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Restoring Indian Reservation Status: An Empirical Analysis

Michael K. Velchik & Jeffery Y. Zhang[†]

In McGirt v. Oklahoma, the Supreme Court held that the eastern half of Oklahoma was Indian country. This bombshell decision was contrary to settled expectations and government practices spanning 111 years. It also was representative of an increasing trend of federal courts recognizing Indian sovereignty over large and economically significant areas of the country, even where Indians have not asserted these claims in many years and where Indians form a small minority of the inhabitants.

Although McGirt and similar cases fundamentally turn on questions of statutory and treaty interpretation, they are often couched in consequence-based arguments about the good or bad economic effects of altering existing jurisdictional relationships. One side raises a “parade of horrors.” The other contends that “the sky is not falling.” Yet, to date, there is hardly any empirical literature to ground these debates. Litigants have instead been forced to rely upon impressionistic reasoning and economic intuitions.

*We evaluate these competing empirical claims by exploiting natural experiments: judicial rulings altering the status quo of Indian reservation status. Applying well-established econometric techniques, we first examine the Tenth Circuit’s *Murphy v. Royal* decision in 2017 and the Supreme Court’s *McGirt v. Oklahoma* decision in 2020, which both held that the eastern half of Oklahoma was in fact Indian country. To do so, we leverage monthly employment data at the county level, annual output data at the county level, and daily financial data for public companies incorporated in Oklahoma. Contrary to the “falling sky” hypothesis that recognition of Indian jurisdiction would negatively impact the local economy, we observe no statistically significant effect of the Tenth Circuit or Supreme Court opinions on economic output in the affected counties.*

*We supplement these findings by analyzing five further case studies. These include three Supreme Court decisions: *Nebraska v. Parker* (concerning the*

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Village of Pender, Nebraska); City of Sherrill v. Oneida Indian Nation (City of Sherrill, New York); and South Dakota v. Yankton Sioux Tribe (Mix County, South Dakota). We also analyze settlements between tribes and state governments in Mt. Pleasant, Michigan, in 2010 and Tacoma, Washington, in 1989. On balance, we report no statistically significant evidence that recognition of tribal jurisdiction reduces economic performance in the affected counties, and we provide several hypotheses to contextualize these findings. These results have important consequences for future litigation related to tribal sovereignty.

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I. Introduction

On August 8, 2017, a three-judge panel on the Tenth Circuit issued a 127-page opinion in *Murphy v. Royal* declaring that the eastern half of Oklahoma was Indian country.¹ The case concerned the habeas petition of death-row inmate Patrick Murphy, who had been convicted in state court of first-degree murder.² After seventeen years of post-conviction litigation, Murphy raised a novel argument: even accepting that he was guilty of the crime, the State of Oklahoma lacked jurisdiction to prosecute him because he was a member of a federally recognized Indian tribe.

Under the Major Crimes Act, the federal government has exclusive criminal jurisdiction over major crimes—such as murder—committed by a member of a federally recognized Indian tribe in “Indian country.”³ Both Murphy and his victims were members of the Muskogee (Creek) Tribe,⁴ one of the so-called “Five Civilized Tribes” that relocated to Oklahoma in the 19th century.⁵ The only question was whether the eastern half of Oklahoma was still “Indian country.” Until 2017, practically everyone understood that the Five Tribes had no reservations in Oklahoma after it became a state in 1907.⁶ It was therefore a shock to have a federal appellate court declare that Indian tribes suddenly enjoyed sovereignty over 1.8 million people inhabiting 19 million acres of land

1. 866 F.3d 1164, 1233, *reh’g denied*, 875 F.3d 896 (10th Cir. 2017), *cert. granted sub nom.* *Royal v. Murphy*, 138 S. Ct. 2026 (2018), *aff’d sub nom.* *Sharp v. Murphy*, 140 S. Ct. 2412 (2020). The term “Indian Country” is defined in 18 U.S.C. § 1151 (2018).

2. *Murphy v. State*, 47 P.3d 876 (Okla. Crim. App. 2002).

3. 18 U.S.C. § 1153 (2018).

4. *Murphy v. State*, 124 P.3d 1198, 1200 (Okla. Crim. App. 2005).

5. *See* *Indian Country, U.S.A., Inc. v. Oklahoma*, 829 F.2d 967, 970 & n.2 (10th Cir. 1987) (explaining the term). *See generally* CHARLES RIVER, THE FIVE CIVILIZED TRIBES: THE HISTORY OF THE CHEROKEE, CHICKASAW, CHOCTAW, CREEK, AND SEMINOLE (2014).

6. *See, e.g.*, *Oklahoma v. Castro-Huerta*, 142 S. Ct. 2486, 2499 (2022) (“Most everyone in Oklahoma previously understood that the State included almost no Indian country.”); *Osage Nation v. Irby*, 597 F.3d 1117, 1125 (10th Cir. 2010) (collecting testimony from historians that “[t]here are no Indian reservations in Oklahoma”). This also was the official position of the U.S. Secretary of the Interior, as memorialized in a memorandum in 1963. Memorandum to Robert F. Kennedy, Attorney General, from Stewart L. Udall, Secretary of the Interior (Mar. 27, 1963), *reprinted in* Brief for United States as Amicus Curiae Supporting Petitioner at 7a-8a, *Carpenter v. Murphy*, 140 S. Ct. 2412 (2020) (No. 17-1107). Multiple federal statutes and Supreme Court cases also refer to the Creek Nation as a former nation. *See, e.g.*, *Washington v. Miller*, 235 U.S. 422, 423 (1914) (hearing a “suit to quiet the title to lands within what until recently was the Creek Nation in Indian Territory”); *Grayson v. Harris*, 267 U.S. 352, 353 (1927) (describing land “lying within the former Creek Nation”); *Woodward v. De Graffenried*, 238 U.S. 284, 285 (1915) (describing land “formerly part of the domain of the Creek Nation”); *Oklahoma Tax Comm’n v. United States*, 319 U.S. 598, 602 (1943) (tribes were once “separate political entities with all the rights of independent status—a condition which has not existed for many years in the State of Oklahoma”); 25 U.S.C. § 1452(d) (2018); 12 U.S.C. § 4702(11) (2018); 16 U.S.C. § 1722(6)(c) (2018); 25 U.S.C. §§ 2020(d)(1)-(2), 3103(12), 3202(9) (2018); 29 U.S.C. § 741(d) (2018); 33 U.S.C. § 1377(c)(3)(B) (2018); 42 U.S.C. §§ 2992c(3), 5318(n)(2) (2018); *see also* S. REP. NO. 74-1232, at 6 (1935) (“[A]s a result of [prior legislation], all Indian reservations as such have ceased to exist and the Indian citizen has taken his place on an allotment or farm and is assuming his rightful position among the citizenship of the State.”).

(including the city of Tulsa).⁷ The Creek reservation instantly became by far the largest reservation by population in the United States.⁸ The potential economic effects of this decision were enormous.⁹

The Supreme Court granted certiorari.¹⁰ During the litigation, the parties relied heavily on consequence-based arguments.¹¹ The State of Oklahoma argued that the sudden recognition of Indian territory over half the state would destabilize the local economy by creating the largest Indian reservation in America today, one that would include Oklahoma's second-largest city.¹² Murphy, the Creek Tribe, and amici argued otherwise.¹³ At oral argument, Justice Alito asked the United States "about the practical effects of the Tenth Circuit's decision."¹⁴ Justice Kavanaugh mused that "stability is a critical value in judicial decision-making, and we would be departing from that and creating a great deal of turmoil. And so why shouldn't the historical practice, the contemporaneous understanding, the 100 years, all the practical implications say leave well enough alone here?"¹⁵ Justice Breyer even raised concerns over tribes regulating non-Indians' pet dogs.¹⁶ No area of administrative law was left unexamined! The Court also granted certiorari and heard arguments in a companion case presenting the same question: *McGirt v. Oklahoma*.¹⁷

On July 9, 2020, the Supreme Court decided both *McGirt v. Oklahoma* and *Sharp v. Murphy*.¹⁸ Writing for the majority, Justice Gorsuch eschewed any

7. Cf. *Indian Country, U.S.A., Inc. v. Oklahoma*, 829 F.2d 967 (10th Cir. 1987) (recognizing that the Creek Nation continued to exist as a sovereign entity sufficient to be exempt from bingo regulation by the State of Oklahoma).

8. *Population Profiles 2010*, U.S. CENSUS BUREAU, <https://www.census.gov/tribal/?st=40&aianihh=5620> [<https://perma.cc/7U5P-53VV>] (showing that over 750,000 people resided in Creek reservation as of 2010). By comparison, the next largest reservations are the Navajo Nation (100,000 residents) and the Yakama Nation (30,000 residents).

9. See, e.g., Elizabeth Kronk Warner & Heather Tanana, *Indian Country Post McGirt: Implications for Traditional Energy Development and Beyond*, 45 HARV. ENV'T L. REV. 249, 250, 271-92 (2021) (characterizing the *McGirt* decision as "the most important Indian law decision in the past fifty years, if not the past century," and describing effects of the litigation on oil, gas, and mining).

10. *Royal v. Murphy*, 138 S. Ct. 2026 (2018). In an extraordinary move, the U.S. Solicitor General filed a brief as amicus curiae in support of the petition before the Supreme Court ever called for the views of the Solicitor General. Brief for the United States as Amicus Curiae Supporting Granting the Petition for Writ of Certiorari, *Sharp v. Murphy*, 140 S. Ct. 2412 (2020) (No. 17-1107). This marked a rare instance where the Solicitor General acted on a petition without the prompting of the Supreme Court. See Patricia A. Millett, "We're Your Government and We're Here to Help": Obtaining Amicus Support from the Federal Government in Supreme Court Cases, 10 J. APP. PRAC. & PROC. 209, 223 & n.28 (2009) (explaining the infrequency of such events). For background and an empirical analysis of this process, see generally David C. Thompson & Melanie F. Wachtell, *An Empirical Analysis of Supreme Court Certiorari Petition Procedures: The Call for Response and the Call for the Views of the Solicitor General*, 16 GEO. MASON L. REV. 237 (2009).

11. See, e.g., Matthew L.M. Fletcher, *Textualism's Gaze*, 25 MICH. J. RACE & L. 111, 122 (2020) ("Oral argument was all about consequences to reaffirming the reservation boundaries.").

12. Brief of Petitioner at 3, *Sharp v. Murphy*, 140 S. Ct. 2412 (2020) (No. 17-1107).

13. Brief of Respondent at 55-57, *Sharp v. Murphy*, 140 S. Ct. 2412 (2020) (No. 17-1107).

14. Transcript of Oral Argument at 28, *Sharp v. Murphy*, 140 S. Ct. 2412 (2020) (No. 17-1107).

15. *Id.* at 55-57.

16. *Id.* at 44.

17. *McGirt v. Oklahoma*, 140 S. Ct. 659 (2019).

18. *McGirt v. Oklahoma*, 140 S. Ct. 2452 (2020); *Sharp v. Murphy*, 140 S. Ct. 2412 (2020).

consequence-based arguments, characterizing them as “self-defeating.”¹⁹ He explained:

In reaching our legal conclusion, we do not pretend to foretell the future and we proceed aware of the potential for cost and conflict around jurisdictional boundaries, especially ones that have gone unappreciated for so long. But it is unclear why pessimism should rule the day. With the passage of time, Oklahoma and its Tribes have proven they can work successfully together as partners. No one before us claims that the spirit of good faith, “comity and cooperative sovereignty” behind these agreements will be imperiled by an adverse decision for the State today any more than it might be by a favorable one.²⁰

The Chief Justice dissented, joined by Justices Thomas, Alito, and Kavanaugh. In contrast, he raised concerns over the economic consequences of this decision:

The rediscovered reservations encompass the entire eastern half of the State—19 million acres that are home to 1.8 million people, only 10%–15% of whom are Indians. . . . [T]he Court has profoundly destabilized the governance of eastern Oklahoma. The decision today creates significant uncertainty for the State’s continuing authority over any area that touches Indian affairs, ranging from zoning and taxation to family and environmental law. . . . Here those burdens—the product of a century of settled understanding—are extraordinary. . . . Beyond the criminal law, the decision may destabilize the governance of vast swathes of Oklahoma. . . . State and tribal authority are also transformed. As to the State, its authority is clouded in significant respects when land is designated a reservation. . . . In addition to undermining state authority, reservation status adds an additional, complicated layer of governance over the massive territory here, conferring on tribal government power over numerous areas of life—including powers over non-Indian citizens and businesses. . . . Recognizing the significant ‘potential for cost and conflict’ caused by its decision, the Court insists any problems can be ameliorated if the citizens of Oklahoma just keep up the ‘spirit’ of cooperation behind existing intergovernmental agreements between Oklahoma and the Five Tribes. But those agreements are small potatoes compared to what will be necessary to address the disruption inflicted by today’s decision.²¹

These are fundamentally empirical claims about the consequences of “significant uncertainty.” Indeed, when evaluating these jurisdictional claims, courts have historically been moved by consequence-based arguments.²²

19. *McGirt*, 140 S. Ct. at 2479 (2020). This textualist approach is consistent with a recent trend in Indian law cases. *See, e.g.*, *Herrera v. Wyoming*, 139 S. Ct. 1686, 1696 (2019); *Michigan v. Bay Mills Indian Cmty.*, 572 U.S. 782, 788-92 (2014).

20. *McGirt*, 140 S. Ct. at 2481-82. (internal citations omitted).

21. *Id.* at 2482, 2500-02 (Roberts, C.J., dissenting) (internal citations omitted).

22. *See, e.g.*, *City of Sherrill v. Oneida Indian Nation of N.Y.*, 544 U.S. 197, 218-19 (2005) (“When a party belatedly asserts a right to present and future sovereign control over territory, longstanding observances and settled expectations are prime considerations. . . . [T]his Court has recognized the

Knowing this, litigants often bring statistics to bear in these cases. Inevitably, one side raises a “parade of horrors.”²³ The other side argues that “the sky is

impracticability of returning to Indian control land that generations earlier passed into numerous private hands.”); *Smith v. Parker*, 774 F.3d 1166, 1169 (8th Cir. 2014), *aff’d sub nom. Nebraska v. Parker*, 577 U.S. 481 (2016) (“The importance and impact that this determination has on the entire community of Pender and its residents is not lost on this court. As Appellants point out, this is not a matter of mere historical curiosity or academic interest.”); *Onondaga Nation v. New York*, 500 F. App’x 87, 89 (2d Cir. 2012) (“[T]he district court noted that ‘approximately 183 years separated the Onondagas’ filing of this action from the most recent occurrence giving rise to their claims. The disruptive nature of the claims is indisputable as a matter of law. . . . We reject the argument that it was inappropriate for the district court to take judicial notice of population and development at this stage of litigation.”); *Cayuga Indian Nation of N.Y. v. Pataki*, 413 F.3d 266, 275 (2d Cir. 2005) (noting that a possessory claim by the tribe for ancestral lands was “indisputably disruptive”); *Oneida Indian Nation of N.Y. v. Cnty. of Oneida*, 199 F.R.D. 61, 92 (N.D.N.Y. 2000) (“These practical concerns as to the impossibility of restoring Indians to lands formerly occupied by them resonate deeply with this court. Such concerns are magnified exponentially here, where development of every type imaginable has been ongoing for more than two centuries. . . . The court cannot countenance such a result. The court is acutely aware of the claims of serious and even tragic harms which the State of New York allegedly perpetrated upon the Oneidas. By the same token, however, it is unfathomable to this court that the remedy for such harms, if proven, should be the eviction of numerous private landowners more than 200 years after the challenged conveyances.”); *see also* *South Dakota v. Yankton Sioux Tribe*, 522 U.S. 329, 356 (1998) (noting that a disputed area remains predominately populated by non-Indians); *Hagen v. Utah*, 510 U.S. 399, 421 (1994) (“This ‘jurisdictional history,’ as well as the current population situation in the Uintah Valley, demonstrates a practical acknowledgment that the Reservation was diminished; a contrary conclusion would seriously disrupt the justifiable expectations of the people living in the area.”); *Rosebud Sioux Tribe v. Kneip*, 430 U.S. 584, 604-05 (1977) (“The longstanding assumption of jurisdiction by the State over an area that is over 90% non-Indian both in population and in land use, not only demonstrates the parties’ understanding of the meaning of the Act, but has created justifiable expectations which should not be upset by so strained a reading of the Acts of Congress as petitioner urges.”); Matthew L. M. Fletcher, *Tribal Disruption and Federalism*, 76 MONT. L. REV. 97, 102 (2015) (“In recent years, state and local governments have been unusually effective in quelling tribal claims in federal courts by arguing that tribal initiatives are disruptive to local governance. In some cases the mere allegation that a tribal claim is disruptive serves to justify summary dismissal of the tribal claim without any analysis of the underlying tribal claim.”); Ann E. Tweedy, *Has Federal Indian Law Finally Arrived at ‘The Far End of the Trail of Tears?’*, 37 GA. ST. U. L. REV. 739, 769 (2021) (“Tribal jurisdiction cases are notoriously hard for tribes to win, and reservation boundary cases seem to be the next hardest category, most likely in large part because of the potential jurisdictional implications of intact reservation status.”).

23. *See, e.g.*, Transcript of Oral Argument at 23, *McGirt*, 140 S. Ct. 2452 (No. 18-9526) (Justice Gorsuch: “We can put aside the criminal convictions—you’ve addressed those—but just the on-the-ground difficulties we’ve heard about in administering Tulsa. A, do you want to respond to that—parade of horrors generally? And, B, how should that inform our analysis of and interpretation of a statute and a treaty?”); *see also* *DeCoteau v. Dist. Cnty. Ct. for Tenth Jud. Dist.*, 420 U.S. 425, 449 (1975) (“Until the Court of Appeals altered the status quo, South Dakota had exercised jurisdiction over the unallotted lands of the former reservation for some 80 years. Counsel for the tribal members stated at oral argument that many of the Indians have resented state authority and suffered under it. Counsel for the State denied this and argued that an end to state jurisdiction would be calamitous for all the residents of the area, Indian and non-Indian alike.”); Brief for Respondent at 53 n.15, *Herrera v. Wyoming*, 139 S. Ct. 1686 (2019) (No. 17-532) (“[A] ruling in [Petitioner’s] favor will also dramatically disrupt the settled expectations of private property owners who for more than 100 years have believed they have the right to exclude others from hunting or crossing their property.”); Brief for Petitioner at 20, *Nebraska v. Parker*, 577 U.S. 481 (2016) (No. 14-1406) (“If this Court upholds the lower courts’ ruling that the disputed area remains part of the reservation, the practical consequences will be profound for the residents of the disputed area after over one hundred years of justifiable reliance upon Nebraska and local governmental institutions and services.”); State Defendants’ Response to Plaintiff Saginaw Chippewa Indian Tribe’s Motion to Strike Defenses or Limit Discovery, *Saginaw Chippewa v. Granholm*, 2008 WL 2383282 (E.D. Mich. Apr. 28, 2008) (No. 05-10296-BC) (arguing that sharing jurisdiction with tribe would be deeply disruptive to the state, county, and city).

not falling.”²⁴ And occasionally a judge will respond, in the idiom of Lord Mansfield,²⁵ *fiat iustitia, ruat coelum*—“let justice be done, though the sky may fall.”²⁶

To date, there has been hardly any empirical work measuring the impact of Indian reservation status. Much of the literature focuses on broad narratives or summaries of census-based data documenting the relative poverty of Native American communities.²⁷ Other work presents case studies of niche industries,²⁸ discusses the difficulty of exploiting of natural resources on reservation lands,²⁹ or bemoans the complexity of Indian-law regulations generally.³⁰ To the extent that these articles advocate for greater or lesser Tribal autonomy, these arguments are not tethered to empirical evidence.³¹ The few exceptions are studies measuring the effects of Public Law 280 on affected reservations,³² which arrived at conflicting results,³³ and the impact of property rights on agricultural productivity.³⁴ Prior to *McGirt*, there had been no systematic or empirical

24. Brief for Petitioner at 39-43, *McGirt*, 140 S. Ct. 2452 (No. 18-9526); *Oklahoma v. Castro-Huerta*, 142 S. Ct. 2486, 2525 (2022) (Gorsuch, J., dissenting) (quoting U.S. Attorney Trent Shores arguing that “the sky isn’t falling”).

25. *Rex v. Wilkes*, 4 Burr. 2527, 2562, 98 Eng. Rep. 327, 347 (K.B. 1770); *Somerset v. Stewart*, 1 Lofft 1, 17, 98 Eng. Rep. 499, 509 (K.B. 1772).

26. See, e.g., *McGirt*, 140 S. Ct. at 2482 (“Yes, promises were made, but the price of keeping them has become too great, so now we should just cast a blind eye. We reject that thinking.”). But see RICHARD A. POSNER, *BREAKING THE DEADLOCK: THE 2000 ELECTION, THE CONSTITUTION, AND THE COURTS* 168-69 (2001) (“‘Fiat iustitia ruat caelum’ is not a workable motto for the Supreme Court.”). An alternative translation is “Let justice be done, though the heavens may fall.” *Morrison v. Olson*, 487 U.S. 654, 732 (1988) (Scalia, J., dissenting).

27. See, e.g., Robert J. Miller, *Sovereign Resilience: Reviving Private-Sector Economic Institutions in Indian Country*, 2018 BYU L. REV. 1331 (2018); Robert J. Miller, *Economic Development in Indian Country: Will Capitalism or Socialism Succeed?*, 80 OR. L. REV. 757 (2001); Joseph P. Kalt & Joseph William Singer, *Myths and Realities of Tribal Sovereignty: The Law and Economics of Indian Self-Rule* (Harv. Univ. KSG Fac. Rsch. Working Paper, Paper No. RWP04-016, Mar. 2004).

28. See, e.g., Paule E. Frye, *Lender Recourse in Indian Country: A Navajo Case Study*, 21 N.M. L. REV. 275 (1991) (analyzing lender markets in the Navajo reservation); Adam Crepelle, *Tribal Lending and Tribal Sovereignty*, 66 DRAKE L. REV. 1 (2018) (discussing the phenomenon of tribal lending and noting problems of sovereign immunity).

29. See, e.g., Heather J. Tanana & John C. Ruple, *Energy Development in Indian Country: Working Within the Realm of Indian Law and Moving Towards Collaboration*, 32 UTAH ENV’T L. REV. 1 (2012).

30. See, e.g., Richard J. Ansson, Jr. & Ladine Oravetz, *Tribal Economic Development: What Challenges Lie Ahead for Tribal Nations as They Continue to Strive for Economic Diversity?*, 11 KAN. J.L. & PUB. POL’Y 441, 442 (2002).

31. See, e.g., Lorie M. Graham, *An Interdisciplinary Approach to American Indian Economic Development*, 80 N.D. L. REV. 597, 654 (2004).

32. Public Law 280, Pub. L. No. 83-280 (codified as amended at 18 U.S.C. § 1162, 28 U.S.C. § 1360, 25 U.S.C. §§ 1321-1326) (1953), established “a method whereby States may assume jurisdiction over reservation Indians.” *McClanahan v. Ariz. State Tax Comm’n*, 411 U.S. 164, 177 (1973).

33. See Terry L. Anderson & Dominic P. Parker, *Sovereignty, Credible Commitments, and Economic Prosperity on American Indian Reservations*, 51 J.L. & ECON. 641, 641-66 (2008) (arguing that state jurisdiction improves economic growth because of more credible contractual enforcement); Valentina Dimitrova-Grajzl & Peter Grajzl, *Jurisdiction, Crime, and Development: The Impact of Public Law 280 in Indian Country*, 48 L. & SOC’Y REV. 127, 129 (2014) (finding “that the implementation of PL 280 increased the occurrence of crime, an effect that is both statistically and economically significant”).

34. Terry L. Anderson & Dean Lueck, *Land Tenure and Agricultural Productivity on Indian Reservations*, 35 J.L. & ECON. 427, 454 (1992).

analysis.³⁵ Litigants and courts have been left to rely upon impressionistic reasoning and economic intuitions.

In this Article, we evaluate the economic effects of restoring tribal sovereignty by exploiting natural experiments created by judicial rulings altering the status quo of Indian reservation status. We apply well-established difference-in-differences econometric techniques to evaluate the impact.³⁶ Contrary to the “falling sky” hypothesis that recognition of Indian jurisdiction would negatively impact the local economy, we observe no statistically significant effect of the Tenth Circuit or Supreme Court opinions on economic output in the affected counties. These decisions have neither helped nor hurt local economic activity.

