino competition has intensified intertribal conflict, especially where off-reservation casinos are proposed. For example, in November 2014 California citizens voted against Proposition 48, which would have ratified a tribalstate gaming compact for the Northfork tribe to open a gaming facility away from its reservation land but closer to population centers. Some of the opposition came from other tribes whose facilities would have faced heightened competition from the proposed new facility.

Finally, it should be noted that for all the good news coming from Indian Country since the passage of the Indian Gaming Regulatory Act of 1988, the accumulated economic and social deficits on reservations are so large that even if Indian income growth keeps its pace, it will take decades for American Indians to close the gap with the average American (Taylor and Kalt 2005, p. 7; Akee and Taylor 2014, p. 36). Indeed, given that standards of living in the United States are recovering from the Great Recession and given that there is no apparent successor to gaming waiting in the wings for Indian Country, it will remain critical for tribal policymakers to get other aspects of development right.

Consequences for State and Local Economies

During the late 1980s, at the time of the *Cabazon* decision and the debates over the Indian Gaming Regulatory Act, state and local governments expressed concerns that Indian gaming facilities would produce negative externalities in two broad categories. First, it was argued that rising visitation to the reservations would have an adverse impact on local governments' infrastructure and services, clogging highways, overloading emergency services, or overtaxing waste treatment facilities. Second, it was argued, Indian gaming facilities would market an inherently risky product—gambling—which would have negative social impacts in host communities such as bankruptcy, organized crime infiltration, disordered gambling, drug abuse, suicide, and other social ills.

The Indian Gaming Regulatory Act contained explicit provisions to address potential adverse effects of the tribal gaming industry. Among five sanctioned uses of net tribal gaming revenues are: "to donate to charitable organizations" and "to help

fund operations of local government agencies" (25 USC §2710(b)(2)(B)). In addition, IGRA envisioned that tribes could reimburse states' regulatory costs (25 USC §2710(d)(3)(C)(iii)). Indeed, many state-tribal compacts have clauses governing payments for local impact mitigation or regulatory reimbursement clauses. A number of state-tribal compacts also have clauses governing investment in responsible gaming initiatives, including corporate and tribal policies and procedures that help prevent or ameliorate the consequences of disordered gambling (for definitions, see National Center for Responsible Gaming 2011, p. 3). Broadly speaking, IGRA and its compacting process encourage cooperation in the production of intergovernmental public goods. Comprehensive or national-level research about the relationship between tribes and local governments is thin. However, the available evidence does not suggest that the early fears of state and local government have been borne out.

For example, what of the initial fears related to the social costs of disordered gambling behavior resulting from increased access to gambling through the expansion of Indian gaming? Empirical research of gambling pathology has failed to identify large net costs. For example, a 16-year, 100-community randomized multilevel regression performed by the National Opinion Research Center (NORC) at the University of Chicago for the National Gambling Impact Study Commission found that when a casino is opened, communities near the casinos experienced reductions in unemployment (one percentage point), some changes in wage distribution across sectors, and no discernible change in bankruptcy, crime, or infant mortality (Johnson 1999). For comparison, NORC calculated that the national annual costs of problem and pathological gambling, \$5 billion in 1998, were 3 percent of the estimated \$166.5 billion in annual national costs for alcohol abuse (Gerstein et al. 1999, p. 53). Himmelstein, Warren, Thorne, and Woolhandler (2005, p. 67) found that about half of all bankruptcy filers cited medical emergencies as a contributing cause, whereas uncontrolled gambling was listed as a contributing cause by only 1 percent of bankruptcy filers.

Indeed, some research at the state level reveals that newly expanded opportunities to gamble offer casino guests access to information about problem gambling that they previously lacked, while having little long-term effect on the prevalence of problem gambling. A study in California found that between 1990 and 2006, when more than 40 new tribal facilities opened in the state, California experienced a reduction in gambling participation generally (Volberg, Nysse-Carris, and Gerstein 2006, p. 54). This finding is not all that unexpected once one considers that access to other forms of gambling in the state, including the lottery, card rooms, and horse racing, existed in 1990, along with proximity to full-scale gambling in neighboring Nevada. The report finds that "[based] on the survey data, it is possible to compare lifetime participation rates for several gambling activities in 1990, 1999 and 2006 . . . Casino gambling increased slightly between 1990 and 1999 but then decreased between 1999 and 2006" (p. 53). This decline in participation rates and duration reflect what is known as the "novelty effect," wherein gamblers are initially drawn to a new gambling product or service but their overall participation then reverts to the mean over time.