Part II provides the relevant legal framework for evaluating claims to recognize land as Indian country. We then analyze the economic consequences of the Tenth Circuit’s *Murphy* decision and the Supreme Court’s *McGirt* decision. We first measure the effect of the Tenth Circuit’s *Murphy* decision on county-level employment and real GDP. We report evidence that strongly suggests that economic activity did *not* decline following the Tenth Circuit’s ruling. We then expand our analysis to include the Supreme Court’s *McGirt* decision. Using daily data of publicly traded companies based in Oklahoma as well as county-level employment data, we again find no impact.

Part III supplements this analysis with five additional case studies involving tribal jurisdictional disputes. We selected these examples based on several factors, including the size of the affected area, the productivity of the economies in the region, and the alignment of reservation borders with county borders (since our sources report economic data at the county level). These cases include three Supreme Court decisions addressing uncertain reservation status: *Nebraska v. Parker*,³⁷ *City of Sherrill v. Oneida Indian Nation*,³⁸ and *South Dakota v. Yankton Sioux Tribe*.³⁹ We also analyze intergovernmental settlements between Michigan and the Saginaw Chippewa Indian Tribe in 2010 (Mt. Pleasant, Michigan) and between Washington and the Puyallup Tribe in 1989 (Tacoma, Washington).⁴⁰ On balance, the recognition of tribal jurisdiction does not reduce economic performance in the affected counties.

Part IV discusses these findings. We specifically evaluate our results through the lens of four models: (1) the Falling Sky Model, associated with state

35. In recent months, one other paper has empirically analyzed the *McGirt* decision using home sales and prices and arrived at a conclusion that is similar to ours. That is, the decision did not have a statistically significant impact. See Sarah Johnston & Dominic Parker, *Causes and Consequences of Policy Uncertainty: Evidence from McGirt vs. Oklahoma*, AGRIC. & APPLIED ECON. DEP’T UNIV. WISCONSIN-MADISON (May 2022), <https://aae.wisc.edu/dparker/wp-content/uploads/sites/12/2022/05/Johnston-and-Parker-McGirt-May-31-2022.pdf> [<https://perma.cc/MRE9-HEJE>] (finding no statistically significant impacts outside of impacts on oil extraction).

36. See *infra* Section II.B.

37. 577 U.S. 481 (2016).

38. 554 U.S. 197 (2005).

39. 522 U.S. 329 (1998).

40. While these five case studies are not as expansive or as unexpected as the Oklahoma litigation, they complement our main analysis by providing a more complete picture.

litigants, which predicts significantly reduced economic activity following the recognition of Indian sovereignty because of weak institutions; (2) the Economic Stimulus Model, associated with tribal litigants, which predicts a boost in economic performance following the recognition of Indian tribal sovereignty and, by logical implication, worse economic performance following the removal of Indian sovereignty; (3) the Uncertainty Shock Model, associated with the Chief Justice's dissent in *McGirt*, which predicts a negative impact on economic performance following a federal court decision that unexpectedly alters the status quo in favor of Indian tribal sovereignty and, by logical extension, improved economic performance following a mitigation of uncertainty (i.e., an appellate court reversing the initial ruling); and (4) the Game Theory Model, associated with Justice Gorsuch's majority opinion in *McGirt*, which predicts no substantial difference in economic performance from marginal changes in sovereignty between neighbors that have repeated interactions, because they will cooperate in order to smooth out any downsides caused by the sudden change in legal status. Our analysis provides no evidence to support the Falling Sky Model, scant evidence for the Uncertainty Shock Model, and suggestive evidence in favor of the Economic Stimulus Model. We conclude that, of the four models, the Game Theory Model best fits and justifies the data.

Our empirical inquiry has application to ongoing and future litigation over the extent of Indian reservations across the nation.⁴¹ *McGirt* and *Sharp* technically concerned only the historical boundaries of the Muskogee Creek Nation. But the other Five Tribes are also litigating related claims concerning their historical territories. In addition, in the same month that *McGirt* was decided, the Seventh Circuit held that Oneida Nation's reservation established by treaty in 1838 remains Indian country.⁴² In reaching this decision, that court interpreted *McGirt* as altering the legal framework for evaluating claims of Indian status, "making it even more difficult to establish the congressional intent to disestablish or diminish a reservation."⁴³ This is likely to spur other tribes to raise similar claims.⁴⁴ Meanwhile, the State of Oklahoma retained outside counsel to litigate claims relating to *McGirt*⁴⁵ and, spectacularly, filed over forty

41. *McGirt* is merely the most visible example of an increasing trend of federal courts recognizing Indian sovereignty over large and economically significant areas of the country.

42. *Oneida Nation v. Vill. of Hobart*, 968 F.3d 664 (7th Cir. 2020).

43. *Id.* at 668.

44. *See, e.g., Little Traverse Bay Bands of Odawa Indians v. Whitmer*, 998 F.3d 269, 283 (6th Cir. 2021) (applying *McGirt* but rejecting claim that an 1855 treaty created an Indian reservation); *Penobscot Nation v. Frey*, 3 F.4th 484, 504 (1st Cir. 2021) (applying *McGirt* to claims over 60-mile stretch of Penobscot River in Maine); Troy A. Eid, *McGirt v. Oklahoma: Understanding What the Supreme Court's Native American Treaty Rights Decision Is and Is Not*, NAT'L L. REV. (Aug. 12, 2020), <https://www.natlawreview.com/article/mcgirt-v-oklahoma-understanding-what-supreme-court-s-native-american-treaty-rights> [<https://perma.cc/KN9Y-5VKU>] (noting that *McGirt* "opens new frontiers for possibly reinvigorating other treaty rights notwithstanding the passage of decades or even centuries"); cf. Bob Statz, *Is the Sky Really Falling?*, MILLE LACS MESSENGER (July 26, 2020) (reporting that Mille Lacs Band is claiming 61,000 acres and discussing potential economic effects).

45. Mike Scarcella, *Paul, Weiss Inked \$700k Contract with Oklahoma to Undo Tribal Rights Ruling*, REUTERS (Aug. 16, 2021), <https://www.reuters.com/legal/government/paul-weiss-inked-700k-contract-with-oklahoma-undo-tribal-rights-ruling-2021-08-16/> [<https://perma.cc/F6XV-SUC6>].

petitions for certiorari presenting the question of “Whether *McGirt v. Oklahoma*, 140 S. Ct. 2452 (2020), should be overruled.”⁴⁶ On January 21, 2022, the Supreme Court granted certiorari in one of these cases, *Oklahoma v. Castro-Huerta*, but limited its review to whether, after *McGirt*, the “State has the authority to prosecute non-Indians who commit crimes against Indians in Indian country.”⁴⁷ On June 29, 2022, the Supreme Court issued its opinion, holding that the federal government and states have concurrent jurisdiction to prosecute crimes committed by non-Indians against Indians in Indian country.⁴⁸ In reaching this decision, the majority and dissenting opinions continued litigating the effects of the *McGirt* decision.⁴⁹ For his part, Justice Gorsuch explicitly stated that Congress and courts lacked a full accounting of the effects of recognizing tribal jurisdiction in the wake of *McGirt*.⁵⁰ We fill this gap in the literature.

46. See, e.g., Petition for a Writ of Certiorari at 1, *Oklahoma v. Castro-Huerta*, 142 S. Ct. 2486 (2022) (No. 21-429).

47. *Oklahoma v. Castro-Huerta*, 142 S. Ct. 877, 877-78 (2022).

48. *Oklahoma v. Castro-Huerta*, 142 S. Ct. 2486 (2022).

49. Compare *id.* at 2492 (arguing that *McGirt* created a “significant challenge for the Federal Government and for the people of Oklahoma” with “sudden significance”), with *id.* at 2510 (Gorsuch, J., dissenting) (criticizing Oklahoma’s “media and litigation campaign seeking to portray reservations within its State . . . as lawless dystopias”), *id.* at 2524 (challenging characterization of Oklahoma as “an eruption of chaos and criminality”), and *id.* at 2524-25 (describing actions that have limited “costs” of the *McGirt* ruling).

50. *Id.* at 2525 (stating that “I do not profess certainty . . . I do not pretend to know all the relevant facts, let alone how to balance each of them in this complex picture” that bear on “the Court’s cost-benefit analysis”).

II. Main Case Studies

Congress has plenary and exclusive authority to deal with Indian tribes.⁵¹ Each tribe's status under federal law is a product of its unique history, specific treaties with the United States, and any applicable statutes passed by Congress.⁵² But much litigation over Indian reservation status follows a similar fact pattern.⁵³ Initially, a tribe was promised land or reservation. The United States then forcibly relocated the tribe, purchased parcels of the reservation, allotted the land into individual parcels, or opened parts of the reservation up for settlement by non-Indians. Congress often failed to be explicit about whether these acts "disestablished" or "diminished" the reservation.⁵⁴ Many years later, courts are asked to divine whether, and to what extent, these statutes were meant to destroy Indian sovereignty over the areas in question.⁵⁵ In doing so, courts traditionally look to the (1) statutory text, (2) historical context and contemporaneous

51. U.S. CONST. art. I, § 8, cl. 3 (Indian Commerce Clause); *id.* art. II, § 2, cl. 2 (Treaty Clause); *United States v. Lara*, 541 U.S. 193, 200 (2004); *South Dakota v. Yankton Sioux Tribe*, 522 U.S. 329, 343 (1998); *Negonsott v. Samuels*, 507 U.S. 99, 103 (1993); *Washington v. Confederated Bands & Tribes of Yakima Nation*, 439 U.S. 463, 470-71 (1979); *United States v. Kagama*, 118 U.S. 375, 383-84 (1886); COHEN'S HANDBOOK OF FEDERAL INDIAN LAW § 3.04[3], at 198-99 (Nell Jessup Newton et al. eds., 2005) [hereinafter COHEN'S HANDBOOK]. Although the United States originally contracted treaties with tribes, in 1871 Congress ended the practice of entering into treaties with the Indians. Indian Appropriations Act of Mar. 3, 1871, ch. 106, 16 Stat. 471 (codified at 25 U.S.C. § 71) (stating that tribes are not entities "with whom the United States may contract by treaty"). So complete is this authority that the Supreme Court has said that Congress may even unilaterally alter the terms of treaties with the Indians. *Lone Wolf v. Hitchcock*, 187 U.S. 553, 565-66 (1903). To compensate for this, courts apply the so-called Indian canon of construction, which construes these treaties in the light most favorable to the Indian party. *See, e.g., United States v. Winans*, 198 U.S. 371, 380-81 (1905); *Worcester v. Georgia*, 31 U.S. (6 Pet.) 515, 582 (1832) (McLean, J., concurring) ("The language used in treaties with the Indians should never be construed to their prejudice. . . . How the words of the treaty were understood by this unlettered people, rather than their critical meaning, should form the rule of construction."); COHEN'S HANDBOOK, § 2.02, at 119. This is consistent with the broader legal doctrine of *contra proferentem* found in contract law and which can be traced back to the civil law. *See, e.g., Lamps Plus, Inc. v. Varela*, 139 S. Ct. 1407, 1417 (2019) ("[A]mbiguity in a contract should be construed against the drafter, a doctrine known as *contra proferentem*."); THE DIGEST OF JUSTINIAN 18.1.21 (Alan Watson trans., 1998) ("Labeo writes that where a term of the contract is obscure, it should be construed against the vendor who stated it rather than against the purchaser, because the vendor could have declared his will more explicitly before the contract was entered into.").

52. *See, e.g., United States v. Oregon*, 787 F. Supp. 1557, 1567 (D. Or. 1992), *aff'd*, 29 F.3d 481 (9th Cir. 1994) ("I recognize that reference to and reliance upon legal precedent must be approached with caution given the unique nature of Indian culture and the unique facts and circumstances that each case presents. Thus, in my review of other cases in which similar claims of intervention based upon treaty tribe status have been raised, I have found certain limited parallels and contrasts which I can draw, but no binding conclusions."); *cf. Nat'l Farmers Union Ins. Cos. v. Crow Tribe*, 471 U.S. 845, 855-67 (1985) (requiring "[e]xhaustion of tribal court remedies" because "the existence and extent of a tribal court's jurisdiction will require a careful examination of tribal sovereignty, the extent to which that sovereignty has been altered, divested, or diminished, as well as a detailed study of relevant statutes, Executive Branch policy as embodied in treaties and elsewhere, and administrative or judicial decisions").

53. *See, e.g., DeCoteau v. Dist. Cnty. Ct. for Tenth Jud. Dist.*, 420 U.S. 425, 431 (1975) (describing the "familiar forces" that shape these cases).

54. *See Yankton Sioux Tribe v. Gaffey*, 188 F.3d 1010, 1017 (8th Cir. 1999) ("Although the terms 'diminished' and 'disestablished' have at times been used interchangeably, disestablishment generally refers to the relatively rare elimination of a reservation while diminishment commonly refers to the reduction in size of a reservation.").

55. *See, e.g., Hagen v. Utah*, 510 U.S. 399 (1994); *Solem v. Bartlett*, 465 U.S. 463 (1984).

understanding, and (3) post-enactment history and demographics.⁵⁶ This last prong often involves examining the percentage of the non-Indian population in the area in question over time.⁵⁷ Some characterize this concern as accounting for reliance interests,⁵⁸ but it is probably best conceptualized as providing evidence of the parties' original and continued understanding of congressional intent.⁵⁹ As this suggests, there is sometimes a tension in the caselaw as to the propriety of explicitly considering economic consequences of these decisions. Some say no. Some very explicitly say yes. But whatever its nature, courts and litigants have explicitly couched their arguments in terms of consequentialism.

56. *Solem v. Bartlett*, 465 U.S. 463, 470-80 (1984). These are often referred to as the *Solem* factors.

57. *Nebraska v. Parker*, 577 U.S. 481, 492 (2016) (looking to “subsequent demographic history”); *Solem*, 465 U.S. at 471 (“Where non-Indian settlers flooded into the opened portion of a reservation and the area has long since lost its Indian character, we have acknowledged that *de facto*, if not *de jure*, diminishment may have occurred.”); *South Dakota v. Yankton Sioux Tribe*, 522 U.S. 329, 356 (1998) (“Today, fewer than 10 percent of the 1858 reservation lands are in Indian hands, non-Indians constitute over two-thirds of the population within the 1858 boundaries, and several municipalities inside those boundaries have been incorporated under South Dakota law.”); *Rosebud Sioux Tribe v. Kneip*, 430 U.S. 584, 604-05 (1977) (“The longstanding assumption of jurisdiction by the State over an area that is over 90% non-Indian both in population and in land use, not only demonstrates the parties’ understanding of the meaning of the Act, but has created justifiable expectations which should not be upset by so strained a reading of the Acts of Congress as petitioner urges.”); *DeCoteau v. Dist. Cnty. Ct. for Tenth Jud. Dist.*, 420 U.S. 425, 448 (1975) (“In the present case . . . the surrounding circumstances are fully consistent with an intent to terminate the reservation, and inconsistent with any other purpose.”).

58. *See, e.g., Hagen v. Utah*, 510 U.S. 399, 421 (1994) (“This ‘jurisdictional history,’ as well as the current population situation in the Uintah Valley, demonstrates a practical acknowledgment that the Reservation was diminished; a contrary conclusion would seriously disrupt the justifiable expectations of the people living in the area.”); *Solem v. Bartlett*, 465 U.S. 463, 471-72 & n.12 (1984) (“When an area is predominately populated by non-Indians with only a few surviving pockets of Indian allotments, finding that the land remains Indian country seriously burdens the administration of State and local governments. Conversely, problems of an imbalanced checkerboard jurisdiction arise if a largely Indian opened area is found to be outside Indian country.”); *Rosebud Sioux Tribe v. Kneip*, 430 U.S. 584, 604-05 (1977) (“The longstanding assumption of jurisdiction by the State over an area that is over 90% non-Indian both in population and in land, use, not only demonstrates the parties’ understanding of the meaning of the Act, but has created justifiable expectations which should not be upset by so strained a reading of the Acts of Congress as petitioner urges.”).

59. *See, e.g., South Dakota v. Yankton Sioux Tribe*, 522 U.S. 329, 357 (1998) (“The State’s assumption of jurisdiction over the territory, almost immediately after the 1894 Act and continuing virtually unchallenged to the present day, further reinforces our holding.”); *State v. Greger*, 599 N.W.2d 854, 867 (S.D. 1997) (“This region has not been considered a reservation by the general populace.”). *Compare McGirt v. Oklahoma*, 140 S. Ct. 2452, 2481 (2020) (“More importantly, dire warnings are just that, and not a license for us to disregard the law. By suggesting that our interpretation of Acts of Congress adopted a century ago should be inflected based on the costs of enforcing them today, the dissent tips its hand. Yet again, the point of looking at subsequent developments seems not to be determining the meaning of the laws Congress wrote in 1901 or 1906, but emphasizing the costs of taking them at their word.”), *with id.* at 2502 (Roberts, C.J., dissenting) (“The Court responds to these and other concerns with the truism that significant consequences are no ‘license for us to disregard the law.’ Of course not. But when those consequences are drastic precisely because they depart from how the law has been applied for more than a century—a settled understanding that our precedents demand we consider—they are reason to think the Court may have taken a wrong turn in its analysis.”). Thus, the majority opinion in *Oklahoma v. Castro-Huerta* emphasized that Indian-law cases should be determined not by “deeply held policy views about what Indian law should be”; rather, the “Court’s proper role under Article III of the Constitution is to declare what the law is, not what we think the law should be.” 142 S. Ct. at 2504. In the same spirit, the dissent argued that the majority opinion engaged in “cost-benefit analysis” and that “[t]his Court has no business usurping congressional decisions about the appropriate balance between federal, tribal, and state interests.” *Id.* at 2525 (Gorsuch, J., dissenting).

In the 20th century, the Supreme Court considered and rejected a number of assertions of tribal sovereignty.⁶⁰ But in a series of recent decisions, the Supreme Court has reversed course, recognizing Indian sovereignty over large and economically significant areas of the country, even where Indians have not asserted these claims in many years and where Indians form a small minority of inhabitants.⁶¹

Recognizing land as Indian country carries important but uncertain legal consequences. At the very least, it grants federal jurisdiction over certain major crimes.⁶² But Supreme Court precedent generally limits the ability of tribes to exercise civil jurisdiction over nonmembers on reservation lands.⁶³ In *Montana v. United States*, the Supreme Court held that a tribe lacked inherent authority to exclude by regulation non-Indians from fishing or hunting on reservation lands owned in fee by non-Indians.⁶⁴ Rather, tribes only retained civil jurisdiction over (1) “activities of nonmembers who enter consensual relationships with the tribe or its members, through commercial dealing, contracts, leases, or other arrangements” and (2) “conduct of non-Indians on fee lands within its reservation when that conduct threatens or has some direct effect on the political integrity, the economic security, or the health or welfare of the tribe.”⁶⁵ While the Court has since elaborated on this general rubric,⁶⁶ the actual authority of any particular tribe over particular nonmembers is a fact-specific inquiry, requiring case-by-case analysis.⁶⁷

60. See, e.g., *City of Sherrill v. Oneida Indian Nation*, 544 U.S. 1487 (2005) (holding that a 250,000 acre reservation had been disestablished); *Alaska v. Native Vill. of Venetie Tribal Gov’t*, 522 U.S. 520 (1998) (holding that the 1.8 million acre Venetie Reservation of the Neets’aiti Gwich’in tribe had been disestablished); *South Dakota v. Yankton Sioux Tribe*, 522 U.S. 329 (1998) (holding that a reservation had been diminished); *Hagen v. Utah*, 510 U.S. 399 (1994) (holding that the 400,000 acre Uintah Indian Reservation had been diminished); *Rosebud Sioux Tribe v. Kneip*, 430 U.S. 583 (1997) (holding that the Rosebud Reservation had been diminished); *DeCoteau v. Dist. Cnty. Court for Tenth Judicial Dist.*, 420 U.S. 425 (1975) (holding that the Lake Traverse Reservation had been disestablished).

61. *McGirt v. Oklahoma*, 140 S. Ct. 2452 (2020) (recognizing tribal sovereignty over 19 million acres of Oklahoma occupied by 1.8 million people, 80-85% of whom are non-Indians); *Nebraska v. Parker*, 577 U.S. 481 (2016) (recognizing tribal sovereignty over 50,157 acres occupied by 1,300 people, 98% of whom are non-Indian); see also *Solem v. Bartlett*, 465 U.S. 463 (1984) (recognizing tribal sovereignty over 1.6 million acres occupied by ~550 residents, of whom 50% are non-Indians). See *infra* Appendix A.3.

62. 18 U.S.C. § 1153 (2018).

63. *Plains Com. Bank v. Long Fam. Land & Cattle Co.*, 554 U.S. 316, 328 (2008) (stating that Indian “tribes do not, as a general matter, possess authority over non-Indians who come within their borders” absent express congressional authorization). See generally Sarah Krakoff, *Tribal Civil Judicial Jurisdiction Over Nonmembers: A Practical Guide for Judges*, 81 U. COLO. L. REV. 1187 (2010).

64. 450 U.S. 544 (1981).

65. *Id.* at 565-66.

66. See *Plains Com. Bank v. Long Fam. Land & Cattle Co.*, 554 U.S. 316 (2008) (holding that a tribe lacked authority to adjudicate a discriminatory lending claim brought by tribal members against a non-Indian bank that previously sold fee land to non-Indian individuals); *Nevada v. Hicks*, 533 U.S. 353 (2001) (holding that a tribal court lacked jurisdiction over civil claims against state officials who entered tribal land to execute a search warrant against a tribal member suspected of having violated state law outside the reservation).

67. Compare *Montana*, 450 U.S. 554 (holding that tribes lacked inherent authority to exclude by regulation nonmembers from hunting or fishing on tribal lands), with *Herrera v. Wyoming*, 139 S. Ct.

Yet there are many exceptions to this general rule. For example, in 1959, the Supreme Court held that a state court lacked jurisdiction over a case brought by a non-Indian plaintiff against a tribal member involving a claim that arose within defendant's reservation.⁶⁸ Remarkably, the Court ruled that the tribal court had *exclusive* jurisdiction over this contract claim.⁶⁹ Tribes also may regulate zoning within their reservation under certain circumstances.⁷⁰ In addition, the Court has upheld tribal taxes on nonmembers, even allowing tribes to tax oil and natural gas used or taken from a reservation by non-Indian mining companies.⁷¹ It remains an open question whether nonmembers would be subject to tort actions in tribal courts for making purchases at a Dollar General Store located on a reservation.⁷² Perhaps most problematically of all, the Supreme Court has established a vague, multifactor balancing test to determine when states retain jurisdiction over the conduct of non-Indians engaging in activity on a reservation.⁷³

In sum, the precise implications of restoring Indian reservation status are substantial yet uncertain. The benefit of employing our methodology is that we need not resolve these thorny jurisdictional issues because we are measuring the consequences of heightened uncertainty.⁷⁴ That is, we seek to measure how businesses and other economic actors behave when confronted with the specter of these potential jurisdictional changes—whatever they may be.

This Part analyzes the effects of the Tenth Circuit's decision in *Royal v. Murphy* and the Supreme Court's decision in *McGirt v. Oklahoma*. Section II.A recounts the factual history, Section II.B presents our methodology, and Section II.C reports the results of our analysis.

A. Factual Background

McGirt and *Murphy* presented the question of whether lands in eastern Oklahoma were "Indian country" within the meaning of 18 U.S.C. § 1153.⁷⁵ The Muskogee (Creek) Nation originally occupied land in present-day Alabama and

1686 (2019) (holding that statehood did not extinguish the rights of Crow Tribe members to hunt in Bighorn National Forest pursuant to an 1868 treaty), and *Minnesota v. Mille Lacs Band of Chippewa Indians*, 526 U.S. 172 (1999) (holding that the Ojibwe Chippewa tribe retained certain hunting, fishing, and gathering rights on certain lands ceded to the federal government).

68. *Williams v. Lee*, 358 U.S. 217, 220 (1959).

69. *Id.*

70. *Brendale v. Confederate Tribes & Bands of Yakima*, 492 U.S. 408, 410 (1989).

71. *Merrion v. Jicarilla Apache Tribe*, 455 U.S. 130, 144 (1982) (upholding a tax imposed by a tribe on oil and natural gas used or taken from reservation by a non-Indian mining company); *Washington v. Confederated Tribes of the Colville Indian Rsv.*, 447 U.S. 134, 161 (1980) (upholding a cigarette tax imposed by a tribe). Note the Choctaw and Chickasaw Nation assert the right to regulate and tax the oil-and-gas industry. Brief of Amici Curiae Tom Cole et al. at 20 & n.47, *McGirt*, 140 S. Ct. 2452 (No. 18-9526).