Another claim often made by state and local governments against Indian gaming argues that Indian casinos diminish state and local tax collections (Washington Research Council 2002; Anders, Siegel, and Yacoub 1998). Much of the empirical support for the claim remains unpersuasive. After all, reservation economic activity requires goods and services from off-reservation communities, which incur local and state taxes on sales and income. Survey data from Washington State tribes, for example, indicate that two-thirds of the 27,376 workers employed in tribal casinos, governments, and nongaming enterprises in 2010 were non-Indians (Taylor 2012). Detailed procurement information from four of those tribes indicates that at least 94 percent of all tribal goods and services in 2004 came from off-reservation suppliers (Taylor 2006). Thus, even when consumer spending shifts from off-reservation (and state-taxable) restaurants, movie theaters, and bars to Indian casinos, spas, and hotels, the overall effects on input markets may be negligible. Indian gaming may cause a shift in spending patterns, but it is likely that state revenue from taxes on input labor, goods, and services would be virtually unchanged. In one study, Taylor (2005) found no discernible effect of the introduction of casinos on taxable sales and property in the state of Washington for 268 communities over 13 years.

Moreover, tribe-state gaming compacts often contain revenue-sharing provisions. Although state insistence on tax revenue or revenue-sharing as a condition of compact approval was prohibited by the Indian Gaming Regulatory Act, the US Secretary of the Interior has approved compacts with revenue-sharing provisions under the condition that the states contribute to the economic value of the tribe's facilities in some way (Martin 2003). Such contributions range from giving tribes statewide casino exclusivity (for example, Mashantucket Pequot and Mohegan in Connecticut) to deploying condemnation powers to allow a tribe to purchase property for their business and selling a state-owned convention center for \$1 (Seneca in New York). Such terms make states quasi-joint venture partners contributors to and beneficiaries of Indian gaming development. Over the years, such revenue flows have in certain places been substantial, for example: \$1 billion in 11 years to Arizona (Arizona Department of Gaming 2014), and \$6.7 billion in 22 years to Connecticut (Connecticut Department of Consumer Protection 2014). In 2012, nationwide Indian gaming revenue sharing with states was estimated to be \$1.5 billion (Meister 2014).

In addition to direct fund transfers, nearby off-reservation communities also benefit from Indian gaming's economic spillovers—spillovers that may exceed those of commercial gaming for at least three reasons. First, in many places, Indian gaming attracts customers from further away than more competitively distributed amenities, making Indian gaming facilities net contributors to the local or regional economies, all else equal. Oklahoma's Indian gaming, for example, recruits customers heavily

⁶ As one example, an article on the subject mistook Maricopa County (Arizona) tax revenue declines coincident with tribe-state *compacting* for the effects of Indian casino *openings* (Anders, Siegel, and Yacoub 1998). The examples in the analysis actually pre- and post-date a purported casino-driven fall in revenue by many months and appear, by the paper's own data, to have actually left contemporaneous Maricopa County revenue undisturbed (Taylor 2005).

from neighboring Texas—which does not have casinos. The opening of Seneca Niagara Falls Casino at year's end 2002 coincided with precipitous revenue decline across the border in Ontario (Gardner 2005; Niagara Falls Canada 2006), as western New Yorkers pulled leisure spending back from Canada. Even within state borders, destination effects can be pronounced. Second, Indian gaming often takes place in poorer-than-average regions of the country—not just the reservations are poorer, but the surrounding counties, too. In such regions, chances are better that underutilized resources, especially labor, see net gains in utilization, with larger consequences for the regional economy. Third, the investment of tribal gaming revenue is geographically restricted to the tribe's governing jurisdiction rather than distributed wherever in the global economy a commercial casino company's shareholders might be.

Evidence on these effects is accumulating. In one study, the presence of an Indian casino in an adjacent California county was associated with greater real median family income growth from 1990 to 2000 (Center for California Native Nations 2006). A follow-up to that parsimonious difference-in-difference analysis found a diminished but persistent effect in the subsequent decade (Akee, Spilde, and Taylor 2014). Evans and Kim (2006) found that Indian casinos reduced unemployment and increased wages for low-skilled workers. A re-examination of the National Opinion Research Center (NORC) study discussed above (Johnson 1999), which examined more closely the counties proximate to Indian gaming introductions, found that the effects were more positive than those of commercial non-Indian casinos and that those counties had a reduced reliance on welfare (Taylor, Krepps, and Wang 2000).

Indian gaming often does attract funds that could have been spent on entertainment at other casinos or on nongaming leisure activity. But of course, the same can be said of a wide variety of entertainment-related destinations. One would not want to overstate the social welfare benefits of Indian gaming by treating every job in the industry or every dollar of revenue flowing to the tribes as an addition to social welfare. But neither would an economist argue that an entertainment venue has zero social benefit on the grounds that the entertainment dollars could have been spent somewhere else. The true gain to social welfare, of course, lies somewhere in-between.

Where Indian gaming development increases unreimbursed infrastructure burdens on surrounding governments, such costs are the consequences of growth in regional economic activity, the state taxation of which would at least partially rectify the harm. Of course, the degree to which incremental taxes exceed, meet, or fall short of the burden depends upon the tribal-state compact terms governing local impact mitigation and revenue sharing, intrastate fiscal allocation mechanisms, and the attributes of the burden itself. The Indian Gaming Regulatory Act has specific clauses that allow for the reimbursement of non-Indian infrastructure burdens under the terms of the state-tribal compact. On the other hand, there may be adverse effects for other leisure activities and businesses in a region. As gaming operations begin in a region, consumers may shift their leisure spending towards the new, previously unavailable gaming activities. Assessing whether the overall benefits to consumer surplus from the introduction of a new leisure activity

outweigh potential losses to other pre-existing leisure activity businesses has not been adequately examined.

Conclusion

Indian gaming is no longer in its infancy. Indian tribes will face new competitors as state-sanctioned casinos continue to spread. As Eadington pointed out in this journal (1999, p. 190), overall casino gambling as an industry has been undergoing a long progression from concentrated availability in Las Vegas and Atlantic City to dispersed localities around the country. Technological change is now raising the possibility of online gaming operations that may rival or complement brick-and-mortar operations. These changes mean that the days of regional exclusivity for a large number of Indian gaming operations are probably numbered, and so too are the days of build-it-and-they-will-come operations.

In the years ahead, tribal governments will face stronger incentives to improve tribal gaming performance. At various times and places, certain Indian gaming facilities have faced competitive pressures that have been severe (Ohkay Owingeh), devastating (Penobscot), and unsustainable (Lummi). Tribes will benefit from research exploring these cases and generally explaining the variation observed in casino performance. Market access to large numbers of nearby customers is a first-order explanation, of course, but beyond that governance quality, management abilities, amenity diversity, and service quality all play a role.

Tribal incentives to diversify the nongaming aspects of their governance and economies will strengthen, too. The low-hanging fruits of self-administration—such as correcting principal-agent slippage in federal timber management (Krepps and Caves 1994)—may already have been harvested in many places. Likewise, tribes may have already reaped the bulk of the benefits of tailoring federal programs to local needs and conditions. Tribal leaders increasingly confront the politically difficult work of cutting underperforming programs, improving performance from tribal agencies, and reducing popular budget items. Tribally owned enterprises face the challenges that government-owned businesses face around the globe (Grant and Taylor 2007). Native fertility is higher than for Americans generally (US Census 2011b), and to reverse the incentives for emigration from tribal areas, tribal governments will need both to diversify the tribally owned sector and to develop policies that encourage private business formation and recruitment on the reservations as well (Cornell, Jorgensen, Record, and Timeche 2007).

While commercial casino gaming is spreading to new jurisdictions across the United States, it is not clear that this type of gaming expansion will bring the pronounced social and economic development benefits that tribal gaming brings to communities that are on or near tribal lands. The requirements under the Indian Gaming Regulatory Act of 1988 that tribal gaming facilities be owned by tribal governments and that revenues be invested in the general welfare of the community and take place on tribal trust lands has resulted in an intense and particularly local concentration of tribal gaming's benefits that may be difficult to replicate.