72. *Dollar Gen. Corp. v. Miss. Band of Choctaw Indians*, 136 S. Ct. 2159 (2016) (affirming by an equally divided Court).

73. *White Mountain Apache Tribe v. Bracker*, 448 U.S. 136 (1980).

74. This focus is also consistent with the Chief Justice's concerns in his dissent in *McGirt*.

75. *McGirt*, 140 S. Ct. 2452; *Sharp v. Murphy*, 140 S. Ct. 2412 (2020).

Georgia.⁷⁶ Along with the Cherokee, Chickasaw, Choctaw, and Seminole Nations, they were known collectively as the Five Civilized Tribes.⁷⁷ In the 1830s, the Creek were compelled to cede these lands and relocate to Oklahoma in what is now known as the Trail of Tears.⁷⁸ In exchange for their territory, Congress promised the Creek communal patents for land in present-day Oklahoma to own in fee simple.⁷⁹ Congress also promised that so long as they occupied these lands, the Creek would be allowed to govern themselves. They would never be subject to the laws of any state or territory and their land would never be made part of any state.⁸⁰

During the Civil War, the Five Civilized Tribes allied and fought for the Confederacy. As a result, the United States forced the Creek Nation to free their slaves and cede the western half of their lands, which were ultimately opened to non-Indian settlement and called Oklahoma Territory.⁸¹ Soon thereafter, settlers began flooding the Creek's remaining territory as part of the railroad, coal, and cattle industries. The lack of private property rights proved problematic: settlers could not avail themselves of laws, taxes, and police. Meanwhile, a few tribal members monopolized the communal lands to the exclusion of their fellow members.⁸² These forces prompted Congress to re-evaluate the territorial status of eastern Oklahoma and prepare the way for statehood.

In 1893, Congress created the Dawes Commission and tasked it with extinguishing the Five Tribes' territory.⁸³ The Commission reported that the territory was plagued by corruption, misrule, and crime.⁸⁴ In 1896, Congress authorized the Commission to survey Indian territory and enroll tribal members in preparation for allotment—a process whereby the tribe's communal land

76. GRANT FOREMAN, INDIAN REMOVAL: THE EMIGRATION OF THE FIVE CIVILIZED TRIBES 315-23 (1972).

77. See *Woodward v. De Graffenried*, 238 U.S. 284, 293 (1915).

78. Treaty with the Creeks, Muscogee (Creek) Nation-U.S., art. II, Jan. 24, 1826, 7 Stat. 286, 286; *id.* art. XI, 7 Stat. at 288; Treaty with the Creeks, Muscogee (Creek) Nation-U.S., art. I, Mar. 24, 1832, 7 Stat. 366, 366.

79. Treaty with the Creeks, Muscogee (Creek) Nation-U.S., art. VI, Jan. 24, 1826, 7 Stat. 286, 287; Treaty with the Creeks, Muscogee (Creek) Nation-U.S., art. XII, Mar. 24, 1832, 7 Stat. 366, 367; Articles of Agreement with the Creeks, Muscogee (Creek) Nation-U.S., art. III, Feb. 14, 1833, 7 Stat. 419, 419.

80. Treaty with the Creeks, Muscogee (Creek) Nation-U.S., art. XIV, Mar. 24, 1832, 7 Stat. 366, 368; Treaty of Aug. 7, 1856, art. IV, 11 Stat. 699, 700.

81. Treaty with the Creek Indians, Muscogee (Creek) Nation-U.S., June 14, 1886, 14 Stat. 786; COHEN'S HANDBOOK, § 4.07(1)(a), at 289 & n.9.

82. *Woodward v. De Graffenried*, 238 U.S. 284, 297 (1915); *cf.* Treaty with Creek Nation, Muscogee (Creek) Nation-U.S., art. IV, Feb. 14, 1833, 7 Stat. 417, 419 (“It is hereby mutually understood and agreed between the parties to this treaty, that the land assigned to the Muskogee Indians, by the second article thereof, shall be taken and considered the property of the *whole* Muskogee or Creek nation . . .”) (emphasis supplied).

83. Act of Mar. 3, 1893, ch. 209, § 16, 27 Stat. 645; *Jefferson v. Fink*, 247 U.S. 288, 291 (1918); *McDougal v. McKay*, 237 U.S. 372, 380-81 (1915); *Woodward v. De Graffenried*, 238 U.S. 284, 295 (1915); *Stephens v. Cherokee Nation*, 174 U.S. 445, 446 (1899). See generally KENT CARTER, THE DAWES COMMISSION AND THE ALLOTMENT OF THE FIVE CIVILIZED TRIBES, 1893-1914 (1999) (providing an overview of the commission).

84. S.J. Res. 20, 54th Cong. (1895); see also *Woodward*, 238 U.S. at 296-98; *Heckman v. United States*, 224 U.S. 413, 434-35 (1912).

tenure was broken up into individual parcels and distributed to Indians.⁸⁵ In 1897, Congress conferred exclusive jurisdiction on federal courts to try all civil and criminal case of those in Indian territory “irrespective of race.”⁸⁶ In 1898, Congress passed the Curtis Act, which abolished tribal courts and directed the Dawes Commission to allot the Five Tribes’ land following tribal enrollment.⁸⁷ The 1901 Creek Allotment Agreement originally provided that the allotted lands would be alienable within five years, except for forty acres of homestead for each allottee, which remained inalienable for twenty-one years.⁸⁸ But Congress quickly gave into pressure from the Boomers and Indians and lifted most restrictions on alienation.⁸⁹ In 1901, Congress granted U.S. citizenship to every Indian in the Indian territory.⁹⁰ Finally, Congress scheduled the Five Tribes’ governments to terminate by March 4, 1906.⁹¹ But as this deadline approached, the tribes had not fully distributed their assets, and there were lingering concerns that ending tribal land grants would trigger the transfer of land to railroad companies that held contingent land grants.⁹² On March 2, 1906, Congress temporarily extended the tribal governments “until all property of such tribes, or the proceeds thereof, shall be distributed among the individual members of said tribes unless hereafter otherwise provided by law.”⁹³ On April 26, 1906, Congress passed the Five Tribes Act to “provide for the final disposition of the affairs of the Five Civilized Tribes in the Indian Territory.”⁹⁴ But Congress ultimately never passed a statute explicitly terminating the Five Tribes or disestablishing *in haec verba* whatever reservations may ever have existed.

In 1907, Oklahoma became a state when President Roosevelt’s proclamation reached Guthrie, Oklahoma, at 9 a.m. on November 16, where a cheering crowd gathered to witness the union of the Indian Territory and Oklahoma Territory in a symbolic wedding ceremony between “Miss Indian Territory” (played by Anna Bennett, a Cherokee) and “Mr. Oklahoma Territory” (Charles “Gristmill” Jones of Oklahoma City).⁹⁵ At the time, the tribes’ leadership acknowledged that their only remaining power was to parcel out the

85. Act of June 10, 1896, ch. 398, 29 Stat. 339.

86. Indian Department Appropriations Act of 1897, ch. 3, § 1, 30 Stat. 83; *Marlin v. Lewallen*, 276 U.S. 58, 61-62 (1928); *Washington v. Miller*, 235 U.S. 422, 424-25 (1914).

87. An Act for the Protection of the People of Indian Territory, and for Other Purposes, ch. 517, 30 Stat. 496, 497 (1898).

88. The Creek Allotment Agreement, ch. 676, 31 Stat. 861, 863 (1901).

89. Five Tribes Act, ch. 1876, § 22, 34 Stat. 137, 145 (1906); Act of May 27, 1908, ch. 199, § 1, 35 Stat. 312.

90. Act of Mar. 3, 1901, ch. 868, 31 Stat. 11447.

91. Creek Allotment Agreement, ch. 676, § 46, 31 Stat. 872 (1901); Curtis Act, ch. 517, § 29, 30 Stat. 512 (1898) (Choctaw and Chickasaw); Act of July 1, 1902, ch. 1375, § 63, 32 Stat. 725 (Cherokee); Act of Mar. 3, 1903, ch. 994, § 8, 32 Stat. 1008 (Seminole).

92. *See, e.g.*, 40 CONG. REC. 2976 (1906) (statement of Sen. Porter McCumber).

93. S.J. Res. 37, 59th Cong., 34 Stat. 822 (1906).

94. Five Tribes Act, ch. 1876, 34 Stat. 137 (1906); *see also* ANGIE DEBO, *THE RISE AND FALL OF THE CHOCTAW REPUBLIC* 288 (1934) (referring to this as the “final winding up of tribal affairs”); *id.* at 289 (“With the passage of this act the tribal government in every real sense ceased to function.”).

95. Oklahoma Enabling Act, ch. 3335, 34 Stat. 267 (1906); Proclamation No. 780 (Nov. 16, 1907); LUTHER B. HILL, *A HISTORY OF THE STATE OF OKLAHOMA* 369-73 (1910).

last of its lands.⁹⁶ Even in 1989, the tribes acknowledged that those “reservations were destroyed” when “Oklahoma entered the Union.”⁹⁷ As of 2020, eastern Oklahoma was home to 1.8 million residents (48% of the state’s population).⁹⁸ Roughly 9% of these self-identify as Native American.⁹⁹ And the disputed area includes Tulsa, once the oil capital of the world and now a vibrant city with expanding aerospace, healthcare, technology, manufacturing, and transportation sectors.¹⁰⁰

On July 9, 2020, the Supreme Court handed down its ruling in *McGirt*.¹⁰¹ The same day, the Oklahoma Attorney General and leaders of the Five Tribes issued a joint statement affirming their commitment to work together to implement the Court’s decision.¹⁰² A week later, the groups published an agreement in principle for handling civil and criminal jurisdictional issues.¹⁰³ Since then, all of the Five Tribes have now successfully litigated claims to tribal sovereignty under *McGirt*.¹⁰⁴

Meanwhile, lower courts have struggled to resolve the full implications of *McGirt*. For example, in August 2021, the Oklahoma Court of Appeals overruled at least four of its precedents from the previous year and now held that *McGirt* could not be applied on collateral review,¹⁰⁵ citing “the disruptive and costly consequences that retroactive application of *McGirt* would now have”¹⁰⁶ and “[w]ith no disrespect to the views that . . . commanded a Supreme Court majority in *McGirt*.”¹⁰⁷ In the civil context, courts have continued to struggle with thorny

96. See, e.g., Message of Pleasant Porter, Principal Chief, Muskogee (Creek) Nation, to the Creek National Council (May 7, 1901), in *THE INDIAN J.* (J.N. Thornton ed., May 10, 1901) (“[T]he remnant of a government now accorded to us can be expected to be maintained only until all settlements of our landed and other interests growing out of treaty stipulations with the government of the United States shall have been settled.”).

97. S. REP. NO. 101-216; S. REP. NO. 101-216, pt. 2, at 47 (1989).

98. Note that at the time of statehood, Indians constituted 9.1% of the population of the former Indian territory. CENSUS BUREAU, POPULATION OF OKLAHOMA AND INDIAN TERRITORY 9 (1907).

99. U.S. CENSUS BUREAU, QUICKFACTS: OKLAHOMA (July 1, 2019).

100. See, e.g., *THE CHAMBER REPORT, TULSA REGIONAL CHAMBER* (July 2020).

101. 140 S. Ct. 2452 (2020).

102. Mike Hunter, *State, Muscogee (Creek), Cherokee, Chickasaw, Choctaw, and Seminole Nations Release Joint Statement in Response to SCOTUS Decision in McGirt Case*, OKLA. OFF. ATT’Y GEN. (July 9, 2020), https://content.naic.org/sites/default/files/inline-files/McGirt%20v%20OK%20MIKE%20HUNTER%20_0.pdf [<https://perma.cc/SE3V-AUW8>].

103. Mike Hunter, *Attorney General and Five Tribes Release Agreement in Principle for Criminal, Civil Jurisdiction*, OKLA. OFF. ATT’Y GEN. (July 16, 2020), <https://oag.ok.gov/articles/attorney-general-and-five-tribes-release-agreement-principle-criminal-civil-jurisdiction> [<https://perma.cc/83ME-ATM5>]; see also *Murphy/McGirt Agreement-in-Principle*, OKLA. OFF. ATT’Y GEN. (July 2020), https://www.oag.ok.gov/sites/g/files/gmc766/f/documents/2020/doc_-_2020-07-15_-_murphy_final_-_agreement-in-principle.pdf [<https://perma.cc/N6LB-S4BR>] (the actual agreement).

104. *Grayson v. State*, 485 P.3d 250 (Okla. Crim. App. 2021); *Sizemore v. State*, 485 P.3d 867 (Okla. Crim. App. 2021); *Hogner v. State*, 500 P.3d 629 (Okla. Crim. App. 2021).

105. *State ex rel. Matloff v. Wallace*, 2021 OK CR 21, ¶ 6, 497 P.3d 686, 688 (overruling *Bosse v. State*, 2021 OK CR 3, 484 P.3d 286; *Cole v. State*, 2021 OK CR 10, 492 P.3d 11; *Ryder v. State*, 2021 OK CR 11, 489 P.3d 528; and *Bench v. State*, 2021 OK CR 12, 492 P.3d 19).

106. *Id.* at ¶ 38, 497 P.3d at 686.

107. *Id.* at ¶ 32, 497 P.3d at 692; see also *Bosse v. State*, 2021 OK CR 30, 499 P.3d 771. Judge Lumpkin was even more critical of the majority in *McGirt*. See *Wallace*, 2021 OK CR, ¶ 4, 497 P.3d at 695 (Lumpkin, J., concurring).

questions, including one federal judge in the Eastern District of Oklahoma who in December 2021 openly bemoaned “the havoc flowing from the *McGirt* decision.”¹⁰⁸

At the same time, the State of Oklahoma retained outside counsel to handle claims related to *McGirt* and filed over forty petitions for certiorari presenting the question of whether to overrule *McGirt*.¹⁰⁹ Although *McGirt* was decided only one year before, perhaps the state believed this was a viable argument in light of two factors: Justice Barrett had since replaced Justice Ginsburg, who had voted against the state; and the state would likely be able to marshal empirical evidence documenting the chaos resulting from the *McGirt* decision.¹¹⁰ To that end, Oklahoma’s briefs incorporated numerous empirical arguments, including:

- “No recent decision of this Court has had a more immediate and destabilizing effect on life in an American State than *McGirt v. Oklahoma*.”¹¹¹
- “As the Chief Justice predicted in his dissent, the results of this abrupt shift in sovereignty have been calamitous and are worsening by the day.”¹¹²
- “The effects have spilled into the civil realm as well, jeopardizing hundreds of millions of dollars in state tax revenue and calling into question the State’s regulatory authority over myriad issues within its own borders.”¹¹³
- “Thousands of tribal citizens have filed tax protests or exemption applications. The State estimates that those protests and applications, if successful, could require the payment of hundreds of millions of dollars in refunds.”¹¹⁴

108. *Oklahoma v. U.S. Dep’t of Interior*, No. CIV-21-719-F, 2021 WL 6064000, at *1 (W.D. Okla. Dec. 22, 2021).

109. *See, e.g.*, Petition for a Writ of Certiorari at I, *Oklahoma v. Castro-Huerta*, 142 S. Ct. 2486 (2022) (No. 21-429); *see also* Application for Leave to File a Reply Brief in Excess of the Word Limit at 2-3, *Castro-Huerta*, 142 S. Ct. 2486 (2022) (No. 21-429) (citing additional petitions).

110. For commentary, *see, for example*, Chris Casteel, *Supreme Court May Decide Soon Whether to Reconsider McGirt*, THE OKLAHOMAN (Dec. 9, 2021), <https://www.oklahoman.com/story/news/2021/12/09/us-supreme-court-sets-date-considering-oklahoma-mcgirt-petitions/6438615001/> [<https://perma.cc/3KG5-LGDF>]; Joyce Hanson, *Oklahoma Pushes High Court Again to Overturn McGirt*, LAW360 (Dec. 9, 2021), <https://www.law360.com/articles/1446985> [<https://perma.cc/E7YS-BSRL>]; Adam Liptak, *Supreme Court May Revisit Ruling on Native American Rights in Oklahoma*, N.Y. TIMES (May 26, 2021), <https://www.nytimes.com/2021/05/26/us/supreme-court-oklahoma-native-american.html> [<https://perma.cc/R5A9-JQAV>]; and Annie Gowen & Robert Barnes, “Complete, Dysfunctional Chaos”: *Oklahoma Reels After Supreme Court Ruling on Indian Tribes*, WASH. POST (July 24, 2021), https://www.washingtonpost.com/national/complete-dysfunctional-chaos-oklahoma-reels-after-supreme-court-ruling-on-indian-tribes/2021/07/23/99ba0b80-ea75-11eb-8950-d73b3e93ff7f_story.html [<https://perma.cc/9744-7W8A>].

111. *See, e.g.*, Petition for a Writ of Certiorari at 2, *Oklahoma v. Castro-Huerta*, 142 S. Ct. 2486 (2022) (No. 21-429).

112. *Id.* at 3.

113. *Id.* at 3.

114. *Id.* at 24.

- “The State’s power to regulate oil and gas matters has been challenged. Even simple matters such as title insurance and underwriting have been cast into uncertainty.”¹¹⁵

On January 21, 2022, the Supreme Court granted certiorari in one of these cases, *Oklahoma v. Castro-Huerta*, but limited its review to the first question presented: “Whether a State has authority to prosecute non-Indians who commit crimes against Indians in Indian country.”¹¹⁶ On June 29, 2022, the Supreme Court issued its opinion, holding that “the Federal Government and the State have concurrent jurisdiction to prosecute crimes committed by non-Indians against Indian in Indian country.”¹¹⁷ As noted, the competing opinions in the case continued litigating the effects of the *McGirt* decision, yet still rested on anecdotal evidence and representations by the parties.¹¹⁸ We now supply empirical analysis to resolve some of these competing empirical claims.

B. Methodology

Economic theory predicts that greater uncertainty will cause firms to forego long-term investments, hire fewer workers, and reduce production. The intuition is simple: if it is more difficult for firms to plan ahead, why pursue business decisions that are hard to unwind if a “bad” state of the world should materialize in the future? Thus, following a sudden exogenous shock that generates substantial uncertainty over regulatory jurisdiction, we would expect to see decreased investment, lower employment, and lower productivity in the region affected.

This model was first proposed by Nicholas Bloom in a seminal 2009 article showing that uncertainty increases dramatically after major economic and political shocks and that uncertainty acts as a headwind against real economic activity, because higher uncertainty causes firms to temporarily pause their investment and hiring decisions.¹¹⁹ Bloom observed that an uncertainty shock generates a rapid slowdown and bounce-back in economic activity, which differs from other types of shocks that may lead to more persistent economic contractions.¹²⁰ Building on these insights, Baker, Bloom, and Davis showed that spikes in uncertainty around events like tight presidential elections, the Gulf Wars, the September 11th terrorist attacks, the failure of Lehman Brothers, and major political battles over fiscal policy led to reduced investment and reduced

115. *Id.* at 24; see Sarah Roubidoux Lawson & Megan Powell, *Unsettled Consequences of the McGirt Decision*, REGUL. REV. (Apr. 1, 2021), <https://www.theregreview.org/2021/04/01/lawson-powell-unsettled-consequences-mcgirt/> [https://perma.cc/8DJL-MAE2]; see also Kallen Burton Snodgrass, *The State of the Oil and Natural Gas Industry in Oklahoma: The Oil and Gas Industry Moving Forward Post McGirt/Murphy*, 7 OIL & GAS, NAT. RES. & ENERGY J. 249 (2021) (discussing future implications).

116. *Oklahoma v. Castro-Huerta*, 142 S. Ct. 877 (2022).

117. *Id.*

118. See *infra* note 287.

119. See Nicholas Bloom, *The Impact of Uncertainty Shocks*, 77 ECONOMETRICA 623 (2009).

120. *Id.* at 625.

employment by firms in the impacted sectors.¹²¹ They also found that, at the macroeconomic level, such heightened periods of uncertainty also led to reduced aggregate investment, employment, and GDP.¹²²

Many other economists have since substantiated and expanded upon these findings. For example, Leduc and Liu observed that uncertainty shocks since the late 1970s have significantly impacted labor markets, thereby raising unemployment.¹²³ Caggiano, Castelnuovo, and Groshenny discovered that the impact of an uncertainty shock on the labor market was more pronounced during an economic downturn.¹²⁴ Relatedly, Basu and Bundick found that uncertainty shocks caused significant declines in output, consumption, investment, and hours worked; the authors also concluded that increased uncertainty about the future played a role in worsening the Great Recession.¹²⁵ Separately, economists have observed that, in emerging economies, uncertainty shocks may cause deeper and more prolonged economic downturns, possibly due to credit constraints.¹²⁶

It turns out that an ideal first case study to evaluate this model is the Tenth Circuit's *Murphy* decision, which was unexpected and decided based on a controversy over criminal law (as opposed to economic conditions).¹²⁷ The vast majority of people in Oklahoma had assumed for the last century that the eastern half of the state was not "Indian country."¹²⁸ When the Tenth Circuit issued its decision on August 8, 2017, it was a true shock to those who lived in the affected region. When the Supreme Court confirmed this in *McGirt* on July 9, 2020, it sent a further shock through the system. It is therefore natural to ask whether these two decisions measurably affected the local economy.

Although the Tenth Circuit's *Murphy* decision did not have the reach of a presidential election, a major war, or the failure of Lehman Brothers, it did have significant consequences for the State of Oklahoma. The decision implicated nearly half the land of Oklahoma, approximately 48 percent of the employed workers of Oklahoma and approximately 45 percent of Oklahoma's output as

121. Scott R. Baker, Nicholas Bloom & Steven J. Davis, *Measuring Economic Policy Uncertainty*, 131 Q.J. ECON. 1593 (2016).

122. *Id.*

123. See Sylvain Leduc & Zheng Liu, *Uncertainty Shocks Are Aggregate Demand Shocks*, 82 J. MONETARY ECON. 20 (2016) (using two measures of uncertainty—the CBOE Volatility Index and consumers' perceived uncertainty constructed from the Thomson Reuters/University of Michigan Surveys of Consumers).

124. See Giovanni Caggiano, Efram Castelnuovo & Nicholas Groshenny, *Uncertainty Shocks and Unemployment Dynamics in U.S. Recessions*, 67 J. MONETARY ECON. 78 (2014).

125. See Susanto Basu & Brent Bundick, *Uncertainty Shocks in a Model of Effective Demand*, 85 ECONOMETRICA 937 (2017).

126. See Yan Carrière-Swallow & Luis Felipe Cespedes, *The Impact of Uncertainty Shocks in Emerging Economies*, 90 J. INT'L ECON. 316 (2013).

127. If the cases were decided by the courts based on evolving economic controversies, then these rulings would not be exogenous to our study of economic outcomes. They would instead be endogenous, which would invalidate the econometric setup.

128. See, e.g., *State ex rel. Matloff v. Wallace*, 2021 OK CR 21, ¶ 7, 497 P.3d 686, 693.

measured by real GDP.¹²⁹ To the extent that this decision increased jurisdictional uncertainty, we would expect to see statistically significant declines in the indicators of Oklahoma's economic activity.