The requirements of the Indian Gaming Regulatory Act have triggered the development of tribal institutions too. For example, IGRA requires tribes to establish independent gaming commissions for licensing casino personnel and regulating gaming facilities. National Indian Gaming Commission regulations further specify minimum internal control standards governing cash-handling and customer blandishments. On their own initiative, tribal governments have added to these mandatory structures and created independent boards that separate the governance of the tribal polity from that of tribal businesses, and many have promulgated policies that handle everything from personnel disputes to budgeting, appropriating, and investing tribal gaming revenues. A steady flow of gaming revenues also loosened a tight liquidity constraint holding back the development of institutions unrelated to gaming operations. For example, the Tulalip Tribes north of Seattle were able to take back criminal jurisdiction from the state of Washington by developing competent judicial, policing, and prosecutorial staffs. The Osage and Citizen Potawatomi Nations of Oklahoma (and many others) have modernized their constitutions. Moreover, the preponderance of tribal programs winning Harvard's Honoring Nations awards for excellence in tribal governance have been created by tribes that operate gaming facilities. Most such reforms and innovations might not have been accomplished as quickly or successfully (or at all) without gaming revenues for salaries and professional services.

It is also the case that on a few reservations, gaming revenues have raised the stakes of internal political conflict, straining to the breaking point the weak political institutions bequeathed by historical federal policies. Some tribes have emerged from such crises with stronger constitutions (for example, the Ho-Chunk Nation in Wisconsin), but tribes have also been deeply riven by disenrollment controversies and constitutional crises. Generally, we see that institutional reforms and programmatic innovation are the norm and deleterious crises the exception, but more systematic research is needed to link gaming and institutional change.

There continues to be a great need for research on the impact of the gaming industry on long-run outcomes for American Indians. Evaluations of gaming are typically general in scope, not focused on Indian gaming in particular (for example, Grinols 2004; Walker 2007; Eadington 1999). How are the spread of Indian gaming and the rise in local incomes related to factors such as Native family composition, indigenous language proficiency, reservation brain drain, or expectations and beliefs about the future? After nearly three decades of additional investments in educational and social programs, what lessons can we extract for socioeconomic recovery in other Native and non-Native populations (Besaw et al. 2004)? A generation of American Indians born after the 1987 Cabazon decision and the passage of the Indian Gaming Regulatory Act of 1988 is coming of age. Indian gaming has profoundly changed the trajectories of many individual lives and the patterns of economic development on American Indian reservations. Additionally, it has laid the institutional foundation for sustained change and provided an environment across Indian Country that is attractive for investment of capital and human resources, in some cases for the first time in generations.

References

Akee, Randall K. Q., William E. Copeland, Gordon Keeler, Adrian Angold, and E. Jane Costello. 2010. "Parents' Incomes and Children's Outcomes: A Quasi-Experiment Using Transfer Payments from Casino Profits." American Economic Journal: Applied Economics 2(1): 86–115.

Akee, Randall K. Q., Katherine A. Spilde, and Jonathan B. Taylor. 2014. "Social and Economic Changes on American Indian Reservations in California: An Examination of Twenty Years of Tribal Government Gaming." UNLV Gaming Research & Review Journal 18(2).

Akee, Randall K. Q., and Jonathan B. Taylor. 2014. Social and Economic Change on American Indian Reservations: A Databook of the US Censuses and American Community Survey, 1990–2010. Sarasota, FL: Taylor Policy Group, Inc. Available at: http://taylorpolicy.com/us-databook/.

American Gaming Association. 2014. "State of the States." Available at: http://www.americangaming.org/industry-resources/research/state-states.

American Indian Lawyer Training Program. 1991. Indian Tribes as Sovereign Governments: A Sourcebook on Federal-Tribal History, Law, and Policy. Oakland, CA: American Indian Resources Institute Press.

Anders, Gary C., Donald Siegel, and Munther Yacoub. 1998. "Does Indian Casino Gambling Reduce State Revenues? Evidence From Arizona." Contemporary Economic Policy 16(3): 347–55.

Arizona Department of Gaming. 2014. "Tribal Contributions from Gaming Revenue to the State, Cities, Towns and Counties as of October 31, 2013. Arizona Department of Gaming. Retrieved December 3, 2014, from https://gaming.az.gov/sites/default/files/documents/files/cumulativetc10-31.pdf.

Besaw, Amy, Joseph P. Kalt, Andrew Lee, Jasmin Sethi, Julie Boatright Wilson, and Marie Zemler. 2004. The Context and Meaning of Family Strengthening in Indian America: A Report to the Annie E. Casey Foundation. Cambridge, MA: Harvard Project on American Indian Economic Development.

Brashares, Edith, and Siobhan O'Keefe. 2013. "Indian Tribal Government Access to Tax-Exempt Bond Financing." Available at SSRN: http://ssrn.com/abstract=2370079.

Bush, George H. W. 1991. "Statement by the President Reaffirming the Government-to-Government Relationship Between the Federal Government and Tribal Governments." June 14. Office of the Press Secretary, The White House, Washington D.C.

Bush, George W. 2004. "Memorandum for the Heads of Executive Departments and Agencies: Government-to-Government Relationship with

Tribal Governments." September 23. The White House, Washington, DC.

Carlson, Leonard A. 1981. Indians, Bureaucrats, and Land: The Dawes Act and the Decline of Indian Farming. Contributions in Economics and Economic History. Westport, Conn.: Greenwood Press.

Carter, Jimmy [James E.]. 1979. "The State of the Union Address Delivered Before a Joint Session of the Congress." January 23. http://www.presidency.ucsb.edu/ws/?pid=32657.

Casino City. 2013. "Gaming Directory.com." Casino City Press. http://www.gamingdirectory.com/.

Cattelino, Jessica R. 2008. High Stakes: Florida Seminole Gaming and Sovereignty. Duke University Press Books.

Center for California Native Nations. 2006. An Impact Analysis of Tribal Government Gaming in California. University of California, Riverside.

Christiansen, Eugene Martin. 1999. "The Gross Annual Wager of the United States 1998." Manuscript for *International Gaming and Wagering Business*.

Christiansen, Eugene Martin. 2001. "The Gross Annual Wage of the United States 2000." Manuscript for International Gaming and Wagering Business.

Clarkson, Gavin. 2007. "Tribal Bonds: Statutory Shackles and Regulatory Restraints on Tribal Economic Development." North Carolina Law Review 85(4): 1009–85.

Clinton, William J. 1994. "Government-to-Government Relations with Native American Tribal Governments." Memorandum, April 29. Federal Register 59(84).

Clinton, William J. 2000. "Executive Order 13175: Consultation and Coordination with Indian Tribal Governments." Federal Register 65 (218).

Connecticut Department of Consumer Protection. 2014. "DCP - Gaming Division. Transfers to General Fund, Accumulative to Date - Through June 2014." August 8. A table. DCP - Gaming Division, Hartford, CT. Retrieved December 3, 2014, from http://ct.gov/dcp/lib/dcp/pdf/gaming/stmt2014.pdf.

Contreras, Michael. 2005. "Back In the Driver's Seat: San Pasqual Tribe Now Running Valley View Casino." *Indian Gaming* 15(3).

Cornell, Stephen. 1988. The Return of the Native: American Indian Political Resurgence. Oxford University Press.

Cornell, Stephen, Miriam Jorgensen, Stephanie Carroll Rainie, Ian Record, Ryan Seelau, and Rachel Rose Starks. 2008. "Per Capita Distributions of American Indian Tribal Revenues: A Preliminary Discussion of Policy Considerations." Joint Occasional Papers on Native Affairs, no. 2008-02. http://www.nni.arizona.edu/whatsnew/pdfs/jopna_2008-02percapita.pdf.

Cornell, Stephen, Miriam Jorgensen, Ian Record, and Joan Timeche. 2007. "Citizen Entrepreneurship: An Underutilized Development Resource." In Rebuilding Native Nations: Strategies for Governance and Development, 197–222. Tucson, AZ: University of Arizona Press.

Cornell, Stephen, and Joseph P. Kalt. 1992. "Reloading the Dice: Improving the Chances for Economic Development on American Indian Reservations." In What Can Tribes Do? Strategies and Institutions in American Indian Economic Development, edited by Stephen Ellicott Cornell and Joseph Peggs Kalt, 1–59. Los Angeles, CA: American Indian Studies Center, University of California Los Angeles.

Cornell, Stephen, and Joseph P. Kalt. 1995. "Where Does Economic Development Really Come From? Constitutional Rule Among the Contemporary Sioux and Apache." *Economic Inquiry* 33(3): 402–26.

Cornell, Stephen, and Joseph P. Kalt. 1998. "Sovereignty and Nation-Building: The Development Challenge in Indian Country Today." *American Indian Culture and Research Journal* 22(3): 187–214.