We employ a standard difference-in-differences technique, which compares a treatment group against a control group over time.¹³⁰ The treatment group (i.e., the border counties within the alleged jurisdiction of the Five Tribes) is impacted by an unexpected shock (i.e., the Tenth Circuit's decision), whereas the control group (i.e., the border counties that are not within the alleged jurisdiction of the Five Tribes but still in Oklahoma) is not. We measure three different outcome variables to perform our empirical analysis: monthly county-level employment from the U.S. Department of Labor Bureau of Labor Statistics (BLS), annual county-level real GDP from the U.S. Department of Commerce Bureau of Economic Analysis (BEA), and annual county-level real GDP per capita also from the Bureau of Economic Analysis.¹³¹ For each of the three outcome variables, we utilize two regression specifications, one without fixed effects (1) and one with fixed effects (2). The regression specifications are:

$$(1) \text{Log}(\text{Outcome}_{i,t}) = \alpha + \beta_1 \cdot \text{Treatment}_i + \beta_2 \cdot \text{Post}_t + \beta_3 \cdot \text{Treatment}_i \cdot \text{Post}_t + \beta_4 \cdot \text{Trend}_t + \beta_5 \cdot \text{Treatment}_i \cdot \text{Trend}_t + \varepsilon_{i,t}$$

$$(2) \text{Log}(\text{Outcome}_{i,t}) = \alpha + \alpha_i + \alpha_t + \alpha_i \cdot \text{Trend}_t + \phi \cdot \text{Treatment}_i \cdot \text{Post}_t + \varepsilon_{i,t}$$

The subscript i denotes the county, while the subscript t denotes the date. In our case, the date is either a month or a year, depending on the outcome variable. $\text{Log}(\text{Outcome}_{i,t})$ is the natural logarithm of the level of the outcome variable of county i during date t ; α_i are county fixed effects; α_t are month or year fixed effects, depending on the outcome variable; $\alpha_i \cdot \text{Trend}_t$ are county-specific time trends; Treatment_i is a binary variable that equals 1 if the county is within the alleged jurisdiction of the Five Tribes and 0 otherwise; Post_t is a

129. See *Regional Data: GDP and Personal Income*, BUREAU ECON. ANALYSIS, <https://apps.bea.gov/iTable/iTable.cfm?isuri=1&reqid=70&step=30#isuri=1&reqid=70&step=30> [<https://perma.cc/WVB3-VEB2>].

130. For the canonical difference-in-differences article, see David Card & Alan B. Krueger, *Minimum Wages and Employment: A Case Study of the Fast Food Industry in New Jersey and Pennsylvania*, 84 AM. ECON. REV. 772 (1994). For a standard textbook treatment, see JAMES H. STOCK & MARK W. WATSON, *INTRODUCTION TO ECONOMETRICS* (4th ed. 2019). For a user-friendly guide to the use of this methodology in practice, see Joshua D. Angrist & Jörn-Steffen Pischke, *MOSTLY HARMLESS ECONOMETRICS: AN EMPIRICIST'S COMPANION* (2009). For a more technical review of the methodology, including how to adjust for certain flaws (which we adopt in this article), see Marianne Bertrand, Esther Duflo & Sendhil Mullainathan, *How Much Should We Trust Differences-In-Differences Estimates?*, 119 Q. J. ECON. 249 (2004).

131. The county-level data from the BLS are available at *Local Area Unemployment Statistics*, U.S. BUREAU LAB. STAT., <https://www.bls.gov/lau/data.htm> [<https://perma.cc/KD5M-YT5R>], and the country-level data from the BEA are available at *Regional Data: GDP and Personal Income*, BUREAU ECON. ANALYSIS, <https://apps.bea.gov/itable/iTable.cfm?ReqID=70&step=1> [<https://perma.cc/WVB3-VEB2>].

binary variable that equals 0 before the COA10 decision and 1 afterward; and $Trend_t$ is a linear time trend.

In the first regression, we are specifically interested in the coefficients β_3 and β_5 . The β_3 term indicates whether the treatment group experienced divergent growth—either higher or lower—from the control group following the Tenth Circuit’s decision. The β_5 term provides support for the parallel trends assumption required for the difference-in-differences setup. In the second regression, we are interested in the value of ϕ . This term has the same economic interpretation as the β_3 term, indicating whether the treatment group experienced divergent economic performance following the Tenth Circuit’s ruling.¹³²

C. Findings

We first present the econometric results for the Tenth Circuit’s *Murphy* decision, examining in order (a) monthly employment growth, (b) annual real GDP growth, and (c) annual real GDP per capita growth. We then present the results for the Supreme Court’s *McGirt* decision. Again, to the extent that heightened uncertainty materialized after the court rulings, we would expect to see a statistically significant decline in the economies of the affected counties. Yet our regressions using monthly employment data strongly suggest that the rulings did not reduce economic activity in the affected areas; if anything, employment may have increased. Our regressions using annual GDP data show a minor decline in economic activity that is not close to being statistically significant. Thus, on balance, contrary to the “falling sky” hypothesis that recognition of Indian jurisdiction would negatively impact the local economy as a result of increased uncertainty, we observe no statistically significant effect of the Tenth Circuit or Supreme Court opinions.

1. COA10 *Murphy* Decision

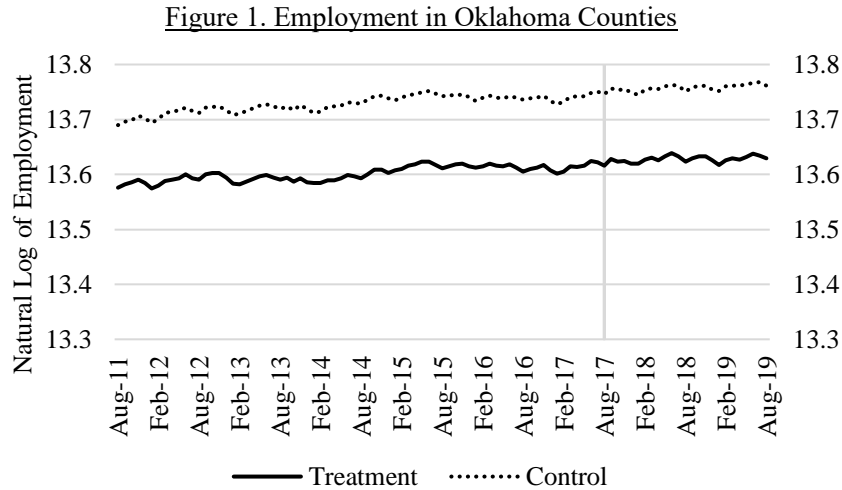
i. Employment

We begin by examining county-level employment data, which are collected at a monthly frequency by the BLS. Figure 1 presents a snapshot of the monthly employment data for all seventy-seven counties in Oklahoma, aggregated into a treatment group (solid line) and a control group (dotted line).¹³³ For purposes of the chart, the treatment group consists of the counties that fall within the Indian reservation and the control group consists of the remaining counties in

132. Notably, β_3 and ϕ give us similar point estimates but different standard errors. The benefit of running the first regression is to see whether parallel trends plausibly exist. Indeed, a valid difference-in-differences setup must have parallel counterfactual trends post-treatment if the treatment had not occurred. This is an untestable assumption. Thus, the first regression is essentially a one-way diagnostic: passing this test does not prove the existence of parallel trends but failing this test would be fatal.

133. For a complete list of the seventy-seven counties in Oklahoma, see *infra* Table A1 in the Appendix.

Oklahoma. The vertical gray line corresponds to the Tenth Circuit’s *Murphy* decision.



First, consider the employment data to the left of the gray line. This half of the chart illustrates that employment in the treatment and control groups largely moved in lockstep before the Tenth Circuit’s decision in *Murphy* on August 8, 2017. Next consider the data to the right of the gray line. This part of the chart shows that the two lines moved in parallel after the Tenth Circuit’s decision, suggesting that the *Murphy* decision did not have a measurably negative impact on the economic performance of affected counties.

In Table 1 below, we present the results of our regressions that utilize monthly county-level employment data from the BLS. In the first two columns, we run our regressions on the counties directly on either side of the border. There are twenty counties in this sample, ten on either side of the border.¹³⁴ They are shown with dots and crisscrosses. In columns (3) and (4) of Table 1, we run the regressions using an additional layer of counties. That is, we include the counties immediately adjacent to the border counties we used previously. The additional layer of counties has the same color scheme but without the dots or crisscrosses. This increases the treatment sample to twenty-two counties and the control sample to twenty counties.¹³⁵ In columns (5) and (6) of Table 1, we run the

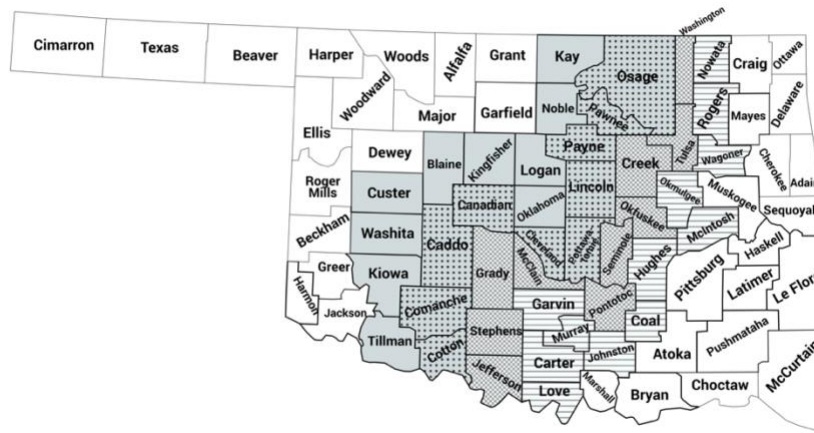
134. The treatment counties within the Five Tribes’ borders are: Creek, Grady, Jefferson, McClain, Okfuskee, Pontotoc, Seminole, Stephens, Tulsa, and Washington. The control counties on the other side of the border are: Caddo, Canadian, Cleveland, Comanche, Cotton, Lincoln, Osage, Pawnee, Payne, and Pottawatomie. All these counties are within Oklahoma and on the border of the Five Tribes’ alleged reservation. The Five Tribes’ borders also extend to the northern, eastern, and southern borders of Oklahoma to Kansas, Missouri, Arkansas, and Texas; we exclude these counties from our analysis because of potential confounding effects based on economic variables in those other states.

135. The treatment counties within the Five Tribes’ borders are: Carter, Coal, Creek, Garvin, Grady, Hughes, Jefferson, Johnston, Love, McClain, McIntosh, Murray, Nowata, Okfuskee, Okmulgee, Pontotoc, Rogers, Seminole, Stephens, Tulsa, Wagoner, and Washington. The control counties on the

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regressions using all seventy-seven counties in Oklahoma, forty of which fall into the treatment group and thirty-seven of which fall into the control group.¹³⁶ The Tenth Circuit issued its opinion on August 8, 2017. We therefore use data seventy-two months prior to the decision (i.e., August 2011 through July 2017) and twenty-four months following the decision (i.e., September 2017 through August 2019).

Map of Oklahoma Counties



other side are: Blaine, Caddo, Canadian, Cleveland, Comanche, Cotton, Custer, Kay, Kiowa, Lincoln, Logan, Noble, Oklahoma, Osage, Pawnee, Payne, Pottawatomie, Tillman, and Washita.

136. For a complete list of the seventy-seven counties in Oklahoma, see *infra* Table A1 in the Appendix. Of note, we do not include data from counties that border the Indian reservation but are outside of Oklahoma. The reason is because our investigation considers the impact of heightened uncertainty on counties that may have to suddenly switch from Oklahoma's legal framework to the Indian reservation's legal framework. Adding border counties from Kansas, Missouri, or Arkansas into the control group would confound the analysis.

Table 1. Analysis of County-Level Employment

	(1)	(2)	(3)	(4)	(5)	(6)
$\widehat{\beta}_3$	0.0121 (0.0088)		0.0050 (0.0094)		0.0135 (0.0094)	
$\widehat{\beta}_5$	-0.0006 (0.0004)		0.0001 (0.0004)		0.0000 (0.0003)	
$\widehat{\phi}$		0.0121 (0.0090)		0.0050 (0.0095)		0.0135 (0.0095)
Treatment Counties	10	10	22	22	40	40
Control Counties	10	10	20	20	37	37
Sample Period	Aug. 2011 – Aug. 2019	Aug. 2011 – Aug. 2019	Aug. 2011 – Aug. 2019	Aug. 2011 – Aug. 2019	Aug. 2011 – Aug. 2019	Aug. 2011 – Aug. 2019

ii. Real GDP

We next analyze county-level annual real GDP to supplement our employment analysis. Figure 2 presents a snapshot of the real GDP data for all counties in Oklahoma, aggregated into a treatment group and a control group.¹³⁷ As with the employment data, this chart of real GDP illustrates that the treatment and control groups largely moved in lockstep before and after the *Murphy* decision in August 2017.

137. As before, for a complete list of the 77 counties in Oklahoma, see *infra* Table A1 in the Appendix.

Figure 2. Real GDP in Oklahoma Counties

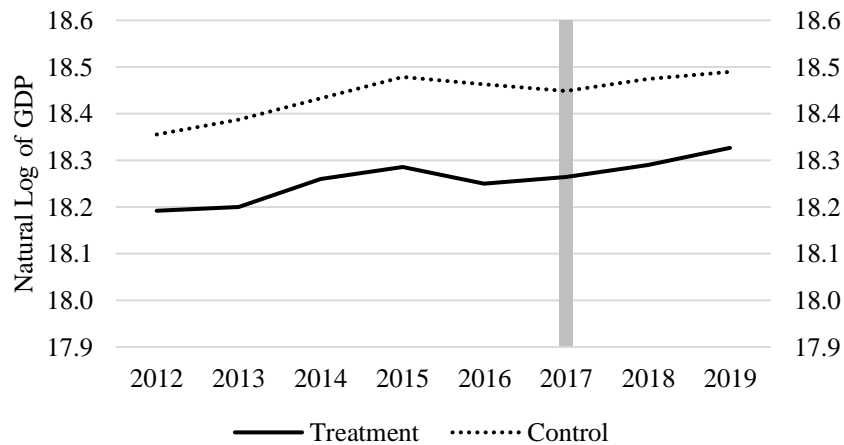


Table 2 below presents the results of our regressions that utilize annual county-level real GDP data, courtesy of the BEA. Similar to our setup in Table 1 above, we first run our regressions on the counties directly on either side of the Five Tribes' border within the State. In columns (3) and (4), we include the counties immediately adjacent to the border counties. In columns (5) and (6), we run the regressions using all of the 77 counties in Oklahoma, 40 of which fall into the treatment group and 37 of which fall into the control group.¹³⁸ Our $Post_t$ indicator equals 0 for years 2012 through 2017 and 1 afterward.

A point estimate of “-0.0223” translates into GDP that is 2.23 percent lower in the treatment group than in the group control following the decision. While the point estimates associated with the $Treatment_i \cdot Post_t$ interaction variable are all negative, as shown by the β_3 and ϕ coefficients, they are not statistically significant. Indeed, the point estimates are much smaller than their standard errors. Thus, we do not observe a statistically significant decrease in real GDP in counties affected by the COA10 *Murphy* decision. This is further supported by our analysis of real GDP per capita, which is presented next.

138. See *infra* Appendix A1.

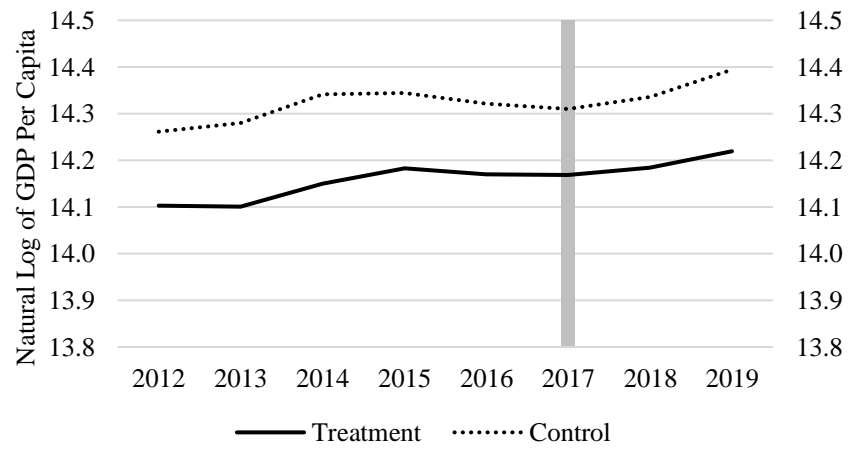
Table 2. Analysis of County-Level Real GDP

	(1)	(2)	(3)	(4)	(5)	(6)
$\widehat{\beta}_3$	-0.0223 (0.0420)		-0.0303 (0.0331)		-0.0191 (0.0235)	
$\widehat{\beta}_5$	-0.0029 (0.0178)		-0.0010 (0.0126)		0.0091 (0.0082)	
$\widehat{\phi}$		-0.0223 (0.0453)		-0.0303 (0.0356)		-0.0191 (0.0252)
Treatment Counties	10	10	22	22	40	40
Control Counties	10	10	20	20	37	37
Sample Period	2012–19	2012–19	2012–19	2012–19	2012–19	2012–19

iii. Real GDP Per Capita

Finally, we analyze the impact of the Tenth Circuit’s decision on real GDP per capita. We construct this dataset using county-level real GDP data from the BEA and county-level population data from the BEA. Figure 3 presents a snapshot of the real GDP per capita data for all counties in Oklahoma, aggregated into a treatment group and a control group. Like Figures 1 and 2, Figure 3 visually illustrates that real GDP per capita in affected and control counties generally moved in lockstep.

Figure 3. Real GDP Per Capita in Oklahoma Counties



We follow the same setup as before. In Table 3 below, we first run our regressions on the counties directly on either side of the border. In columns (3) and (4), we include the counties immediately adjacent to the border counties. In columns (5) and (6), we run the regressions using all of the counties in Oklahoma.

Table 3. Analysis of County-Level Real GDP Per Capita

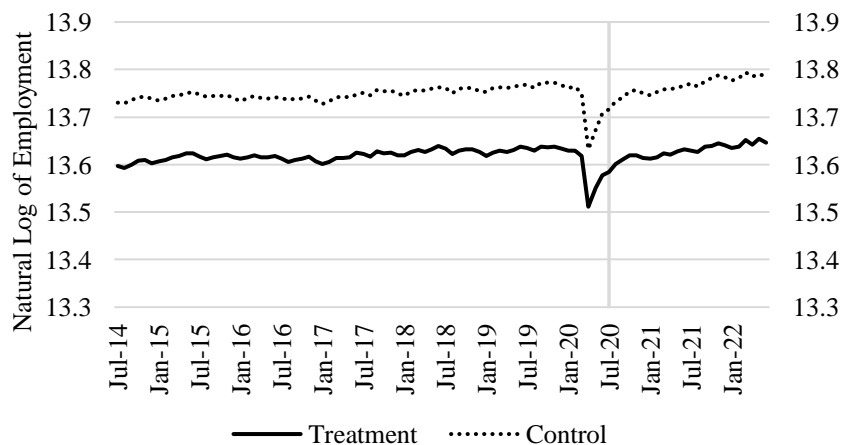
	(1)	(2)	(3)	(4)	(5)	(6)
$\hat{\beta}_3$	0.0250 (0.0536)		-0.0335 (0.0304)		-0.0204 (0.0241)	
$\hat{\beta}_5$	0.0056 (0.0141)		0.0165 (0.0099)		0.0063 (0.0083)	
$\hat{\phi}$		0.0250 (0.0579)		-0.0335 (0.0326)		-0.0204 (0.0258)
Treatment Counties	10	10	22	22	40	40
Control Counties	10	10	20	20	37	37
Sample Period	2012–19	2012–19	2012–19	2012–19	2012–19	2012–19

2. Supreme Court *McGirt* Decision

Thus far we have focused our analysis on the Tenth Circuit’s *Murphy* decision because it corresponds to a genuinely unexpected deviation from the status quo. It was the first federal court decision in this litigation recognizing tribal sovereignty over eastern Oklahoma—and nobody saw it coming. It was therefore the first time businesses and residents in the impacted counties had to consider whether they would be living under Oklahoma state law or the laws of a tribe. The Supreme Court’s subsequent decisions in *McGirt v. Oklahoma* and *Sharp v. Murphy* certainly carried greater legal authority; indeed, unlike the Tenth Circuit’s ruling, the Supreme Court’s decisions were actually binding on the parties.¹³⁹ But the undisputed importance of these decisions begs the question of whether they also had any measurable effect on the economy of eastern Oklahoma.

With that in mind, we next analyze the potential impact of those decisions by the Supreme Court issued on July 9, 2020. Given the recency of these decisions, we run the regressions using only monthly county-level employment data. We also acknowledge that, unlike the Tenth Circuit estimates, these estimates are clouded by the presence of another shock to Oklahoma’s real economy—namely, the COVID-19 pandemic. It could be the case that COVID-19 impacted the treatment and control counties differently (though we do not observe that in the data). Figure 4 shows employment in Oklahoma from 2014 through June 2022 (i.e., through two years after the *McGirt* decision).

Figure 4. Employment in Oklahoma Counties During COVID-19



139. See *Murphy v. Royal*, Nos. 07-7068 & 15-7041 (10th Cir. Nov. 16, 2017) (granting respondent’s unopposed motion to stay the mandate pending the filing of a petition for writ of certiorari).

Restoring Indian Reservation Status

We run the same county-level regressions as above. Table 4 below presents the results, which are similar to those in Table 1. In the comparison between counties on either side of the Indian reservations, we see that any uncertainty stemming from the legal decision does not appear to have adversely impacted the economic growth of the counties within the affected region. As we include additional counties and move further away from the cleanest compare-and-contrast sample, we see that the point estimates turn negative, though they are still not close to being statistically significant.

Table 4. Analysis of County-Level Employment

	(1)	(2)	(3)	(4)	(5)	(6)
$\widehat{\beta}_3$	0.0015 (0.0087)		-0.0119 (0.0125)		-0.0100 (0.0103)	
$\widehat{\beta}_5$	-0.0004 (0.0004)		0.0000 (0.0003)		0.0005 (0.0003)	
$\widehat{\phi}$		0.0015 (0.0090)		-0.0119 (0.0128)		-0.0100 (0.0104)
Treatment Counties	10	10	22	22	40	40
Control Counties	10	10	20	20	37	37
Sample Period	Jul. 2014 – Jun. 2022	Jul. 2014 – Jun. 2022	Jul. 2014 – Jun. 2022	Jul. 2014 – Jun. 2022	Jul. 2014 – Jun. 2022	Jul. 2014 – Jun. 2022

We complement the analysis above by examining other economic variables, particularly those where data is captured at higher frequencies. Instead of analyzing monthly employment data or annual output data, we now consider daily equities data of publicly traded companies headquartered in Oklahoma. It is widely accepted that equities markets are quick to absorb public information and factor in surprising news.¹⁴⁰ To the extent that institutional investors and other companies expect legal uncertainty to dim the future prospects of Oklahoma-based companies, we would expect to observe the share prices of

140. While there is debate on which version of the efficient market hypothesis is correct, almost all would agree that share prices reflect current, publicly available information. That is the “weak” version of the efficient market hypothesis. See, e.g., Eugene F. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 J. FIN. 383 (1970).

those Oklahoma-based companies fall relative to other companies in the market.¹⁴¹ Moreover, by focusing on equity markets in June and July of 2020, we can better estimate the true impact of the *McGirt* decision in the midst of COVID-19, since the pandemic hit the financial markets in March and April. By the summer, market volatility had largely subsided. Equity markets in particular were trending back to normal.¹⁴²

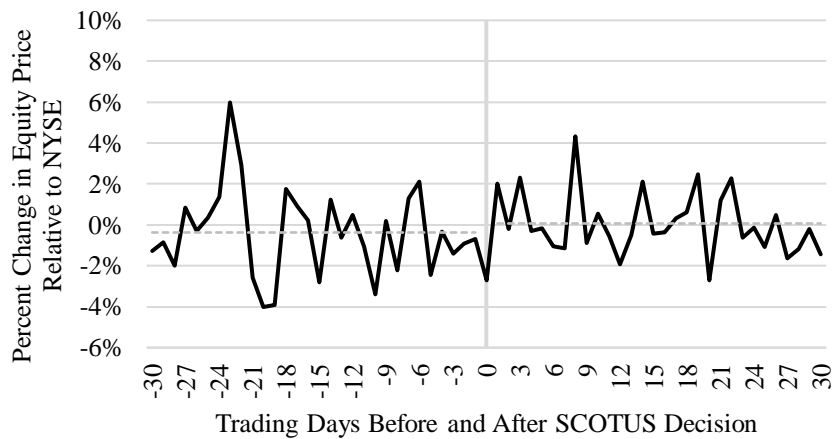
Figure 5 shows the median percent change in daily equity prices of these Oklahoma-based companies relative to the daily change in the New York Stock Exchange (NYSE).¹⁴³ Thus, the NYSE acts as our baseline of comparison. The sample period runs thirty trading days prior to the Supreme Court's decision and thirty trading days following the decision. In the thirty trading days prior to the *McGirt* decision, the median equity price in our sample fell by an average of 0.37 percent per day relative to the NYSE; and in the thirty trading days following the decision, the median equity prices in our sample increased by an average of 0.07 percent per day relative to the NYSE. This certainly does not suggest that these Oklahoma-based companies suffered relative to the market baseline.

141. We note a potential shortcoming of this methodology. While these companies are “based” in Oklahoma, many of them probably conduct their main business operations outside of the state. Nevertheless, we point out that state laws governing corporations are fairly crucial to the value of the corporation itself, which is why many businesses choose to incorporate in Delaware even if their actual business operations in Delaware are *de minimis*. Imagine if the Supreme Court suddenly ruled that Delaware was an Indian reservation. Shareholders of Delaware corporations would likely hit the panic button because they would not know whether their rights would be adjudicated via Delaware state law or the laws of the Indian reservation. Similarly, if there were any concerns with the legal structure of Oklahoma-based corporations, one would expect to see those concerns reflected in the share prices of those corporations following the *McGirt* decision.

142. The CBOE Volatility Index (VIX) peaked at approximately 85.5 on March 18, 2020. By the time *McGirt* was decided on July 9, 2020, the VIX was back around 30. For context, the VIX averaged 16.6 in January and February of 2020. *Historical Data for Cboe VIX Index and Other Volatility Indices*, CBOE, https://www.cboe.com/tradable_products/vix/vix_historical_data/ [https://perma.cc/XPT2-LGL5].

143. The sixteen Oklahoma-based companies used in this analysis are listed in Table A2 of the Appendix. Nine are headquartered in Tulsa, which is within the “treatment” zone.

Figure 5. Share Prices of Oklahoma-Based Companies



Next, we disaggregate the time series in Figure 5 into companies that are Tulsa-based and those that are not. Since Tulsa is technically in the area impacted by the decision, one might expect to see those companies underperform compared to Oklahoma companies not headquartered in the treatment zone. Table 5 presents the high-level comparison. In the thirty trading days prior to the Supreme Court’s decision, the Tulsa-based companies were performing far worse than their counterparts (-0.42 percent versus 0.09 percent) as measured by the average of the daily performance gaps. Post-decision, the Tulsa-based companies closed the gap substantially (four points of difference versus the previous fifty-one). We are, of course, not suggesting that the Supreme Court’s decision boosted the share prices of these Tulsa-based companies. We are, however, observing that regardless of whether one examines county-level employment statistics or whether one analyzes financial market data, the evidence points to no significant decline in economic activity following the federal courts’ decisions. Clearly, the sky did not fall.

Table 5. Performance of Companies Relative to NYSE Baseline

	<i>Tulsa-Based Companies</i>	<i>Non-Tulsa-Based Companies</i>
Pre-Decision	-0.42 percent	0.09 percent
Post-Decision	0.01 percent	0.03 percent

III. Supplemental Case Studies

This Part supplements our analysis of the Oklahoma litigation with five additional case studies—three federal court decisions and two intergovernmental

compacts.¹⁴⁴ Specifically, we analyze: (1) *Nebraska v. Parker*, which held that Congress did not disestablish the Omaha Tribe’s sovereignty over the village of Pender and Thurston County in eastern Nebraska;¹⁴⁵ (2) *City of Sherrill v. Oneida Indian Nation*, which held the Oneida Indian Nation did not re-establish sovereignty over parcels of land it purchased in Oneida and Madison Counties in northern New York;¹⁴⁶ (3) *South Dakota v. Yankton Sioux*, which held that Congress had diminished the Yankton Sioux’s sovereignty over 168,000 acres of unallotted surplus lands in Mix County, South Dakota;¹⁴⁷ (4) the intergovernmental settlement between the State of Michigan and the Saginaw Chippewa Indian Tribe in 2010;¹⁴⁸ and (5) the settlement between the State of Washington and the Puyallup Tribe in 1989.¹⁴⁹ Each Section recounts the factual history of the case, describes our method of analysis, and then reports the results.

A. Judicial Decisions

1. *Nebraska v. Parker* (Village of Pender)

This case presented the question of whether the village of Pender and surrounding Thurston County, Nebraska, were within the boundaries of the Omaha Indian Reservation.¹⁵⁰

i. Factual Background

The Omaha Tribe settled in present-day eastern Nebraska.¹⁵¹ In 1854, the tribe contracted a treaty with the United States to create a 300,000 acre reservation.¹⁵² By its terms, the tribe agreed to “cede” and “forever relinquish all right and title to” its lands west of the Mississippi River, excepting the reservation, in exchange for \$840,000.¹⁵³ Similarly, in 1865 the tribe agreed to “cede, sell, convey” an additional 98,000 acres on the north side of the reservation to the United States to create a separate reservation for the Wisconsin Winnebago Tribe, in exchange for \$50,000.¹⁵⁴ In 1872, the tribe expressed its

144. We selected cases where the disputed areas substantially tracked county borders, since most of our data sources report at the county level. We do not conduct regression analyses in this Part but rather examine high-level trends because, as will become apparent below, there are so few affected counties involved in each case.

145. *Nebraska v. Parker*, 577 U.S. 481, 483-84 (2016).

146. *City of Sherrill v. Oneida Indian Nation of N.Y.*, 544 U.S. 197, 199 (2005).

147. *South Dakota v. Yankton Sioux Tribe*, 522 U.S. 329 (1998).

148. See generally Fletcher, *supra* note 22, at 103-08 (recounting the litigation and settlement history).

149. Puyallup Tribe of Indians Settlement Act of 1989, Pub. L. No. 101-41, 103 Stat. 83.

150. *Nebraska v. Parker*, 577 U.S. 481, 483-84 (2016).

151. See generally ALICE CUNNINGHAM FLETCHER & FRANCIS LA FLESCHÉ, THE OMAHA TRIBE (1992).

152. Treaty with the Omaha, Omaha Tribe-U.S., Mar. 16, 1854, 10 Stat. 1043.

153. *Id.* at 1043-44.

154. Treaty Between the United States of America and the Omaha Tribe of Indians, Omaha Tribe-U.S., Feb. 15, 1866, 14 Stat. 667, 667-668.

interest in selling portions of the reservations. This time, Congress authorized the Secretary of the Interior to survey, appraise, and sell up to 50,000 acres on the western side of the reservation “to be separated from the remaining portion of said reservation” by a north-south line agreed to by the tribe and Congress.¹⁵⁵ This Act resulted in only two sales totaling 300.72 acres, which were placed to the credit of the tribe on the books of the U.S. Treasury.¹⁵⁶ Finally, in 1882 Congress again authorized the Secretary of the Interior “to cause to be surveyed, if necessary, and sold” more than 50,000 acres lying west of a right-of-way granted by the tribe and approved by the Secretary of the Interior in 1880 for use by the Sioux City and Nebraska Railroad Company.¹⁵⁷ Following the procedure set out in statute, the Secretary allotted lands in forty-acre tracts; ten to fifteen tribe members exercised their right to select allotments; and the remaining 50,157 acres were opened to sale to non-members by the Secretary via proclamation.¹⁵⁸ Among the settlers who availed themselves of this opportunity was W.E. Peebles, who purchased a tract of 160 acres on which he platted the townsite for Pender.¹⁵⁹

In 2006, the Omaha Tribe asserted jurisdiction over Pender by subjecting retailers there to its newly amended Beverage Control Ordinance, which imposed a sales tax on liquor sales.¹⁶⁰ At the time, the village of Pender had 1,300 residents, most of whom were not associated with the tribe.¹⁶¹ Less than 2% of tribe members had lived in the disputed 50,157 acres.¹⁶² Seeking resolution of this claim, a group of plaintiffs including the village of Pender brought suit in federal court challenging the tribe’s power to tax their establishments.¹⁶³ Plaintiffs argued that because they were not located in a federally recognized Indian reservation or in “Indian country,”¹⁶⁴ they could not be subject to the tribe’s jurisdiction.¹⁶⁵ The court stayed its ruling for five years to permit plaintiffs to exhaust their remedies in tribal courts.¹⁶⁶ Finally, on February 13, 2014, the district court ruled in favor of the tribe.¹⁶⁷ On December 19, 2014, the Eighth Circuit affirmed.¹⁶⁸ In so doing, the panel emphasized that “[t]he importance and

155. Act for the Relief of Certain Tribes of Indians in the Northern Superintendency, Pub. L. No. 42-436, § 1, 17 Stat. 391 (1872).

156. *Parker*, 577 U.S. at 485.

157. Act to Provide for the Sale of a Part of the Reservation of the Omaha Tribe of Indians in the State of Nebraska, and for Other Purposes, Pub. L. No. 47-434, § 1, 22 Stat. 341 (1882).

158. *Parker*, 577 U.S. at 485; Act of Aug. 7, 1882, §§ 1-8, 22 Stat. 341, 341-43.

159. *Parker*, 577 U.S. at 486 (quoting *Smith v. Parker*, 996 F. Supp. 2d 815, 828 (D. Neb. 2014)).

160. *Smith v. Parker*, 996 F. Supp. 2d 815, 820-22 (D. Neb. 2014), *aff’d*, 774 F.3d 1166 (8th Cir. 2014), *aff’d sub nom. Nebraska v. Parker*, 577 U.S. 481 (2016); Amendment (Title 8 of the Tribal Code) to Omaha Tribe’s Beverage Control Ordinance, 71 Fed. Reg. 100056 (Feb. 28, 2006).

161. See *Smith v. Parker*, 996 F. Supp. 2d 815, 819 (D. Neb. 2014).

162. *Id.* at 827-28.

163. *Id.* at 820-22.

164. 18 U.S.C. § 1151 (2018).

165. *Cf.* 18 U.S.C. § 1161 (2018) (permitting tribes to regulate liquor consumption in Indian country).

166. *Village of Pender v. Parker*, No. 4:07-cv-3101, 2007 WL 2914871 (D. Neb. Oct. 4, 2007).

167. *Smith v. Parker*, 996 F. Supp. 2d 815 (D. Neb. 2014).

168. 774 F.3d at 1168-69.

impact that this determination has on the entire community of Pender and its residents is not lost on this court . . . [T]his is not a matter of mere historical curiosity or academic interest.”¹⁶⁹

On March 22, 2016, the Supreme Court affirmed.¹⁷⁰ Writing for a unanimous Court, Justice Thomas first noted that “[t]he 1882 Act bore none of [the] hallmarks of diminishment.”¹⁷¹ He then considered “the history surrounding the passage of the 1882 Act” and concluded that the historical evidence was “mixed.”¹⁷² Finally, he considered “the subsequent demographic history” of the disputed lands.¹⁷³ The Court found that “the Tribe was almost entirely absent from the disputed territory for more than 120 years,” did not “maintain an office, provide social services, or host celebrations” in the area, and “does not enforce any of its regulations—including those governing businesses, fire protection, animal control, fireworks, and wildlife and parks—in Pender or in other locales west of the right-of-way.”¹⁷⁴ Nevertheless, “[t]his subsequent demographic history” could not “overcome [the Court’s] conclusion that Congress did not intend to diminish the reservation in 1882.”¹⁷⁵ The Court therefore concluded that “the 1882 Act did not diminish the Omaha Indian Reservation.”¹⁷⁶

ii. Analysis

The treatment group in this case study consists of only one county, Thurston. The control group consists of the five adjacent counties: Burt, Cuming, Dakota, Dixon, and Wayne. Given the small sample size, we conduct this analysis simply by comparing averages in monthly employment growth before and after the district court’s ruling using BLS data. We plot the natural logarithm of the employment series for the treatment and control groups in Figure 6 below. As one can see, the two series are quite flat and are almost perfectly parallel to each other.

169. *Id.* at 1169.

170. *Nebraska v. Parker*, 577 U.S. 481, 493-94 (2016).

171. *Id.* at 489.

172. *Id.* at 490.

173. *Id.* at 492.

174. *Id.* at 492-93.

175. *Id.* at 493.

176. *Id.* at 494.

Restoring Indian Reservation Status

Map of Nebraska Counties

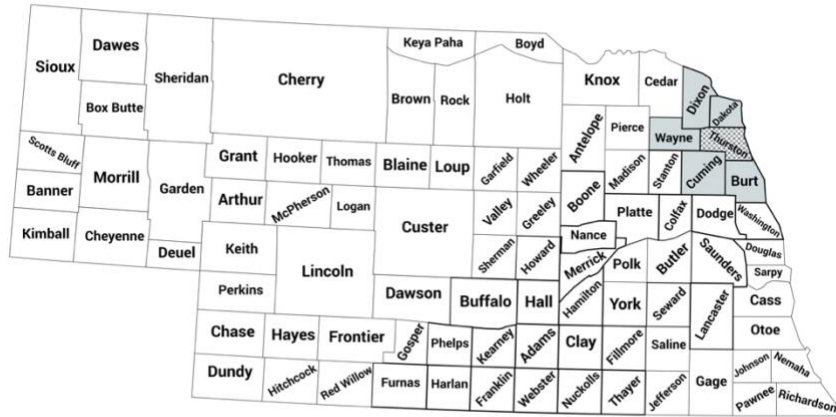
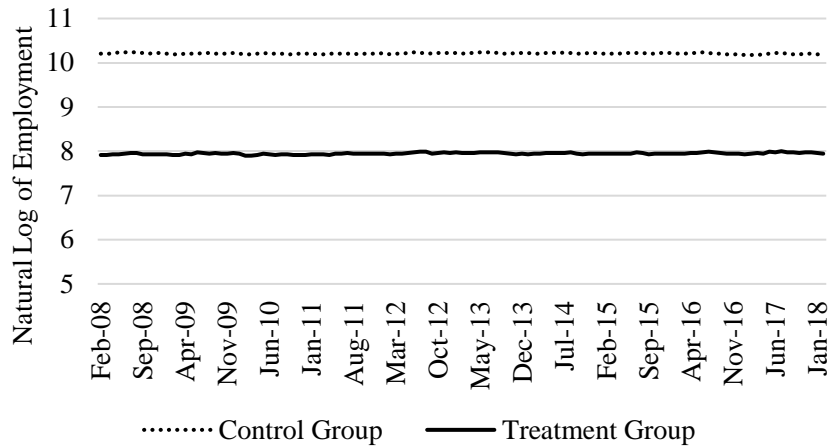


Figure 6. Employment in Treatment and Control Groups



Logically, uncertainty could increase when a federal court first rules in favor of a tribe's assertion of legal jurisdiction. It is the first unexpected deviation from the status quo. Thus, uncertainty could have increased on February 13, 2014, when the district court ruled in favor of the tribe. The pre-decision period covers February 2008 through January 2014, and our post-decision period spans March 2014 through February 2016.

The first "Treatment Group" column in Table 6 below shows the average monthly employment growth in Thurston before and after the district court's ruling. The first "Control Group" column shows the average monthly employment growth in the other five counties (aggregated) before and after the ruling. As one can see, the shock did not result in any change in employment.

Table 6. Average Monthly Employment Growth

	<i>District Court</i>		<i>COA8</i>		<i>SCOTUS</i>	
	Treatment Group	Control Group	Treatment Group	Control Group	Treatment Group	Control Group
Pre-Decision	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
Post-Decision	0.0%	0.0%	-0.1%	-0.1%	0.0%	-0.1%

Of course, one may argue that, despite any uncertainty caused by the unexpected district court ruling, it was still issued by a district court. Perhaps the impact from the Eighth Circuit's ruling (in favor of the tribe) or from the Supreme Court ruling (in favor of the tribe) would yield a greater impact.¹⁷⁷ With that hypothesis in mind, the next two columns in Table 6 present the same analysis, but for the Eighth Circuit's ruling, using the sample period December 2008 through December 2016. The result is nearly identical. There is no discernable differential in employment growth following the Eighth Circuit's decision. Finally, the last two columns of Table 6 present the results of the same analysis but using the Supreme Court ruling as the exogenous event. Here, the sample period runs from March 2010 through March 2018. The results are essentially the same. We do not observe any meaningful effects on the county's economy from any of the rulings by the district court, court of appeals, or Supreme Court. It is also consistent with anecdotal evidence indicating that Thurston County did not experience substantial negative economic effects from any of these rulings.¹⁷⁸ In sum, this case study does not provide evidence to support the Falling Sky model, the Economic Stimulus model, or the Uncertainty Shock Model, though it is consistent with the Game Theory model.

177. Another perspective to consider is that the first court ruling in favor of tribal jurisdiction, even if by a district court, is a truly unexpected shock. After that initial ruling, the subsequent appellate rulings are slightly less unexpected, which means we cannot subscribe causality to those results.

178. See, e.g., Paul Hammel, *How Does Pender, Nebraska, Pull Off \$25 Million in Improvement Projects? Local Pride, Residents Say*, OMAHA WORLD-HERALD BUREAU (Jan. 11, 2018), https://omaha.com/state-and-regional/how-does-pender-nebraska-pull-off-25-million-in-improvement-projects-local-pride-residents-say/article_1905c4c6-2b96-5d63-ba3c-3b7b05deed6e.html [<https://perma.cc/YH6M-LPL6>] (describing major improvement projects in the area); Brian Mastre, *Pender: Thriving When Small-Town America Is Shrinking*, WOWT (Jan. 3, 2018), <https://www.wowt.com/content/news/Pender-Thriving-when-small-town-America-is-shrinking-467969593.html> [<https://perma.cc/3HPU-YG7X>] (describing Pender in 2018 as "thriving when small-town America is shrinking").

2. *City of Sherrill v. Oneida Indian Nation of N.Y.*

Our second supplemental case study concerns litigation in state of New York in the early 2000s culminating in the Supreme Court's decision in *City of Sherrill v. Oneida Indian Nation*.¹⁷⁹

i. Factual Background

The Oneida Indian Nation was part of the Iroquois Confederacy and originally inhabited 6 million acres in New York.¹⁸⁰ Following the Revolutionary War, the State of New York and Oneida Nation entered into the Treaty of Fort Schuyler, whereby the Tribe ceded all of its lands but retained a reservation of about 300,000 acres.¹⁸¹ Then in 1790, Congress passed the Indian Trade and Intercourse Act (also known as the Nonintercourse Act), which prohibited the sale of tribal lands without federal involvement.¹⁸² Soon thereafter in 1794, the United States entered into the Treaty of Canandaigua with the six Iroquois Nations, which ratified the Oneida reservation established by the Treaty of Fort Schuyler.¹⁸³ But the State of New York continued to purchase lands from the tribe, including 100,000 acres over the objection of the Washington administration.¹⁸⁴ In the meantime, the tribe and federal government agreed to the Treaty of Buffalo Creek, which envisioned the removal of all remaining New York Indians to what is now Kansas.¹⁸⁵ Those who stayed in New York sold most of their remaining lands to the state.¹⁸⁶ In the end, the tribe sold all but 5,000 acres of its original reservation.¹⁸⁷

Early litigation concerned the tribe's claims for monetary compensation from the United States.¹⁸⁸ The tribe began suing the federal government, alleging that it failed to protect the tribe by supervising these transfers of land.¹⁸⁹ Then in the 1970s, the tribe began suing local governments. The tribe bought a test case alleging that the cession of 100,000 acres to New York in 1975 violated the Nonintercourse Act and thus did not terminate the tribe's right to possession. But it sought only very limited damages: lost rental values for 872 acres of its ancestral land owned and occupied by the two counties for the years of 1967-68.

179. 544 U.S. 197 (2006).

180. For an overview of the Oneida Nation's history, see generally JOSEPH T. GLATTHAAR & JAMES KIRBY MARTIN, *FORGOTTEN ALLIES: THE ONEIDA INDIANS AND THE AMERICAN REVOLUTION* (2007); and GEORGE C. SHATTUCK, *THE ONEIDA LAND CLAIMS* (1991).

181. See *Cnty. of Oneida v. Oneida Indian Nation of N.Y.*, 470 U.S. 226, 231 (1985); *Oneida Indian Nation of N.Y. v. City of Sherrill*, 337 F.3d 139, 152, 171 (2d Cir. 2003).

182. Act of July 22, 1790, ch. 33, 1 Stat. 137.

183. Act of Nov. 11, 1974, 7 Stat. 44.

184. *Cnty. of Oneida v. Oneida Indian Nation of N.Y.*, 470 U.S. 226, 229 (1985).

185. Act of Jan. 15, 1838, 7 Stat. 550.

186. *New York Indians v. United States*, 40 Ct. Cl. 448, 458 (1905).

187. See *City of Sherrill v. Oneida Indian Nation of N.Y.*, 544 U.S. 197, 206 (2005).

188. See *New York Indians v. United States*, 170 U.S. 1 (1898); *New York Indians*, 40 Ct. Cl. 448.

189. See, e.g., *Oneida Nation of N.Y. v. United States*, 231 Ct. Cl. 990, 991 (1982).

The district court and Second Circuit dismissed the complaint for failure to state a claim;¹⁹⁰ the Supreme Court reversed, holding that federal jurisdiction was properly invoked.¹⁹¹ On remand, the district court rejected the counties' various defenses that might have barred actions for damages.¹⁹² The district court ultimately awarded damages in the amounts of \$15,994 from Oneida County and \$18,970 from Madison County.¹⁹³

The tribe then sought full recovery for past wrongs. The tribe sued Oneida and Madison Counties for damages spanning over 200 years, alleging that between 1795 and 1847, approximately 250,000 acres of the tribe's ancestral lands had been unlawfully conveyed to New York in violation of the Indian Trade and Intercourse Act.¹⁹⁴ They also sought to enlarge the action by demanding recovery of the land they had not occupied since those conveyances and attempted to join as defendants approximately 20,000 private landowners.¹⁹⁵ On September 25, 2000, the district court denied the motion to add private landowners as defendants, finding bad faith on the part of the tribe.¹⁹⁶ The court emphasized that "development of every type imaginable has been ongoing" and referred to "practical concerns" that blocked restoration of the tribe's former lands, high time "to transcend the theoretical."¹⁹⁷ Cases of this genre "cr[ie]d] out for a pragmatic approach."¹⁹⁸

Finally, the tribe sued the City of Sherrill, Oneida County, and Madison County, alleging that its land in those areas was exempt from local taxes. The tribe owned approximately 17,000 acres of land on which it operated a gasoline station, a convenience store, and a textile facility.¹⁹⁹ The tribe had transferred the parcels at issue to one of its members in 1805, who in turn sold the land to a non-Indian.²⁰⁰ The tribe then reacquired these parcels in 1997 and 1998 in open-market transactions.²⁰¹ These holdings comprise 1.5% of the area of the two counties, whose population is 99% non-Indian.²⁰² When the tribe refused to pay local taxes, the City of Sherrill initiated eviction proceedings; the tribe then sued Sherrill in federal court.²⁰³ The tribe ultimately sued both Oneida and Madison County in federal court seeking a declaration that the tribe's properties were

190. See *Oneida Indian Nation of N.Y. State v. Oneida Cnty., N.Y.*, 464 F.2d 916, 918 (2d Cir. 1972), *rev'd sub nom. Oneida Indian Nation of N.Y. v. Oneida Cnty., N.Y.*, 414 U.S. 661 (1974).

191. *Oneida Indian Nation of N.Y. v. Oneida Cnty., N.Y.*, 414 U.S. 661, 675 (1974).

192. *Oneida Indian Nation of N.Y. v. Cnty. of Oneida*, 217 F. Supp. 2d 292, 310 (N.D.N.Y. 2002).

193. *Id.*

194. *Oneida Indian Nation of N.Y. v. Cnty. of Oneida*, 199 F.R.D. 61, 66-68 (N.D.N.Y. 2000).

195. *Id.* at 67-68.

196. *Id.* at 79-85.

197. *Id.* at 92.

198. *Id.*

199. *See City of Sherrill v. Oneida Indian Nation of N.Y.*, 544 U.S. 197, 211 (2005).

200. *Id.* at 211.

201. *Id.*

202. *Id.*

203. *See id.*

exempt from local states.²⁰⁴ On June 4, 2001, the district court concluded that the parcels of land owned by the tribe are not taxable.²⁰⁵ On July 21, 2003, a divided panel of the Second Circuit affirmed.²⁰⁶ Writing for the majority, Judge Parker ruled that the parcels qualified as Indian country because they fell within the boundaries of a reservation set aside by the 1794 Canandaigua Treaty, and subsequent treaties did not demonstrate a clear congressional purpose to disestablish or diminish the reservation.