Cornell, Stephen, and Joseph P. Kalt. 2007. "Two Approaches to the Development of Native Nations: One Works, the Other Doesn't." In Rebuilding Native Nations: Strategies for Governance and Development, edited by Miriam Jorgensen, 3–32. Tucson, AZ: University of Arizona Press.

Cornell, Stephen, Joseph P. Kalt, Matthew B. Krepps, and Jonathan B. Taylor. 1998. American Indian Gaming Policy and Its Socioeconomic Effects: A Report to the National Gambling Impact Study Commission. Cambridge, MA: The Economics Resource Group, Inc.

Cozzetto, Don A. 1995. "The Economic and Social Implications of Indian Gaming: The Case of Minnesota." *American Indian Culture and Research Journal* 19(1): 119–31.

Eadington, William R. 1999. "The Economics of Casino Gambling." *Journal of Economic Perspectives* 13(3): 173–92.

Evans, William N., and Julie H. Topoleski. 2002. "The Social and Economic Impact of Native American Casinos." NBER Working Paper 9198.

Evans, William, and Wooyoung Kim. 2006. "The Impact of Local Labor Market Conditions on the Demand for Education: Evidence from Indian Casinos." Working Paper 06-14, U.S. Census Bureau, Center for Economic Studies.

Fletcher, Matthew L. M. 2004. "In Pursuit of Tribal Economic Development as a Substitute

for Reservation Tax Revenue." North Dakota Law Review 80(4).

FRED. 2014. Consumer price index for all urban consumers. *FRED Economic Data*, 2014, August 1. Federal Reserve Bank of St. Louis. Retrieved October 10, 2014, from http://research.stlouisfed.org/fred2/series/CPIAUCSL.

GAO. 1992. "Indian Programs: Profile of Land Ownership at 12 Reservations." Briefing Report to the Chairman, Select Committee on Indian Affairs, U.S. Senate. Washington, DC: US General Accounting Office.

GAO. 1997. Tax Policy: A Profile of the Indian Gaming Industry. Washington, DC: US General Accounting Office.

GAO. 1998. Casino Gaming Regulation: Roles of Five States and the National Indian Gaming Commission. Washington, DC: US General Accounting Office.

GAO. 2004. Impact of Gambling: Economic Effects More Measurable than Social Effects. Washington, DC: US General Accounting Office.

Gardner, Kent. 2005. Seneca Niagara Casino: Fiscal & Economic Impact on Niagara Falls, NY. Rochester, NY: Center for Governmental Research, Inc.

Gerstein, Dean, et al. 1999. Gambling Impact and Behavior Study: Report to the National Gambling Impact Study Commission. Chicago, IL: National Opinion Research Center at the University of Chicago.

Goldberg, Carole. No date. "Questions and Answers about Public Law 280." *Tribal Court Clearinghouse.* Retrieved May 29, 2015, from http://www.tribal-institute.org/articles/goldberg.htm.

Gonzales, Angela A. 2003. "Gaming and Displacement: Winners and Losers in American Indian Casino Development." *International Social Science Journal* 55(175): 123–33.

Grant, Kenneth W., and Jonathan B. Taylor. 2007. "Managing the Boundary Between Business and Politics: Strategies for Improving the Chances for Success in Tribally Owned Enterprises." In Rebuilding Native Nations: Strategies for Governance and Development, edited by Miriam Jorgensen, 175–96. Tucson, AZ: University of Arizona Press.

Grinols, Earl L. 2004. Gambling in America: Costs and Benefits. Cambridge University Press.

Hart, Paula. Letter. 2014. "Section 20 Approvals," October 7.

Himmelstein, David U., Elizabeth Warren, Deborah Thorne, and Steffie Woolhandler. 2005. "MarketWatch: Illness and Injury as Contributors to Bankruptcy." *Health Affairs*. Published online before print. doi:10.1377/hlthaff.W5.63.

Harvard Project on American Indian Economic Development (HPAIED). 2008. The State of the Native Nations: Conditions under U.S. Policies of Self-Determination. New York, NY: Oxford University Press.

Harvard Project on American Indian Economic Development (HPAIED). 2014. "About Honoring Nations." (Honoring Nations is "An awards program that identifies, celebrates, and shares outstanding examples of tribal governance.) From the HPAIED website: http://hpaied.org/index.php?option=com_content&view=article&id=7&Ite mid=8.