On March 29, 2005, the Supreme Court reversed.²⁰⁷ Writing for the Court, Justice Ginsburg held that the repurchase of traditional tribal lands 200 years later did not restore tribal sovereignty to that land.²⁰⁸ The Court found that this “preclude[d] the Tribe from rekindling embers of sovereignty that long ago grew cold.”²⁰⁹ Rather, the appropriateness of relief had to “be evaluated in light of the long history of state sovereign control over the territory.”²¹⁰ “[I]t was not until lately that the Oneidas sought to regain ancient sovereignty over land converted from wilderness to become part of cities like Sherrill.”²¹¹ “The wrongs of which [the tribe] complains in this action occurred during the early years of the Republic. For the past two centuries, New York and its county and municipal units have continuously governed the territory. . . . This long lapse of time, during which the [tribe] did not seek to revive their sovereign control through equitable relief in court, and the attendant dramatic changes in the character of the properties, preclude [the tribe] from gaining the disruptive remedy it now seeks.”²¹² The Court ultimately held that laches precluded the tribe from seeking relief, citing the “impracticability of returning to Indian control land that generations earlier passed into numerous private hands.”²¹³ On May 16, 2013, Governor Cuomo announced that the tribe had reached a settlement agreement with the state and two counties.²¹⁴

204. *Id.* at 212.

205. *Oneida Indian Nation of N.Y. v. City of Sherrill*, 145 F. Supp. 2d 226 (N.D.N.Y. 2001), *aff’d*, 337 F.3d 139 (2d Cir. 2003), *rev’d and remanded sub nom. City of Sherrill v. Oneida Indian Nation of N.Y.*, 544 U.S. 197 (2005).

206. *Oneida Indian Nation of N.Y. v. City of Sherrill*, 337 F.3d 139, 171 (2d Cir. 2003).

207. *Id.* at 198.

208. *Id.* at 199.

209. *Id.* at 214.

210. *Id.* at 214.

211. *Id.* at 215.

212. *Id.* at 216-17.

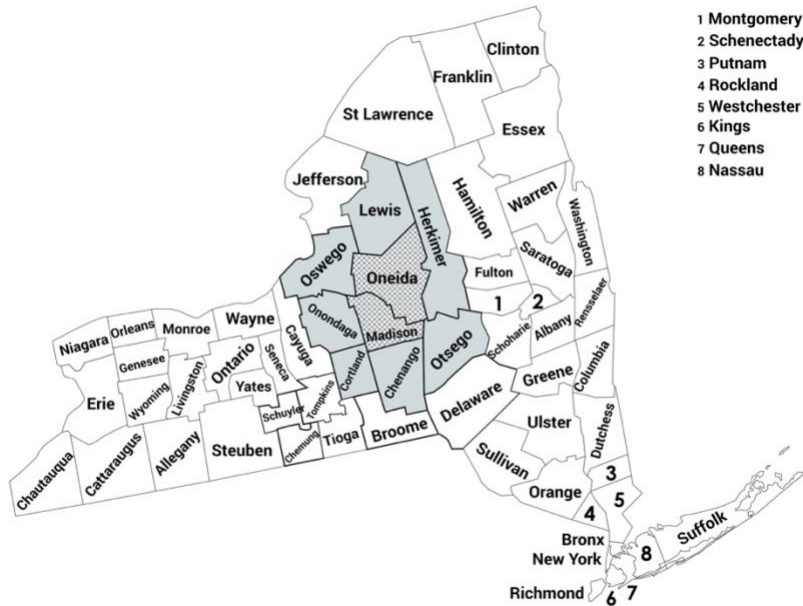
213. *Id.* at 219.

214. *Governor Cuomo Announced Landmark Agreement Between State, Oneida Nation, and Oneida and Madison Counties*, N.Y. STATE (May 16, 2013), <https://web.archive.org/web/20160229154628/http://www.governor.ny.gov/news/governor-cuomo-announces-landmark-agreement-between-state-oneida-nation-and-oneida-and-madison> [https://perma.cc/WHG7-AFSY].

ii. Analysis

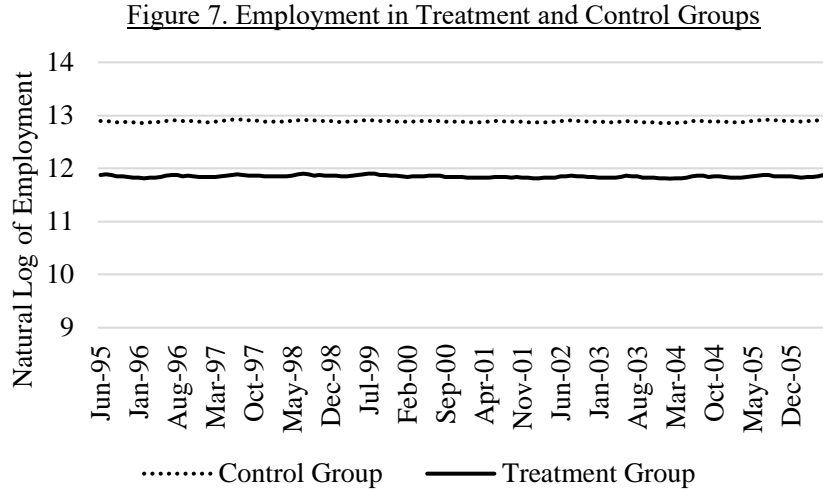
We note at the outset that that the ruling in this case may not have been as unexpected because of prior litigation.²¹⁵ This area of land had been litigated over in the 1970s and 1980s. Nevertheless, we proceed with the simple comparison of averages to see what the data can tell us.

Map of New York Counties



The treatment group consists of two counties: Madison and Oneida. The control group consists of seven counties: Chenango, Cortland, Herkimer, Lewis, Onondaga, Oswego, and Otsego. As before, we combine the two treatment counties into one treatment group, and we combine the seven control counties into a single control group. The employment series of the two groups are presented below in Figure 7. There is a bit more volatility in this series than in Figure 6 above, but the trends are still roughly parallel.

215. This is an issue from an analytical perspective because a robust before-and-after comparison requires an exogenous shock. If the litigation is expected, then it is not a good natural experiment.



In June 2001, the district court held that parcels of land owned by the tribe were not taxable. We consider this to be the relevant exogenous shock, but we also investigate the impact of the Second Circuit’s affirmance in July 2003 as well as the Supreme Court’s reversal in March 2005 for completeness. The results are presented in Table 7 below, and they are remarkably similar to those presented in the first case study. There is essentially no difference in the employment growth rates before and after the legal decisions, which is inconsistent with the Falling Sky Model, the Economic Stimulus Model, and the Uncertainty Shock Model.

Table 7. Average Monthly Employment Growth

	<i>District Court</i>		<i>COA2</i>		<i>SCOTUS</i>	
	Treatment Group	Control Group	Treatment Group	Control Group	Treatment Group	Control Group
Pre-Decision	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Post-Decision	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%

One relevant aspect to observe is that the district court ruled in favor of the tribe, the Second Circuit affirmed that ruling, but the Supreme Court reversed. Thus, to the extent that the contested land was returned to its prior status quo by the Supreme Court’s ruling, the Uncertainty Shock Model would have predicted uncertainty to subside and economic activity to improve. Yet employment

growth remained constant, which is inconsistent with the model's predictions. Again, we note that this second case study is caveated by the fact that the land had been litigated over for decades. None of this may have come as a surprise to business owners and residents. They may have viewed it as "business as usual" and not as a surprising deviation from the status quo.

3. *South Dakota v. Yankton Sioux Tribe* (Charles Mix County)

We next analyze litigation in South Dakota during the 1990s culminating in *South Dakota v. Yankton Sioux Tribe*.²¹⁶

i. Factual Background

The Yankton Sioux Tribe once occupied over 13 million acres of land between Des Moines and the Missouri Rivers.²¹⁷ In 1858, the Yanktons ceded more than 11 million acres of land in exchange for \$1.6 million and other benefits, retaining 430,305 acres in what is now the southeastern part of Mix County, South Dakota.²¹⁸ In 1887, Congress passed the Dawes Act, which allotted 160 acres to each tribal member.²¹⁹ By 1890, 167,325 acres had been allotted; by 1891, a further 95,000 had been allotted; a small amount was also reserved for governmental and religious purposes.²²⁰ The "surplus" land amounted to 168,000 acres of unallotted lands.²²¹

In 1892, the Secretary of the Interior dispatched a three-member Commission to negotiate for the acquisition of these surplus lands.²²² The commissioners successfully obtained signatures from a majority of male members of the tribe eligible to vote.²²³ In May 1893, they filed a report in Congress. In 1894, Congress ratified the 1892 agreement.²²⁴ On May 16, 1895, President Cleveland issued a proclamation opening the ceded land to settlement by non-Indians.²²⁵ By 1900, "90% of the unallotted tracts had been settled."²²⁶ By 1998, Indians held only "30,000 acres of the allotted land and 6,000 acres of Tribal land."²²⁷

216. *South Dakota v. Yankton Sioux Tribe*, 522 U.S. 329 (1998).

217. See generally HERBERT T. HOOVER, *THE YANKTON SIOUX* (1988) (discussing the Sioux's history and culture).

218. Treaty with the Yankton Sioux, Yankton Sioux Tribe-U.S., Apr. 19, 1858, 11 Stat. 743; see also Letter from the Commissioner of Indian Affairs to the Secretary of the Interior (Dec. 9, 1893), in S. EXEC. DOC. NO. 53-27, at 5 (1894).

219. Indian General Allotment Act, Pub. L. No. 49-105, 24 Stat. 388 (1887) (repealed 1934).

220. See *Yankton Sioux Tribe*, 522 U.S. at 336.

221. S. EXEC. DOC. NO. 53-27, at 5 (1894).

222. See Act of July 13, 1892, 27 Stat. 137 (appropriating funds for such negotiations).

223. See *Yankton Sioux Tribe*, 522 U.S. at 339.

224. Act of Aug. 15, 1894, 28 Stat. 286.

225. See *Yankton Sioux Tribe*, 522 U.S. at 339 (citing the proclamation).

226. See *id.*

227. *Id.*

Restoring Indian Reservation Status

Fast forward to 1998 when “tribal, federal, and state officials disagree[d] as to the environmental regulations applicable” to a proposed waste site. Several counties acquired a site for a landfill within the 1858 boundaries of the reservation in fee from non-Indians. In September 1994, the tribe filed suit in federal court to enjoin construction of the landfill. The district court ruled that the 1894 Act did not diminish the 1858 reservation but that the tribe could not regulate the proposed landfill site under its inherent authority recognized in *Montana v. United States*.²²⁸ South Dakota appealed. The Eighth Circuit affirmed that Congress had not diminished the reservation.²²⁹ Because this decision conflicted with rulings by the South Dakota Supreme Court,²³⁰ the state filed for certiorari.²³¹

The Supreme Court reversed.²³² The Court held that “Congress had diminished the Yankton Sioux Reservation in the 1894 Act,” with the result that the unallotted tracts no longer constituted Indian country.²³³ The state therefore had primary jurisdiction over the proposed waste site.²³⁴ In reaching this conclusion, the Court observed that in 1998, “fewer than 10 percent of the 1858 reservation lands are in Indian hands, non-Indians constitute over two-thirds of the population within the 1858 boundaries, and several municipalities inside those boundaries have been incorporated under South Dakota law” and that these “demographics signify a diminished reservation.”²³⁵

ii. Analysis

The treatment group consists of a single county, Charles Mix. The control group consists of five counties: Aurora, Bon Homme, Brule, Douglas, Gregory, and Lyman. Based upon a visual inspection of Figure 8 below, the employment trends of the treatment and control groups are not quite parallel.²³⁶ Employment in the control group stays flat over the sample period, but employment in Charles Mix seems to have increased steadily until 1995, and then declined since then. Notably, the first court decision in favor of the tribe was in June 1995.

228. *Yankton Sioux Tribe v. S. Mo. Waste Mgmt. Dist.*, 890 F. Supp. 878, 888 (D.S.D. 1995), *aff'd*, 99 F.3d 1439 (8th Cir. 1996), *rev'd sub nom.* *South Dakota v. Yankton Sioux Tribe*, 522 U.S. 329 (1998), *and vacated*, 141 F.3d 798 (8th Cir. 1998).

229. *Yankton Sioux Tribe v. S. Mo. Waste Mgmt. Dist.*, 99 F.3d 1439, 1457 (8th Cir. 1996).

230. *See State v. Greger*, 559 N.W.2d 854, 867 (S.D. 1997); *State v. Thompson*, 355 N.W.2d 349, 350 (S.D. 1984); *State v. Williamson*, 211 N.W.2d 182, 184 (S.D. 1973); *Wood v. Jameson*, 130 N.W.2d 95, 99 (S.D. 1964).

231. 520 U.S. 1263 (1997).

232. *South Dakota v. Yankton Sioux Tribe*, 522 U.S. 329 (1998).

233. *Id.* at 358.

234. *Id.*

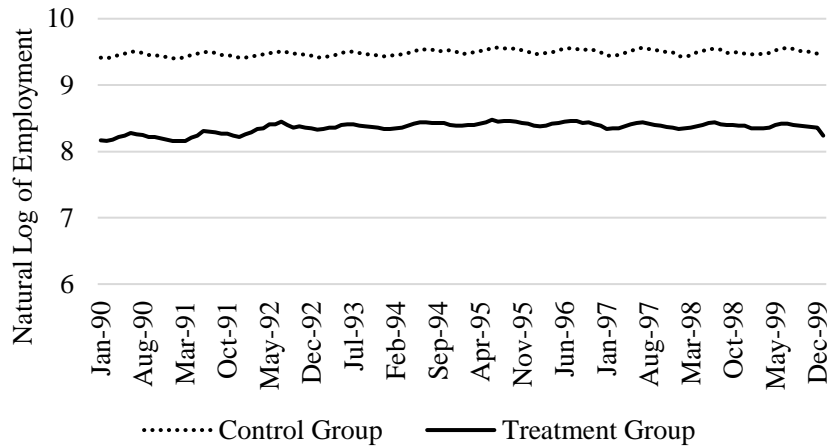
235. *Id.* at 356-57 (citing *Solem v. Bartlett*, 465 U.S. 463, 471 n.12 (1984)).

236. As described previously, having parallel trends is important for this type of before-and-after analysis. If employment growth trends are not parallel before the “exogenous event” in question, then it is unclear whether we can attribute differences following the event to the event itself. For all we know, the differences following the event may have been caused by structural forces that were already in play.

Map of South Dakota Counties



Figure 8. Employment in Treatment and Control Groups



In Table 8 below, we present the average growth rates before and after the district court’s decision in June 1995, the Eighth Circuit’s decision to affirm in October 1996, and the Supreme Court’s reversal in January 1998. Prior to the district court’s decision, the treatment group grew 0.2 percentage point faster than the control group; after the decision, the treatment group grew 0.1 percentage point slower. If we take the Eighth Circuit’s ruling as the event in question, the differential also decreased from +0.2 percentage point to 0 percentage point. Both of these rulings provide suggestive evidence in favor of the Uncertainty Shock Model, and the results are inconsistent with predictions from the other three models.

Table 8. Average Monthly Employment Growth

	<i>District Court</i>		<i>COA8</i>		<i>SCOTUS</i>	
	Treatment Group	Control Group	Treatment Group	Control Group	Treatment Group	Control Group
Pre-Decision	0.4%	0.2%	0.3%	0.1%	0.2%	0.1%
Post-Decision	-0.2%	-0.1%	-0.2%	-0.2%	-0.4%	0.2%

If we assume the Supreme Court ruling contributed to greater uncertainty, then the results are somewhat confusing. The Supreme Court ruled against the tribe, thereby giving jurisdiction back to the state of South Dakota. One would have expected that decision to lessen uncertainty and provide a boost to the economy of Charles Mix. That did not occur. The pre-decision growth differential was +0.1 percentage point; the post-decision growth differential was -0.6 percentage point.

But if we think of the first pro-tribe decision as potentially increasing uncertainty (here, the district court’s decision), we see that this third case study provides suggestive evidence that economic activity likely fell. We say “suggestive” because the treatment group consists of only one county and the pre-decision trends were not parallel, implying underlying structural forces at play.

B. Non-Judicial Settlements

1. Isabella Indian Reservation (Mt. Pleasant, Michigan)

Our next supplemental case study takes us to Michigan in *Saginaw Chippewa Indian Tribe v. Granholm*.²³⁷

i. Factual Background

By treaties in 1855 and 1865, the United States granted the Saginaw Chippewa Tribal Nation land in Isabella County, Michigan, in exchange for relinquishing their previous land holdings.²³⁸ Between 1995 and 1998, the tribe and state litigated over whether the state could impose ad valorem property taxes

237. See generally Fletcher, *supra* note 22, at 103-08 (recounting the litigation and settlement history); *id.* at 103 (describing the boundary dispute as “highly disruptive”).

238. Treaty with Chippewa of Saginaw, Saginaw Chippewa Tribal Nation-U.S., Aug. 2, 1855, 11 Stat. 633; Treaty with Chippewa Indians, Saginaw Chippewa Tribal Nation-U.S., Oct. 18, 1864, 14 Stat. 657. See generally Robert H. Keller, *The Chippewa Treaties of 1842 and 1854*, 9 AM. INDIAN J. 10 (1987) (describing history of treaties).

on lands held in fee simple by members of the tribe.²³⁹ Then in 2005, the tribe brought suit in federal court seeking judicial recognition of these lands as part of a reservation belonging to the tribe.²⁴⁰ The state, county, and city objected, arguing that 1855 and 1865 treaties dissolved any reservation and that the tribe had unduly delayed bringing this action by more than 100 years after the state had continuously exercised exclusive civil and criminal jurisdiction over the areas in dispute.²⁴¹ In particular, the state pointed to the Supreme Court's decision in *City of Sherrill v. Oneida Indian Nation of N.Y.*²⁴² and sought to introduce expert testimony about the original understanding of the tribe when the treaties were contracted.²⁴³ The district court rejected the state's reliance on *City of Sherrill* and granted a motion excluding discovery.²⁴⁴ Against this backdrop, the state, county, city, and tribe negotiated a proposed settlement agreement that would recognize the reservation in Isabella and Arenac Counties, Michigan.²⁴⁵ On December 17, 2010, a federal district court approved the settlement.²⁴⁶ In upholding the reasonableness of the settlement, the court noted that the agreement would eliminate the jurisdictional patchwork that has forced law enforcement officers and prosecutors to consult a map before making an arrest

239. See *United States ex rel. Saginaw Chippewa Tribe v. Michigan*, 882 F. Supp. 659 (E.D. Mich. 1995) (ruling against the state), *rev'd*, *United States ex rel. Saginaw Chippewa Tribe v. Michigan*, 106 F.3d 130 (6th Cir. 1997) (ruling in favor of the state), *vacated*, *Michigan v. United States*, 524 U.S. 923 (1998) (vacating and remanding for further consideration in light of *Cass Cnty. v. Leechlake Band of Chippewa Indians*, 524 U.S. 103 (1998)).

240. Complaint, *Saginaw Chippewa Indian Tribe of Michigan v. Granholm*, No. 1:05-cv-10296 (E.D. Mich. Mar. 21, 2006).

241. See also Objections by Attorney General Michael A. Cox to the Proposed Settlement Between the Plaintiff Saginaw Chippewa Indian Tribe and the State of Michigan at 1-2, *Saginaw Chippewa Indian Tribe of Michigan*, No. 05-cv-10296 (E.D. Mich. Nov. 10, 2010), ECF No. 274 (noting "100 years of the State and City exercising jurisdiction over the territory at issue in this lawsuit" and arguing that "the agreement may put at risk the convictions obtained by the State within the area that has been treated as part of the State for 160 years").

242. 544 U.S. 197 (2005).

243. *Saginaw Chippewa Indian Tribe of Michigan v. Granholm*, No. 05-10296, 2008 WL 4808823, at *5 (E.D. Mich. Oct. 22, 2008).

244. *Id.*; see also *Saginaw Chippewa Indian Tribe of Michigan v. Granholm*, No. 05-10296, 2008 WL 5220561 (E.D. Mich. Dec. 12, 2008) (denying a motion to certify these questions for appeal). For briefing materials, see State Defendants' Response to Plaintiff Saginaw Chippewa Indian Tribe's Motion to Strike Defenses or Limit Discovery at 4, No. 05-cv-10296 (E.D. Mich. Apr. 28, 2008) (citing *City of Sherrill*, 544 U.S. 197).

245. Gus Burns, *Federal Court Decision Establishes Most of Isabella County, Including Northern Mount Pleasant, as 'Indian Country'*, MLIVE (Nov. 24, 2010), https://www.mlive.com/news/saginaw/2010/11/federal_court_decision_establi.html [https://perma.cc/9AHC-TA9V] (describing settlement as product of "mediation . . . that began in March of 2009"); *id.* (noting that tribe had 3,694 members); cf. Nancy A. Costello, *Walking Together in a Good Way: Indian Peacemaker Courts in Michigan*, 76 U. DET. MERCY L. REV. 875, 892 (1999) (describing the tribe's use of peacemaking to resolve conflicts).

246. *Saginaw Chippewa Indian Tribe v. Granholm*, No. 05-10296, 2010 WL 5185114, at *5 (E.D. Mich. Dec. 17, 2010). It appears that an oral ruling with the same effect was delivered on November 26, 2010. See Kate Fort, *Judge Ludington Rules on Saginaw Chippewa Boundary Settlement*, TURTLE TALK (Nov. 26, 2010), <https://turtletalk.blog/2010/11/26/judge-ludington-rules-on-saginaw-chippewa-boundary-settlement/> [https://perma.cc/59VD-F3TC] (citing a report by Morning Sun).

246. *Saginaw Chippewa Indian Tribe v. Granholm*, No. 05-10296, 2010 WL 5185114, at *2 (E.D. Mich. Dec. 17, 2010).

or pursuing criminal charges.”²⁴⁷ It would also “provid[e] that existing convictions will not be disrupted by jurisdictional changes created by the settlement.”²⁴⁸

ii. Analysis

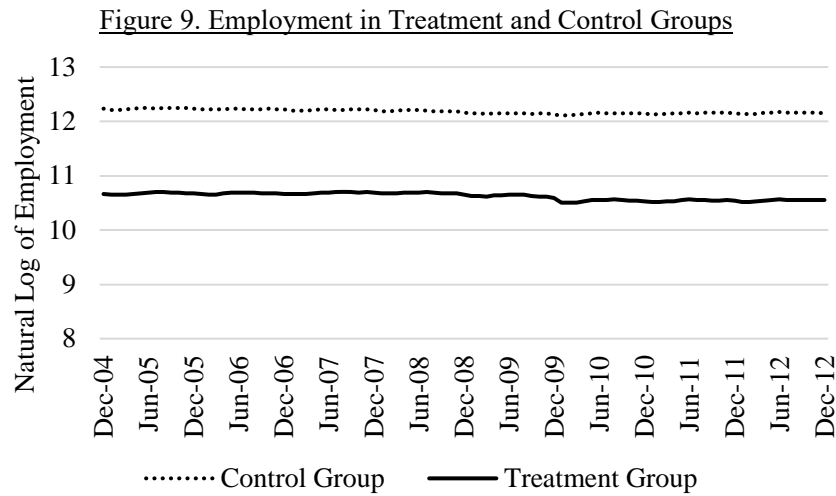
The treatment group consists of two counties that are not contiguous: Arenac and Isabella. The control group consist of ten counties that border the two treatment counties: Bay, Clare, Gladwin, Gratiot, Iosco, Mecosta, Midland, Montcalm, Ogemaw, and Osceola. Like before, we combine the two treatment counties into one treatment group, and we combine the ten control counties into a single control group. The employment series of the two groups are presented below in Figure 9, ranging from December 2004 through December 2012.

Map of Michigan Counties



247. *Id.*

248. *Id.*; see also Matthew L.M. Fletcher et al., *Tribal Disruption and Indian Claims*, 112 MICH. L. REV. FIRST IMPRESSIONS 65, 70 (2014) (“This case caused a disruption of established governance structures; the disruption opened an opportunity not only to redefine jurisdictional roles but moreover to clarify previously muddled jurisdictional issues allowing for improved public-service delivery.”).



In December 2010, the district court approved the settlement recognizing the status of the Indian reservation. This could have increased uncertainty, as the settlement agreement recognized the Indian reservation in Isabella and Arenac Counties, Michigan. The results are presented in Table 9 below. The first column shows the average monthly employment growth in the treatment group before and after the district court’s ruling. The second column shows the average monthly employment growth in the control group before and after the ruling.

Table 9. Average Monthly Employment Growth

	<i>Treatment Group</i>	<i>Control Group</i>
Pre-Decision	-0.2%	-0.1%
Post-Decision	0.1%	0.0%

Prior to the district court’s ruling, employment in the two treatment counties was in decline (-0.2 percent) at a slightly worse rate than the decline in the control counties (-0.1 percent). Since the ruling in December 2010, employment growth has ticked up in the two treatment counties (+0.1 percent) whereas it has remained flat in the control counties (+0.0 percent). This evidence suggests that the district court’s ruling did not adversely impact the economy of the two treatment counties, which goes against the predictions of the Falling Sky Model and the Uncertainty Shock Model. It does, however, lend support to the Economic Stimulus Model and the Game Theory Model.