International Gaming and Wagering Business. Various years. "Gross Annual Wages." International Gaming and Wagering Business.

Johnson, Robert. 1999. "Chapter 5. Impacts of Casino Proximity on Social and Economic Outcomes, 1980–1997: a Multilevel Time-Series Analysis." In Gambling Impact and Behavior Study: Report to the National Gambling Impact Study Commission, 65–72. Chicago, IL.

Krepps, Matthew B., and Richard E. Caves. 1994. "Bureaucrats and Indians: Principal-Agent Relations and Efficient Management of Tribal Forest Resources." Journal of Economic Behavior & Organization 24(2): 133-51.

Marks, Mindy, and Kate Spilde Contreras. 2007. "Lands of Opportunity: Social and Economic Effects of Tribal Gaming on Localities." *Policy Matters* 1(4), Summer.

Martin, Aurene M. 2003. "Statement of Aurene M. Martin, Acting Assistant Secretary, Indian Affairs, Department of the Interior." July 9, 2003. In Oversight Hearing on Indian Gaming Regulatory Act; Role and Funding of the National Indian Gaming Commission, One Hundred Eighth Congress First Session, Part 2, 89–154. Committee on Indian Affairs, United States Senate.

McCulloch, Anne M. 1994. "The Politics of Indian Gaming: Tribe/State Relations and American Federalism. *Publius: The Journal of Federalism* 24(3): 99–111.

Meister, Alan P. 2014. Casino City's Indian Gaming Industry Report. 2015 edition. Newton, MA: Casino City Press.

Meriam, Lewis, Ray A. Brown, Henry Roe Cloud, Edward Everett Dale, Emma Duke, Herbert R. Edwards, Fayette Avery McKenzie, Mary Louise Mark, W. Carson Ryan, and William J. Spillman. 1928. The Problem of Indian Administration: Report of a Survey Made at the Request of Honorable Hubert Work, Secretary of the Interior, and Submitted to Him, February 21, 1928. Baltimore, MD: Johns Hopkins Press.

National Bureau of Economic Research. 2012. "US Business Cycle Expansions and Contractions." NBER.org. Cambridge, MA. http://www.nber.org/cycles.html.

National Center for Responsible Gaming. 2011. "A Guide to Gambling Disorders and Responsible Gaming." http://www.ncrg.org/sites/default/files/uploads/docs/researchandresources2011.pdf. National Indian Gaming Commission. 2014. Gaming Revenue Reports. http://www.nigc.gov/Gaming_Revenue_Reports.aspx.

National Indian Gaming Commission. 2015. "Approved Management Contracts." http://www.nigc.gov/Reading_Room/Management_Contracts.aspx.

National Research Council. 1999. Pathological Gambling: A Critical Review. Washington, DC: National Research Council.

Niagara Falls Canada. 2006. Tourist and Economic Impact Statistics. Niagara Falls, ON: Business Development Department, Niagara Falls.

Nixon, Richard M. 1970. "Special Message to Congress on Indian Affairs." Public Papers of the Presidents of the United States, July 8.

Obama, Barack H. 2009. "Memorandum for the Heads of Executive Departments and Agencies." Federal Register, November 9, 74(215): 57879–82.

Osage Nation. 2015. "Education Scholarship." https://www.osagenation-nsn.gov/what-we-do/education-department/education-scholarship (retrieved May 29, 2015).

Osier, Vince. 2012. "American Indian and Alaska Native Area to Tribe 2012." Washington, DC: US Census Bureau.

Reagan, Patricia B, and Robert J. Gitter. 2007. "Is Gaming the Optimal Strategy? The Impact of Gaming Facilities on the Income and Employment of American Indians." *Economics Letters* 95(3): 428–32.

Reagan, Ronald. 1983. "Executive Order 12401—Presidential Commission on Indian Reservation Economies." *The American Presidency Project.* http://www.presidency.ucsb.edu/ws/?pid=41365.

Russ, Jacob W., and Thomas Stratmann. 2013. "Creeping Normalcy: Fractionation of Indian Land Ownership." GMU Working Paper in Economics no. 13-28, George Mason University.

Senate Committee on Indian Affairs. 1988. "Senate Report 100-446 on the Indian Gaming Regulatory Act, to Accompany S. 555." In *Congressional Record* 134: 3071–3106. WestLaw.

Taggart, William A., and Thaddieus W. Conner. 2011. "Indian Gaming and Tribal Revenue Allocation Plans: A Case of 'Play to Pay." Gaming Law Review and Economics 15(6): 355–63.

Taylor, Jonathan B. 2005. Tribal Self-Government and Gaming Policy: The Consequences for Indians and Washington State. (Indian Self-Government in Washington, Vol. 1.) Washington Indian Gaming Association and Taylor Policy Group. http://www.washingtonindiangaming.org/images/content/WA-Indian-Gaming-Policy-2-14-05.pdf.

Taylor, Jonathan B. 2006. The Character and Effects of the Indian Economy in Washington State. (Indian

Self-Governmentin Washington, Vol. 2.) Washington Indian Gaming Association and Taylor Policy Group. http://www.washingtonindiangaming.org/images/content/WIGA-Vol-2-Report-8-16-06-Lo Res.pdf.

Taylor, Jonathan B. 2012. "The Economic and Fiscal Impacts of Indian Tribes in Washington." Washington Indian Gaming Association and Taylor Policy Group. http://www.washingtonindiangaming.org/images/content/wigaeconseptupt3.pdf.

Taylor, Jonathan B., and Joseph Peggs Kalt. 2005. "American Indians on Reservations: A Databook of Socioeconomic Change Between the 1990 and 2000 Censuses." Harvard Project on American Indian Economic Development. https://nnidatabase.org/db/attachments/text/2005_TAYLOR_kalt_HPAIED_databook.pdf.

Taylor, Jonathan B., Matthew B. Krepps, and Patrick Wang. 2000. The National Evidence on the Socioeconomic Impacts of American Indian Gaming on Non-Indian Communities. Cambridge, MA: Harvard Project on American Indian Economic Development.

Trosper, Ronald L. 1996. "American Indian Poverty on Reservations, 1969–1989." In Changing Numbers, Changing Needs: American Indian Demography and Public Health, edited by Gary D. Sandefur, Ronald R. Rindfuss, and Barney Cohen, 172–95. Washington, DC: National Academy Press.

US Census. 2011a. 2010 Census Summary File 1 United States. US Census Bureau.

US Census. 2011b. Facts for Features: American Indian and Alaska Native Heritage Month: November 2011. https://www.census.gov/newsroom/releases/archives/facts_for_features_special_editions/cb11-ff22.html.

US Census. 2011c. "Table 1258. Gaming Revenues by Industry: 2000 to 2009." In Statistical Abstract of the United States: 2011, p. 774. https://

www.census.gov/compendia/statab/2011/tables/11s1258.pdf.

US Commission on Civil Rights. 2003. A Quiet Crisis: Federal Funding and Unmet Needs in Indian Country. Washington, DC: US Commission on Civil Rights.

Volberg, Rachel, Kari Nysse-Carris, and Dean Gerstein. 2006. 2006 California Problem Gambling Prevalence Survey: Final Report. August. National Opinion Research Center, University of Chicago. http://www.standupca.org/reports/CA_Problem_Gambling_Prevalence_Survey-Final_Report.pdf.

Walke, Roger. 2000. "Indian-Related Federal Spending Trends, FY 1975–2001, US Congressional Research Service Memorandum, March 1, 2000." In Report of the Committee on the Budget, United States Senate to Accompany S. Con. Res. 101 Together with Additional and Minority Views, Senate Report 106-251, p. 199–250.

Walker, Douglas M. 2007. The Economics of Casino Gambling. 1st edition. Springer.

Washburn, Kevin K. 2008. "The Legacy of Bryan v. Itasca County: How an Erroneous \$147 County Tax Notice Helped Bring Tribes \$200 Billion in Indian Gaming Revenue." *Minnesota Law Review* 92(4): 919–970.

Washington Research Council. 2002. Special Report: Untaxed and Lightly Regulated. Seattle, WA: Washington Research Council.

Wilkins, David E. 2002. American Indian Politics and the American Political System. New York, NY: Rowman & Littlefield.

Wilkinson, Charles F. 1988. American Indians, Time, and the Law: Native Societies in a Modern Constitutional Democracy. Yale University Press.

Wolfe, Barbara, Jessica Jakubowski, Robert Haveman, and Marissa Courey. 2012. "The Income and Health Effects of Tribal Casino Gaming on American Indians." *Demography* 49(2): 499–524.