2. Puyallup Reservation (Tacoma, Washington)

This supplemental case study takes us to the State of Washington in the 1980s.

i. Factual Background

In 1854, the Puyallup Tribe received a 1280-acre reservation and fishing rights as part of the Treaty of Medicine Creek in exchange for renouncing their claims to their ancestral lands.²⁴⁹ Dissatisfied with their ability to access the Puyallup River, the tribe agitated for and received river access by executive order in 1857.²⁵⁰ Between 1948 and 1950, the U.S. Army Corp of Engineers undertook a river rechannelization project, which exposed a previously-submerged 12-acre portion of the riverbed.²⁵¹ The Corps took possession of this tract, leasing the land to industrial tenants.²⁵² In 1981, the Puyallup Tribe sued, arguing that the tribe received title to the riverbed by the Executive Order of 1857.²⁵³ On July 24, 1981, the district court ruled in favor of the tribe. On August 15, 1983, the Ninth Circuit affirmed.²⁵⁴ Following this decision, in 1989 the tribe and federal government contracted a settlement whereby the tribe relinquished all claims to tidelands in exchange for \$162 million.²⁵⁵ This settlement has been characterized as a “major triumph of negotiation and perseverance.”²⁵⁶

249. Treaty of Medicine Creek, Puyallup Tribe-U.S., Dec. 26, 1854, 10 Stat. 1132, 1132.

250. Exec. Order of Jan. 20, 1857; *see also* Exec. Order of Sept. 6, 1873 (further clarifying and extending reservation).

251. *See* Puyallup Indian Tribe v. Port of Tacoma, 717 F.2d 1251, 1254 (9th Cir. 1983).

252. *Id.*

253. Puyallup Tribe of Indians v. Port of Tacoma, 525 F. Supp. 65, 65 (W.D. Wash. 1981).

254. Puyallup Indian Tribe v. Port of Tacoma, 717 F.2d 1251, 1252 (9th Cir. 1983). Note that shortly before this decision, the U.S. Supreme Court decided three cases concerning the scope of the tribe’s fishing rights. Puyallup Tribe v. Dep’t of Game of Washington, 391 U.S. 392 (1967); Dep’t of Game of Washington v. Puyallup Tribe, 414 U.S. 44 (1973); Puyallup Tribe, Inc. v. Dep’t of Game of Washington, 433 U.S. 165 (1977).

255. Puyallup Tribe of Indians Settlement Act of 1989, Pub. L. No. 101-41, 103 Stat. 83 (June 21, 1989); Agreement Between the Puyallup Tribe of Indians and the Local Governments in Pierce County, the State of Washington, the United States of America, and Certain Private Property Owners (Aug. 27, 1988) [<https://perma.cc/4XPZ-E9ES>]; *see also* Timothy Egan, *Indian Tribe Agrees to Drop Claim to Tacoma Land for \$162 Million*, N.Y. TIMES (Aug. 29, 1988), <https://www.nytimes.com/1988/08/29/us/indian-tribe-agrees-to-drop-claim-to-tacoma-land-for-162-million.html> [<https://perma.cc/LWC7-UEP7>] (“In one of the biggest settlements of an American Indian land claim in this century, the Puyallup Indians have voted to drop claims to some of the most valuable property in Tacoma in return for \$162 million in cash, land and jobs. The poor, 1,400-member tribe voted 319 to 162 Saturday night in favor of the settlement, removing a legal cloud from 300 acres, property that includes downtown office buildings, the industrial port and expensive homes, all told, worth more than \$750 million.”); *Tribe Wins Money in Settlement of Land Suit*, N.Y. TIMES (Mar. 25, 1990), <https://www.nytimes.com/1990/03/25/us/tribe-wins-money-in-settlement-of-land-suit.html> [<https://perma.cc/WT94-ND3S>] (describing the settlement).

256. Grover, Stetson, & Williams, P.C., *Tribal-State Dispute Resolution: Recent Attempts*, 36 S.D. L. REV. 277, 293 (1991); *see also id.* at 293-94 (“This comprehensive resolution of long and bitter disputes between the various governments and communities . . . resolved long-standing conflicts over state and tribal jurisdiction.”).

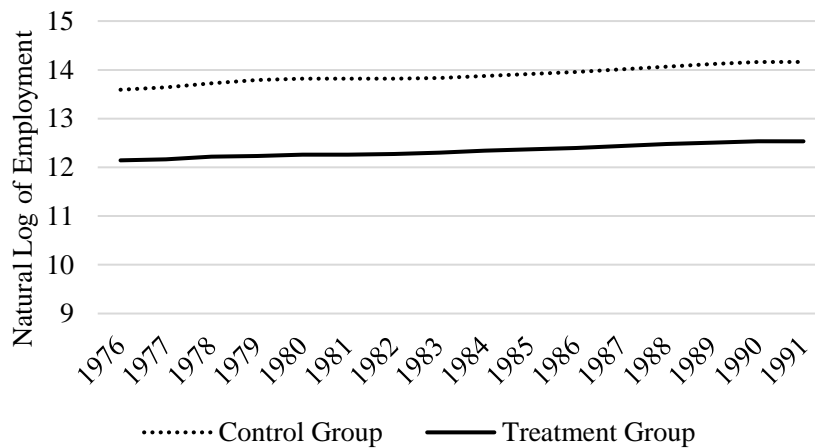
ii. Analysis

The treatment group consists of a single county: Pierce. The control group consist of seven border counties: King, Kitsap, Kittitas, Lewis, Mason, Thurston, and Yakima. Like our previous case studies, we combine the control counties into a single control group. The employment series of the two groups are presented below in Figure 10. Of note, the monthly county-level employment data are available only from 1990 onward. To perform this analysis, we use county-level employment data that are annual.

Map of Washington Counties



Figure 10. Employment in Treatment and Control Groups



The history of this case is quite interesting. In July 1981, the district court ruled in favor of the tribe; in August 1983, the Ninth Circuit affirmed the decision; in June 1989, however, the tribe agreed to relinquish all claims to the disputed land. As above, we begin our analysis with the district court ruling. Table 10 below shows the average annual employment growth in the treatment and control groups, before and after the decision. (The magnitudes are much larger in this table because they are averages of annual growth rates, not averages of monthly growth rates.) Prior to the district court’s decision, employment in the control counties grew approximately 1.9 percentage points faster than employment in Pierce (4.5 percent less 2.6 percent). The roles flipped after the district court’s decision, with employment in Pierce growing roughly 1.1 percentage points faster (1.5 percent less 0.4 percent). This evidence strongly suggests that any potential uncertainty brought about by the district court’s ruling did not adversely impact the economy of Pierce, and it certainly does not support the Falling Sky Model.

Table 10. Average Annual Employment Growth

	<i>District Court</i>		<i>COA9</i>		<i>Settlement</i>	
	Treatment Group	Control Group	Treatment Group	Control Group	Treatment Group	Control Group
Pre-Decision	2.6%	4.5%	2.2%	3.2%	3.5%	4.7%
Post-Decision	1.5%	0.4%	3.7%	4.1%	1.2%	2.4%

We next investigate the impact of any potential continued uncertainty. In the six years leading up to the Ninth Circuit’s ruling (affirming the district court), employment in the control counties grew approximately 1.0 percentage point faster (3.2 percent less 2.2 percent). Following the appellate court’s decision, that gap shrunk to 0.4 percentage point (4.1 percent less 3.7 percent), which similarly suggests that Pierce’s economy was not negatively impacted.

Finally, we examine the settlement agreement, in which the tribe relinquished its claim to the disputed territory. Leading up to that 1989 settlement, employment in the control counties grew faster, at a clip of approximately 1.2 percentage points (4.7 percent less 3.5 percent). In the two years following the settlement, employment growth slowed in both groups, but the gap remained at 1.2 percentage points (2.4 percent less 1.2 percent). This again suggests that Pierce’s economy was not negatively impacted.

IV. Discussion

As reported above, we find no significant impact on the economy in any of the case studies.²⁵⁷ If anything, the data suggest possible economic benefits from decisions recognizing tribal sovereignty. We propose and evaluate four economic models using our data: (1) the Falling Sky Model, most often associated with state litigants, which predicts negative economic effects following recognition of tribal jurisdiction; (2) the Economic Stimulus Model, sometimes associated with tribal litigants, which predicts positive economic effects following recognition of tribal jurisdiction; (3) the Uncertainty Shock Model, associated with macroeconomists and consistent with Chief Justice Robert's dissent in *McGirt*, which predicts negative economic performance following an unexpected change in the status quo (e.g., federal court suddenly recognizing tribal jurisdiction) and improved economic performance following a mitigation of that uncertainty (e.g., appellate court reverting parties to status quo ex ante); and (4) the Game Theory Model, which predicts no substantial difference in economic performance from marginal changes in sovereignty between neighbors that have repeated interactions, on the theory that they will cooperate to resolve potential downsides caused by sudden legal changes (and thereby dampen any negative economic consequences). Justice Gorsuch's majority opinion in *McGirt* is consistent with this last model.

We observe that the first two theories make predictions based on the *substantive* outcome of litigation (rulings in favor of state sovereignty vs. tribal sovereignty), whereas the third and fourth theories make predictions based on *relative changes in the status quo* (changes have significant vs. negligible effects). As explained below, we believe the data best fit and justify theory number (4): the Game Theory Model.

A. Falling Sky Model

We consider first the hypothesis that the judicial extension of Indian sovereignty will result in substantial negative economic performance in affected counties. We refer to this as the Falling Sky hypothesis. This model has theoretical and anecdotal support. It is predicted by well-established economic

257. Accord Matthew L.M. Fletcher et al., *Tribal Disruption and Indian Claims*, 112 MICH. L. REV. FIRST IMPRESSIONS 65, 69 (2014) (arguing that three state-tribal "settlements demonstrates that it is empirically false to claim that ancient tribal claims are too disruptive to the settled expectations of local governments and non-Indians to pursue").

theories that suggest institutions matter for economic growth.²⁵⁸ It is also consistent with lay reactions to the decision.²⁵⁹

Nevertheless, we interpret our data as strongly suggesting that the sky did not fall in Oklahoma (or at least has not fallen yet). We fail to observe any statistically significant effect on the economy from the *Murphy* or *McGirt* decisions. Similarly, our supplemental case studies do not show any meaningful decrease in economic performance following cases extending Indian sovereignty (*Nebraska, Mt. Pleasant, Tacoma*); nor do we observe any significant improvement in economic performance following cases restricting Indian sovereignty (*City of Sherrill, South Dakota*).

One explanation is that Supreme Court precedent significantly limits the ability of Tribes to exercise civil jurisdiction over nonmembers on reservation lands. On this view, landmark Indian reservation cases may have important consequences for law-enforcement officials but limited significance for economic actors. We consider this interpretation theoretically possible but unlikely. As a threshold matter, Supreme Court cases have recognized that tribes may exert substantial zoning, taxation, and regulatory authority over members and nonmembers. As a practical matter, these issues are frequently subject to intergovernmental disputes and litigation. Recognizing tribal sovereignty over half a state is not an insignificant development. The State of Oklahoma acknowledged as much in its petition for certiorari in *Oklahoma v. Castro-Huerta*.

A second possible explanation is that there might simply be minimal differences between state and tribal governance in practice. The Falling Sky Model assumes that state governments are measurably better (or more pro-growth) than tribal governments. But Oklahoma is one of the lowest performing states in the country by many metrics. For example, in 2019, Oklahoma ranked 41st in personal income per capita and 47th in personal consumption expenditures per capita.²⁶⁰ Perhaps we would observe substantial negative effects if a state with a larger economy were suddenly subject to tribal regulation. Alternatively, perhaps the Muskogee Creek Nation (and Omaha, Oneida, and Yankton Sioux)

258. As noted by Anderson & Parker, there is a sizeable economics literature that shows proxies for a stable rule of law correlate positively with economic growth. See, e.g., Daron Acemoglu, Simon Johnson & James Robinson, *The Colonial Origins of Comparative Development: An Empirical Investigation*, 91 AM. ECON. REV. 1369, 1369 (2001); Robert E. Hall & Charles I. Jones, *Why Do Some Countries Produce So Much More Output Per Worker Than Others?*, 114 Q. J. ECON. 83, 83 (1999); ROBERT J. BARRO, DETERMINANTS OF ECONOMICS GROWTH: A CROSS-COUNTRY EMPIRICAL STUDY 28 (1997); Phillip Keefer & Stephen Knack, *Why Don't Poor Countries Catch Up? A Cross-National Test of an Institutional Explanation*, 35 ECON. INQUIRY 590, 597 (1997); Douglass C. North & Barry R. Weingast, *Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England*, 49 J. ECON. HIST. 803, 803 (1989).

259. See, e.g., Jess Bravin & Kris Maher, *Swath of Oklahoma Falls Within Indian Reservation, Supreme Court Rules*, WALL ST. J. (July 9, 2020, 6:20 PM ET) (quoting M. Todd Henderson as saying, "If I owned a business or a property in the territory, I would be very unhappy"); cf. Adam Creppelle, *How Federal Indian Law Prevents Business Development in Indian Country*, 23 U. PA. J. BUS. L. 683, 688 ("Businesses like certainty, but nothing is certain in federal Indian law.").

260. See *Regional Data: GDP and Personal Income*, BUREAU ECON. ANALYSIS, <https://apps.bea.gov/itable/iTable.cfm?ReqID=70&step=1> [<https://perma.cc/WVB3-VEB2>].

are all pro-growth regulatory regimes, whether because they in fact have pro-growth regulations or because their very lack of a strong regulatory presence means that they are by default pro-growth.

Finally, it is possible that the Falling Sky Model has predictive value in the *long run*. Our data only capture short-term changes, and it may be the case that businesses would decline to make large investments in a newly recognized Indian reservation. (However, we note that in theory, stock prices incorporate long-term growth prospects, even if imperfectly.) Thus, although we do not find any evidence supporting the assertion that the sky would fall post-*McGirt*, the absence of evidence in the short run does not falsify the model in the long term.

B. Economic Stimulus Model

A second model is the Tribal Economic Stimulus Model. Under this model, we expect a judicial decision recognizing or expanding tribal sovereignty to stimulate economic activity, whether because a court has removed a constraint on the authority of tribes to regulate, or because a pro-tribal ruling energizes the tribe to undertake economic activities.²⁶¹

This model is supported by economic intuition about the superiority of local governance. In theory, local government could be more responsive to people's needs. Just as municipal government is thought to be more responsive than state government, which is in turn thought to be more responsive than federal governments, so might we expect tribal governance to be more responsive than state governments where the size of tribal jurisdiction is smaller than the size of state government (as it is everywhere in the United States). Tribes might therefore be better at increasing employment and output growth. Yet any positive effects from local governance must be counterbalanced by any discriminatory practices that favor members over nonmembers, which have greater effect in areas where the percentage of nonmembers is higher. Nevertheless, we might expect there to be some detectable net boost to economic performance by recognizing tribal sovereignty. This effect might be amplified by the several federal statutes that permit businesses in Indian country to qualify for economic benefits.²⁶²

This model is also supported by anecdotal evidence. In the wake of the Tenth Circuit's *Murphy* decision, the Muskogee Creek Nation substantially expanded its police force.²⁶³ Finally, the model is also consistent with a strain in

261. Cf. Brief of National Congress of American Indians Fund as Amicus Curiae in Support of Petitioner at 30, *McGirt v. Oklahoma*, 140 S. Ct. 2452 (2020) (No. 18-9526) (“Across the country, tribal nations are working with states, municipalities, and private entities to build better economies and communities for all of their citizens. Affirming the treaty boundaries of the Creek Reservation will only increase those benefits in Oklahoma.”).

262. See, e.g., 26 U.S.C. §§ 1391(g)-(h), 1392, 1396 (2018) (economic empowerment zone credits); 26 U.S.C. § 168(j) (2018) (accelerated depreciation).

263. Joseph Holloway, *Muskogee Creek Nation Investing Millions in Lighthorse Police Department*, OKLAHOMA'S OWN 6 (Sept. 30, 2020, 6:35 AM),

legal scholarship arguing that tribal sovereignty may improve welfare for both Indians and nonmembers.²⁶⁴

Under this model, we predict a short-term improvement in employment and other indices of economic activity following decisions expanding tribal jurisdiction. Economic data following the *Murphy* decision and settlements in Michigan and Washington appear to support this model, but these values are still well within the statistical margin of error. We can therefore say that our findings are, at best, weakly suggestive of the Economic Stimulus Model.

C. Uncertainty Shock Model

As noted in Section II.B., there is a significant macroeconomics literature on the impact of heightened uncertainty on the real economy. Under this model, we expect to observe a decrease in employment and real GDP following any judicial decision disturbing the status quo. Specifically, we expect to observe lower employment following a decision newly recognizing tribal jurisdiction, such as the Tenth Circuit’s *Murphy* decision. Conversely, we expect to observe an improvement following judicial decisions resolving uncertainty. Thus, we expect to observe positive economic performance following intergovernmental settlements resolving uncertainty over state and tribal jurisdiction.

This theory has a strong theoretical and empirical foundation.²⁶⁵ It is well-established that uncertainty increases after major economic and political shocks, and that uncertainty acts as a headwind against real economic activity, as higher uncertainty causes firms to temporarily pause their investment and hiring decisions. Indeed, spikes in uncertainty around events like tight presidential elections, the Gulf Wars, the September 11 terrorist attacks, the failure of Lehman Brothers, and major political battles over fiscal policy led to reduced investment and reduced employment by firms in the impacted sectors.²⁶⁶ Economists have also found that the impact of an uncertainty shock on the labor market is more pronounced during an economic downturn and may have played a role in worsening the Great Recession.

<https://www.newson6.com/story/5f746d9210991b0c17a80d5a/-muscogee-creek-nation-investing-millions-in-lighthorse-police-department> [https://perma.cc/R8MC-Z3XL] (“Muscogee Creek Nation officials have said that there are plans to invest millions of dollars to expand the Lighthorse Police Department in response to the McGirt ruling. . . . [T]he Lighthorse Police Department is working on adding nearly 40 people, including 25 new officers along with investigators and dispatchers.”). Note that this anecdote is limited by the caveat that hiring tribal officers might merely be a substitution effect (replacing county officers) rather than an indicator of improved net employment.

264. Bethany R. Berger, *McGirt v. Oklahoma and the Past, Present, and Future of Reservation Boundaries*, 169 U. PA. L. REV. ONLINE, 250, 254 (2021) (arguing “why handwringing about non-Indians within reservation boundaries is misguided by presenting evidence that affirmance does not disrupt, and may even improve, life for both tribal and non-tribal citizens within reservation boundaries”); Fletcher, *supra* note 22, at 102 (“This paper describes several ongoing tribal-state disputes throughout the nation, acknowledging that the tribal claims are disruptive, but that tribal disruption is not inherently harmful.”).

265. *See supra* Section II.B.

266. *See id.*

Our observations do not support this model. In the case of Oklahoma, we do not observe any statistically significant decrease in employment or real GDP following the Tenth Circuit's *Murphy* decision, contrary to what the Uncertainty Shock Model would predict. Similarly, we do not observe any negative impact following the Supreme Court's *McGirt* decision. Nor do we observe a negative impact following *Nebraska v. Parker*. Conversely, we also do not observe *positive* developments in economic activity following Supreme Court decisions in favor of states quelling jurisdictional uncertainty. In both *City of Sherrill* and *South Dakota v. Yankton Sioux*, we observe no statistically significant positive effect corresponding to the resolution of these jurisdictional disputes. Finally, we fail to observe positive effects following the Mt. Pleasant, Michigan and Tacoma, Washington settlements.

Our data therefore do not support the strong form of the Uncertainty Shock Model. This presents an interesting distinguishing factor for researchers, policymakers, and jurists to consider in the future. In particular, the uncertainty-shock literature focuses almost exclusively on events that occur at the national level—tight presidential elections, fierce congressional battles over fiscal policy, overseas wars, and the like. The literature does not address political and economic shocks at the regional or state level. It is entirely plausible that, below a certain threshold of importance, uncertainty shocks simply do not register and therefore do not translate into an actual impact on real economic activity. Alternatively, it is possible that the *Murphy* decision was sufficiently important but (i) there was an insufficient nexus between criminal jurisdiction and economics conditions, (ii) business owners were not aware of the decisions, or (iii) economic actors did not attribute as broad effect to the decisions as did the dissenting Supreme Court justices.

This last possibility dovetails with our previous discussion on the Falling Sky Model.²⁶⁷ There already exists substantial tribal regulation over parts of eastern Oklahoma, which means the Tenth Circuit and Supreme Court opinions did not substantially alter the regulatory landscape. The tribes had some regulation over certain “allotments” in eastern Oklahoma for decades; these are parcels of land that were originally allotted to the Five Tribes but never alienated or sold to non-Indians.²⁶⁸ It is therefore possible that businesses and residents knew *exactly* what was in store if they were to live under Indian jurisdiction, and the predictions of heightened uncertainty and alleged disruptions to everyday life were untethered to the expectations of those on the ground.

D. Game Theory Model

Finally, game theory also supplies a potential model to explain our results. Under the Game Theory Model, we expect both the state and tribe to cooperate,

267. See *supra* Section IV.A.

268. See, e.g., *Morris v. Hitchcock*, 194 U.S. 384, 392-93 (1904); *Buster v. Wright*, 135 F. 947, 953 (8th Cir. 1905).

regardless of the background structure of tribal sovereignty, because cooperation is in the best interest of both sovereigns. Businesses and citizens know this, and so they assume that these sovereigns will continue to cooperate, and investors price this expectation into their investment decisions. Under this theory, we therefore predict to observe no substantial change in economic activity, beyond some *de minimis* short-term disruptions, following decisions altering the status quo because the sovereigns will simply adjust to new background rules. In other words, we expect to observe cooperation, which will in turn dampen or dissipate any effects on employment, real GDP, and other economic metrics.

This theory has a strong theoretical background that is familiar to many. First-year economics students learn about the highly stylized prisoner's dilemma, often represented by a matrix showing numerical consequences of cooperating or defecting with other prisoners.²⁶⁹ If two prisoners both cooperate, they may both serve a limited jail sentence. If one prisoner cooperates but the other defects, there is a substantial payoff for the defector and an even longer sentence for the cooperator. Finally, if both prisoners defect, both serve substantial time in jail. Economists have studied this and similar models to analyze situations where one actor's behavior depends on what other actors do. Where the game is played only once, the dominant strategy is often to defect. But where the game is played iteratively many times, the dominant strategy is often to cooperate. Players will want to cultivate goodwill from other actors and avoid future retribution for defecting.²⁷⁰

If we apply game theory to state and tribal relations, we note that these actors are involved in iterative interactions over the course of centuries. Goodwill is therefore an important currency. It will frequently be in the interest of all parties to cooperate. Businesses, residents, and investors can therefore discount any disruptions caused by judicial rulings by accounting for cooperative agreements that will smooth out jurisdictional uncertainties on the back end.²⁷¹ The model therefore predicts that following any change in the status quo of Indian reservation status, there will be only *de minimis* changes in economic output.

This Game Theory Model also has anecdotal support. For example, following *McGirt*, several local and national commentators predicted that

269. For a standard textbook treatment, see ANDREU MAS-COLELL, MICHAEL D. WHINSTON & JERRY R. GREEN, *MICROECONOMIC THEORY* (1995).

270. See Drew Fudenberg & Eric Maskin, *Evolution and Cooperation in Noisy Repeated Games*, 80 AM. ECON. REV. 274, 274 (1990) (noting that if a prisoner's dilemma "is repeated infinitely often and the players are not too impatient, there are 'cooperative' equilibria in which both players always play [cooperate] for fear that failure to do so would cause the opponent to 'punish' them with [defect] in the future").

271. For example, in the context of environmental regulation in Oklahoma, one commentator, recognizing the "grim outlook" created by jurisdictional uncertainty, "argues for the use of cooperative agreements between the state and tribal nations in environmental regulation, asserting that this arrangement benefits the tribal nations, the State of Oklahoma, and the environment." Kimberly Chen, *Toward Tribal Sovereignty: Environmental Regulation in Oklahoma After McGirt*, 121 COLUM. L. REV. F. 95, 96 (2021).

cooperation would dampen the effect of any potential uncertainty.²⁷² In making these predictions, experts pointed to the working relationship already existing between tribes and states.²⁷³ In Oklahoma alone, the state has entered into over 700 compacts with tribes “in furtherance of federal policy for the benefit of both the State of Oklahoma and tribal governments.”²⁷⁴ These range from deputizing law enforcement officers, coordinating cigarette-tax collection, and providing for emergency services, to motor vehicle registration and license tag compacts.²⁷⁵ This is consistent with the broader trend across the country toward increased intergovernmental agreements.²⁷⁶ In addition, the state government can cooperate with the federal government to reassume regulatory jurisdiction in Indian country.²⁷⁷

272. This position was best articulated by Mike McBride, III, a Tulsa-based attorney at Crowe & Dunlevy, who predicted: “I believe that if the Court rules that the Five Tribes’ reservations remain intact, life will go on with little disruption to most Indian and non-Indian citizens within Oklahoma. Non-Indians will not lose title to their property, and no one will get hauled into tribal court without their consent for activities having no connection to tribes or tribal authority. The Five Tribes and local governments will continue to work well together in providing services to their citizens. Tribal citizens are Oklahoma citizens as well. Oklahoma will continue to prosper, not shatter under shared governmental authority.” Mike McBride III, *Has the Earth Shattered Under Oklahoma? Predictions and Implications of Sharp v. Murphy (and McGirt v. Oklahoma)*, 67 FED. LAW. 69, 71 (2020). In addition, The New York Times provided the following commentary the day of the decision: “Earlier, the Justice Department raised concerns about how federal prosecutors would cope with a new onslaught of cases they would be suddenly responsible for investigating. And lawyers were parsing whether the decision might affect taxes, adoption or environmental regulations on the reservation lands. But experts in Indian law said the decision’s effects would be more muted, and would change little for non-Natives who live in the three-million-acre swath of Oklahoma that the court declared to be a reservation of the Muscogee (Creek) Nation.” Jack Healy & Adam Liptak, *Landmark Supreme Court Rulings Affirm Native American Rights in Oklahoma*, N.Y. TIMES (July 11, 2020), <https://www.nytimes.com/2020/07/09/us/supreme-court-oklahoma-mcgirt-creek-nation.html> [<https://perma.cc/L8QS-4WYG>].

273. Jess Bravin & Kris Maher, *Swath of Oklahoma Falls Within Indian Reservation, Supreme Court Rules*, WALL ST. J. (July 9, 2020, 6:20 PM ET), <https://www.wsj.com/articles/american-indian-lands-include-eastern-oklahoma-supreme-court-rules-11594304003> [<https://perma.cc/F2Z2-6GXQ>] (quoting Kevin Washburn, Dean of the University of Iowa College of Law, as saying “most citizens living on land now considered part of the Creek reservation won’t notice the difference in their daily lives”); *id.* (quoting Chad Warmington, president and CEO of the State Chamber of Oklahoma, as saying “[w]e have a very productive working relationship with many of our states’ tribal governments and have no reason to believe any major disruptive changes are on the horizon”).

274. OKLA. STAT. tit. 74, § 1221(B) (2021); Okla. Tax Comm’n v. Citizen Band Potawatomi Indian Tribe of Okla., 498 U.S. 505, 514 (1991) (noting that states can “enter into agreements with the tribes to adopt a mutually satisfactory regime for [tax] collection”).

275. See *Tribal Compacts and Agreements*, OKLA. SEC’Y STATE, <https://www.sos.ok.gov/gov/tribal.aspx> [<https://perma.cc/U7YD-7ZX5>].

276. See, e.g., CONF. W. ATT’YS GEN., AMERICAN INDIAN LAW DESKBOOK § 14.1 (2008) (noting this “increasing trend”); see also SUSAN JOHNSON ET AL., GOVERNMENT TO GOVERNMENT: MODELS OF COOPERATION BETWEEN STATES AND TRIBES (2009) (setting out ways in which states and tribes can cooperate).

277. See, e.g., Letter from Andrew R. Wheeler, Adm’r, U.S. Env’t Prot. Agency, to Kevin Stitt, Governor of Okla. (Oct. 1, 2020) (approving Oklahoma’s request to administer environmental regulatory programs in Indian country).

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Table 11. Representative State-Tribal Compact²⁷⁸

<i>Doc. Number</i>	<i>Date</i>	<i>Compact</i>
50288	3/20/2020	Cross-Deputation agreement between Bureau of Indian Affairs and Caddo County Sheriff's Office
50255	2/28/2020	City of Wynnewood, Addendum Addition of City to Deputation Agreement for Law Enforcement in the Chickasaw Nation
50185	1/14/2020	Amendment to Tobacco Tax Compact between the State of Oklahoma and the Seminole Nation of Oklahoma
50186	12/31/2019	Addition of Cherokee County to Deputation Agreement for Law Enforcement in Cherokee Nation
50127	11/20/2019	Emergency Services Agreement Between the City of Guymon, Oklahoma and the Shawnee Tribe
49927	6/28/2019	Amendment to Tobacco Tax compact between the State of Oklahoma and the Seminole Nation of Oklahoma
49535	11/09/2018	Alcoholic Beverage Sales between the State of Oklahoma and the Citizen Potawatomi Nation
49498	10/08/2018	Model Tribal Gaming Supplement for the conduct of Class III gaming activities by Shawnee Tribe

Of note, since *McGirt* was decided, the State of Oklahoma and its instrumentalities have recorded over 220 new compacts and agreements with tribes. This is consistent with a model of cooperation over the course of iterative interactions. But, of course, agreement is never guaranteed. Immediately after *McGirt* was decided, the State of Oklahoma and the Muscogee (Creek) Nation announced an agreement in principle to handle jurisdictional issues—before the Nation withdrew from the agreement the next day. Yet as Vice Presiding Judge Hudson of the Oklahoma Court of Criminal Appeals noted in his concurrence in *Wallace*, “It is now up to the leaders of the State of Oklahoma, the Tribes and the federal government to address the jurisdictional fallout from the *McGirt* decision. Only in this way, with all of these parties working together, can public safety be ensured It will require this type of cooperation.”²⁷⁹

Finally, Justice Gorsuch’s recent dissenting opinion in *Oklahoma v. Castro-Huerta* spent several pages minimizing the costs associated with *McGirt*.²⁸⁰ He noted that the decision anticipated a “period of readjustment.”²⁸¹ Since then, tribes invested in “more police officers, prosecutors, and judges”;²⁸² “Congress

278. OKLA. SEC’Y STATE, *infra* note 275. This table reproduces the several compacts immediately prior to *McGirt* (July 9, 2020).

279. State *ex rel.* Matloff v. Wallace, 2021 OK CR, ¶ 2, 497 P.3d 686, 694-95 (Hudson, V.P.J., concurring).

280. *Oklahoma v. Castro-Huerta*, 142 S. Ct. 2486, 2505-27 (2022).

281. *Id.* at 2524.

282. *Id.*

has chosen to allocate additional funds for law enforcement in Oklahoma”,²⁸³ and within the executive branch, “federal prosecutors are now pursuing lower level offenses vigorously.”²⁸⁴ Most notably, tribes have “shown a willingness to work with Oklahoma, having signed hundreds of cross-deputation agreements with local law enforcement to collaborate with tribal police.”²⁸⁵ This narrative is the embodiment of the Game Theory Model.

Overall, we find our data consistent with the Game Theory Model. Following the Tenth Circuit’s *Murphy* and Supreme Court’s *McGirt* decisions, we observe no significant negative economic impact and possibly some positive economic gains. We do not observe any positive economic developments following the other decision extending tribal sovereignty, *Nebraska v. Parker*. But neither do we observe a negative economic impact following decisions clarifying state sovereignty over land: *City of Sherrill* and *South Dakota v. Yankton Sioux*. Likewise, in the case of the Saginaw settlement, we do not observe any negative economic performance. The only case study that is difficult to explain under this model is the Tacoma case: following settlement, we observe a slight decrease in economic performance. On balance, however, our findings are consistent with the predictions of the Game Theory Model.²⁸⁶

* * *

Our approach has several elegant features. First, it provides a quantitative, empirical approach to questions that have long been resolved by reference to impressionistic reasoning and economic intuitions. In addition, we rely upon some of the most trustworthy sources of economic information: employment data and equity prices. Second, by focusing on the effects of legal uncertainty, our approach collapses multiple independent variables that would otherwise be impossible to measure into a single inquiry: rather than surveying residents, tribes, or governments about the likely effects of judicial rulings, we examine the effect of this uncertainty—whatever it is—on measurable signs of economic output. Finally, by comparing neighboring counties inside and outside the territories affected, we can isolate the effects of judicial rulings with greater precision. The inquiry is ideally amenable to econometric techniques.

283. *Id.*

284. *Id.* at 2525.

285. *Id.* at 2524.

286. To be sure, there is plenty of anecdotal evidence pointing in the other direction, suggesting that conflicts between states and tribes are bitter and long-lasting. See Grover, Stetson, and Williams, P.C., *supra* note 256, at 277 (“Conflicts between states and Indian tribes have existed for as long as states have existed, and such conflicts are often bitter and prolonged. Progressing from bloody conflicts on the battlefields to equally important battles before the United States Supreme Court, dispute resolution between states and tribes has traditionally been adversarial, discouraging co-operation between the governments and deepening their mutual dislike and mistrust. As a result, tribal and state governments not only have dissipated their resources in battle, but also, ironically, have missed numerous opportunities to combine their forces in pursuit of their many common ambitions. Time and money are lost, worthy and attainable goals are unmet, and Indian and non-Indian citizens suffer the inefficiencies and ineffectiveness of the adversarial relationship.”).

At the same time, our analysis is subject to several important limitations. First, we focus our analysis on measurable economic effects. Notably, this does not fully capture several important consequences of these judicial decisions: the legal correctness of their interpretations; the feelings of empowerment that tribal members experience following a decision restoring tribal sovereignty; and the grief felt by victims and their families when convictions are overturned.²⁸⁷ Second, the analysis does not directly measure the effects of these decisions on crime. In the immediate aftermath of these case, some convictions may be overturned; others will be brought into question. It is plausible that this will have downstream effects on the deterrence and incapacitation of criminals in the affected area. Our analysis only captures these effects to the extent that they have downstream effects on economic output. Third, our analysis does not directly measure the allocative effects of law-enforcement responsibilities as between state, tribe, and federal government. For example, there is widespread anecdotal evidence that in the wake of *McGirt*, the federal government had to hire substantially more investigators and prosecutors to handle the upsurge in criminal cases in the affected districts.²⁸⁸ But our model is largely indifferent as to which governmental entity is responsible for enforcing criminal or other laws. It only captures these differences to the extent that differences in enforcement regimes result in measurable differences in economic output. Finally, our analysis of the Oklahoma cases has a limited timeframe. *Murphy* was only decided in 2017 and *McGirt* in 2021. We have access to some economic data through November 2021. Time will tell whether the initial trends we observe persist in the long run.

We summarize our interpretations below in Table 12. The various columns represent the four economic models described above. The rows represent the seven case studies analyzed in Parts II and III. The matrix summarizes whether the data supports or contradicts each theory. Again, we emphasize that the quantitative analysis is most robust for the Oklahoma litigation because the court ruling was completely unexpected and had a massive potential impact on the state's territory and economy.²⁸⁹ The same cannot be said for the five supplemental case studies. With that caveat, the five supplemental case studies present a very similar narrative to that told by the Oklahoma case—(1) the sky clearly did not fall in the affected counties; (2) there is weak evidence showing that tribal jurisdiction actually improved economic activity in the affected counties; (3) any uncertainty stemming from the pro-tribe judicial rulings did not seem to impact economic activity in the affected counties; and (4) there is

287. It also assumes that jurisdictional rulings have real implications for businesses and that business owners will be aware of judicial decisions. Although it may be unrealistic to presume that every business will follow criminal jurisdictional rulings in the Tenth Circuit, we believe that it is reasonable to assume that businesses were aware of the *Murphy* and *McGirt* decisions given the national news coverage they received.

288. As noted, the Creek Nation substantially increased its law enforcement following *McGirt*.

289. See, e.g., Maggie Blackhawk, *On Power and the Law: McGirt v. Oklahoma*, 2020 SUP. CT. REV. 367 (2021) (describing *McGirt* as “unthinkable” and noting the “unfathomable” consequences of affirming *Murphy*).

evidence that cooperation between states and tribes may be able to smooth out bumps in the road following any judicial rulings that may seem to have significant real economic consequences.

Table 12. Theories vs. Data

	<i>Falling Sky</i>	<i>Economic Stimulus</i>	<i>Uncertainty Shock</i>	<i>Game Theory</i>
COA10 Murphy	N	Y	N	Y
McGirt v. OK	N	N	N	Y
NE v. Parker	N	N	N	Y
Sherrill v. OIN	N	N	N	Y
SD v. Yankton Sioux	N	N	Y	N
Mt. Pleasant, MI	N	Y	N	Y
Tacoma, WA	N	Y	N	N

V. Conclusion

Indian-reservation cases often turn on consequences. Using difference-in-differences techniques, we show in this Article that the sky does not fall when courts recognize Indian-reservation status. We first examine the Tenth Circuit's *Murphy v. Royal* decision in 2017 to measure the economic impact of restoring Indian-reservation status. In doing so, we leverage monthly employment data at the county level, annual output data at the county level, and daily equity data for public companies incorporated in Oklahoma. Contrary to the stated hypothesis that recognizing Indian jurisdiction would negatively impact the affected economy, we observe no statistically significant change in real economic activity in the aftermath of the *Murphy* and *McGirt* decisions. We supplement these findings by analyzing five further case studies, which support this conclusion.

Our empirical findings have important implications for both lawyers and economists. First and foremost, our results inform ongoing and future litigation. At the very least, our results suggest that fears presented by states or actors seeking to preserve the status quo are often overblown. When evaluating claims of Indian sovereignty, courts should be skeptical of government attorneys

claiming that the sky will fall.²⁹⁰ This is consistent with the core holding of *McGirt*, namely, that sovereignty should be analyzed by reference to law rather than potential negative consequences.²⁹¹ That is because sovereignty must be clearly abrogated as matter of law, and because concerns of potential economic uncertainty are often unsubstantiated.

Our results are also consistent with the broader trend in federal policy, legal scholarship, and Supreme Court case law promoting greater tribal self-determination.²⁹² Our findings suggest that tribes are not substantially inferior to state regulators; tribes may be more responsive to the needs of the local population; and a judicial decision recognizing their continued existence may even stimulate economy activity in the short run.

Finally, our results speak directly to the law-and-economics literature on the role of institutions in economic growth. A segment of that literature has argued that Indian reservations experience significantly lower economic growth because tribal institutions are less credible when it comes to matters of economic growth, namely, enforcing contractual rights.²⁹³ Yet, using the best natural experiment we will likely ever see in the United States, using the most disaggregated publicly available data recorded by our government statisticians, and using the most well-established econometric methods, we show that such a theory should not be held up as gospel.

Indeed, the iterative nature of these economic interactions makes cooperation in the interest of all parties. Unsurprisingly, we find that our data are best explained by a model that suggests that all parties cooperate following unexpected changes to jurisdictional boundaries in order to smooth out adverse consequences. As courts continue to evaluate claims of tribal sovereignty, they will likely face concerns about the economic consequences of changes in sovereignty. Until now, courts have had to rely upon economic intuitions. We now have data.

290. Cf. Fletcher, *supra* note 11, at 132 (“Repeatedly the Court has been told by tribal and Indian interests—and their opponents—that a decision in an Indian affairs case will lead to monumental policy consequences, only for those consequences to be illusory.”).

291. *McGirt*, 140 S. Ct. at 2482 (“Yes, promises were made, but the price of keeping them has become too great, so now we should just cast a blind eye. We reject that thinking.”).

292. See generally Kevin K. Washburn, *Federal Criminal Law and Tribal Self-Determination*, 84 N.C. L. REV. 799 (2006) (showing the trend).

293. See Anderson & Parker, *supra* note 33, at 649-59 (arguing that state jurisdiction is superior to tribal jurisdiction for purposes of economic growth); see also Anderson & Lueck, *supra* note 34, at 435-49 (arguing that the structure of property rights on Indian reservations negatively affected agricultural productivity).

AppendixTable A1. List of Treatment and Control Counties in Oklahoma

<i>No.</i>	<i>Treatment Counties</i>	<i>No.</i>	<i>Control Counties</i>
1	Adair	1	Alfalfa
2	Atoka	2	Beaver
3	Bryan	3	Beckham
4	Carter	4	Blaine
5	Cherokee	5	Caddo
6	Choctaw	6	Canadian
7	Coal	7	Cimarron
8	Craig	8	Cleveland
9	Creek	9	Comanche
10	Delaware	10	Cotton
11	Garvin	11	Custer
12	Grady	12	Dewey
13	Haskell	13	Ellis
14	Hughes	14	Garfield
15	Jefferson	15	Grant
16	Johnston	16	Greer
17	Latimer	17	Harmon
18	Le Flore	18	Harper
19	Love	19	Jackson
20	Marshall	20	Kay
21	Mayes	21	Kingfisher
22	McClain	22	Kiowa
23	McCurtain	23	Lincoln
24	McIntosh	24	Logan
25	Murray	25	Major
26	Muskogee	26	Noble
27	Nowata	27	Oklahoma
28	Okfuskee	28	Osage
29	Okmulgee	29	Pawnee
30	Ottawa	30	Payne
31	Pittsburg	31	Pottawatomie
32	Pontotoc	32	Roger Mills
33	Pushmataha	33	Texas
34	Rogers	34	Tillman
35	Seminole	35	Washita
36	Sequoyah	36	Woods
37	Stephens	37	Woodward
38	Tulsa		
39	Wagoner		
40	Washington		

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Table A2. List of Oklahoma-Based Companies

<i>No.</i>	<i>Based in Tulsa</i>	<i>No.</i>	<i>Not Based in Tulsa</i>
1	AAON Inc.	1	BancFirst Corp.
2	BOK Financial Corp.	2	Chesapeake Energy Corp.
3	Helmerich & Payne	3	Continental Resources
4	NGL Energy Partners LP	4	Devon Energy Corp.
5	Omni Air International, LLC	5	Oklahoma Gas & Electric Co.
6	ONE Gas, Inc.	6	Paycom Software, Inc.
7	ONEOK, Inc.	7	SandRidge Energy, Inc.
8	The Williams Companies, Inc.		
9	WPX Energy		

Table A3. Data of Major Disestablishment Cases

<i>Case</i>	<i>Area Affected</i>	<i>Population (% non-Indian)</i>	<i>Disestablished?</i>	<i>Reservation (State)</i>
McGirt v. Oklahoma, 140 S. Ct. 2452 (2020)	19 million acres ²⁹⁴	1.8 million (80-85%) ²⁹⁵	No	Muskogee Creek Nation, Cherokee, Choctaw, Chickasaw, Seminole (OK)
Nebraska v. Parker, 577 U.S. 481 (2016)	50,157 acres ²⁹⁶	1,300 (98%) ²⁹⁷	No	Omaha Indian Reservation (NE)
City of Sherrill v. Oneida Indian Nation, 544 U.S. 197 (2005)	250,000 acres ²⁹⁸	N/A (99%) ²⁹⁹	Diminished	Oneida Indian Nation Reservation (NY)

294. 140 S. Ct. at 2482 (Roberts, C.J., dissenting).

295. *Id.*

296. 136 S. Ct. at 1077.

297. 136 S. Ct. at 1078.

298. 544 U.S. at 209 (citing Oneida Indian Nation of N.Y. v. Cnty. of Oneida, 199 F.R.D. 61, 66-68 (N.D.N.Y. 2000)).

299. 544 U.S. at 211.

<i>Case</i>	<i>Area Affected</i>	<i>Population (% non-Indian)</i>	<i>Disestablished?</i>	<i>Reservation (State)</i>
Alaska v. Native Vill. of Venetie Tribal Gov't, 522 U.S. 520 (1998)	1.8 million acres ³⁰⁰	~354 ³⁰¹ (almost all Indian ³⁰²)	Yes	Venetie Reservation of Neets'ain Gwich'in Tribe (AK)
South Dakota v. Yankton Sioux Tribe, 522 U.S. 329 (1998)	168,000 ³⁰³	6,269 (68%) ³⁰⁴	Diminished	Yankton Indian Reservation (SD)
Hagen v. Utah, 510 U.S. 399 (1994)	400,000 acres ³⁰⁵	18,300 (85%) ³⁰⁶	Diminished	Uintah Indian Reservation (UT)
Solem v. Bartlett, 465 U.S. 463 (1984)	1.6 million acres ³⁰⁷	~550 (50%) ³⁰⁸	No	Cheyenne River Sioux reservation

300. 522 U.S. at 523.

301. According to the 2000 U.S. Census, the Village of Venetie had a population of 202 and Artic Village had a population of 152.

302. *State ex rel. Yukon Flats Sch. Dist. v. Native Vill. of Venetie Tribal Gov't*, F87-0051 CV, 1995 WL 462232, at *13 (D. Alaska Aug. 2, 1995), *rev'd sub nom. Alaska ex rel. Yukon Flats Sch. Dist. v. Native Vill. of Venetie Tribal Gov't*, 101 F.3d 1286 (9th Cir. 1996), *rev'd sub nom. Alaska v. Native Vill. of Venetie Tribal Gov't*, 522 U.S. 520 (1998) (“All but a few residents of the area (notably school teachers) are Alaska Natives and members of the tribe.”).

303. 522 U.S. at 336. South Dakota claimed jurisdiction over a landfill site allegedly within the boundaries of a reservation. Eventually, a land surplus act ratified an earlier agreement pursuant to which unallotted reservation lands that were opened for settlement by non-Indians were ceded to the United States in return for payment of sums certain. This did not preserve opened tracts' reservation status, but instead resulted in the diminishment of the reservation such that South Dakota ultimately acquired primary jurisdiction over tracts in question.

304. 522 U.S. at 356; Brief for Respondent, *South Dakota v. Yankton Sioux Tribe*, 522 U.S. 329 (1998) (No. 96-1581), 1997 WL 593862 at *15 (citing 1990 census); Brief for Petitioner, *South Dakota v. Yankton Sioux Tribe*, 522 U.S. 329 (1998) (No. 96-1581), 1997 WL 450730, at * 49 (same).

305. 510 U.S. at 421.

306. *Id.*; *see also State v. Perank*, 858 P.2d 927, 934 n.10 (Utah 1992) (“Some 18,000 non-Indians now live in the area that the State asserts was disestablished, and only about 300 Indians, not all of whom are members of the Ute Tribe, live in that same area.”).

307. 465 U.S. at 464.

308. *Id.* at 480 (50% figure). The 1980 census indicates that 275 Cheyenne members lived in South Dakota that year.

Restoring Indian Reservation Status

<i>Case</i>	<i>Area Affected</i>	<i>Population (% non-Indian)</i>	<i>Disestablished?</i>	<i>Reservation (State)</i>
Rosebud Sioux Tribe v. Kneip, 430 U.S. 584 (1977)	N/A	N/A (90%) ³⁰⁹	Diminished	Rosebud Reservation (SD) ³¹⁰
DeCoteau v. Dist. Cnty. Ct. for Tenth Jud. Dist., 420 U.S. 425 (1975)	918,000 acres ³¹¹	33,000 ³¹²	Yes	Lake Traverse Indian Reservation (SD)
Mattz v. Arnett, 412 U.S. 481 (1973)	25,000 acres ³¹³	N/A	No	Klamath River Indian Reservation (CA)
Seymour v. Superintendent, 368 U.S. 351 (1962)	N/A	N/A	No	Colville Indian Reservation (WA)
United States v. Celestine, 215 U.S. 278 (1909)	9,490 acres ³¹⁴	430 Indians ³¹⁵	No	Tulalip Indian Reservation (WA)

309. 90% non-Indian both in population and in land use. 430 U.S. at 605.

310. The Court ruled on four out of five counties: Gregory County, Tripp and Lyman Counties, and Mellette County in South Dakota. The Court did not rule on Todd County.

311. 420 U.S. at 428.

312. *Id.* (“[T]here reside about 3,000 tribal members and 30,000 non-Indians. About 15% of the land is in the form of ‘Indian trust allotments’; these are individual land tracts retained by members of the Sisseton-Wahpeton Tribe when the rest of the reservation lands were sold to the United States in 1891.”).

313. 412 U.S. at 484.

314. *Id.* at 286.

315. *Id.*